Board of Regents of the University of Wisconsin System
Office of the Secretary
1860 Van Hise Hall
Madison, Wisconsin 53706
(608)262-2324

April 2, 2008

REVISED 4/3/2008

TO: Each Regent

FROM: Judith A. Temby

PUBLIC MEETING NOTICE

RE: Agendas and supporting documents for meetings of the Board of Regents and Committees to be hosted by UW Colleges and UW-Extension at the Pyle Center, 702 Langdon Street, Madison, Wisconsin, April 10 and 11, 2008.

Thursday, April 10, 2008

8:30 a.m. - 9:30 a.m. –

- Continental breakfast
  3rd floor east and south reception areas
- UW Colleges and UW-Extension educational displays and student research posters
  3rd floor
- UW Colleges art exhibit
  1st floor

9:30 a.m. – All Regents Invited – Rooms 325-26

- UW Colleges and UW-Extension Presentation – Maximizing Access to Ensure a Sustainable Future (9:30 a.m. – 10:30 a.m.)

- Follow up on Tuition and Financial Aid Policy Discussion (10:30 a.m.– 11:15 a.m.)
  [Resolution A]

- 2009-11 Biennial Budget (11:15 a.m. – 12:15 p.m.)
  - Financial Aid Initiative
  - Student Budget Priorities

12:15 p.m. – Luncheon with UW Colleges and UW-Extension Youth Program Participants
Alumni Lounge, 1st floor

1:30 p.m. – Board of Regents Standing Committee meetings:

Education Committee
Pyle Center, room 313

Business, Finance, and Audit Committee
Pyle Center, room 309

Physical Planning and Funding Committee meeting
Pyle Center, room 332

3:00 p.m. - 4:30 p.m. – (Regents visit displays as time permits.)

- UW Colleges and UW-Extension educational displays and student research posters
  Displays staffed
  3rd floor
- Refreshments
  3rd floor east and south reception areas
- UW Colleges art exhibit
  1st floor

4:30 p.m. - 5:00 p.m. – (Regents attend as time permits.)

- UW-Extension Conference Centers' 50th Anniversary Presentation
  R.P. Lee Lounge, 1st floor

5:00 p.m. - 7:00 p.m. –

- UW-Extension Conference Centers' 50th-Anniversary Reception
  The Pyle Center, Alumni Lounge 1st floor

Friday, April 11, 2008

7:30 a.m. – UW Colleges Students and Regents Breakfast
AT&T Lounge, 1st floor

7:30 a.m. - 8:45 a.m. – Continental breakfast for all other guests
3rd floor east and south reception areas

9:00 a.m. – Board of Regents meeting
Pyle Center, rooms 325-326

Persons wishing to comment on specific agenda items may request permission to speak at Regent Committee meetings. Requests to speak at the full Board meeting are granted

only on a selective basis. Requests to speak should be made in advance of the meeting and should be communicated to the Secretary of the Board at the above address.

Persons with disabilities requesting an accommodation to attend are asked to contact Judith Temby in advance of the meeting at (608) 262-2324.

Information regarding agenda items can be found on the web at http://www.uwsa.edu/bor/meetings.htm or may be obtained from the Office of the Secretary, 1860 Van Hise Hall, Madison, Wisconsin 53706 (608)262-2324.

The meeting will be webcast at http://www.uwex.edu/ics/stream/regents/meetings/ Thursday, April 10, 2008, at 9:30 a.m. until approximately 12:15 p.m., and Friday, April 11, 2008, at 9:00 a.m. until approximately 12:00 p.m.

BOARD OF REGENTS

Resolution A

Whereas the President's Advisory Group on Tuition and Financial Aid Policy was convened in May 2007; and

Whereas the Advisory Group was charged with reviewing the University of Wisconsin System's current policies and practices related to tuition and financial aid; and,

Whereas the Advisory Group was directed with developing a list of options regarding tuition and financial aid policy, and assessing the pros and cons of these alternatives; and,

Whereas the Board of Regents has the authority to determine how tuition revenues are allocated among institutions, as well as its authority over tuition policy and rates; and,

Whereas general, base tuition should be preserved as one of the primary sources for funding University of Wisconsin educational programs; and,

Whereas the Board of Regents has the authority to approve and implement differential tuition, per-credit tuition, tuition freezes, and other options that provide UW institutions with the flexibility to increase access, enhance educational quality, and address emerging educational needs, as the Board did in approving per credit tuition at UW-Stout, differential tuition at UW-La Crosse, and freezing of tuition in 2007-08 for the UW Colleges; and,

Whereas the Board of Regents must balance the need for educational quality with the demands for affordability and accessibility for the University of Wisconsin; and,

Whereas the State of Wisconsin retains primary responsibility for providing need-based financial aid to UW System students, and any private financial aid programs offered by the UW System institutions supplement financial aid programs provided by the state;

Therefore, be it resolved, upon the recommendation of the President of the University of Wisconsin System, that the Board of Regents:

<u>Tuition Recommendations</u>

- Reaffirms the attached Tuition Policy Principles , first adopted in 1992 and most recently revisited in 2004, as the guide for tuition policy by the University of Wisconsin System; and,

- Should review each approved differential tuition program once every five years, as well as when there is a significant change in the purpose of any differential tuition program; and,
- Will further explore refund and withdrawal policies and schedules to enhance student access to courses as well as policies regarding concurrent student enrollment at multiple University of Wisconsin institutions to enhance access to specialized coursework and increase the number of graduates; and,
- Affirms its openness to a variety of flexible alternative tuition options--institutional and programmatic differential tuition and others--that might be proposed by institutions, given their particular missions and student needs.

Financial Aid Recommendations

- Adopts the attached Financial Aid Policy Principles as a way to facilitate access and affordability for students across the University of Wisconsin System; and,
- Urges adoption of a financial aid program, funded with state general purpose revenue (GPR), that would hold low-income students harmless against tuition increases and meet all student financial need, as determined by the standard federal financial aid need analysis methodology, through a combination of grants, loans, and work study opportunities; and,
- Directs the University of Wisconsin System, building on the work of the institutions, to explore the implementation of a private fundraising campaign to supplement, not replace, the need-based financial aid provided by the state and federal governments.

UNIVERSITY OF WISCONSIN SYSTEM

TUITION POLICY PRINCIPLES

Board of Regents
GUIDING PRINCIPLES

1. Tuition and financial aid in the UW System should balance educational quality, access, and ability to pay.

2. As a matter of fiscal and educational policy, the state should, at a minimum, strive to maintain its current GPR funding share (65%) of regular budget requests for cost-to-continue, compensation and new initiatives, and fully fund tuition increases in state financial aid programs.

3. Nonresident students should pay a larger share of instructional costs than resident students, and at least the full cost of instruction when the market allows. Nonresident rates should be competitive with those charged at peer institutions and sensitive to institutional nonresident enrollment changes and objectives.

4. Where general budget increases are not sufficient to maintain educational quality, supplemental tuition increases should assist in redressing the imbalance between needs and resources.

5. Tuition increases should be moderate and predictable, subject to the need to maintain quality.

6. GPR financial aid and graduate assistant support should "increase at a rate no less than that of tuition" while staying "commensurate with the increased student budget needs of students attending the UW System." In addition, support should also reflect "increases in the number of aid eligible students."

7. General tuition revenue (to cover regular budget increases under the standard 65% GPR and 35% Fees split) should continue to be pooled systemwide. Special fees may be earmarked for particular institutions and/or programs increasing those fees.

8. When considering tuition increases beyond the regular budget, evaluation of doctoral graduate tuition should consider impacts on multi-year grants and the need to self-fund waivers or remissions from base reallocation within departmental budgets.

University of Wisconsin System

Financial Aid Policy Principles

I. Socio-economic diversity is critical to the mission of the UW System because it enhances the learning environment for all students, bolsters state economic growth, and fosters an educated citizenry across all demographic lines.

II. Student recruitment, retention, and degree completion is most successful when financial barriers are eliminated. High unmet financial need undermines the expectations and plans of both low- and moderate-income students.

1. The responsibility to cover a student's cost of attending a UW institution should be based on the student's and his/her family's ability to pay. Since lower income families often have a need for financial assistance, the UW System should meet this financial need through a combination of grant, work, and loan assistance.

2. The financial aid processing system should be efficient and timely in order to provide the most effective stewardship of the funds.

3. Student loan debt should remain reasonable so that students in the UW System are not limited in their options of major, post-graduate education, and career choice.

4. Although adequate need-based grant aid remains the top priority, scholarship programs serve as another important source of financial assistance as it recognizes talent and encourages and rewards the academic effort of students.

III. It is essential to provide the clear message to young students and their parents prior to high school that college is possible and within reach, regardless of their family circumstances, cultural background, or financial resources.

Development of financial aid strategies to assist low-income families should endorse and foster the achievement of these UW System Financial Aid Policy Principles.

REVISED 4/3/08

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

I.1. Education Committee - Thursday, April 10, 2008
UW Colleges and UW-Extension
Pyle Center
702 Langdon Street
Madison, WI

9:30 a.m. All Regents Invited – Rooms 325-26

- UW Colleges and UW-Extension Presentation – Maximizing Access to Ensure a Sustainable Future (9:30 a.m. – 10:30 a.m.)

- Follow up on Tuition and Financial Aid Policy Discussion (10:30 a.m. – 11:15 a.m.) [Resolution A]

- 2009-11 Biennial Budget (11:15 a.m. – 12:15 p.m.)
  - Financial Aid Initiative
  - Student Budget Priorities

12:15 p.m. Luncheon with UW Colleges and UW-Extension Youth Program Participants – Alumni Lounge, 1st floor

1:30 p.m. Education Committee – Room 313

a. Presentation – Maximizing Access to College Degrees for Adults Statewide: Status of the UW Colleges and UW-Extension Adult Student Initiative.

b. Report of the UW System Engineering Education Task Force.

c. UW-Stout: Presentation of Campus Academic Plan.

d. Report of the Senior Vice President:
   1. UW-Milwaukee: Termination and Release of the Milwaukee Science Education Consortium, Inc., from Charter Agreement;
   2. Annual Report on Minority and Disadvantaged Student Programs;
   3. Annual Report on Orientation Programs and Information Provided to Students on Sexual Assault and Sexual Harassment.

e. Consent Agenda:
   1. Approval of the Minutes of the February 7, 2008, Meeting of the Education Committee;
   2. UW-Milwaukee: Program Authorization of B.S. in Applied Math & Computer Science;
      [Resolution I.1.e.(2)]
   3. UW-River Falls: Program Authorization of M.A. in Teaching English as a Second Language (TESOL);
      [Resolution I.1.e.(3)]

4. Approval of requests to Trustees of the William F. Vilas Trust Estate for support of scholarships, fellowships, professorships, and special programs in arts and humanities, social sciences and music.
   [Resolution I.1.e.(4)]

f. Additional items may be presented to the Education Committee with its approval.

2007 Engineering Education Task Force Report

EXECUTIVE SUMMARY

BACKGROUND

The 2007 Engineering Education Task Force was formed in February 2007, and was charged by Senior Vice President of Academic Affairs Rebecca Martin to study the current and projected supply and demand of engineering graduates in Wisconsin in the various disciplines of engineering. The Task Force was charged to formulate recommendations on steps that need to be taken by the UW System to ensure that the state's emerging public higher education needs in engineering over the next decade are effectively and efficiently met.

The Task Force completed its report in November 2007. The Report is presented to the Board of Regents Education Committee for discussion at its April 2008 meeting.

REQUESTED ACTION

This item is presented for information only; no action is required.

DISCUSSION

Current and Projected Supply

Overall enrollments in UW System engineering programs have remained steady in the last ten years. Engineering programs that saw growth in this timeframe were typically new subfields such as computer engineering and biomedical engineering – areas that were offshoots from existing engineering programs. A margin of additional capacity is present in almost all of the UW System engineering programs. This capacity margin serves as an important balancing factor that can be used to address the cyclical nature of demand for engineers and enrollment in engineering programs, and appears to be adequate to meet current engineering needs.

Future capacity building may be necessary to accommodate cutting-edge, emerging scholarly disciplines, or subfields in engineering. It remains to be seen whether such new branches in engineering will stand the test of time to survive as independent majors, or whether they are better accommodated in existing programs, as concentrations or minors. The *Wisconsin Engineering Occupation Outlook Summary* prepared by the Wisconsin Department of Workforce Development in April 2004, along with updated engineering employment projections provided in 2007, forecast an increase in new engineering jobs in Wisconsin in the period 2004 through 2014. Growth was predicted in the emerging fields of environmental, biomedical, computer, and health/safety engineering. While the situation may vary in specific subfields and in different regions, overall the Task Force saw no evidence in the report of a significant unmet need for engineers in the state.

Recruitment and Retention of Qualified Students in Engineering

Retention rates for students in UW System engineering programs range from 56% to 77%. Retention rates in engineering education nationally are identified as in need of improvement. UW System institutions do not currently enroll and retain significant numbers of women and students of color, and both groups are underrepresented in UW System engineering programs. The percentage of females and people of color in the UW System engineering student and teaching body has remained constant for the past decade. Also consistent over the past decade, is the relatively small proportion (15%) of those enrolled in undergraduate engineering programs as part-time students. As the numbers of high school graduates in Wisconsin declines, and as the UW System addresses the challenge of increasing the percentage of Wisconsin residents with baccalaureate degrees in general and in technical fields in particular, the needs of part-time and place-bound students, women, and students of color become paramount. Another matter of concern is the significant number of Wisconsin engineering graduates who leave the state. In a 2002 study, it was found that 70% of the state's engineering graduates were employed in Wisconsin one year following graduation, but by 20 years following graduation that percentage had dropped to only 40%. This pattern of migration, and ways to reduce it, must be considered when looking at how the UW System can help ensure the supply of engineering graduates that the state needs.

Key Recommendations

1. Periodically assess potential regional and state-wide demand for engineering graduates;
2. Utilize existing resources to the extent possible to meet potential unmet regional and state need. The Task Force recommends that such unmet need be initially served, where possible, through collaboration between UW institutions with existing engineering programs and UW institutions in the region(s) of need;
3. Develop strategies for accommodating part-time and place-bound students in existing engineering programs;
4. Develop strategies for attracting more students in general, and women and students of color in particular;
5. Work with K-12 and pre-college programs to nurture interest and ensure academic readiness for engineering study; and
6. Periodically assess capacity and demand while maintaining quality through adequate investment of resources and pursuit of Accreditation Board for Engineering and Technology (ABET) accreditation.

REPORT OF THE UW SYSTEM ENGINEERING EDUCATION TASK FORCE

I. INTRODUCTION

The 2007 Engineering Education Task Force was formed in February 2007, and was charged by Senior Vice President of Academic Affairs Rebecca Martin to study the current and projected supply and demand of engineering graduates in the state in the various disciplines of engineering. The Task Force was charged to formulate recommendations on steps that need to be taken by the UW System to ensure that the state's emerging public higher education needs in engineering over the next decade are effectively and efficiently met. For a list of Task Force members, see Appendix A.

1. Background

This report contains the results of a study conducted by the Engineering Education Task Force in 2007. This background section provides a short history of engineering education in the UW System and at private universities in Wisconsin. A complete list of all engineering programs and degrees currently offered in the state of Wisconsin by both UW System and the private institutions is included in Appendix B.

Engineering programs seek to provide students with the needed skills and talents to meet the demands of Wisconsin's changing industrial, postindustrial and technological needs. Programs, especially those with a major research mission, also serve supra-regional, national, and international demand for engineering professionals at all levels. The mission of engineering schools and programs is to develop vigorous programs of teaching, to conduct and publish research, and to work closely with industry and the community. Typically, engineering programs create learning environments that establish strong foundations in scientific and engineering principles along with practical applications in order to solve broad industrial and community problems. The UW System includes three institutions with a particularly long and rich history of engineering education: UW-Madison, UW-Milwaukee, and UW-Platteville. UW-Stout and UW-Stevens Point offer selected engineering or engineering technology-related programs.

Civil, Mechanical, Railway, Metallurgical, Mining and Electrical Engineering were among the earliest engineering disciplines established at what is now UW-Madison, starting in 1857. Adapting to scientific innovation and changing market demands, numerous subfields and consolidations of engineering fields emerged out of this initial disciplinary cluster over the next century and beyond. Today, UW-Madison's College of Engineering is home to an array of engineering options with faculty providing nationally-recognized expertise through teaching, research and service that includes a wide variety of interactions with state and local entities. Traditionally, engineering education at Madison has focused on close interactions with the community. In 1903, for instance, a general engineering course was established to meet the needs of business and industry. The course provided "fundamental principles and practices of some of the ordinary applications of science to modern industry." In 2002, funded by the National Science

Foundation, the Women in Science and Engineering Leadership Institute (WISELI) was established at the UW-Madison College of Engineering to enhance the advancement of women in science and engineering. In addition, the Wisconsin Alliance for Minority Participation works to boost the number of underrepresented students in science, technology, engineering and mathematics. Today, approximately 60 different centers and consortia provide technical support to regional and national industries.

UW-Extension courses and professional development serving a broad community became a mainstay and grew parallel to the College of Engineering's course offerings leading to bachelors, master's and Ph.D. degrees. In 1985, Extension's Department of Engineering and Applied Science became a department within the College of Engineering and was renamed the Department of Engineering Professional Development. In 1989, it transmitted its first live satellite course. In 2001, the Master of Engineering in Professional Practice program, the university's first internet-delivered degree, graduated its first class.

Collaboration between UW institutions also boasts a long and illustrious history. In the 1930's, the UW-Madison initiated a two-year undergraduate engineering program and a master of science program in various engineering disciplines offered on the Milwaukee Civic Center campus. The undergraduate program served as a direct transfer program to the College of Engineering in Madison and was taught by faculty hired by that college to teach on the "Milwaukee campus." Graduate courses were primarily taught by Madison faculty until the merger of the Milwaukee State Teachers College and the Milwaukee Extension Division formed the UW-Milwaukee in 1956. In 1964, the UW Board of Regents approved the "College of Applied Science and Engineering" at UW-Milwaukee, and the first freshmen class was admitted to the college in September 1965. In 1971, the college's name was changed to the current "College of Engineering and Applied Science (CEAS)." Experiencing continued growth and demand, UW-Milwaukee implemented a new major in Computer Engineering in July 2007.

UW-Platteville's engineering tradition dates back to 1907 when a mining college was founded. In 1959 the teacher's and the mining colleges merged, and in 1966 they formed the Wisconsin Institute of Technology, which later joined the UW System. In 1971 the institution officially changed its name to UW-Platteville. Starting in the late 1960s, UW-Platteville expanded its academic programs and founded other colleges. The engineering college originally encompassed mining, electrical, mechanical, and civil engineering. In the late 1980s the mining engineering degree was gradually phased out due to declining enrollment. Engineering is one of UW-Platteville's "mission programs" and it offers additional capacity at off-site programs in the Fox Valley and Rock County.

Throughout its history, UW-Stout has developed technical programs to meet the needs of industry. These programs focus on the direct application of technical knowledge to the solution of practical problems. In 1974 the Board of Regents defined UW-Stout as a special mission university with a select array of programs leading to professional careers and serving the needs of society. UW-Stout offers an undergraduate degree in

Manufacturing Engineering and received entitlement to plan programs in Polymer as well as Computer/Electrical Engineering in 2007. The Regents approved UW-Stout's designation as Wisconsin's Polytechnic University in the spring of 2007.

Stevens Point Normal opened its doors in 1894 as a teacher's college. The curriculum continued to expand and in 1927 Stevens Point Normal became Central State Teachers College with the right to grant four-year teaching degrees. In 1951 it became a Wisconsin State College authorized to grant liberal arts bachelor's degrees, and emerged as UW-Stevens Point after the merger of Wisconsin's university and state college systems. Early 20th century course offerings in conservation education eventually grew into today's College of Natural Resources, offering a variety of scientific and technological majors. Today, part of the select mission of UW-Stevens Point's College of Natural Resources is to offer a major in Paper Science, for which it currently seeks accreditation from the Accreditation Board of Engineering and Technology (ABET).

All UW System institutions are successful in creating learning environments that establish strong foundations in scientific and engineering principles along with practical applications in order to solve broad industrial and community problems. A majority of the engineering programs currently offered by UW System institutions are accredited by ABET.

The Milwaukee School of Engineering (MSOE) and Marquette University are the two private institutions in Wisconsin offering undergraduate education in engineering and produce 30% of the total of engineering graduates in the state.

2. Review of Previous System Wide State Engineering Studies

In order to get a historical overview and to learn from previous long range planning efforts conducted by the UW System, the Task Force reviewed the 1974 *Report of the System Task Force on Engineering/Technology* and the 1988 Report of the Steering Task Force for Strategic Planning in Engineering and Technology within the UW System, entitled *Better Living through Technology: Wisconsin at Risk*. Both reports provided some directions for program planning that were instructive and useful in formulating the recommendations of the 2007 Task Force. A continuity of interpretations, concerns, and action agendas emerges from a cross-historical analysis of these documents. In creating long range planning tools for the next decade, it is important to take the lessons of the past into account.

The 1974 report contained a number of principal and subsidiary recommendations relating to "long-range planning, establishment of criteria for program evaluation, extension of educational opportunity to the nontraditional student, efforts to increase the technological awareness of the public, program articulation to facilitate student transfer from technician to technology program, continuing and open education, professional development of the faculty and cooperative efforts between the UW System schools/colleges of engineering/technology." The central conclusion of this comprehensive report was that "there appears to be little need for development of new

schools/colleges of engineering/technology within Wisconsin" (p.1). Further, the Task Force recommended:

- expansion of programs only at institutions already operating a college of engineering/technology;
- development of separate engineering technology programs;
- improvement of the financial stability of existing programs in engineering/technology;
- continuing assessment of existing programs;
- recruitment of a diverse student body; and
- co-operation among institutions.

The 1988 *Better Living Through Technology* report by a steering committee that included industry representatives and faculty leaders, and was assisted by representatives from UW System Administration, was charged with creating a broader vision for general technology education at all levels of the educational system. The Task Force acknowledged the need to provide lifelong learning opportunities and to provide state of the art knowledge to practicing engineers. The report articulated six major objectives and numerous recommendations arising from those central goals. The major objective of this Task Force was to improve the coordination of engineering and technology programs in order to make the UW System more responsive to state and national needs, more cost effective, and to improve the quality of existing programs. Expansion priorities were tied to access, research and industry linkages. A permanent advisory Task Force and the appointment of a senior executive for engineering education were recommended. Among the specific recommendations of the 1988 report, the following conclusions and recommendations are particularly noteworthy:

- engineering and technology programs are more expensive both in capital needs and in ongoing commitments;
- no convincing case can be made that more undergraduate engineering and technology majors must be served than the existing programs can educate;
- using telecommunications (now often referred to as distance education) can increase the capacities of existing programs and distribute educational opportunities throughout the state;
- cooperative, inter-institutional delivery programs between UW institutions can meet local educational needs and are a cost effective means of expanding capacities of existing engineering/technology programs; and
- expansion decisions must weigh start-up costs, continuing costs, and available support capacity, as well as long term demand. New programs should be created only if the above alternatives cannot meet state needs.

Other reports examined as examples of regional needs assessment efforts were a focus group research project entitled *Engineering and Technology Needs in the Chippewa Valley Area*, prepared by the former UW System Market Research office in February 2001. The purpose of this focus group project was a needs assessment based on a small sample of area employers.

A follow-up report detailing research findings was published in August 2001, also by the former UW System Market Research Office, entitled *Survey of Organizations Employing Engineers in the Chippewa Valley*. This informal report gathered information regarding plans of area companies for hiring engineers with specific specializations. One of the conclusions of the study was that the data "does not indicate a great need to hire engineers either in the long-term or the short-term" (p.8). This summarizing statement was qualified by allowing for variation in needs among individual companies.

A March 2001 report, entitled *Market Analysis for Engineering Professionals in Wisconsin, Minnesota, and Illinois*, explored the potential job market for graduates of four-year engineering degree programs by examining supply and demand. Among the key findings was that a small pipeline of two-year technical college graduates existed and that in "Wisconsin, Electrical and Mechanical Engineering have the largest annual growth." In Illinois and Minnesota, potential job openings in a subset of engineering fields were not projected to be met with Illinois and Minnesota graduates.

Further sources reviewed by the Task Force were the *Wisconsin Engineering Occupation Outlook Summary* (April 2004) and updated engineering employment projections provided in 2007 for the period 2004 through 2014 (Appendix C) prepared by the Wisconsin Department of Workforce Development. The projections regarding estimated employment and estimated average annual openings for new jobs and replacement were:

- the number of Wisconsin's engineering jobs was projected to increase by a net of 3,300 total jobs between 2004 and 2014. The report projected that in some areas of engineering workforce needs would remain constant while in others there would be new employment opportunities;
- the projected demand for replacement engineers between 2004 and 2014 averages 610 for each year;
- the average annual number of new jobs created and replacement needed account for a projected combined total of 940 openings each year; and
- Wisconsin's largest employing engineering fields in 2014 will continue to be mechanical, industrial, civil and electrical engineering.

II. ENROLLMENTS, DEGREES GRANTED, AND CAPACITY

Junior/Senior level enrollments in UW System engineering programs have remained steady in the last ten years. In fall 1996, junior/senior level engineering enrollments totaled 3,262 students compared to 3,331 in fall 2006 (Appendix D). Since, in some cases, students are not enrolled in a specific engineering program until their junior year, junior/senior level enrollments were used for comparison. Similarly, the number of bachelor's degrees awarded by UW System engineering programs remained steady over the last ten years with 983 degrees awarded in 1995-96 and 1,014 degrees awarded in 2005-06 (Appendix B). Engineering programs that saw growth in this timeframe were typically new subfields such as computer engineering and biomedical engineering – areas that were offshoots from existing engineering programs.

A capacity margin is present in almost all of the UW System engineering programs (Appendix D). In comparing fall 2006 junior/senior level enrollments to the potential capacity, the capacity margin is over 930 slots or 22% of the total capacity. This capacity margin serves as a balancing factor that can be used to address the cyclical nature of demand for engineers and enrollment in engineering programs. The capacity margin appears to be adequate to meet current engineering needs.

The Task Force also examined data on engineering degrees awarded by Wisconsin private institutions (Marquette and Milwaukee School of Engineering). In 1995-96 a total of 1,437 bachelor's degrees in engineering were awarded in Wisconsin, compared to 1,449 in 2005-06 (Appendix B). In 2005-06 UW System institutions awarded 70 percent of the engineering Bachelor's degrees while Wisconsin private institutions awarded the remaining 30 percent. Engineering degree production in Wisconsin has been steady for the last ten years with the UW System share of degrees awarded ranging between 68 percent and 73 percent of the total.

Future capacity building may be necessary to accommodate cutting edge, emerging scholarly disciplines, or subfields in engineering. It remains to be assessed whether such new branches in engineering will stand the test of time to survive as independent majors or whether they are better accommodated in existing programs, as concentrations or minors. Among the promising new subfields, it appears that Nano-Engineering may be a viable program offering although it has been a component of some traditional engineering fields at some institutions. Research and education at the nano-scale is becoming more critical each year as research and development focus on nano-scale phenomena, ultra fine structures and interfaces between matter.

III. DEMAND

Sources of demand data reviewed by the Task Force were the *Wisconsin Engineering Occupation Outlook Summary* (April 2004) and updated engineering employment projections (2007), prepared by the Wisconsin Department of Workforce Development. Overall, these projections forecast an increase in new engineering jobs in Wisconsin in the period 2004 through 2014 (Appendix C). Growth was predicted in the emerging fields of environmental, biomedical, computer, and health/safety engineering. When factoring in replacement needs due to retirements, career advancement, or other reasons, the report projected a total of 940 engineering job openings each year. The job opening projections can be compared to the annual engineering bachelor's degree production in Wisconsin of over 1,400 degrees.

Wisconsin demand data in the 2001 *Market Analysis for Engineering Professionals in Wisconsin, Minnesota, and Illinois* report was also reviewed. While a need for computer engineers was identified in the market analysis, two mitigating factors since 2001 may have affected this demand – changes in UW campus program and changes in the industry. UW-Madison's computer engineering program has grown since its

implementation in 2000 and UW-Milwaukee's computer engineering program will be implemented in fall 2007. UW-Stout was granted an entitlement to plan a program in Electrical/Computer Engineering. While the situation may vary in specific subfields and in different regions, overall the Task Force saw no evidence in the report of a significant unmet need for engineers in the state.

IV. RECRUITMENT AND RETENTION OF QUALIFIED STUDENTS IN ENGINEERING

In the UW System engineering programs, retention rates for students range from 56% to 77% (Appendix E). Retention rates in engineering education nationally are identified as in need of improvement. According to an August 2007 *Chronicle of Higher Education* article on science education, "about 30 percent of entering freshmen plan to earn bachelor's degrees in science, mathematics, or engineering, but only about 15 percent of all baccalaureate degrees are awarded in those fields." The percentages of degrees are even lower among women and students of color. UW System institutions do not currently enroll and retain a significant number of students from these underrepresented groups. Models for best practices could be identified and recommendations for improving an adequate pipeline are addressed in the Recommendations section of this report.

1. Women in Engineering

Despite local campus efforts in recruitment—such as "Women in Engineering" programs, career days for prospective students, as well as the research and professional development provided particularly by Women in Science & Engineering Leadership Institute (WISELI), a system-wide institute housed on the UW-Madison campus—the number of UW System women students in engineering remains low for most fields. Although efforts to recruit a greater number of female students are under way, the percentage of females in the UW System engineering student body has remained constant for the past decade. In 2006, the year for which the most recent data is available, 15% of all engineering students in the UW System were women (Appendix F). For comparison, in 2006 nationally 18% of bachelor's degrees were awarded to women (Appendix H).

It appears that certain fields in engineering attract or recruit more women students. In Biomedical Engineering at UW-Madison 41% of the students are female; in Chemical Engineering 34%, and in Geological Engineering 28% are female. Industrial Engineering at UW-Madison, UW-Milwaukee, and UW-Platteville enrolled 36% women. These disciplines nationally have similar levels of enrollment of women students (Appendix G).

The low number of female students has been correlated with the low number of female engineering faculty. System wide, 12% of the engineering faculty is female, which, while marginally higher than the 11.3% female nationally, may contribute to the gender imbalance among students (Appendix E).

2. Racial and Ethnic Diversity

Eight percent of UW System students in engineering are people of color (Appendices F and G). This percentage has remained constant in the last decade despite efforts by engineering programs to increase diversity. Particular engineering programs, for instance biomedical engineering at UW-Madison and electrical engineering at UW-Milwaukee, attract and retain a greater than average percentage of students of color (both 18%). Traditional engineering fields such as mechanical and civil engineering do not attract a significant number of students of color relative to the total UW System student population. In comparison, nationally students of color represent 25% of all engineering degree recipients (Appendix H).

Twelve percent of all System engineering faculty members are people of color. Nationally, people of color still comprise only 4.8 percent of the more than 23,000 faculty members nationwide. Both African-American and Hispanic engineering professors have equal shares at 2.4 percent. However, one-quarter of the African-American faculty members are located at just 7 of the country's historically black colleges and universities. Asian faculty make up 22.2% of the engineering faculty ranks nationally. According to the American Society for Engineering Education (ASEE), research indicates that one of the factors that impacts retention of diverse students is the role model function faculty from underrepresented groups fulfill.

3. Part Time and Place Bound Students

Over the past decade, a consistent 15% of those in undergraduate engineering programs enrolled as part time students. This percentage includes students who are participating in mandatory and voluntary internships and cooperatives, and so overstates the percentage of students actually pursuing their engineering education part time. (Appendix I).

As the numbers of high school graduates in Wisconsin decline, and as the UW System addresses the challenge of increasing the percentage of Wisconsin residents with baccalaureate degrees, the needs of part time and place bound students become paramount. They are a vital source for filling the state's need for engineering graduates. Focus groups of employers in the Chippewa Valley conducted by the former UW System Office of Market Research indicated an interest in local engineering programs to serve as engineering bachelor's degree completion opportunities for employees in that region. Students who are place bound and employed are more likely to stay in Wisconsin following their graduation.

4. Migration

Wisconsin produces a significant number of engineering graduates who leave the state. According to a study conducted by UW System's Office of Policy Analysis and Research in 2002, 70% of Wisconsin engineering graduates were employed in Wisconsin one year following graduation. However, only 40% were employed in Wisconsin 20 years after graduation. Engineering graduates seem to be particularly susceptible to taking up employment elsewhere, especially in comparison to other fields of study, among them business, education, nursing, liberal studies, and social science, which displayed much lower percentages of out-migration.

While graduates have personal and professional reasons for relocating, the state would be better served if it could retain its engineering graduates longer. The pattern of migration, and ways to reduce it, must be considered as we assess the UW System's role in providing the supply of engineering graduates that the state needs.

V. RECOMMENDATIONS

Serving Regional Need

1. Periodically assess potential regional demand for engineering graduates.

The Task Force examined data from the Department of Workforce development and some regional data from the former UW System Office of Market Research. With the exception of limited programming at UW-Stout, UW-Stevens Point and UW-Platteville programs in the Fox Valley and Rock County, all engineering education in the state of Wisconsin is offered south of a line from Milwaukee to Madison. The Task Force recommends that more in depth analysis be undertaken of potential unmet need for engineers in parts of the state not currently served by a distance delivery or on site engineering program. A common tool for assessment should be developed and utilized for periodic review of regional needs to guide future program development.

2. Utilize existing resources to the extent possible to meet potential unmet regional need.

Engineering education is relatively expensive to deliver. For that reason, Wisconsin has a history of utilizing existing programs to serve students at a distance. Engineering education at UW-Milwaukee began with the delivery of UW-Madison programs by professors who traveled to serve a need in the Milwaukee area. When it became clear that the need was sustainable, UW-Milwaukee developed its own programs. UW-Platteville has continued that tradition with its initiatives in the Fox Valley and Rock County, offering mechanical and electrical engineering in collaboration with the UW Colleges campuses in those areas. The 1988 study, *Better Living Through Technology, Wisconsin at Risk* stressed the need for "cooperative delivery of existing programs between UW institutions to meet local educational needs" and that such efforts should be pursued before implementing new programs. Should further study of regional

needs and systematic market research indicate that there are areas of the state with unmet demand for engineering graduates, the Task Force recommends that such unmet need be initially served, where possible, through collaboration between UW institutions with existing engineering programs and UW institutions in the region(s) of demonstrated need before new programs are developed.

Student Pipeline

A major challenge for UW engineering programs in preparing sufficient numbers of graduates to serve the needs of Wisconsin employers is attracting qualified and interested students into these programs. This challenge has three parts: nurturing interest on the part of students to pursue engineering education, building a pipeline of students with the necessary preparation to pursue engineering education, and serving the needs of underserved populations.

As indicated above, the pool of students pursuing engineering education, with some exceptions, is not well represented by part time, female or students of color. With the projected decline in state high school graduates (traditional student pool), and increases in their diversity, part time students and students of color will make up a greater portion of the potential pool of students in the future. In addition, women's participation in engineering programs does not match their representation in the UW System. If UW engineering programs are to attract sufficient numbers of students in the future, they will need to attract more part time, female and students of color. This gives rise to three recommendations:

3. Develop strategies for accommodating part time and place bound students in existing engineering programs.

Since existing engineering programs are clustered in the southern part of the state, efforts must be made to provide access to place bound students who are not within commuting distance of an engineering program. These may include the use of distance technology to provide instruction to students at remote locations, and expansion of the UW-Platteville model of collaboration with local UW Colleges and universities to offer engineering education in parts of the state in which there are no programs readily available. Further, these strategies may also include assessing and addressing the barriers that part time and place bound students perceive to exist in their pursuit of engineering education.

4. Develop strategies for attracting more students in general, and students of color and women in particular.

With few exceptions, women and students of color are not well represented in existing UW engineering programs. Given the current representation of women among college students, and future demographic trends that show Wisconsin's population becoming increasingly racially and ethnically diverse, strategies must be developed to attract more women and students of color into engineering. The challenge to recruit students into engineering is not limited to women and students of color. Engineering programs need to

more effectively compete for the decreasing percentage of students who enter college with the math and science preparation appropriate for engineering study. There are models for effective recruitment of students into engineering that can serve to address this challenge.

5. Work with K-12 and pre-college programs to nurture interest and ensure academic readiness for engineering study.

Career interests need to be nurtured at an early age as students pursue K-12 education. The engineering professions suffer from stereotypes that can dissuade students in general and female students in particular from pursuing engineering careers. Programs that reach out to K-12 students can spur interest in engineering fields. There are a number of such programs, e.g., the UW-Madison Engineering Summer Programs, UW-Platteville's Women in Engineering Fall Career Day, and UW-Stout's (Science, Technology and Engineering Preview) STEPS program. Other programs focus on skills development for minority and disadvantaged students. These are also critical in ensuring a pipeline of high school graduates prepared to pursue the rigors of engineering education. UW campuses that offer engineering programs should work together and learn from each other in offering programs that reach as many K-12 students as possible, attracting and preparing them for careers in engineering.

Periodic Assessment and Program Quality

6. Periodic assessment of capacity and demand.

The fields of engineering are changing at an ever increasing pace. Demand for engineering graduates ebbs and flows, and rapidly changing technology gives rise to the emergence of new fields. Because of this rapid change, the planning horizon for assessment of supply and demand is relatively short. It is not possible to look out more than a few years with any degree of reliability. This calls for periodic assessment of statewide supply and demand to ensure that UW institutions continue to meet the needs of Wisconsin's employers for engineering graduates and potential needs for new fields of study. The Task Force recommends that such an assessment be done at least every five years.

7. Safeguard excellence in teaching and research both in existing and in new engineering programs.

It is important to ensure that new and continuing programs are of high quality in preparing engineering graduates. Developing criteria for program quality assessment was beyond the scope of the charge to the Task Force and would require considerable effort dedicated to that task. However, it was generally acknowledged that an external review of each program and resources allocated to it is one useful input into assessing program quality. A necessary, but not necessarily sufficient condition is an adequate investment of resources, evidenced by all undergraduate engineering programs being ABET accredited within a reasonable time frame after implementation.

VI. CONCLUSION

The Task Force successfully addressed the questions posed at the beginning of its study. One of the results of studying the current and projected supply and demand of engineering graduates in the state in the various disciplines of engineering is the conclusion that long-term predictions cannot definitively be made and that a focus on a smaller time-frame is necessary. Periodic assessment of supply and demand has therefore been recommended. The Task Force's recommendations reflect the steps that need to be taken by the UW System and its constituents to ensure that the state's engineering education addresses the state's needs and remains high quality.

The significance of the Task Force's findings lies in the affirmation of cooperation among System institutions and the demonstration of continued service of UW System institutions to the State of Wisconsin. Most importantly, the results of careful engineering program planning and review will be a strengthened statewide engineering curriculum and well-educated engineers within the framework set by market demands, equity in access to engineering education, regional and national job and occupation forecasts in diverse engineering fields, as well as alignment between K-12 and college math and science skills.

Appendix A

The Engineering Education Task Force includes the following members:

Dev Venugopalan, Assoc. Vice Chancellor, Academic Affairs, UW-Milwaukee (Chair)
Carol Sue Butts, Provost & Vice Chancellor, UW-Platteville
Steve Cramer, Associate Dean, College of Engineering, UW-Madison
Chris DeMarco, Professor, Department of Electrical and Computer Engineering, UW-Madison
Ronald Perez, Associate Dean, College of Engineering and Applied Science, UW-Milwaukee
Bob Meyer, Dean, College of Technology, Engineering & Management, UW-Stout
Gerry Ring, Chair, Department of Paper Science and Engineering, UW-Stevens Point
Rich Rothaupt, Chair, Department of Engineering and Technology, UW-Stout
Rich Shultz, Dean, College of Engineering, Mathematics, and Science, UW-Platteville

The Task Force was assisted by:

Ron Singer, Associate Vice President, Office of Academic Affairs and Student Services, UW System
Todd Bailey, Institutional Planner, Office of Policy Analysis and Research, UW System
Gail Bergman, Acting Director, Office of Policy Analysis and Research, UW System
Carmen Faymonville, Academic Planner, Office of Academic Affairs and Student Services, UW System

Appendix B
Bachelors Degrees in Engineering Granted by Wisconsin Institutions
by institution and Major
1995-96 to 2005-06

Institution	Major	CIP Code	Academic Year											Degrees Granted Change F96 to F06
			1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	
UW-Madison	Biological Systems Engineering	14.0301	14	14	12	13	9	20	14	17	14	16	13	-1
	Biomedical Engineering	14.0501	0	0	0	0	0	10	21	45	39	33	32	32
	Chemical Engineering	14.0701	81	97	112	68	102	84	69	84	74	74	72	-9
	Civil Engineering	14.0801	95	67	92	73	75	86	65	97	60	69	112	17
	Computer Engineering	14.0901	0	0	0	0	0	6	34	66	45	55	44	44
	Electrical Engineering	14.1001	113	146	151	114	143	147	95	114	118	105	96	-17
	Engineering Mechanics	14.1101	22	16	13	13	10	19	28	28	28	15	33	11
	Geological Engineering	14.3901	15	20	21	11	9	9	7	5	5	7	3	-12
	Industrial Engineering	14.3501	55	60	53	74	63	73	62	89	62	60	44	-11
	Materials Science And Engineering	14.1801	10	16	13	17	16	15	14	24	15	14	20	10
	Mechanical Engineering	14.1901	161	158	157	136	162	133	167	144	158	136	139	-22
	Metallurgical Engineering	14.2001	1	3	4	0	0	0	0	0	0	0	0	-1
	Naval Science	14.2201	5	5	0	2	1	1	1	1	2	7	0	-5
	Nuclear Engineering	14.2301	11	13	5	4	3	3	5	4	10	14	15	4
UW-Milwaukee	Civil Engineering	14.0801	36	37	35	35	27	31	29	40	33	38	40	4
	Electrical Engineering	14.1001	49	32	31	32	30	31	42	55	45	53	33	-16
	Industrial Engineering	14.3601	7	15	11	5	11	5	15	14	8	9	7	0
	Materials Engineering	14.1801	3	2	1	7	2	5	5	5	3	4	3	0
	Mechanical Engineering	14.1901	64	58	54	68	57	73	53	56	59	44	53	-11
UW-Platteville	Civil Engineering	14.0801	92	81	81	68	60	50	63	64	57	52	45	-47
	Electrical Engineering	14.1001	37	38	34	44	26	38	39	34	31	34	34	-3
	Engineering Physics	14.1201	0	0	0	2	6	11	8	4	9	7	6	6
	Environmental Engineering	14.1401	0	0	2	1	5	12	9	9	16	11	13	13
	Industrial Engineering	14.3501	19	11	28	36	33	28	24	12	21	22	15	-4
	Mechanical Engineering	14.1901	69	54	52	69	47	72	66	68	91	73	97	28
	Software Engineering	14.0903	0	0	0	0	0	2	5	14	10	11	14	14
UW-Stevens Point	Paper Science	03.0509	24	31	22	37	36	28	24	23	19	7	10	-14
UW-Stout	Manufacturing Engineering	14.3601	0	19	38	47	42	47	39	22	28	20	21	21

Appendix B
Bachelors Degrees in Engineering Granted by Wisconsin Institutions
by institution and Major
1995-96 to 2005-06

Institution	Major	CIP Code	Academic Year											Degrees Granted Change F96 to F06
			1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	
Marquette University	Biomedical/Medical Engineering	14.0501	41	33	48	43	56	56	54	71	49	38	56	15
	Civil Engineering	14.0801	61	71	63	58	51	35	22	46	31	43	33	-28
	Computer Engineering	14.0901	0	0	52	25	30	36	25	45	39	10	8	8
	Computer Engineering, Other	14.0999	0	0	0	0	0	0	0	0	0	22	9	9
	Electrical, Electronics and Communications Engineering	14.1001	62	65	28	27	33	23	20	30	23	21	20	-42
	Engineering, Other	14.9999	0	0	0	0	0	0	0	0	0	11	0	0
	Engineering/Industrial Management	14.3001	0	0	0	10	10	6	5	0	0	0	0	0
	Environmental/Environmental Health	14.1401	0	0	0	0	0	0	0	0	0	4	4	4
	Industrial/Manufacturing Engineering	14.1701	18	20	11	3	5	2	2	1	0	0	0	-18
	Manufacturing Engineering	14.3601	0	0	0	0	0	0	0	0	5	5	0	0
	Mechanical Engineering	14.1901	51	72	60	56	46	53	37	42	37	51	32	-19
Milwaukee School of Engineering (MSOE)	Architectural Engineering	14.0401	49	46	53	39	35	46	49	56	52	44	54	5
	Biomedical/Medical Engineering	14.0501	10	13	19	25	20	12	10	13	19	11	13	3
	Computer Engineering	14.0901	17	23	28	33	37	34	46	35	41	43	39	22
	Electrical, Electronics and Communications Engineering	14.1001	61	43	54	39	38	41	45	41	44	56	42	-19
	Industrial Engineering	14.3501	0	0	0	0	0	0	0	10	6	6	8	8
	Industrial/Manufacturing Engineering	14.1701	13	18	22	18	22	14	11	0	0	0	0	-13
	Mechanical Engineering	14.1901	71	44	51	70	61	44	49	80	70	69	99	28
	Software Engineering	14.0903	0	0	0	0	0	0	0	15	15	18	18	18
UW-Madison	Total Degrees		583	615	633	525	593	606	582	718	630	605	623	40
UW-Milwaukee	Total Degrees		159	144	132	147	127	145	144	170	148	148	136	-23
UW-Platteville	Total Degrees		217	184	197	220	177	213	214	205	235	210	224	7
UW-Stevens Point	Total Degrees		24	31	22	37	36	28	24	23	19	7	10	-14
UW-Stout	Total Degrees		0	19	38	47	42	47	39	22	28	20	21	21
UW System	Total Degrees		983	993	1,022	976	975	1,039	1,003	1,138	1,060	990	1,014	31
Marquette Univ.	Total Degrees		233	261	262	222	231	211	165	235	184	205	162	-71
MSOE	Total Degrees		221	187	227	224	213	191	210	250	247	247	273	52
Wisconsin	Total Degrees		1,437	1,441	1,511	1,422	1,419	1,441	1,378	1,623	1,491	1,442	1,449	12

Source: UW System Office of Policy Analysis and Research

Appendix C
Wisconsin's Engineering Employment Projections
2004 to 2014

Occupational Title	Estimated Employment				Estimated Average Annual Openings			Typical Education and Training Path
	2004	2014	Change	% Change	New Jobs	Replacements	Total	
Engineers	27,340	30,640	3,300	12.1%	330	610	940	
Aerospace Engineers	90	90	0	0.0%	0	0	0	Bachelor's degree
Agricultural Engineers	110	120	10	9.1%	0	0	0	Bachelor's degree
Biomedical Engineers	210	250	40	19.0%	0	0	0	Bachelor's degree
Chemical Engineers	330	360	30	9.1%	0	10	10	Bachelor's degree
Civil Engineers	3,770	4,200	430	11.4%	40	60	100	Bachelor's degree
Computer Hardware Engineers	780	870	90	11.5%	10	10	20	Bachelor's degree
Electrical Engineers	4,100	4,410	310	7.6%	30	80	110	Bachelor's degree
Electronics Engineers, Except Computer	1,610	1,730	120	7.5%	10	30	40	Bachelor's degree
Environmental Engineers	1,020	1,300	280	27.5%	30	20	50	Bachelor's degree
Health and Safety Engineers, Except Mining Safety	340	390	50	14.7%	10	10	20	Bachelor's degree
Industrial Engineers	4,730	5,520	790	16.7%	80	120	200	Bachelor's degree
Marine Engineers and Naval Architects	20	20	0	0.0%	0	0	0	Bachelor's degree
Materials Engineers	530	620	90	17.0%	10	10	20	Bachelor's degree
Mechanical Engineers	7,080	7,810	730	10.3%	70	190	260	Bachelor's degree
Mining and Geological Engineers, Incl. Mining Safety	NA	NA	NA	NA	0	0	0	Bachelor's degree
Nuclear Engineers	100	100	0	0.0%	0	0	0	Bachelor's degree
Petroleum Engineers	NA	NA	NA	NA	0	0	0	Bachelor's degree
Engineers, All Other	2,490	2,810	320	12.9%	30	50	80	Bachelor's degree

Source: Wisconsin Department of Workforce Development, Division of Workforce Solutions

Note: Detailed estimates may not add to total due to rounding.

Appendix D
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major and Institution
Fall 1996 to Fall 2006

Campus	Major	CIP Code	Fall Jr/Sr Enrollment											Jr/Sr Enrollment Capacity		
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Capacity	Capacity Margin	
UW-Madison	Biological Systems Engineering	14.0301	48	41	46	56	57	47	45	45	43	50	48	70	22	31%
UW-Madison	Biomedical Engineering	14.0501	0	0	10	30	77	109	120	117	109	121	146	100	-46	-46%
UW-Madison	Chemical Engineering	14.0701	331	315	291	315	283	289	254	270	258	232	208	240	32	13%
UW-Madison	Civil Engineering	14.0801	236	263	226	218	232	223	233	246	254	248	240	210	-30	-14%
UW-Milwaukee	Civil Engineering	14.0801	137	125	115	111	114	112	124	136	152	157	174	240	66	28%
UW-Platteville	Civil Engineering	14.0801	230	218	193	168	174	177	163	166	153	182	213	225	12	5%
UW-Madison	Computer Engineering	14.0901	0	0	0	0	96	183	199	187	179	144	144	160	16	10%
UW-Milwaukee	Computer Engineering	14.0901												150	150	100%
UW-Madison	Electrical Engineering	14.1001	455	485	478	501	410	336	335	335	327	281	266	330	64	19%
UW-Milwaukee	Electrical Engineering	14.1001	148	135	129	136	158	166	173	162	179	178	165	200	35	18%
UW-Platteville	Electrical Engineering	14.1001	147	145	142	129	128	124	112	108	112	94	93	200	107	54%
UW-Madison	Engineering Mechanics	14.1101	53	48	45	70	88	97	88	83	104	123	121	160	39	24%
UW-Madison	Engineering Physics	14.1201	0	0	0	0	0	0	0	0	0	5	9	70	61	87%
UW-Platteville	Engineering Physics	14.1201	1	4	22	24	29	26	18	26	30	30	39	65	26	40%
UW-Platteville	Environmental Engineering	14.1401	0	6	20	23	34	34	30	31	32	31	19	40	21	53%
UW-Madison	Geological Engineering	14.3901	53	49	39	30	33	26	26	27	28	21	18	90	72	80%
UW-Madison	Industrial Engineering	14.3501	169	178	193	191	179	192	191	157	151	139	134	160	26	16%
UW-Platteville	Industrial Engineering	14.3501	74	94	84	79	77	72	65	56	50	43	37	65	28	43%
UW-Milwaukee	Industrial Engineering	14.3601	35	25	25	32	35	38	32	24	28	28	32	90	58	64%
UW-Stout	Manufacturing Engineering	14.3601	117	132	154	143	117	97	78	78	69	71	78	90	12	13%
UW-Madison	Materials Science And Engineering	14.1801	58	44	50	48	55	56	51	53	53	51	48	70	22	31%
UW-Milwaukee	Materials Engineering	14.1801	10	12	12	8	15	12	11	10	7	5	10	90	80	89%
UW-Madison	Mechanical Engineering	14.1901	448	440	458	462	433	452	442	459	464	481	486	400	-86	-22%
UW-Milwaukee	Mechanical Engineering	14.1901	180	188	207	210	220	204	186	176	197	209	227	240	13	5%
UW-Platteville	Mechanical Engineering	14.1901	189	185	196	186	224	223	238	255	239	251	249	260	11	4%
UW-Madison	Metallurgical Engineering	14.2001	5	4	1	0	0	0	0	0	0	0	0	0	0	
UW-Madison	Nuclear Engineering	14.2301	28	19	18	17	18	23	28	53	78	77	70	120	50	42%
UW-Stevens Point	Paper Science	03.0509	110	116	107	97	81	65	48	30	21	21	20	48	28	58%
UW-Platteville	Software Engineering	14.0903	0	0	0	1	20	36	34	31	42	41	37	85	48	56%
UW-Madison	Engineering Headcount		1,884	1,886	1,855	1,938	1,961	2,033	2,012	2,032	2,048	1,973	1,938	2,180	242	11%
UW-Milwaukee	Engineering Headcount		510	485	488	497	542	532	526	508	563	577	608	1,010	402	40%
UW-Platteville	Engineering Headcount		641	652	657	610	686	692	660	673	658	672	687	940	253	27%
UW-Stevens Point	Engineering Headcount		110	116	107	97	81	65	48	30	21	21	20	48	28	58%
UW-Stout	Engineering Headcount		117	132	154	143	117	97	78	78	69	71	78	90	12	13%
UW System Total	Engineering Headcount		3,262	3,271	3,261	3,285	3,387	3,419	3,324	3,321	3,359	3,314	3,331	4,268	937	22%

Notes:

Biological Systems Engineering was Agricultural Engineering through Fall 2002.

Enrollments fluctuate from year to year due to program additions, realignments, and discontinuations.

Source: UW System Office of Policy Analysis and Research

Appendix E
Campus Data

	UW-Madison	UW-Milwaukee	UW-Platteville	UW-Stevens Point	UW-Stout
Engineering faculty	183	59	54	3	6
# of women Engineering faculty	23	7	6	1	0
# of Engineering faculty of color	25	0	11	0	2
Acceptance rates of applicants in Engineering Fields	60%	81%	92%	100%	100%
Retention rates of all Engineering students	60%	77%	57%	60%	56%
Placement rates of all Engineering students	91%	95%	93%	100%	93-100%
Placement rates in individual subfields:					
Biomedical Engineering	88%				
Chemical and Biological Engineering	87%				
Civil Engineering		95%	86%		
Civil and Environmental Engineering	98%				
Computer Engineering	92%				
Electrical Engineering	87%	95%	100%		
Engineering Mechanics and Astronautics	86%				
Engineering Physics			100%		
Environmental Engineering			100%		
Geological Engineering	86%				
Industrial Engineering	98%	95%	100%		
Materials Engineering		95%			
Manufacturing Engineering					93-100%
Material Science & Engineering	90%				
Mechanical Engineering	90%	95%	100%		
Nuclear Engineering & Engineering Physics	86%				
Paper Science				100%	
Software Engineering			100%		

Appendix F
University of Wisconsn System
Junior/Senior Headcount Enrollment in Engineering
by Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

			Fall										Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
MSN	Female, International	#	40	41	46	57	48	43	52	47	43	39	33	-7
		%	2%	2%	2%	3%	2%	2%	3%	2%	2%	2%	2%	
	Female, Students of Color	#	31	36	33	32	30	43	40	40	30	33	35	4
		%	2%	2%	2%	2%	2%	2%	2%	2%	1%	2%	2%	
	Female, White or Unknown	#	250	287	287	280	310	317	310	282	322	302	286	36
		%	13%	15%	15%	14%	16%	16%	15%	14%	16%	15%	15%	
	Male, International	#	185	175	190	188	158	143	122	135	128	112	102	-83
		%	10%	9%	10%	10%	8%	7%	6%	7%	6%	6%	5%	
	Male, Students of Color	#	97	98	85	96	96	98	105	118	113	132	161	64
		%	5%	5%	5%	5%	5%	5%	5%	6%	6%	7%	8%	
	Male, White or Unknown	#	1,281	1,249	1,214	1,285	1,319	1,389	1,383	1,410	1,412	1,355	1,321	40
		%	68%	66%	65%	66%	67%	68%	69%	69%	69%	69%	68%	
	Total	#	1,884	1,886	1,855	1,938	1,961	2,033	2,012	2,032	2,048	1,973	1,938	54
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

			Fall										Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
MIL	Female, International	#	0	1	0	1	1	0	2	2	1	1	1	1
		%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Female, Students of Color	#	16	10	11	10	15	14	11	14	9	10	6	-10
		%	3%	2%	2%	2%	3%	3%	2%	3%	2%	2%	1%	
	Female, White or Unknown	#	58	50	50	63	73	64	65	53	49	43	43	-15
		%	11%	10%	10%	13%	13%	12%	12%	10%	9%	7%	7%	
	Male, International	#	11	9	10	11	16	14	19	12	8	11	12	1
		%	2%	2%	2%	2%	3%	3%	4%	2%	1%	2%	2%	
	Male, Students of Color	#	61	50	63	62	61	53	48	48	62	58	68	7
		%	12%	10%	13%	12%	11%	10%	9%	9%	11%	10%	11%	
	Male, White or Unknown	#	364	365	354	350	376	387	381	379	434	454	478	114
		%	71%	75%	73%	70%	69%	73%	72%	75%	77%	79%	79%	
	Total	#	510	485	488	497	542	532	526	508	563	577	608	98
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

			Fall										Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
PLT	Female, International	#	1	1	1	1	1	1	0	2	1	0	0	-1
		%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Female, Students of Color	#	4	3	3	5	6	4	3	0	1	1	2	-2
		%	1%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%	
	Female, White or Unknown	#	73	83	91	79	95	108	90	92	81	87	87	14
		%	11%	13%	14%	13%	14%	16%	14%	14%	12%	13%	13%	
	Male, International	#	3	5	6	3	3	4	3	5	4	6	5	2
		%	0%	1%	1%	0%	0%	1%	0%	1%	1%	1%	1%	
	Male, Students of Color	#	18	17	17	12	17	14	13	8	14	11	16	-2
		%	3%	3%	3%	2%	2%	2%	2%	1%	2%	2%	2%	
	Male, White or Unknown	#	542	543	539	510	564	561	551	566	557	567	577	35
		%	85%	83%	82%	84%	82%	81%	83%	84%	85%	84%	84%	
	Total	#	641	652	657	610	686	692	660	673	658	672	687	46
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix F
University of Wisconsn System
Junior/Senior Headcount Enrollment in Engineering
by Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

			Fall											Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
STP	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
		%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Female, Students of Color	#	0	0	0	0	0	0	0	0	0	0	0	0
		%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Female, White or Unknown	#	16	19	24	21	17	14	9	5	3	3	3	-13
		%	15%	16%	22%	22%	21%	22%	19%	17%	14%	14%	15%	
	Male, International	#	1	0	0	0	0	0	0	0	1	2	2	1
		%	1%	0%	0%	0%	0%	0%	0%	0%	5%	10%	10%	
	Male, Students of Color	#	3	2	1	2	2	1	0	0	0	0	0	-3
		%	3%	2%	1%	2%	2%	2%	0%	0%	0%	0%	0%	
	Male, White or Unknown	#	90	95	82	74	62	50	39	25	17	16	15	-75
		%	82%	82%	77%	76%	77%	77%	81%	83%	81%	76%	75%	
	Total	#	110	116	107	97	81	65	48	30	21	21	20	-90
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

			Fall											Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
STO	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
		%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	Female, Students of Color	#	1	0	0	0	0	0	0	0	0	0	1	0
		%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	
	Female, White or Unknown	#	6	5	14	15	16	12	6	5	6	5	7	1
		%	5%	4%	9%	10%	14%	12%	8%	6%	9%	7%	9%	
	Male, International	#	1	1	0	0	0	0	0	1	0	0	1	0
		%	1%	1%	0%	0%	0%	0%	0%	1%	0%	0%	1%	
	Male, Students of Color	#	2	0	2	1	1	4	3	5	3	2	3	1
		%	2%	0%	1%	1%	1%	4%	4%	6%	4%	3%	4%	
	Male, White or Unknown	#	107	126	138	127	100	81	69	67	60	64	66	-41
		%	91%	95%	90%	89%	85%	84%	88%	86%	87%	90%	85%	
	Total	#	117	132	154	143	117	97	78	78	69	71	78	-39
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

			Fall											Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
UW System	Female, International	#	41	43	47	59	50	44	54	51	45	40	34	-7
		%	1%	1%	1%	2%	1%	1%	2%	2%	1%	1%	1%	
	Female, Students of Color	#	52	49	47	47	51	61	54	54	40	44	44	-8
		%	2%	1%	1%	1%	2%	2%	2%	2%	1%	1%	1%	
	Female, White or Unknown	#	403	444	466	458	511	515	480	437	461	440	426	23
		%	12%	14%	14%	14%	15%	15%	14%	13%	14%	13%	13%	
	Male, International	#	201	190	206	202	177	161	144	153	141	131	122	-79
		%	6%	6%	6%	6%	5%	5%	4%	5%	4%	4%	4%	
	Male, Students of Color	#	181	167	168	173	177	170	169	179	192	203	248	67
		%	6%	5%	5%	5%	5%	5%	5%	5%	6%	6%	7%	
	Male, White or Unknown	#	2,384	2,378	2,327	2,346	2,421	2,468	2,423	2,447	2,480	2,456	2,457	73
		%	73%	73%	71%	71%	71%	72%	73%	74%	74%	74%	74%	
	Total	#	3,262	3,271	3,261	3,285	3,387	3,419	3,324	3,321	3,359	3,314	3,331	69
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Source: UW System Office of Policy Analysis and Research

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
BIOLOGICAL SYSTEMS ENGINEERING	MSN	Female, International	#	0	0	1	1	0	0	0	0	2	3	1	1
			%	0%	0%	2%	2%	0%	0%	0%	0%	5%	6%	2%	
		Female, Students of Color	#	0	0	1	1	3	2	2	0	0	1	0	0
			%	0%	0%	2%	2%	5%	4%	4%	0%	0%	2%	0%	
		Female, White or Unknown	#	7	5	7	6	9	9	13	10	7	11	9	2
			%	15%	12%	15%	11%	16%	19%	29%	22%	16%	22%	19%	
		Male, International	#	1	1	0	2	2	1	1	0	0	0	2	1
			%	2%	2%	0%	4%	4%	2%	2%	0%	0%	0%	4%	
		Male, Students of Color	#	0	2	2	3	2	3	2	0	2	2	3	3
			%	0%	5%	4%	5%	4%	6%	4%	0%	5%	4%	6%	
		Male, White or Unknown	#	40	33	35	43	41	32	27	35	32	33	33	-7
			%	83%	80%	76%	77%	72%	68%	60%	78%	74%	66%	69%	
		Total	#	48	41	46	56	57	47	45	45	43	50	48	0
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
BIOMEDICAL ENGINEERING	MSN	Female, International	#	0	0	0	1	2	1	3	3	2	1	7	7
			%	0%	0%	0%	3%	3%	1%	3%	3%	2%	1%	5%	
		Female, Students of Color	#	0	0	1	1	2	2	3	5	4	4	9	9
			%	0%	0%	10%	3%	3%	2%	3%	4%	4%	3%	6%	
		Female, White or Unknown	#	0	0	5	13	29	38	41	35	34	35	44	44
			%	0%	0%	50%	43%	38%	35%	34%	30%	31%	29%	30%	
		Male, International	#	0	0	0	0	0	0	1	2	1	1	3	3
			%	0%	0%	0%	0%	0%	0%	1%	2%	1%	1%	2%	
		Male, Students of Color	#	0	0	0	1	4	11	8	9	7	14	17	17
			%	0%	0%	0%	3%	5%	10%	7%	8%	6%	12%	12%	
		Male, White or Unknown	#	0	0	4	14	40	57	64	63	61	66	66	66
			%	0%	0%	40%	47%	52%	52%	53%	54%	56%	55%	45%	
		Total	#	0	0	10	30	77	109	120	117	109	121	146	146
			%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
CHEMICAL ENGINEERING	MSN	Female, International	#	16	16	17	18	13	12	15	18	16	15	12	-4
			%	5%	5%	6%	6%	5%	4%	6%	7%	6%	6%	6%	
		Female, Students of Color	#	13	14	9	9	5	9	7	11	8	8	6	-7
			%	4%	4%	3%	3%	2%	3%	3%	4%	3%	3%	3%	
		Female, White or Unknown	#	56	61	67	64	58	61	54	57	64	52	51	-5
			%	17%	19%	23%	20%	20%	21%	21%	21%	25%	22%	25%	
		Male, International	#	29	31	38	32	26	23	14	19	23	25	20	-9
			%	9%	10%	13%	10%	9%	8%	6%	7%	9%	11%	10%	
		Male, Students of Color	#	20	12	11	16	12	9	9	16	15	16	13	-7
			%	6%	4%	4%	5%	4%	3%	4%	6%	6%	7%	6%	
		Male, White or Unknown	#	197	181	149	176	169	175	155	149	132	116	106	-91
			%	60%	57%	51%	56%	60%	61%	61%	55%	51%	50%	51%	
		Total	#	331	315	291	315	283	289	254	270	258	232	208	-123
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
CIVIL ENGINEERING	MSN	Female, International	#	2	2	1	2	1	4	4	4	4	4	2	0
			%	1%	1%	0%	1%	0%	2%	2%	2%	2%	2%	1%	
		Female, Students of Color	#	7	6	3	2	0	2	4	1	2	2	2	-5
			%	3%	2%	1%	1%	0%	1%	2%	0%	1%	1%	1%	
		Female, White or Unknown	#	50	62	46	38	48	41	42	38	45	37	29	-21
			%	21%	24%	20%	17%	21%	18%	18%	15%	18%	15%	12%	
		Male, International	#	4	8	11	8	7	4	3	2	3	4	4	0
			%	2%	3%	5%	4%	3%	2%	1%	1%	1%	2%	2%	
		Male, Students of Color	#	6	8	7	4	11	8	8	9	8	10	11	5
			%	3%	3%	3%	2%	5%	4%	3%	4%	3%	4%	5%	
		Male, White or Unknown	#	167	177	158	164	165	164	172	192	192	191	192	25
			%	71%	67%	70%	75%	71%	74%	74%	78%	76%	77%	80%	
		Total	#	236	263	226	218	232	223	233	246	254	248	240	4
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
CIVIL ENGINEERING	MIL	Female, International	#	0	0	0	0	0	0	0	0	0	1	1	1
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	1%	
		Female, Students of Color	#	3	2	1	1	1	1	1	2	2	3	3	0
			%	2%	2%	1%	1%	1%	1%	1%	1%	1%	2%	2%	
		Female, White or Unknown	#	25	24	23	24	25	20	24	24	21	22	17	-8
			%	18%	19%	20%	22%	22%	18%	19%	18%	14%	14%	10%	
		Male, International	#	1	1	3	2	2	2	3	3	2	2	1	0
			%	1%	1%	3%	2%	2%	2%	2%	2%	1%	1%	1%	
		Male, Students of Color	#	13	5	6	6	6	4	3	5	10	10	16	3
			%	9%	4%	5%	5%	5%	4%	2%	4%	7%	6%	9%	
		Male, White or Unknown	#	95	93	82	78	80	85	93	102	117	119	136	41
			%	69%	74%	71%	70%	70%	76%	75%	75%	77%	76%	78%	
		Total	#	137	125	115	111	114	112	124	136	152	157	174	37
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
CIVIL ENGINEERING	PLT	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	1	1	1	0	2	1	1	0	1	1	1	0
			%	0%	0%	1%	0%	1%	1%	1%	0%	1%	1%	0%	
		Female, White or Unknown	#	41	40	38	31	26	36	30	30	23	32	34	-7
			%	18%	18%	20%	18%	15%	20%	18%	18%	15%	18%	16%	
		Male, International	#	1	2	4	2	2	2	1	0	0	0	0	-1
			%	0%	1%	2%	1%	1%	1%	1%	0%	0%	0%	0%	
		Male, Students of Color	#	3	2	3	2	3	1	0	1	1	2	4	1
			%	1%	1%	2%	1%	2%	1%	0%	1%	1%	1%	2%	
		Male, White or Unknown	#	184	173	147	133	141	137	131	135	128	147	174	-10
			%	80%	79%	76%	79%	81%	77%	80%	81%	84%	81%	82%	
		Total	#	230	218	193	168	174	177	163	166	153	182	213	-17
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
COMPUTER ENGINEERING	MSN	Female, International	#	0	0	0	0	4	7	6	4	2	1	1	1
			%	0%	0%	0%	0%	4%	4%	3%	2%	1%	1%	1%	
		Female, Students of Color	#	0	0	0	0	2	2	2	2	1	0	3	3
			%	0%	0%	0%	0%	2%	1%	1%	1%	1%	0%	2%	
		Female, White or Unknown	#	0	0	0	0	7	11	8	5	4	6	6	6
			%	0%	0%	0%	0%	8%	6%	4%	3%	2%	4%	4%	
		Male, International	#	0	0	0	0	22	35	23	27	22	7	7	7
			%	0%	0%	0%	0%	24%	20%	12%	15%	12%	5%	5%	
		Male, Students of Color	#	0	0	0	0	6	15	14	15	13	15	17	17
			%	0%	0%	0%	0%	7%	9%	7%	8%	7%	10%	12%	
		Male, White or Unknown	#	0	0	0	0	55	113	146	134	137	115	110	110
			%	0%	0%	0%	0%	60%	64%	76%	73%	77%	80%	77%	
		Total	#	0	0	0	0	92	176	193	183	177	143	143	143
			%	0%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
ELECTRICAL ENGINEERING	MSN	Female, International	#	7	9	11	16	12	7	7	5	7	9	6	-1
			%	2%	2%	2%	3%	3%	2%	2%	2%	2%	3%	2%	
		Female, Students of Color	#	3	7	8	5	7	10	7	6	5	6	5	2
			%	1%	1%	2%	1%	2%	3%	2%	2%	2%	2%	2%	
		Female, White or Unknown	#	23	26	27	25	27	18	18	18	24	19	18	-5
			%	5%	5%	6%	5%	7%	5%	5%	5%	8%	7%	7%	
		Male, International	#	92	83	83	92	57	37	42	54	46	38	35	-57
			%	21%	17%	18%	19%	14%	11%	13%	16%	14%	14%	13%	
		Male, Students of Color	#	38	45	39	41	30	22	31	32	34	33	39	1
			%	8%	9%	8%	8%	8%	7%	9%	10%	11%	12%	15%	
		Male, White or Unknown	#	292	315	310	322	277	242	230	220	211	176	163	-129
			%	65%	66%	66%	66%	70%	74%	70%	67%	66%	65%	63%	
		Total	#	448	476	467	485	398	329	328	330	320	272	260	-188
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
ELECTRICAL ENGINEERING	MIL	Female, International	#	0	0	0	1	0	0	0	0	0	0	0	0
			%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	8	3	6	5	6	4	4	7	4	3	2	-6
			%	5%	2%	5%	4%	4%	2%	2%	4%	2%	2%	1%	
		Female, White or Unknown	#	11	8	7	9	10	9	14	9	8	8	9	-2
			%	7%	6%	5%	7%	6%	5%	8%	6%	4%	4%	5%	
		Male, International	#	5	5	3	6	9	5	10	7	4	4	8	3
			%	3%	4%	2%	4%	6%	3%	6%	4%	2%	2%	5%	
		Male, Students of Color	#	25	20	23	24	25	27	27	28	34	31	30	5
			%	17%	15%	18%	18%	16%	16%	16%	17%	19%	17%	18%	
		Male, White or Unknown	#	99	99	90	91	108	121	118	111	129	132	116	17
			%	67%	73%	70%	67%	68%	73%	68%	69%	72%	74%	70%	
		Total	#	148	135	129	135	158	166	173	162	179	178	165	17
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
ELECTRICAL ENGINEERING	PLT	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	2	1	1	2	2	1	1	0	0	0	1	-1
			%	1%	1%	1%	2%	2%	1%	1%	0%	0%	0%	1%	
		Female, White or Unknown	#	13	13	10	9	9	10	9	7	6	7	7	-6
			%	9%	9%	7%	7%	7%	8%	8%	6%	5%	7%	8%	
		Male, International	#	1	1	0	0	0	1	2	4	3	4	3	2
			%	1%	1%	0%	0%	0%	1%	2%	4%	3%	4%	3%	
		Male, Students of Color	#	7	7	5	4	9	8	9	4	8	2	3	-4
			%	5%	5%	4%	3%	7%	6%	8%	4%	7%	2%	3%	
		Male, White or Unknown	#	124	123	126	114	108	104	91	93	95	81	79	-45
			%	84%	85%	89%	88%	84%	84%	81%	86%	85%	86%	85%	
		Total	#	147	145	142	129	128	124	112	108	112	94	93	-54
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
ENGINEERING MECHANICS	MSN	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	0	0	1	1	0	0	0	0	0	1	2	2
			%	0%	0%	2%	1%	0%	0%	0%	0%	0%	1%	2%	
		Female, White or Unknown	#	11	12	12	11	14	11	10	10	20	18	17	6
			%	21%	25%	27%	16%	16%	11%	11%	12%	19%	15%	14%	
		Male, International	#	3	1	0	1	2	1	0	0	0	1	0	-3
			%	6%	2%	0%	1%	2%	1%	0%	0%	0%	1%	0%	
		Male, Students of Color	#	1	0	0	5	7	4	3	2	1	7	8	7
			%	2%	0%	0%	7%	8%	4%	3%	2%	1%	6%	7%	
		Male, White or Unknown	#	38	35	32	52	65	81	75	71	83	96	94	56
			%	72%	73%	71%	74%	74%	84%	85%	86%	80%	78%	78%	
		Total	#	53	48	45	70	88	97	88	83	104	123	121	68
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
ENGINEERING PHYSICS	MSN	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, White or Unknown	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, Students of Color	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, White or Unknown	#	0	0	0	0	0	0	0	0	0	5	9	9
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	
		Total	#	0	0	0	0	0	0	0	0	0	5	9	9
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
ENGINEERING PHYSICS	PLT	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, White or Unknown	#	0	1	3	3	4	3	1	1	0	1	6	6
			%	0%	25%	14%	13%	14%	12%	6%	4%	0%	3%	15%	
		Male, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, Students of Color	#	0	0	0	0	0	0	0	0	0	0	1	1
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	
		Male, White or Unknown	#	1	3	19	21	25	23	17	25	30	29	32	31
			%	100%	75%	86%	88%	86%	88%	94%	96%	100%	97%	82%	
		Total	#	1	4	22	24	29	26	18	26	30	30	39	38
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
ENVIRONMENTAL ENGINEERING	PLT	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	0	0	1	1	0	0	0	0	0	0	0	0
			%	0%	0%	5%	4%	0%	0%	0%	0%	0%	0%	0%	
		Female, White or Unknown	#	0	1	6	6	12	11	10	13	13	10	5	5
			%	0%	17%	30%	26%	35%	32%	33%	42%	41%	32%	26%	
		Male, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, Students of Color	#	0	0	0	0	0	0	0	0	1	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	
		Male, White or Unknown	#	0	5	13	16	22	23	20	18	18	21	14	14
			%	0%	83%	65%	70%	65%	68%	67%	58%	56%	68%	74%	
		Total	#	0	6	20	23	34	34	30	31	32	31	19	19
			%	0%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
GEOLOGICAL ENGINEERING	MSN	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, White or Unknown	#	9	15	13	9	9	7	8	7	9	5	5	-4
			%	17%	31%	33%	30%	27%	27%	31%	26%	32%	24%	28%	
		Male, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, Students of Color	#	1	1	0	1	1	0	0	0	0	0	0	-1
			%	2%	2%	0%	3%	3%	0%	0%	0%	0%	0%	0%	
		Male, White or Unknown	#	43	33	26	20	23	19	18	20	19	16	13	-30
			%	81%	67%	67%	67%	70%	73%	69%	74%	68%	76%	72%	
		Total	#	53	49	39	30	33	26	26	27	28	21	18	-35
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
INDUSTRIAL ENGINEERING	MSN	Female, International	#	12	12	14	17	12	8	13	8	7	3	2	-10
			%	7%	7%	7%	9%	7%	4%	7%	5%	5%	2%	1%	
		Female, Students of Color	#	3	5	5	5	5	10	10	11	6	8	5	2
			%	2%	3%	3%	3%	3%	5%	5%	7%	4%	6%	4%	
		Female, White or Unknown	#	47	53	57	64	62	62	56	46	51	49	46	-1
			%	28%	30%	30%	34%	35%	32%	29%	29%	34%	35%	34%	
		Male, International	#	25	20	24	23	19	22	21	15	12	11	12	-13
			%	15%	11%	12%	12%	11%	11%	11%	10%	8%	8%	9%	
		Male, Students of Color	#	4	6	5	4	4	3	4	9	6	5	7	3
			%	2%	3%	3%	2%	2%	2%	2%	6%	4%	4%	5%	
		Male, White or Unknown	#	78	82	88	78	77	87	87	68	69	63	62	-16
			%	46%	46%	46%	41%	43%	45%	46%	43%	46%	45%	46%	
		Total	#	169	178	193	191	179	192	191	157	151	139	134	-35
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
INDUSTRIAL ENGINEERING	MIL	Female, International	#	0	1	0	0	0	0	1	1	0	0	0	0
			%	0%	4%	0%	0%	0%	0%	3%	4%	0%	0%	0%	
		Female, Students of Color	#	1	2	1	1	2	3	3	2	2	2	1	0
			%	3%	8%	4%	3%	6%	8%	9%	8%	7%	7%	3%	
		Female, White or Unknown	#	6	2	0	5	7	7	7	7	10	4	7	1
			%	17%	8%	0%	16%	20%	18%	22%	29%	36%	14%	22%	
		Male, International	#	1	0	1	1	2	2	3	0	0	2	0	-1
			%	3%	0%	4%	3%	6%	5%	9%	0%	0%	7%	0%	
		Male, Students of Color	#	5	2	5	5	7	7	4	1	1	1	3	-2
			%	14%	8%	20%	16%	20%	18%	13%	4%	4%	4%	9%	
		Male, White or Unknown	#	22	18	18	20	17	19	14	13	15	19	21	-1
			%	63%	72%	72%	63%	49%	50%	44%	54%	54%	68%	66%	
		Total	#	35	25	25	32	35	38	32	24	28	28	32	-3
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
INDUSTRIAL ENGINEERING	PLT	Female, International	#	1	1	1	0	1	1	0	1	1	0	0	-1
			%	1%	1%	1%	0%	1%	1%	0%	2%	2%	0%	0%	
		Female, Students of Color	#	0	0	0	1	1	1	1	0	0	0	0	0
			%	0%	0%	0%	1%	1%	1%	2%	0%	0%	0%	0%	
		Female, White or Unknown	#	9	14	17	16	22	23	20	18	17	14	12	3
			%	12%	15%	20%	20%	29%	32%	31%	32%	34%	33%	32%	
		Male, International	#	0	1	1	1	0	0	0	0	0	1	1	1
			%	0%	1%	1%	1%	0%	0%	0%	0%	0%	2%	3%	
		Male, Students of Color	#	5	7	4	2	1	0	0	1	1	1	1	-4
			%	7%	7%	5%	3%	1%	0%	0%	2%	2%	2%	3%	
		Male, White or Unknown	#	59	71	61	59	52	47	44	36	31	27	23	-36
			%	80%	76%	73%	75%	68%	65%	68%	64%	62%	63%	62%	
		Total	#	74	94	84	79	77	72	65	56	50	43	37	-37
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
MANUFACTURING ENGINEERING	STO	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	1	0	0	0	0	0	0	0	0	0	1	0
			%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	
		Female, White or Unknown	#	6	5	14	15	16	12	6	5	6	5	7	1
			%	5%	4%	9%	10%	14%	12%	8%	6%	9%	7%	9%	
		Male, International	#	1	1	0	0	0	0	0	1	0	0	1	0
			%	1%	1%	0%	0%	0%	0%	0%	1%	0%	0%	1%	
		Male, Students of Color	#	2	0	2	1	1	4	3	5	3	2	3	1
			%	2%	0%	1%	1%	1%	4%	4%	6%	4%	3%	4%	
		Male, White or Unknown	#	107	126	138	127	100	81	69	67	60	64	66	-41
			%	91%	95%	90%	89%	85%	84%	88%	86%	87%	90%	85%	
		Total	#	117	132	154	143	117	97	78	78	69	71	78	-39
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
MATERIALS ENGINEERING	MIL	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	0	0	0	0	0	0	0	1	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	
		Female, White or Unknown	#	1	2	4	2	6	3	1	1	0	0	2	1
			%	10%	17%	33%	25%	40%	25%	9%	10%	0%	0%	20%	
		Male, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, Students of Color	#	2	2	2	1	2	0	0	0	0	0	0	-2
			%	20%	17%	17%	13%	13%	0%	0%	0%	0%	0%	0%	
		Male, White or Unknown	#	7	8	6	5	7	9	10	8	7	5	8	1
			%	70%	67%	50%	63%	47%	75%	91%	80%	100%	100%	80%	
		Total	#	10	12	12	8	15	12	11	10	7	5	10	0
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
MATERIALS SCIENCE AND ENGINEERING	MSN	Female, International	#	0	0	0	1	2	1	1	1	0	0	0	0
			%	0%	0%	0%	2%	4%	2%	2%	2%	0%	0%	0%	
		Female, Students of Color	#	0	1	2	4	3	2	2	0	0	0	0	0
			%	0%	2%	4%	8%	5%	4%	4%	0%	0%	0%	0%	
		Female, White or Unknown	#	9	4	4	3	5	10	8	9	10	10	11	2
			%	16%	9%	8%	6%	9%	18%	16%	17%	19%	20%	23%	
		Male, International	#	4	2	4	3	2	1	1	0	1	1	1	-3
			%	7%	5%	8%	6%	4%	2%	2%	0%	2%	2%	2%	
		Male, Students of Color	#	3	3	3	1	1	1	1	4	4	1	1	-2
			%	5%	7%	6%	2%	2%	2%	2%	8%	8%	2%	2%	
		Male, White or Unknown	#	42	34	37	36	42	41	38	39	38	39	35	-7
			%	72%	77%	74%	75%	76%	73%	75%	74%	72%	76%	73%	
		Total	#	58	44	50	48	55	56	51	53	53	51	48	-10
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
MECHANICAL ENGINEERING	MSN	Female, International	#	3	2	2	1	2	3	3	3	2	2	1	-2
			%	1%	0%	0%	0%	0%	1%	1%	1%	0%	0%	0%	
		Female, Students of Color	#	5	3	3	4	2	3	2	4	4	3	3	-2
			%	1%	1%	1%	1%	0%	1%	0%	1%	1%	1%	1%	
		Female, White or Unknown	#	34	45	47	45	41	47	49	44	46	49	42	8
			%	8%	10%	10%	10%	9%	10%	11%	10%	10%	10%	9%	
		Male, International	#	26	27	29	26	19	17	16	15	19	23	17	-9
			%	6%	6%	6%	6%	4%	4%	4%	3%	4%	5%	3%	
		Male, Students of Color	#	23	21	18	19	16	19	22	21	20	27	43	20
			%	5%	5%	4%	4%	4%	4%	5%	5%	4%	6%	9%	
		Male, White or Unknown	#	357	342	359	367	353	363	350	372	373	377	380	23
			%	80%	78%	78%	79%	82%	80%	79%	81%	80%	78%	78%	
		Total	#	448	440	458	462	433	452	442	459	464	481	486	38
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
MECHANICAL ENGINEERING	MIL	Female, International	#	0	0	0	0	1	0	1	1	1	0	0	0
			%	0%	0%	0%	0%	0%	0%	1%	1%	1%	0%	0%	
		Female, Students of Color	#	4	3	3	3	6	6	3	2	1	2	0	-4
			%	2%	2%	1%	1%	3%	3%	2%	1%	1%	1%	0%	
		Female, White or Unknown	#	15	14	16	23	25	25	19	12	10	9	8	-7
			%	8%	7%	8%	11%	11%	12%	10%	7%	5%	4%	4%	
		Male, International	#	4	3	3	2	3	5	3	2	2	3	3	-1
			%	2%	2%	1%	1%	1%	2%	2%	1%	1%	1%	1%	
		Male, Students of Color	#	16	21	27	26	21	15	14	14	17	16	19	3
			%	9%	11%	13%	12%	10%	7%	8%	8%	9%	8%	8%	
		Male, White or Unknown	#	141	147	158	156	164	153	146	145	166	179	197	56
			%	78%	78%	76%	74%	75%	75%	78%	82%	84%	86%	87%	
		Total	#	180	188	207	210	220	204	186	176	197	209	227	47
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
MECHANICAL ENGINEERING	PLT	Female, International	#	0	0	0	1	0	0	0	0	0	0	0	0
			%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	1	1	0	1	1	1	0	0	0	0	0	-1
			%	1%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	
		Female, White or Unknown	#	10	14	17	14	19	20	17	21	20	21	23	13
			%	5%	8%	9%	8%	8%	9%	7%	8%	8%	8%	9%	
		Male, International	#	1	1	1	0	0	0	0	1	1	1	0	-1
			%	1%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, Students of Color	#	3	1	5	4	4	4	4	1	2	5	7	4
			%	2%	1%	3%	2%	2%	2%	2%	0%	1%	2%	3%	
		Male, White or Unknown	#	174	168	173	166	200	198	217	232	216	224	219	45
			%	92%	91%	88%	89%	89%	89%	91%	91%	90%	89%	88%	
		Total	#	189	185	196	186	224	223	238	255	239	251	249	60
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
METALLURGICAL ENGINEERING	MSN	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, White or Unknown	#	1	0	0	0	0	0	0	0	0	0	0	-1
			%	20%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, Students of Color	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Male, White or Unknown	#	4	4	1	0	0	0	0	0	0	0	0	-4
			%	80%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
		Total	#	5	4	1	0	0	0	0	0	0	0	0	-5
			%	100%	100%	100%	0%	0%	0%	0%	0%	0%	0%	0%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
NUCLEAR ENGINEERING	MSN	Female, International	#	0	0	0	0	0	0	0	1	1	1	1	1
			%	0%	0%	0%	0%	0%	0%	0%	2%	1%	1%	1%	
		Female, Students of Color	#	0	0	0	0	1	1	1	0	0	0	0	0
			%	0%	0%	0%	0%	6%	4%	4%	0%	0%	0%	0%	
		Female, White or Unknown	#	3	4	2	2	1	2	3	3	8	11	8	5
			%	11%	21%	11%	12%	6%	9%	11%	6%	10%	14%	11%	
		Male, International	#	1	2	1	1	2	2	0	1	1	1	1	0
			%	4%	11%	6%	6%	11%	9%	0%	2%	1%	1%	1%	
		Male, Students of Color	#	1	0	0	1	2	3	3	1	3	2	2	1
			%	4%	0%	0%	6%	11%	13%	11%	2%	4%	3%	3%	
		Male, White or Unknown	#	23	13	15	13	12	15	21	47	65	62	58	35
			%	82%	68%	83%	76%	67%	65%	75%	89%	83%	81%	83%	
		Total	#	28	19	18	17	18	23	28	53	78	77	70	42
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Major	Campus			Fall 1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Change F96 to F06
PAPER SCIENCE	STP	Female, International	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, Students of Color	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, White or Unknown	#	16	19	24	21	17	14	9	5	3	3	3	-13
			%	15%	16%	22%	22%	21%	22%	19%	17%	14%	14%	15%	
		Male, International	#	1	0	0	0	0	0	0	0	1	2	2	1
			%	1%	0%	0%	0%	0%	0%	0%	0%	5%	10%	10%	
		Male, Students of Color	#	3	2	1	2	2	1	0	0	0	0	0	-3
			%	3%	2%	1%	2%	2%	2%	0%	0%	0%	0%	0%	
		Male, White or Unknown	#	90	95	82	74	62	50	39	25	17	16	15	-75
			%	82%	82%	77%	76%	77%	77%	81%	83%	81%	76%	75%	
		Total	#	110	116	107	97	81	65	48	30	21	21	20	-90
			%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix G
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Major, Institution, Gender, and Race/Ethnicity
Fall 1996 to Fall 2006

Major	Campus			Fall											Change
				1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
SOFTWARE ENGINEERING	PLT	Female, International	#	0	0	0	0	0	0	0	1	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	
		Female, Students of Color	#	0	0	0	0	0	0	0	0	0	0	0	0
			%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
		Female, White or Unknown	#	0	0	0	0	3	5	3	2	2	2	0	0
			%	0%	0%	0%	0%	15%	14%	9%	6%	5%	5%	0%	
		Male, International	#	0	0	0	0	1	1	0	0	0	0	1	1
			%	0%	0%	0%	0%	5%	3%	0%	0%	0%	0%	3%	
		Male, Students of Color	#	0	0	0	0	0	1	0	1	1	1	0	0
			%	0%	0%	0%	0%	0%	3%	0%	3%	2%	2%	0%	
		Male, White or Unknown	#	0	0	0	1	16	29	31	27	39	38	36	36
			%	0%	0%	0%	100%	80%	81%	91%	87%	93%	93%	97%	
		Total	#	0	0	0	1	20	36	34	31	42	41	37	37
			%	0%	0%	0%	100%	100%	100%	100%	100%	100%	100%	100%	

Source: UW System Office of Policy Analysis and Research

Appendix H
U.S. Public and Private Higher Education Institutions
Bachelor's Degrees in Engineering by Ethnicity and Gender
Academic years 1995-96, 2000-01, and 2005-08

			Academic Year			Change from AY 95-96 to 05-06
			1995-96	2000-01	2005-06	
U.S. Public and Private Higher Education Institutions	**Female, International**	#	619	775	1,038	419
		%	1%	1%	2%	
	Female, Students of Color	#	3,345	3,728	4,332	987
		%	5%	6%	6%	
	Female, White or Unknown	#	7,295	7,358	7,973	678
		%	12%	12%	12%	
	Male, International	#	4,133	3,641	3,702	-431
		%	7%	6%	5%	
	Male, Students of Color	#	10,392	10,444	12,759	2,367
		%	17%	18%	19%	
	Male, White or Unknown	#	37,102	33,117	38,338	1,236
		%	59%	56%	56%	
	Total	#	62,886	59,063	68,142	5,256
		%	100%	100%	100%	

Source: U.S. Department of Education, National Center for Education Statistics
These data include institutions in the 50 U.S. states, U.S. territories, and the District of Columbia.

Appendix I
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Institution and Full-Time/Part-Time Status
Fall 1996 to Fall 2006

Campus	Status		Fall											Enrollment Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
MSN	Full-time	#	1,673	1,667	1,644	1,734	1,745	1,859	1,850	1,869	1,863	1,783	1,735	62
		%	89%	88%	89%	89%	89%	91%	92%	92%	91%	90%	90%	
	Part-time*	#	211	219	211	204	216	174	162	163	185	190	203	-8
		%	11%	12%	11%	11%	11%	9%	8%	8%	9%	10%	10%	
	Total	#	1,884	1,886	1,855	1,938	1,961	2,033	2,012	2,032	2,048	1,973	1,938	54
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Campus	Status		Fall											Enrollment Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
MIL	Full-time	#	318	300	324	329	373	371	386	378	390	432	465	147
		%	62%	62%	66%	66%	69%	70%	73%	74%	69%	75%	76%	
	Part-time*	#	192	185	164	168	169	161	140	130	173	145	143	-49
		%	38%	38%	34%	34%	31%	30%	27%	26%	31%	25%	24%	
	Total	#	510	485	488	497	542	532	526	508	563	577	608	98
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Campus	Status		Fall											Enrollment Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
PLT	Full-time	#	572	552	577	498	596	617	589	602	606	588	592	20
		%	89%	85%	88%	82%	87%	89%	89%	89%	92%	88%	86%	
	Part-time*	#	69	100	80	112	90	75	71	71	52	84	95	26
		%	11%	15%	12%	18%	13%	11%	11%	11%	8%	13%	14%	
	Total	#	641	652	657	610	686	692	660	673	658	672	687	46
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Campus	Status		Fall											Enrollment Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
STP	Full-time	#	84	90	84	84	68	54	43	28	19	19	14	-70
		%	76%	78%	79%	87%	84%	83%	90%	93%	90%	90%	70%	
	Part-time*	#	26	26	23	13	13	11	5	2	2	2	6	-20
		%	24%	22%	21%	13%	16%	17%	10%	7%	10%	10%	30%	
	Total	#	110	116	107	97	81	65	48	30	21	21	20	-90
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Appendix I
University of Wisconsin System
Junior/Senior Headcount Enrollment in Engineering
by Institution and Full-Time/Part-Time Status
Fall 1996 to Fall 2006

Campus	Status		Fall											Enrollment Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
STO	Full-time	#	110	114	124	125	100	84	68	73	62	67	61	-49
		%	94%	86%	81%	87%	85%	87%	87%	94%	90%	94%	78%	
	Part-time*	#	7	18	30	18	17	13	10	5	7	4	17	10
		%	6%	14%	19%	13%	15%	13%	13%	6%	10%	6%	22%	
	Total	#	117	132	154	143	117	97	78	78	69	71	78	-39
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

Campus	Status		Fall											Enrollment Change
			1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	F96 to F06
UW System	Full-time	#	2,757	2,723	2,753	2,770	2,882	2,985	2,936	2,950	2,940	2,889	2,867	110
		%	85%	83%	84%	84%	85%	87%	88%	89%	88%	87%	86%	
	Part-time*	#	505	548	508	515	505	434	388	371	419	425	464	-41
		%	15%	17%	16%	16%	15%	13%	12%	11%	12%	13%	14%	
	Total	#	3,262	3,271	3,261	3,285	3,387	3,419	3,324	3,321	3,359	3,314	3,331	69
		%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	

* Part-time may include students enrolled in internships and/or cooperatives.

Source: UW System Office of Policy Analysis and Research

UNIVERSITY OF WISCONSIN-STOUT: PRESENTATION OF CAMPUS ACADEMIC PLAN

EXECUTIVE SUMMARY

BACKGROUND

In the effort to improve its effectiveness and spend its meeting time on substantive discussion of the academic issues facing the University of Wisconsin System and its institutions, the Board of Regents Education Committee in conjunction with the Office of Academic and Student Services is implementing a more streamlined process for considering institutional reports on academic programming, re-accreditation, and general education to the Board of Regents.

At its February 2008 meeting, the Education Committee agreed on a new process whereby UW institutions will periodically (e.g., every five years) present a campus academic plan. In the future, presentations to the Committee of new program proposals will be made on an as-needed basis. The campus plans will allow Committee members to direct their attention to a more comprehensive understanding of each institution's academic program planning and array, as well as the alignment of that array to each institution's distinct mission and identity.

The academic plans are presented to the Board of Regents for information only. Individual academic program proposals will continue to follow the program approval process outlined in Academic Information Series-I (ACIS-1) and be subject to Board approval, within the framework of the proposing institution's academic plan.

The UW-Stout Campus Academic Plan summarizes the institution's academic program realignment, existing, new and proposed academic programs, distance learning programming, and resources for program development.

REQUESTED ACTION

For information purposes only; no action is required.

DISCUSSION

As a special mission institution, UW-Stout serves a unique role in the University of Wisconsin System. UW-Stout is characterized by a distinctive array of academic programs leading to professional careers focused on the needs of society. These programs are presented through an approach to learning that involves combining theory, practice, and experimentation. Extending this special mission into the future requires that instruction, research, and public service programs be adapted and modified as the needs of society change. In 2007, UW-Stout received approval from the UW System Board of Regents to be designated as "Wisconsin's Polytechnic University." The university is now comparing its programs and performance with polytechnic universities throughout the United States.

To assure that UW-Stout is meeting current and future needs, the university has developed a broad-based, comprehensive strategic planning system. This system has been recognized nationally and internationally for its inclusiveness and the ability of the system to integrate planning and resource allocation. Both long-term and short-term goals have been identified, and are accomplished through a series of related action plans. These action plans include the Academic Plan, the Information Technology Plan, Plan 2008, the Capital Budget Plan, the Marketing Plan and the annual University Priorities/AQIP Action Projects. Each action plan includes strategies for implementation, responsible individuals/groups, timelines for implementation and required resources. The Academic Plan (which is located on the Provost's Office website at http://www.uwstout.edu/provost/currhb/accplan.htm) is updated by the Provost and Deans each semester, and progress is reviewed twice each year by the Chancellor's Advisory Council as part of the strategic planning process.

RELATED REGENT POLICIES

University of Wisconsin System Academic Planning and Program Review (November 2007), Academic Informational Series #1 (ACIS-1 revised June 2006).

UW-Stout Campus Academic Plan
Presented to the Board of Regents Education Committee – April 10, 2008

The University of Wisconsin-Stout, as a special mission institution, serves a unique role in the University of Wisconsin System. UW-Stout is characterized by a distinctive array of academic programs leading to professional careers focused on the needs of society. These programs are presented through an approach to learning that involves combining theory, practice, and experimentation. Extending this special mission into the future requires that instruction, research, and public service programs be adapted and modified as the needs of society change. In 2007, UW-Stout received approval from the UW System Board of Regents to be designated as "Wisconsin's Polytechnic University." The university is now comparing its programs and performance with polytechnic universities throughout the United States.

To assure that UW-Stout is meeting current and future needs, the university has developed a broad-based, comprehensive strategic planning system. This system has been recognized nationally and internationally for its inclusiveness and the ability of the system to integrate planning and resource allocation. Both long-term and short-term goals have been identified. These goals are accomplished through a series of related action plans. These action plans include the Academic Plan, the Information Technology Plan, Plan 2008, the Capital Budget Plan, the Marketing Plan and the annual University Priorities/AQIP[1] Action Projects. Each action plan includes strategies for implementation, responsible individuals/groups, timelines for implementation and required resources. The Academic Plan, which is located on the Provost's Office website (go to: http://www.uwstout.edu/provost/currhb/accplan.htm), is updated by the Provost and Deans each semester, and progress is reviewed twice each year by the Chancellor's Advisory Council as part of the strategic planning process.

Academic Program Realignment

Throughout 2007, UW-Stout reorganized its academic programs. Several indicators led the UW-Stout community to consider a modified structure, or a realignment of academic programs, to enable the campus to meet the current needs of faculty, staff, and students, and position UW-Stout for increased competitiveness and future growth. The five intended outcomes of the proposed program realignment were to:

1. Group similar programs, departments, and disciplines together in units so they are better able to address common issues, share curriculum and resources, develop new programs, maximize capabilities, minimize duplication, and work under common leadership.

2. Capitalize on trends and opportunities that have emerged over the past decade and position the campus for enrollment growth. Some important examples include increased student interest in health and human service-related programs; the growth of STEM (Science, Technology, Engineering and Math) as a unifying concept in education, research and industry; and an increase in the number of management-oriented programs.

[1] UW-Stout participates in AQIP, the Academic Quality Improvement Program, which infuses the principles and benefits of continuous improvement into the culture of colleges and universities by providing an alternative process through which an already-accredited institution can maintain its accreditation from the Higher Learning Commission.

3. Align programs with an administrative structure that will strengthen UW-Stout's mission and polytechnic identity and position UW-Stout among its regional and national polytechnic peers. Expand technology transfer and outreach efforts to more fully realize regional economic growth and strengthen ties with external partners.

4. Develop an administrative structure of units that is more descriptive and understandable to both internal and external audiences, including potential faculty and staff hires, and provide greater brand identity to administrative and academic units.

5. Provide a more coordinated approach to facilitate efforts of faculty and staff interested in interdisciplinary and collaborative programs. A coordinated approach is also needed to facilitate joint appointments, team teaching, faculty-student research initiatives, and faculty involvement in Student Services initiatives.

The final realignment model was approved by the Faculty Senate, the Senate of the Academic Staff, and the Chancellor's Advisory Council, and will officially become effective on July 1, 2008.

The new model includes a Center for Interdisciplinary Collaboration and the following academic units: College of Science, Technology, Engineering and Math (STEM); College of Education, Health and Human Sciences; College of Management; and College of Arts and Letters.

Academic Plan and Proposed Programs

Currently UW-Stout offers 30 undergraduate programs, the smallest number of undergraduate programs in the UW System. Over the next 10 years, UW-Stout intends to grow the number of undergraduate and graduate programs in select areas. Each college is extensively involved in new program development and all new programs will relate to UW-Stout's special mission and polytechnic identity. New graduate programs will build on UW-Stout's strengths in undergraduate areas. There are also plans to deliver existing degree programs to locations throughout the state in cooperation with the Wisconsin Technical College System and other institutions, and offer other programs entirely through distance learning technologies.

The ***College of Science, Technology, Engineering and Mathematics (STEM)*** is involved in developing several new majors and sub-majors that will build on UW-Stout's existing programs, technologies and facilities. Two new engineering programs, a B.S. Degree in Plastics/Polymer Engineering and a B.S. Degree in Computer Engineering, are nearing the final stages of planning. UW-Stout received funding from the Growth Agenda to hire five faculty members to deliver these programs beginning in fall 2008. UW-Stout has also signed an agreement to deliver its B.S. Degree in Manufacturing Engineering in the Green Bay area in cooperation with Northeast Wisconsin Technical College and UW-Green Bay, beginning in fall 2008. The campus is currently working on a similar agreement to deliver its B.S. Degree in Engineering Technology in Wausau in partnership with North Central Technical College.

Faculty members in the STEM College are also involved in interdisciplinary programs. Entitlements to plan new B.S. Degree programs in Cognitive Science (with the College of Education, Health and Human Sciences) and Computer Game Design and Development (with the College of Arts and Letters) were recently approved through the campus governance process and have been forwarded to UW System for review. STEM faculty members are also involved in the development of concentrations in Environmental Science, Information Assurance and Cyber Security, and minors in Geographic Information Systems, Mechanical and Electrical Construction, and Sustainable Design and Development. Finally, an M.S. Degree in Construction Management is being discussed; this degree would be delivered in collaboration with international partners.

The ***College of Education, Health and Human Sciences*** is in the process of developing several new programs. UW-Stout received entitlements to plan a new B.S. Degree in Science Education and a B.S. Degree in Science and Technology Education (dual certification). The B.S. Degree in Technology Education was recently revised to allow interested students to complete the "Project Lead the Way" curriculum. Teaching majors and minors in Biology, Chemistry, and Physics are also currently under development to meet the growing need for science teachers in the state. Students enrolled in the new B.S. Degree in Science Education will select a major and a minor from: Broadfield Science, Biology, Chemistry, and Physics. Faculty are also exploring the development of a math education concentration within the B.S. in Applied Mathematics and Computer Science. The B.S. in Early Childhood Education program is undergoing revision to extend certification through grade six. Within the next two years, the program proposes to develop education certification programs in English as a Second Language (ESL) and Reading Specialist, two high-need areas in Wisconsin. The faculty are also exploring the possibility of offering bilingual pupil service preparation. New graduate programs are being discussed in the areas of Food Packaging (in cooperation with STEM), Health Education, Gerontology, Occupational Therapy, and other health-related fields.

The ***College of Management*** is in the process of developing entitlements to plan for two new programs: a B.S. Degree in Property Management and a B.S. Degree in Supply Chain Management. A minor in Project Management is being developed as well as a concentration in Supply Chain Management within the Business Administration program. Preliminary discussions have started relative to the development of an M.S. Program in Entrepreneurship and Innovation.

The ***College of Arts and Letters*** has received entitlements to plan two undergraduate programs: a B.S. Degree in Applied Social Sciences; and a B.S. Degree in Professional Studies, a degree-completion program for working adults. Faculty from the Art and Design Department will be extensively involved in the Computer Game Design and Development program. The college has also received entitlements to plan two graduate programs: an M.F.A. in Art and Design and an M.S. Degree in Scientific and Technical Communication, an online degree to be delivered in collaboration with the University of Minnesota.

In addition to Stout's Colleges, several faculty groups have been active in other aspects of academic planning. The General Education Committee is currently reviewing the general education program relative to the Association of American Colleges & Universities' LEAP

Outcomes and the results of recent general education assessments. UW-Stout was recently selected as one of 13 institutions nationwide to participate in a study of three exams commonly used to assess general education learning outcomes funded by the Fund for the Improvement of Post-Secondary Education (FIPSE). The Ethnic Studies Committee has recently completed a review of the Ethnic Studies Requirement. It is anticipated that both committees will bring recommendations to the Faculty Senate for approval in 2008-2009. There has been some discussion on whether the campus should seek approval to offer an Associate of Arts degree for students who complete their first two years at UW-Stout then transfer to obtain a bachelor's degree in a field that isn't offered at UW-Stout.

UW-Stout is also participating in the American Council on Education's Internationalization Laboratory in 2007-2008. The goal of this initiative is to assess the campus's level of international activity and climate for internationalization. To achieve this goal, a faculty survey is being conducted. The survey results will be analyzed and used by the Office of International Education and the Curriculum and Instruction Committee to make recommendations on curricular integration for global perspectives and curriculum design to increase student global awareness and competency.

Distance Learning

UW-Stout continues to be a leader in delivering programs to learners across the state through online and hybrid programs. Currently, UW-Stout offers the following online undergraduate degree-completion programs: Management; Career, Technical Education and Training; Information and Communication Technologies; and Golf Enterprise Management. And there are plans to convert other existing B.S. Degree programs into online formats to meet the needs of non-traditional students. Several graduate programs are now offered entirely online or in a weekend college format including Vocational Rehabilitation, Manufacturing Engineering, Training and Development, Technology Management, and Education (Professional Development). UW-Stout also offers several online certification programs for K-12 educators and continues to increase program offerings in this area and offers the course sequence required for Wisconsin Technical College instructor certification entirely online. The university is also planning to conduct a survey to assess the need for graduate programs among faculty members in the Wisconsin Technical College System. The results of this study will inform future program development. Other distance learning or online programs in the planning stages include collaborating with several institutions and UW Extension to deliver a collaborative bachelor's degree program in Green Business. UW-Stout also recently signed an agreement to deliver online courses and programs in quality management with e-TQM University in Dubai.

Resources for Program Development

To ensure that programs are developed in a timely manner, UW-Stout provides funding for faculty members to develop new courses and programs or to convert courses and programs for online delivery. In 2005, the university established a Curricular Incubation Center. Funded through the university's Special Project Fund and the Stout Foundation, the center provides summer session funding each year for faculty to develop programs that are included in the Academic Plan. Funding from the Committee on Baccalaureate Expansion has allowed

UW-Stout to provide funding for the development of degree-completion programs for technical college graduates. Faculty members are also encouraged to use sabbaticals, named professorships, and professional development grants to explore new course or program development or convert existing programs into online programs.

UW-Stout plans to fund new programs through a number of sources. The two new engineering programs, Plastics Engineering and Computer Engineering, received funding as part of the Growth Agenda in the 2007-2009 state budget. UW-Stout will request funding to offer engineering programs in Green Bay and Wausau in the 2009-2011 state budget.

Several of the proposed undergraduate programs are currently being delivered as concentrations, including Property Management and Science Education. For these programs, UW-Stout already has many of the courses in place as well as qualified faculty and appropriate facilities. UW-Stout also has many of the courses and facilities needed for the proposed undergraduate programs in Cognitive Science and Computer Game Design and Development. As faculty members in these areas retire, new faculty will be hired with the skills to further develop and deliver these programs.

UW-Stout received Board of Regents approval to offer select programs at market rates (customized instruction) in 1999 and since that time has launched several new programs through this funding mechanism, particularly graduate programs. It is anticipated that the proposed new graduate programs, including the M.F.A. program, the Health Education program, the Gerontology program, the Construction program and the Occupational Therapy program, may be offered in non-traditional formats and funded through customized instruction. Currently, several online certifications for educators are offered through customized instruction and the new certifications included in this proposal would be delivered and funded using this same method.

Program Authorization (Implementation)
B.S. in Applied Math & Computer Science
University of Wisconsin-Milwaukee

EDUCATION COMMITTEE

Resolution I.1.e(2):

That, upon recommendation of the Chancellor of the University of Wisconsin-Milwaukee and the President of the University of Wisconsin System, the Chancellor be authorized to implement the B.S. in Applied Math and Computer Science.

NEW PROGRAM AUTHORIZATION
B.S. in Applied Mathematics and Computer Science
University of Wisconsin-Milwaukee

EXECUTIVE SUMMARY

BACKGROUND

In accordance with the procedures outlined in Academic Planning and Program Review (ACIS-1.0 revised June 2006), the new program proposal for a Bachelor of Science in Applied Mathematics and Computer Science (AMCS) at the University of Wisconsin-Milwaukee is presented to the Board of Regents for consideration. If approved, the program will be subject to a regent-mandated review to begin five years after its implementation. The University of Wisconsin-Milwaukee and System Administration will conduct that review jointly, and the results will be reported to the Board.

The program will be housed jointly in the College of Engineering and Applied Science Department of Electrical Engineering and Computer Science, and the College of Letters and Science Department of Mathematical Sciences. This new, interdepartmental program will build on the strengths of these two departments by providing a new major that allows students to study a mixture of mathematics and computer science suited to their natural interests and ambitions. It highlights the unity of the fields of mathematical sciences and computer science, while still providing a firm foundation for all areas of applied and computational mathematics and computer science.

REQUESTED ACTION

Approval of Resolution I.1.e.(2), authorizing the implementation of the Bachelor of Science in Applied Mathematics and Computer Science at the University of Wisconsin-Milwaukee.

DISCUSSION

Program Description

The AMCS degree will be jointly awarded by the College of Letters and Science and the College of Engineering and Applied Science, and the students in the program will benefit from in-depth study in both colleges. The liberal arts coursework will enhance the analytical skills that are the focus in the applied mathematics portion of the curriculum, while the computer science coursework will strengthen the application of mathematics in problem solving.

To obtain the degree, the student will have to successfully complete 120 credits including the general education component, a 24-credit core in mathematics and computer science, and a minimum of 48 advanced credits in mathematics, statistics, and computer science. The program of study is constructed to allow the average student to complete the requirements in four years. The requirements of the program include courses currently taught in Mathematical Sciences and Computer Science departments. The careful grouping of the courses provides the students with a curriculum that meets the objectives of the AMCS program and prepares the students for careers that require both analytical and application skills not uniquely met by either the Mathematical Sciences degree or the Computer Science degree.

Incoming students may begin their programs either in the College of Letters and Science or in the College of Engineering and Applied Science. Academic advising for students is provided by a faculty member of the AMCS Coordinating Committee or a professional advisor in either school. Students are admitted to the AMCS major in the junior year provided they meet the requirement of a GPA of at least 2.5 in 8 credits of mathematics courses at or above the 200-level, and 6 credits of computer science courses at or above the 200-level.

The program will be administered by a joint committee of four faculty, two each from Mathematical Sciences and Computer Science. The program committee will be responsible for administrative aspects of the program as well as for assessment of student learning.

Program Goals and Objectives

The objectives of the Applied Mathematics and Computer Science degree are:

- to prepare students to do problem solving in the technical fields that require skills in both analytical math and computer science; and
- to enable students to design an individualized program that meets their specific career needs and interests, e.g., scientific, engineering, economic, or statistical applications.

To accomplish the first of these objectives, students must gain a solid foundation in both applied mathematics and computer science that includes opportunities for integrated coursework and/or practical experience. Achieving the second objective requires the assistance of qualified advisors who can help students select courses appropriate to individualized interests and career goals. The range of coursework available through the two departments as well as the wide array of liberal arts courses available at the University will support the development of analytical and computing skills in a variety of fields.

Relation to Institutional Mission

Applied Mathematics and Computer Science will give University of Wisconsin-Milwaukee students experience and knowledge that has become essential for many technical careers. Because so many graduates of the University of Wisconsin-Milwaukee remain in the southeastern Wisconsin area, companies in the area will benefit from a pool of potential

employees with enhanced skills in solving computational and analytical problems. The program will foster cooperation between the University of Wisconsin-Milwaukee and area companies by providing internship opportunities for students, giving students valuable work experience while permitting businesses to observe potential employees in the work setting. Additionally, it will enhance the University of Wisconsin-Milwaukee's reputation as an innovator in education that is responsive to the needs of both students and the community. These aspects of the program fit with the mission of UW-Milwaukee "to develop and maintain high quality undergraduate ... programs," "to establish and maintain productive relationships with appropriate public and private organizations at the local, regional, state, national and international levels," and the strategic goal of UW-Milwaukee to serve the economic needs of the region by providing high-quality graduates.

Recently, there have been efforts by the Deans of the College of Letters and Science and the College of Engineering and Applied Science to form cooperative programs that take advantage of faculty expertise in science and engineering, and that overlap the often artificial boundaries that exist between these disciplines. Applied Mathematics and Computer Science is the first program proposal to emerge from the joint planning meetings of the Faculties of these two colleges.

Program Assessment

As indicated previously, the objective of the Applied Mathematics and Computer Science degree is to educate students who are better able to do problem solving in the technical fields that require skills in both analytical math and computer science, and who have acquired these skills in the context of a program designed around their own interests. Evaluation of the program's success in meeting this objective will be evaluated according to the following specific learning outcomes:

- students will acquire a solid foundation in both applied math and computer science that will enable them to solve technical problems;
- students will demonstrate the integration of both analytical math and computer skills in their problem solving; and
- student programs of study will be well integrated while also demonstrating considerable variability in line with varying student interest.

The program's success in achieving these learning outcomes will be assessed in a number of ways:

- the coordinating committee will administer an exit survey in which graduates will be asked to evaluate how well their education met the program objectives;
- for students completing internships, the coordinating committee will collect reports on the internship experience from both students and employers;
- the committee will compile job placement information for program graduates; and
- the committee will review data on graduates that the University collects five and ten years after completion of the degree.

The Program Committee will review this assessment data annually in order to make recommendations to improve the major through its curriculum design, teaching and course presentations, advising, etc.

There is no accreditation body for the Applied Mathematics and Computer Science program.

Need

Potential demand for the Applied Mathematics and Computer Science degree will come from companies that hire mathematicians with computer science backgrounds or computer science graduates with strong mathematics skills. Graduates of the new AMCS degree will have unique interdisciplinary qualifications that will allow them to compete successfully for the many industrial positions that call for strong mathematics backgrounds supplemented by good computing skills. They are also likely to be well-qualified for many positions typically taken by graduates with normal computer science or mathematics degrees.

Evidence of the demand for AMCS graduates can be found in national and regional statistics and from assessments from a variety of sources. In the 2004–2005 edition of its Occupational Outlook Handbook, the U.S. Bureau of Labor Statistics estimates that in 2002 there were 2.2 million people employed in the three categories of computing-related jobs for which AMCS graduates will be well-suited. Significant employment growth is anticipated in all three categories, with very fast job growth for software engineers, systems and database analysts, and computer scientists. These fast-growing categories are, in fact, the ones for which AMCS graduates will be especially well qualified, since analytic capabilities are quite important in these areas. The proposed AMCS program will expand the set of UW-Milwaukee's offerings that meet the demand for these jobs.

Evidence of regional demand can be found in the "Survey of Job Openings in the Milwaukee Metropolitan Area: Week of May 23, 2005", performed by UW-Milwaukee's Employment and Training Institute for the Private Industry Council of Greater Milwaukee. In this survey of local hiring plans, Milwaukee employers anticipated having a total of 12,381 full-time job openings. AMCS graduates would be well-qualified for two high-demand job categories: computer systems analysts/operations researchers and analysts (429 positions, ranked 4th) and computer programmers (369 positions, ranked 7th). Thus, the AMCS program will be graduating students who are trained for work that represents 6.4% of full-time job openings in Milwaukee.

The University of Wisconsin-Milwaukee Computer Science Industrial Advisory Council has reviewed the AMCS proposal and endorsed it enthusiastically, saying that graduates would be well-qualified for positions in many area companies. This advisory council is composed of senior technical managers from several major companies, including GE Healthcare Systems, Johnson Controls, Lucent Corporation, VIASYS Healthcare, and Compuware.

Projected Enrollment (5 years)

Year	Implementation year	2nd year	3rd year	4th year	5th year
New students admitted	15	15	15	15	15
Continuing students	0	11	17	22	22
Total enrollment	15	26	32	37	37
Graduating students	0	2	2	7	7

In developing the projected enrollment figures given above, it is assumed that the annual intake of freshman into the program will be 12 and there will be 3 students transferring into the program from other majors at the junior year. The overall attrition rate is assumed to be about 25% (30% in the freshman and sophomore years and 10% in the junior and senior years).

Comparable Programs in Wisconsin

The University of Wisconsin-Stout offers an innovative, highly discipline-specific degree in Applied Mathematics with several options that are similar to the University of Wisconsin-Milwaukee's proposed AMCS degree. The Bachelor of Science in Applied Mathematics – Computer Graphics, Bachelor of Science in Applied Mathematics – Software Development, and Bachelor of Science in Applied Mathematics – Computer Systems Integration are the options most closely related to the proposed AMCS degree.

UW-Milwaukee is unaware of any other University of Wisconsin System university or college with a comparable program. A few institutions, (the University of Wisconsin-Madison, for example) have regular mathematics majors with flexible options that allow students to take a fair amount of computational mathematics courses. The University of Wisconsin-Milwaukee offers a computational math option within the mathematics major. Such programs, however, are not of the same nature as the proposed AMCS degree because they focus on one department and do not provide a wide range of choices in the balance between mathematics and computer science topics. The computational mathematics option only allows students to take 15 credits of computer science, including three credits of advanced courses and 12 credits below the 300 level.

The University of Wisconsin-Eau Claire offers a comprehensive computer science major under which students can pursue roughly the same type of degree as the proposed AMCS degree. The Eau Claire program, however, does not have a fixed mathematics requirement, and students at that campus, for all intents and purposes, are completing a standard computer science major. Others (the University of Wisconsin-Parkside, for example) simply highlight the possibility of double majoring in computer science and mathematics, an option that, as mentioned earlier, normally requires a significantly larger number of credits than will the integrated AMCS program.

There are no comparable programs elsewhere in Wisconsin outside the UW system.

Comparable Programs outside Wisconsin

The University of Washington-Seattle offers an *Applied and Computational Mathematical Sciences* (ACMS) program that requires students to follow one of eight pathways to complete their majors. About half of the students choose the discrete mathematics/computer science option.[1]

The Massachusetts Institute of Technology has a *B.S. Degree in Mathematics with Computer Science.* This degree, which is approved as option IV of the mathematics major, is offered jointly by the Mathematics Department and the Electrical Engineering and Computer Science Department. (Detailed information is available at *http://www-math.mit.edu*).

In addition to those already mentioned, there are other programs similar to AMCS that have significant program enrollments. Some universities combine applied mathematics and computer science in a single department, which naturally builds exposure for students in each subject. One such campus is the Illinois Institute of Technology (IIT), which has a Department of Applied Mathematics and Computer Science. IIT does not offer a combined degree program similar to the proposed AMCS degree

Collaboration

By its nature, AMCS is a collaborative program, employing the existing courses, faculty members, and technological resources of both the Computer Science and Mathematical Sciences Departments to create a cross-college, interdepartmental educational experience for the benefit of students interested in scientific computing, computational mathematics, and other interdisciplinary fields. The approval of the AMCS program will provide an opportunity for the development of collaborative courses and research projects for faculty members in the participating departments.

The University of Wisconsin-Milwaukee is interested in working with other campuses in the University of Wisconsin System, particularly with the UW Colleges, to facilitate the timely completion of degree requirements for students interested in this field of study who transfer into the AMCS program. There also may be opportunities to collaborate with the Milwaukee School of Engineering and the Milwaukee Area Technical College that can be explored.

Collaboration with technical companies in the Milwaukee area will expand as the campus and community cooperate in the creation of internship placements. Such internships will give companies experience with students in the program, allowing the companies to evaluate the strengths and weaknesses of the program and to communicate those observations to the University.

[1] Source: Brooke Miller, Department of Student Services, (206) 543-6830, miller@math.washington.edu

Diversity

The problem of attracting and retaining women and minority students in science and engineering fields has been the subject of a great deal of concern and effort. The report, "Women, Minorities, and Persons with Disabilities in Science and Engineering," available on the World Wide Web (http://www.nsf.gov/sbe/srs/wmpd/start.htm), provides a context for evaluating the proposed program in the light of national enrollment and employment figures in mathematical and computer sciences. It should be noted that this report bears a May 2004 date, and the data presented in it were collected in 2001. Furthermore, the report does not directly address enrollment diversity, but rather only reports on degrees granted. Unfortunately, this is the most complete and recent information available on national levels of diversity in the sciences and engineering education.

At UW-Milwaukee, data on program diversity is collected and reported by UW-Milwaukee's Office of Resource Analysis. From this source, the most recent data available is for graduations in 2006-07 and student enrollment in Fall 2006.

In Fall 2006, 30% of the majors in the Department of Mathematical Sciences and the Applied Math and Physics program were women. In 2006-07, women made up 28% of the graduates with the B.S. in Mathematics. In Fall 2006, women made up 6% of the majors in the B.S. in Computer Science program and in 2006-07, represented 16% of the graduating class for the program. Minorities represented 14% of the students enrolled in Computer Science and 8% of the students in Mathematical Sciences in Fall 2006. In 2006-07, 15% of the degrees in Computer Science were awarded to minorities. While these numbers are somewhat lower than national trends would suggest, both departments are committed to recruiting minority and women students in their programs. The campus has recently filled the position of Assistant Director for Multicultural Recruitment for targeted recruitment in the Milwaukee area and other parts of the region to increase minority enrollment at UW-Milwaukee. The departments participate in the campus's Access to Success program aimed at improving retention and at closing the achievement gap. These efforts should result in an increase in student diversity in the programs including the proposed AMCS program.

The Department of Mathematical Sciences is committed to increasing the representation and advancement of women in the mathematical sciences; it continues to make a strong effort in the recruitment and promotion of female faculty members. Of the four women (11%) members of the Department, two are associate professors, one has served as Department chair, and the others are assistant professors. Seven (20%) of the faculty are minorities. Of the thirteen faculty members hired since 1999, three were women, which is in line with the national norms according to National Science Foundation data (Table H-6 of the above-mentioned report). The Department of Electrical Engineering and Computer Science is likewise firmly committed to recruiting and hiring women faculty members. Of the 15 faculty in Computer Science, there are 3 women (25%) and 8 minorities (53%). Both departments actively pursue the goal of diversifying the faculty through active recruitment strategies, which include making personal

contacts and networking with doctoral programs that produce minority and women Ph.D. candidates and employing robust search and screen processes that aim to eliminate any bias.

The Departments have been involved in two National Science Foundation (NSF) grants designed to increase the participation of students in underrepresented groups in their majors. UW-Milwaukee has received a grant from NSF's Computer Science, Engineering, and Mathematics Scholarship program entitled "Transition to Meaningful Employment." This program provides scholarships of $3,000 per year to talented students who also show financial need. Scholarship applications are actively sought from the Milwaukee Public Schools and other urban high school districts in order to encourage applicants from underrepresented groups. This grant continued through 2007 and replacement funding is now being sought through UW-Milwaukee's Development Office. In addition, Dr. Munson of the computer science faculty has received funding from the NSF Information Technology Workforce program to participate in a multi-university study of a novel approach to recruiting women students for computer science, based on active recruitment of qualified students for introductory programming courses and the use of peer teaching techniques to increase the chances that recruited students will meet with success in those courses. This study runs through 2008 and if the approach is successful, the department and college will seek to continue it with internal funds. This program should also draw students to the AMCS program, since AMCS requires the same introductory programming courses as does the B.S. in Computer Science. Currently, there are several pending proposals to obtain scholarship funding from the NSF. These include: (i) "Educating Tomorrow's Engineers and Computer Scientists (E-TECS);" and (ii) "Fostering Opportunities for Tomorrow's Engineers (FORTE)." AMCS students will be allowed to apply for these scholarships.

Evaluation from External Reviewers

The program proposal has been reviewed by two nationally recognized academic scholars. Both reviewers recommend that the proposed program be implemented. One of the evaluators had raised potential concerns related to the implementation. These primarily included concerns about not requiring specific courses in certain topics such as continuum modeling, statistics, and numerical linear algebra. This reviewer also expressed a concern that the program is not sufficiently prescriptive and allowed students to take a "path of least resistance" in choosing courses. These concerns were adequately addressed in the proposal. The curricular content was designed partially in consideration of the needs of the region and allows students to have flexibility in choosing courses that meet their individualized career needs. Careful advising and approval of the academic program of study by a faculty advisor will ensure that the program of study of each student is meaningful and prepares them to achieve the learning outcomes of the program at a satisfactory level.

Resource Needs

Since the program does not require new courses to be created and since there is no projected need for additional sections, there is no need for additional faculty to implement this program.

The “current costs,” listed below, indicate the resources currently devoted to the computer science and applied mathematics majors. FTE calculations for personnel are based on an estimated percentage of time that faculty and staff devote to activities associated specifically with this program. Salary costs include a three-percent increase each year. The current faculty FTE figures represent the faculty time involved in teaching courses for the program. However, these courses are already being taught for other programs and there is capacity to accommodate the AMCS students without adding additional sections. It is also expected that the AMCS students can be accommodated within existing advising workload for faculty and staff. Thus, there is no anticipated additional faculty need for teaching or advising students. The 0.25 FTE faculty reassignment included in the additional costs section is for the coordinator who will have responsibilities with respect to program coordination including assessment.

Estimated Total Costs and Income

	FIRST YEAR		SECOND YEAR		THIRD YEAR	
CURRENT COSTS	#FTE	Dollars	#FTE	Dollars	#FTE	Dollars
Personnel						
Fac/Acad Staff[2]	3.25	$198,000	3.25	$203,940	3.25	$210,058
Grad Assistants	.0	$0	.0	$0	.0	$0
Classified Staff	.10	$2,780	.10	$2,863	.10	$2,949
Non-personnel						
S&E		$4,000		$4,120		$4,244
Capital Equip.		0		0		0
Library		0		0		0
Computing		$4,000		$4,120		$4,244
Subtotal		**$208,780**		**$215,043**		**$221,495**
ADDITIONAL COSTS (Specify)	#FTE	Dollars	#FTE	Dollars	#FTE	Dollars
Personnel						
Academic staff[3]	0.25	$12,000	0.25	$12,500	0.25	$13,000
Non-personnel		$1,500		$1,545		$1,590
Subtotal		**$13,500**		**$14,045**		**$14,590**
TOTAL COSTS		**$222,280**		**$229,088**		**$236,085**
CURRENT RESOURCES						
GPR		$208,780		$215,043		$221,495
Subtotal		**$208,780**		**$215,043**		**$221,495**
ADDITIONAL RESOURCES						
GPR Reallocation (within CEAS and L&S)		$13,500		$14,045		$14,590
Gifts and Grants						
Fees						
Subtotal		**$13,500**		**$14,045**		**$14,590**
TOTAL RESOURCES		**$222,280**		**$229,088**		**$236,085**

[2] The FTE faculty and instructional academic staff shown here represents current faculty and staff teaching courses that are included in this program. However, since these courses are already taught in other programs, this does not represent a redirection of current faculty and staff for the AMCS program.

[3] The additional academic staff shown here is to cover the instructional need when 0.25 FTE faculty will be reassigned for program coordination.

RECOMMENDATION

The University of Wisconsin System recommends approval of Resolution I.1.e.(2), authorizing the implementation of the Bachelor Science in Applied Mathematics and Computer Science at the University of Wisconsin-Milwaukee.

RELATED REGENT POLICIES

University of Wisconsin System Academic Planning and Program Review (November 10, 1995), Academic Informational Series #1 (ACIS-1.0 revised June 2006)

Program Authorization (Implementation)
M.A. in TESOL
University of Wisconsin-River Falls

EDUCATION COMMITTEE

Resolution I.1.e(3):

That, upon recommendation of the Chancellor of the University of Wisconsin-River Falls and the President of the University of Wisconsin System, the Chancellor be authorized to implement the M.A. in Teaching English to Speakers of Other Languages.

NEW PROGRAM AUTHORIZATION
Master of Arts in TESOL (Teaching English To Speakers of Other Languages)
University of Wisconsin-River Falls

EXECUTIVE SUMMARY

BACKGROUND

In accordance with the procedures outlined in Academic Planning and Program Review (ACIS-1.0 revised June 2006), the new program proposal for a Master of Arts in TESOL (Teaching English to Speakers of Other Languages) in the English Department at the University of Wisconsin-River Falls is presented to the Board of Regents for consideration. If approved, the program will be subject to a regent-mandated review to begin five years after its implementation. The University of Wisconsin-River Falls and System Administration will conduct that review jointly, and the results will be reported to the Board.

REQUESTED ACTION

Approval of resolution I.1.e.(3), authorizing the implementation of the Master of Arts in TESOL at the University of Wisconsin-River Falls.

DISCUSSION

Program Description

The Master of Arts in TESOL is designed to provide graduate students with first and second language acquisition theory, ESL (English as a Second Language) teaching methodology, and practice in teaching English to speakers of other languages.

The Master of Arts in TESOL is a 36-credit course of study with a thesis option or an additional credit option. In order to meet the needs of diverse groups of students, the English Department has designed a Master's Program that can be taken independently or that can be combined with courses leading to DPI (Department of Public Instruction) licensure for teaching in the Wisconsin public school system

The M.A. in TESOL is designed to attract four different and diverse groups of potential students:

(1) In-service teachers seeking both an M.A. and expertise in working with an increasing population of Limited English Proficiency (LEP) students.

(2) Students already possessing a B.A. or B.S. degree but without Teaching Licensure.

(3) International students who are seeking an advanced degree in TESOL combined with the opportunity to improve their English skills while studying in an English-speaking environment.

(4) Students already possessing a B.A. or B.S. who are interested in graduate study in language and linguistics.

International graduate students or those who want to teach abroad or pursue intensive language study will enroll in the M.A. without licensure.

Program Goals and Objectives

The primary goal of the program is to train students as effective teachers of the English language in public schools, independent institutes in the United States, and teaching facilities abroad.

Students completing the TESOL M.A. degree will be able to:

- Teach English as a Second Language (ESL) or English as a Foreign language (EFL).
- Recognize and discuss the fundamental components of English language study—phonology, morphology, syntax, and semantics.
- Apply their knowledge of English phonology, morphology, syntax, and semantics to specific ESL/EFL teaching situations.
- Understand both language acquisition and language learning, and use techniques promoting both acquisition and learning in the classroom.
- Evaluate, design, and adapt instructional materials for specific language groups.
- Understand and use linguistic and language learning theories and the methods based upon these theories.
- Understand and use current teaching practices and techniques.
- Adapt current teaching practices and techniques to suit ESL learners from different cultural backgrounds, age groups, and language backgrounds.
- Create lesson plans and syllabi for specific age, cultural, and language groups.
- Comprehend the important relationship between language and culture as well as develop sensitivity and respect for non-native cultural and language groups.
- Interact with non-native speakers in an instructional setting.

Relation to Institutional Mission and Strategic Plan

Consistent with UW-River Falls' mission, the establishment of a Master's Degree in TESOL helps students learn so that they are successful as productive, creative, ethical, engaged citizens and *leaders* with an informed global perspective. The importance of the global perspective for UW-River Falls is also reflected by the fact that Goal Three of its Strategic Plan is stated as follows: "UW-River Falls will integrate international and global experiences, learning, and attitudes throughout the university." The current TESOL program has already contributed to the fulfillment of this goal by organizing internships overseas in Taiwan and the Ukraine, and these internships are consistent with Initiative 3.1 of the Strategic Plan: "To provide opportunities for a greater number of students and faculty to pursue international travel/study abroad."

Program Assessment

Direct measures of abilities identified in **Program Goals and Objectives** will be gathered through assessment of research papers and projects, class presentations, curriculum development projects, and other means. Data collected and sample artifacts will be discussed in annual spring assessment meetings with needed changes to be implemented the following year. Indirect measures will consist of an exit survey administered to each graduate of the program and an additional alumni survey administered two to three years after the M.A. is granted.

Need

The TESOL undergraduate major and minor program at UW-River Falls was created in 2000 in response to the dramatic increase in the number of English language learners in the West Central Wisconsin and Twin Cities Metropolitan region. While our undergraduate program continues to grow and to produce new elementary and secondary teachers to meet the regional need for ESL teachers, the need for an M.A. in TESOL has also grown, currently being met by only one other program in the UW System, UW-Oshkosh, on the eastern side of the state.

The population of students needing instruction in English as a Second Language has been rapidly increasing with the rate of LEP student enrollment increase in Wisconsin and Minnesota reaching 132.9% and 210% respectively during the ten-year period between 1992-2002.

According to the *Pioneer Press* (February 16, 1999), "demand for teachers is growing in a region that includes Minnesota and six other Midwestern states."

In Wisconsin, the demand for ESL teachers is far from being satisfied. In 2005, the Wisconsin Department of Public Instruction conducted a project, *Supply and Demand of Education Personnel for Wisconsin Public Schools*, which identified "areas of extreme undersupply" and listed ESL as one of them. *The Supply and Demand 2005* report also uses another kind of data to demonstrate the situation in the ESL area in Wisconsin: the number of emergency licenses. "Wisconsin's Department of Public Instruction issues emergency licenses to individuals when school districts cannot find a licensed candidate to fill a vacancy" (p. 26), and in 2005 the number of emergency hires in the field of ESL and bilingual education reported to DPI by school districts was 104 (p. 61). The 2005 Report shows that 86 one-year special licenses in ESL alone were issued during 2004-05, comprising 17% of all secondary special licenses issued in the state that year.

Two-year colleges also have an increasing need for ESL teachers. Practicing teachers who want to add an ESL license to their current license, or students who have a Bachelor's degree but no licensure can achieve their ESL license and apply 19 of those credits towards their Master's degree. Additionally, program directors, Intensive English language programs, and adult literacy programs employ graduates with this degree.

As a result of the high demand, the undergraduate TESOL Program at UW-River Falls has been steadily growing. If the program continues to grow at the same growth rate of the past

five years (at an average of 5.4 students per year), the English Department foresees an increase of student enrollment from over 50 to 75-80 TESOL Majors and Minors in the next five years.

While the current TESOL Major and Minor prepare undergraduate students for work in this field, the M.A. in TESOL would provide a program for prospective students already in possession of a B.A. or a B.S.

Projected Enrollment

Year	Implementation year	2nd year	3rd year	4th year	5th year
New students admitted	10	12	14	16	18
Continuing students	3	5	6	7	8
Total enrollment	13	17	20	23	26
Graduating students	5	7	9	10	11

Comparable Programs

Currently, no other campus in the University of Wisconsin System offers a Master's Degree in TESOL. UW-Madison and UW-Stevens Point offer a Graduate Certificate in TESOL, designed for people who want to teach English as a Foreign Language abroad. UW-Eau Claire and UW-Platteville offer graduate credits in TESOL that lead to ESL licensure. UW-Oshkosh has a graduate degree in Curriculum and Instruction that leads to ESL licensure, as well as a Bilingual/Bicultural licensure minor. The UW-River Falls Master's degree will be the only M.A. in TESOL in the system.

In Minnesota, Hamline University's program has three different tracks: TESOL certification (ten weeks), certification for teachers of adult ELS (twelve credits), and a state licensure program. The University of Minnesota has two Master's programs for M.A. and M.Ed. degrees in ESL. St. Cloud State also offers an M.A. in English with a TESOL concentration. Minnesota State University-Mankato offers an M.A. in English (TESOL track) and an M.A.T. with an emphasis in ESL through the College of Education. Both of the latter schools are at least a two-hour drive from River Falls. The University of St. Thomas in St. Paul is in its first year of offering ESL licensure and an M.A. in TESOL as well.

Diversity

Due to the nature of its subject matter and audience, TESOL has diversity built into its very nature. TESOL trains students to become teachers of non-native speakers from a diverse range of cultural and language groups.

Evaluation from External Reviewers

The evaluations from Dr. Suellen Rundquist from St. Cloud Sate University, and Nancy L. Drescher from Minnesota State University-Mankato, are provided in an appendix. Overall, the evaluations are highly positive. Dr. Drescher identifies some challenges facing the development of the major. Her concerns about international student recruitment are largely addressed by our establishment of a cooperative relationship with two South Korean Universities, Pusan University of Foreign Studies and Tamna University. They have expressed interest in sending seven to twelve students per year. Concerns about the number of TESOL faculty have been discussed in the Department, and the general consensus is to request a further tenure line position should the success of the program require it.

Resource Needs: Faculty and Library Resources

No new tenure line positions will be needed to initiate this M.A. program. One FTE faculty position is dedicated to the delivery of the program. Since the inception of the TESOL Major and Minor six years ago, the library has acquired the necessary resources to support study of this discipline. Additional acquisitions for the M.A. can be covered through the existing library budget for the department.

Budget

This program will operate as a cost-recovery program. As the budget indicates, the revenue from tuition will fully fund faculty salaries, marketing expenses, various fringes, as well as overhead expenses. The equivalent of one FTE faculty position will cover the delivery of the 24 credits per year offered in the program. The anticipated residual will be reinvested into this program and other program development efforts. The budget provides three different scenarios based on enrollments of international and resident students.

RECOMMENDATION

The University of Wisconsin System recommends approval of Resolution I.1.e.(3), authorizing the implementation of the Master of Arts in TESOL at the University of Wisconsin-River Falls.

RELATED REGENT POLICIES

University of Wisconsin System Academic Planning and Program Review (November 10, 1995), Academic Informational Series #1 (ACIS-1.0 revised June 2006)

Estimated Total Costs and Resources

Program Revenue Based on 2007-2008 Tuition (International: $931.73; Resident $342.30)			
Revenue	5 International 5 Resident Students = 10	8 International 8 Resident = 16	12 International 12 Resident = 24
International (24 credits)	$ 111,809	$ 178,894	$ 268,341
Resident (12 credits)	$ 20,538	$ 32,861	$ 49,291
TOTAL	$132,347	$ 211,755	$317,632

Cost			
1 FTE Faculty	$ 45,000	$ 45,000	$ 45,000
Fringe on Instruction 45%	$ 20,250	$ 20,500	$ 20,500
Marketing Expense 15% of Revenue	$ 19,852	$ 31,763	$ 47,645
S&E for English Dept	$ 500	$ 800	$ 1,200
Coordination 5% of Revenue	$ 6,617	$ 10,588	$ 15,882
Fringe on Coordination 45%	$ 2,978	$ 4,764	$ 7,147
Overhead to University 2.5% of Revenue	$ 3,309	$ 5,294	$ 7,941
Outreach & Graduate Studies Admin. Supports 24% of Revenue	$ 31,270	$ 50,821	$ 76,232
TOTAL EXPENSES	$ 129,776	$ 169,530	$ 221,547
Residual (anticipated)	$ 2,571	$ 42,225	$ 96,085

EDUCATION COMMITTEE

Resolution I.1.e.(4) *Revised*:

That, upon recommendation of the Chancellors of the University of Wisconsin-Madison and the University of Wisconsin-Milwaukee and the President of the University of Wisconsin System, the Board of Regents approves the request to the Trustees of the William F. Vilas Trust Estate for $11,572,059 for fiscal year July 1, 2008, to June 30, 2009, subject to availability, as provided by the terms of the William F. Vilas Trust, for Support of Scholarships, Fellowships, Professorships, and Special Programs in Arts and Humanities, Social Sciences, Biological Sciences, Physical Sciences and Music.

APPROVAL OF REQUESTS TO TRUSTEES OF THE WILLIAM F. VILAS TRUST ESTATE FOR SUPPORT OF SCHOLARSHIPS, FELLOWSHIPS, PROFESSORSHIPS, AND SPECIAL PROGRAMS IN ARTS AND HUMANITIES, SOCIAL SCIENCES AND MUSIC

EXECUTIVE SUMMARY - *REVISED*

BACKGROUND

The terms of the Deed of Gift and Conveyance of the estate of William F. Vilas, subsequently validated and accepted by an act of the Legislature of Wisconsin, provides in part that the trustees of the estate may proffer in writing to the Board of Regents funds for the maintenance of scholarships, fellowships, professorships, with their respective auxiliary allowances, and other like endowments specifically enumerated, defined, and provided for by the Deed.

At the beginning of each calendar year, the trustees of the William F. Vilas Trust Estate formally request that the President of the UW System ask the Chancellors of UW-Madison and UW-Milwaukee to determine from the Vilas Professors the amounts they will request for special project allowances for the ensuing academic year, and to obtain from the Chairs of the UW-Madison and UW-Milwaukee music departments their programs and requests for the next year. In addition, the Chancellor of UW-Madison is asked to determine the number of scholarships, fellowships, Vilas Associates, and any other initiatives to be requested.

The proffer is made following receipt, by the trustees, of a certificate or warrant from the Board of Regents showing how the funds will be expended. This request and Resolution I.1.e.(4) constitute that warrant.

Following approval of this resolution, President Reilly will send a formal request to the trustees, who will determine the amount of income that will be available for the various awards (particularly for music, which varies with the value of the trust) and respond with a proffer of funds. The value of the proffer will then be reported to the Board of Regents.

REQUESTED ACTION

Approval of resolution I.1.e.(4), a request to the trustees of the William F. Vilas Trust Estate for $11,572,059 for fiscal year 2008-2009 for the support of scholarships, fellowships, professorships, and special programs in arts and humanities, social sciences and music.

DISCUSSION

The attached document contains the responses to the trustees' request and details how the proposed funds will be expended. It has five components: (a) continuation of Trustee-approved programs, UW-Madison ($4,453,009); (b) one-time-only program allocations, UW-Madison ($7,036,400); (c) support for the *Guest Artist – Performance Series* program, UW-Milwaukee ($32,150); (d) request to fund Kumkum Sangari, Vilas Research Professor in the Department of English, UW-Milwaukee ($48,000); and (e) continuation of the standard retirement benefit in support of Vilas Professor Emeritus Ihab Hassan, UW-Milwaukee ($2,500).

REVISED 4/4/08

March 26, 2008

President Kevin Reilly
University of Wisconsin System
1720 Van Hise Hall
CAMPUS

Dear President Reilly:

In this memo I enumerate the request for funds from the Vilas Trust Estate for fiscal year July 1, 2008 to June 30, 2009 for the University of Wisconsin-Madison.

Our request is framed in careful accordance with the both the terms of the Vilas Trust and needs we have to fulfill the strategic goals aimed at supporting the mission of the campus as a research and teaching campus of the highest rank. We are especially mindful of the gaps in our ability to attract, retain, and support the highest quality scholars to our faculty exacerbated by recent budget cuts; and the difficulty many students have in paying for undergraduate or graduate education here because of rising tuition and increasing challenges in finding need-based aid. We have therefore taken the opportunity of the possibility of increased support from the Vilas Trust this year to shore up our ability to fight the ravages of the current budget situation to maintain the highest possible quality of faculty and students. To this end, we are asking for continuation of the programs we have submitted to Vilas in recent years and expansion of some aimed especially at attracting, retaining, and supporting the highest possible quality of research faculty and students. Our total request is $11,489,409.

The programs for which we are requesting funding follow.

A. CONTINUATION OF APPROVED PROGRAMS

1.	Continuation of 10 Vilas Undergraduate Scholarships at $400 each		4,000
2.	Continuation of 10 Vilas Graduate Fellowships:		
	a. 5 at $600 each	3,000	
	b. 5 Traveling Fellowships at $1,500 each	7,500	10,500
3.	Continuation of 15 Vilas Research Professors at $10,000 salary plus $38,000 auxiliary allowances each		720,000

Vernon Barger - Vilas Research Professor
of Physics, College of Letters and Science

David Bethea - Vilas Research Professor
of Slavic Languages, College of Letters and Science

William A. Brock - Vilas Research Professor
of Economics, College of Letters and Science

William Cronon – Vilas Research Professor
of History and Geography, College of Letters and
Science, and Gaylord Nelson Institute for
Environmental Studies

Richard Davidson - Vilas Research Professor
of Psychology and Psychiatry, College of Letters and
Science and School of Medicine and Public Health

Morton Gernsbacher – Vilas Research Professor
of Psychology, College of Letters and Science

Robert Hauser - Vilas Research Professor
of Sociology, College of Letters and Science

Judith Kimble - Vilas Research Professor
of Biochemistry and Medical Genetics, College of
Agricultural and Life Sciences and School of
Medicine and Public Health

Ching Kung - Vilas Research Professor
of Genetics, College of Agricultural and Life Sciences

Emiko Ohnuki-Tierney - Vilas Research Professor
of Anthropology, College of Letters and Science

Paul Rabinowitz – Vilas Research Professor
of Mathematics, College of Letters and Science

Elliott Sober - Vilas Research Professor
of Philosophy, College of Letters and Science

Howard Weinbrot - Vilas Research Professor
of English, College of Letters and Science

Erik Olin Wright - Vilas Research Professor
of Sociology, College of Letters and Science

Sau Lan Wu - Vilas Research Professor
of Physics, College of Letters and Science

4.	a. Continuation of 50 additional undergraduate scholarships at $400 each	20,000	
	b. Continuation of 50 additional graduate fellowships at $600 each	30,000	50,000
5.	Continuation of eighty (80) additional undergraduate scholarships at $400 each under the provisions of Paragraph (3), Article 4 of the Deed of Gift and Conveyance by the Trustees of the Estate of William F. Vilas		32,000
6.	Retirement benefits for eight (8) Vilas Professors: Berkowitz, Bird, Goldberger, Hermand, Keisler, Lardy, Mueller, Vansina at $2,500 each		20,000
7.	Continuation of support for encouragement of merit and talent or to promote appreciation of and taste for the art of music for 2008-09.		26,100
8.	17 Vilas Associates in the Arts and Humanities		566,591
9.	12 Vilas Associates in the Social Sciences		464,780
10.	16 Vilas Associates in the Physical Sciences		680,169
11.	7 Vilas Associates in the Biological Sciences		172,969
12.	One-time special funding for Vilas Research Professors:		
	Vernon Barger	50,000	
	David Bethea (5th year of 6-yr request-$30,000/yr)	30,000	
	Ching Kung	65,000	
	Howard Weinbrot	18,500	
	Erik Olin Wright	5,000	
	Robert Hauser	250,000	
	Sau Lan Wu	299,400	717,900
13.	Continuation of 1998 and 2002 Expansion of Approved Programs:		
	a. 940 additional undergraduate scholarships at $400 each, pursuant to Article 4, Sections A and E of the Deed of Gift and Conveyance		376,000
	b. 400 additional fellowships at the $600 level, pursuant to Article 4, Sections A and E of the Deed of Gift and Conveyance		240,000
14.	Continuation of Vilas Life Cycle Professorship program created in 2005		372,000
Total Continuation Request			**$4,453,009**

B. ONE-TIME ONLY PROGRAM ALLOCATIONS

1. 6,591 additional undergraduate scholarships of $400 each, pursuant to Article 4, Sections A and E of the Deed of Gift and Conveyance, for all undergraduates eligible for need-based grants. This is requested for approval consistent with one-time allocations previously made.	$2,636,400
2. Create 120 Vilas Research Investigator Awards of $20,000 each pursuant to and consistent with the intent of Article 4, Section E of the Deed of Gift and Conveyance, for the purpose of providing an annual research allocation to support graduate student pursuit of their research. This research allocation will be used to cover some educational expenses, including tuition, for these students.	$2,400,000
3. Create 40 Vilas Faculty Recruitment and Retention Awards. These awards will average $50,000 in flexible research funds and will assist in the critical area of recruiting and retaining the best faculty.	$2,000,000
Total One-Time Only Program Allocations	**$7,036,400**

Please let me know if you have any questions.

Sincerely,

John D. Wiley
Chancellor

Attachments
xc: Provost Patrick Farrell
Vice Chancellor Darrell Bazzell
Dean Martin Cadwallader

UNIVERSITY of WISCONSIN
UWMILWAUKEE

Academic Affairs

Chapman Hall 230
P.O. Box 413
Milwaukee WI 53201-0413
414-229-4503 *phone*
414-229-4929 *fax*
www3.uwm.edu/dept/acad_aff/

March 28, 2008

TO: Kevin P. Reilly, President
The University of Wisconsin System

FROM: Rita Cheng
Provost and Vice Chancellor

RE: UW-Milwaukee 2008-09 Vilas Trust Support

Please find requests for three proposals that UW-Milwaukee is submitting for the 2007-08 Vilas Trust Funds:

1. Vilas Research Professor Kumkum Sangari, Department of English. Total Request: $48,000.00 ($38,000 for Research Support and $10,000 for Salary Support)

2. Department of Music, Peck School of the Arts. "*Music and Community*". Total Request: $32,150.

3. Continuation of the standard retirement benefit of $2,500 in support of Vilas Emeritus Ihab Hassan.

Thank you for your continued consideration and support of these activities. Both the Departments of English and Music are appreciative of this opportunity to gain funding for both venues. The proposal from the Music Department is attached

Should you have any questions, please do not hesitate to contact me or Associate Vice Chancellor Dev Venugopalan (229-4501).

c: Carlos E. Santiago, Chancellor
Dev Venugopalan, Associate Vice Chancellor
G. Richard Meadows, Dean, College of Letters & Science
Scott Emmons, Interim Dean, Peck School of the Arts

UNIVERSITY of WISCONSIN
UWMILWAUKEE

Peck School of the Arts
Department of Music

Music Building
P.O. Box 413
Milwaukee, WI
53201-0413
414 229-5162 phone
414 229-2776 fax

2008-2009 Vilas proposal: Music and Community

Date: March 13, 2008

From: Jon Welstead, Music Department Chair
Christopher Burns, proposal coordinator

The UWM Music Department proposes to present a series of festivals, workshops, guest artist residencies and master classes through the 2008-2009 academic year, oriented towards the theme of "Music and Community." These activities are designed to engage and energize relationships with a variety of different communities surrounding UWM: K-12 students; high school, collegiate, and professional musicians; music educators; and audiences for a wide variety of musical genres and styles. Vilas-funded activities will also encourage collaboration across areas of the Music Department, through interactions surrounding the performance of early music, chamber music, and contemporary music by mixed ensembles, and through guest artist visits to classroom and ensemble courses. Many of these events are also specifically designed to encourage UWM students to think about ways that they might engage new communities: through the exploration of different styles and genres of music, through entrepreneurial concertizing and programming, and through innovative approaches to outreach and education.

The "Music and Community" events are also designed to leverage Vilas support in combination with other resources; matching grant applications are pending with the National Endowment for the Arts and the Argosy Foundation, with additional requests planned for Meet the Composer/Creative Connections as well as internal UWM sources including the UW System Institute on Race & Ethnicity, UWM Union Socio-Cultural Programming, the Department of Recruitment and Outreach, and the Center for 21st-Century Studies.

"Music and Community" activities:

Festivals and workshops:

1. Woody Herman Jazz Educational Workshop:
   guest artist performances and clinicians working with middle school, high school, and collegiate jazz ensembles as well as UWM students
2. UWM Brass Quintet Festival:
   guest artist performances by the Fischoff and Coleman award-winning Asbury Brass Quintet, and coachings/clinics for participating high school, college, and professional-level ensembles
3. UWM High School Honor Choir Invitational
   renowned clinician Dr. André Thomas and the UWM Choral faculty lead a two-day educational event for area high school honor choirs, emphasizing intensive coachings

Guest artist residencies:

4. Fifth House Ensemble residency:
   chamber music ensemble noted for its educational programming, interdisciplinary approaches, and embrace of unusual performance venues presents a series of activities focussed on innovative outreach programs for K-12 students
5. Imani Winds residency:
   African-American ensemble Imani Winds presents a residency highlighting their innovative chamber music programming, commissioning, and performance
6. sfSoundGroup residency:
   the composer/performers of ASCAP/Chamber Music America innovative programming award recipients sfSoundGroup perform and discuss group improvisation, creative transcription, and the integration of electronics into instrumental performance, as well as presenting open rehearsals and performances of new works written by UWM Masters-level composition students especially for the residency
7. John Renbourn residency
   noted fingerstyle guitarist and folk music legend John Renbourn presents lectures, masterclasses, and lessons for music history and guitar students

Master classes, performances and presentations:

8 - 19. with artists from across the spectrum of music making, including the Amsterdam Loeki Stardust Quartet (early music), Gary Arvin (collaborative piano), Cristina Caparelli (piano), Bill Frisell (jazz/electric guitar), Eugene Izotov (oboe), Stephanie Samaras (musical theater), Rachel Renee (popular vocal styles), Trio Mediaeval (early music), Marion Verbruggen & Philharmonia Baroque (early music), Benjamin Verdery (classical guitar), Steve Williamson (clarinet), and Jeff Zook (piccolo).

Vilas funding request:

1. Woody Herman Jazz Educational Workshop	$3,300
2. UWM Brass Quintet Festival	$4,000
3. UWM High School Honor Choir Invitational	$2,200
4. Fifth House Ensemble residency	$1,500
5. Imani Winds residency	$3,000
6. sfSoundGroup residency	$3,400
7. John Renbourn residency	$1,500
8. Amsterdam Loeki Stardust Quartet	$1,000
9. Gary Arvin	$1,250
10. Cristina Caparelli	$1,200
11. Bill Frisell	$1,500
12. Eugene Izotov	$1,000
13. Stephanie Samaras	$1,500
14. Rachel Renee	$ 300
15. Trio Mediaeval	$1,000
16. Marion Verbruggen & Philharmonia Baroque	$1,000
17. Benjamin Verdery	$1,500
18. Steve Williamso	$1,000
19. Jeff Zook	$1,000
Total Vilas request:	$32,150

Revised 4/3/08

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

I.2. Business, Finance, and Audit Committee

April 10, 2008
Pyle Center
702 Langdon Street
Madison, WI 53706

9:30 a.m. All Regents – Rooms 325-326

- UW Colleges and UW-Extension Presentation – Maximizing Access to Ensure a Sustainable Future (9:30 a.m. – 10:30 a.m.)

- Follow up on Tuition and Financial Aid Policy Discussion (10:30 a.m. – 11:15 a.m.)
  [Resolution A]

- 2009-11 Biennial Budget (11:15 a.m. – 12:15 p.m.)
  - Financial Aid Initiative
  - Student Budget Priorities

12:15 p.m. Luncheon with UW Colleges and UW-Extension Youth Program Participants – Alumni Lounge, 1st floor

1:30 p.m. Business, Finance, and Audit Committee – Room 309

a. Approval of the minutes of the February 7, 2008 Meeting of the Business, Finance, and Audit Committee

b. UW Colleges/UW-Extension Presentation: Maximizing Access to UW Resources Through Partnerships with County Governments

c. Amendments to the By-Laws of the University of Wisconsin Medical Foundation
   [Resolution I.2.c.]

d. Approval of UW-Platteville Differential Tuition
   [Resolution I.2.d.]

e. Committee Business
   1. Consideration of Salary Adjustments for Senior Academic Leaders to address Recruitment and Retention Challenges for the Chancellors at UW-Green Bay and UW-Oshkosh and a Provost at UW-Oshkosh
      [Resolution I.2.e.1.]

e. Committee Business (continued)
   2. Approval of UW-Stout Bookstore Contract
      [Resolution I.2.e.2.]
   3. Approval of UW-Parkside Bookstore Contract
      [Resolution I.2.e.3.]
   4. Approval of 2008-09 UW System Annual Distribution Adjustments
      [Resolution I.2.e.4.]
   5. Approval of UW System Policies for Large or Vital Information Technology Projects
      [Resolution I.2.e.5.]

f. Audit Issues
   1. Protecting Computer Networks and Data in the UW System
   2. Follow up Review: A Best Practices Review of Policies and Procedures Addressing Copyright Infringement Issues
   3. Quarterly Status Update on UW System Office of Operations Review and Audit

g. Trust Funds
   1. UW System Annual Endowment Peer Benchmarking Report
   2. UW System Voting of 2008 Non-Routine Proxy Proposals
      [Resolution I.2.g.2.]

h. Report of the Vice President
   1. Food Service Contract Process

i. Additional items, which may be presented to the Committee with its approval

Amendments to the Bylaws of the

University of Wisconsin Medical Foundation

BUSINESS, FINANCE, AND AUDIT COMMITTEE

That, upon the recommendation of the Chancellor of the University of Wisconsin-Madison, the Board of the University of Wisconsin Medical Foundation, and the President of the University of Wisconsin System, the Board of Regents approves the Phase II Proposed Amendments to the University of Wisconsin Medical Foundation By-laws as outlined in Attachment A and adopts the amended By-laws as defined in Attachment B of these materials.

April 11, 2008 Agenda Item I.2.c.

AMENDMENTS TO THE BYLAWS OF
THE UNIVERSITY OF WISCONSIN MEDICAL FOUNDATION

EXECUTIVE SUMMARY

BACKGROUND

The University of Wisconsin Medical Foundation, Inc. ("UWMF") is an Internal Revenue Code §501(c)(3) not for profit, non stock corporation organized pursuant to Chapter 181 of the Wisconsin Statutes and pursuant to the authority extended by the Board of Regents (the "BoR") pursuant to an agreement between the BoR and UWMF dated May 15, 1995 ("Agreement"). Pursuant to the Agreement and UWMF's corporate bylaws (the "Bylaws"), the UWMF was and is organized to support the missions of the University of Wisconsin School of Medicine and Public Health ("UWSMPH").

The UWMF Board of Directors ("Board"), in 2005, reviewed the transparency of certain funds flow, compensation, and governance functions as a consequence of Congressional hearings related to health care not-for-profit organizations and in the wake of Internal Revenue Service (IRS) guidance. As a result of that review, the Board developed, approved, and recommended to UWSMPH clinical faculty physicians ("Faculty") certain Bylaws changes, an updated Bylaws Exhibit H - Compensation Principles and Policy, and a more transparent Funds Flow Model, introduced as Bylaws Exhibit J. These changes were put to a Faculty vote in January, 2008. A total of 424 ballots were cast, representing 45% of eligible voters, with the following results:

Bylaws amendments:	92% approval
Compensation Principles and Policy:	90% approval
Funds Flow Model:	87% approval

On the basis of § 3.9(b), a change requiring a faculty vote shall not be adopted unless approved by not less than a two-thirds (2/3) vote of those voting in person or by proxy at a faculty meeting or by a mail or electronic ballot circulated after the annual or special meeting.[1]

REQUESTED ACTION

The UWMF respectfully requests approval of Resolution I.2.c. amending the Bylaws of the University of Wisconsin Medical Foundation as detailed in these materials.

DISCUSSION AND RECOMMENDATIONS

Congress and the Internal Revenue Service have become active in the area of the governance and the conduct of health care not-for-profit ("NFP") organizations in order to ensure that these

[1] The faculty vote commenced January 8 and concluded January 25, 2008. UWSMPH clinical faculty were given the opportunity to vote at two faculty meetings, by proxy, through paper ballot, fax ballot, and e-ballot.

organizations were meeting their community benefit obligations.[2] These legislative and administrative inquiries have led to guidance published by the IRS,[3] and a change to the IRS Form 990 (the "Form").[4] The guidance and the Form emphasize that NFPs should employ transparent processes, independent standards, and governance oversight for funds flow and compensation matters.

The Board initiated a review of its funds flow and compensation practices within the parameters of the regulatory framework under which UWMF must operate in order to maintain its NFP status. It was concluded that:

(a) The current UWMF Funds Flow Model should be redesigned to achieve greater simplicity, transparency, consistency, rationality of funds flow, and enhanced governance oversight;
(b) The UWMF Compensation Plan should be updated to reflect IRS concerns that compensation be established in accordance with independent standards, evidence fair market value, and be subject to oversight by the UWMF Board, the UWSMPH Dean, and the Public Directors of the UWMF Board; and
(c) Amendments to the UWMF Bylaws should be made to effectuate the changes contemplated in subparagraphs (a) and (b).

UWMF management has sought advice and consent regarding the process enhancements and amendments noted above, and as outlined in the inventory of changes marked as "Attachment A," from the following governance bodies:

- UWSMPH Council of Chairs / October 9, 2007, November 13, 2007 and December 11, 2007 (approved)
- UWSMPH Council of Faculty / December 12, 2007 (approved)
- UWMF Board / November 20, 2007 and December 18, 2007 (approved)
- Faculty Vote / January 8, 2008 through January 25, 2008 (approved)

---

[2] IRS Testimony: "Written Statement of Mark W. Everson, Commissioner of Internal Revenue, before the Committee on Finance, U.S. Senate: Hearing on Charitable Giving Problems and Best Practices," June 22, 2004 at http://www.irs.gov/newsroom/article/0,,id=124186,00.html

[3] See:
- IRS Report: "Advisory Committee on Tax Exempt and Government Entities," June 7, 2006 at http://www.irs.gov/pub/irs-pdf/p4344.pdf
- IRS Guidance: "Governance and Related Topics - 501(c)(3) Organizations," February 2008 at http://www.irs.gov/pub/irs-tege/governance_practices.pdf.

[4] The Form 990 is an annual return filed by not-for-profit organizations. Please see: "Form 990 Redesign for Tax Year 2008 Background Paper," December 20, 2007 at http://www.irs.gov/pub/irs-tege/background_paper_form__990__redesign.pdf

At each step in the governance process, each governance body and the faculty approved the amendments to the Bylaws and its policies as documented in Attachment A. Material changes to the Bylaws include the:

(a) Changing the qualification for Public Directors to make eligible those individuals whose family members might be employed by the University of Wisconsin or the State of Wisconsin;
(b) Clarifications of the requirements for when a faculty vote is necessary;
(c) Establishment of the Funds Flow Oversight Committee to facilitate the new Funds Flow Model;
(d) Clarification that each Department shall have only one "voting" member of the Council of Faculty;
(e) Removal of obsolete references and typographical errors (e.g., Milwaukee Faculty)
(f) Rewrite of the Compensation Principles and Policy that includes definitions, clearly defined compensation principles which adhere to IRS compensation guidance for a rebuttable presumption process, and an enhanced governance oversight for the compensation process as a whole;
(g) Introduction of Exhibit J which defines the new Funds Flow Model; and
(h) Development of a new Funds Flow Model which supports the documented strategic goals and initiatives of UWMF, promotes fiscal accountability at all levels of the organization, equitably supports the needs of both primary and specialty care, and features transparent governance oversight.

Attached Documentation

Attachment A - An Inventory of Phase II Proposed Amendments to UWMF Bylaws
Attachment B - A marked edit version of the Proposed Bylaws Amendments, Bylaws Exhibit H, and Bylaws Exhibit J

RELATED REGENT POLICIES

None.

ATTACHMENT A: INVENTORY OF PHASE II AMENDMENTS TO UWMF BYLAWS AND EXHIBITS
JANUARY, 2008

Change	Section	Page	Description
Exhibits	3.1	3	Clarifies that exhibits to the Bylaws include Exhibits A through J.
Public Directors	3.3(b)	4	Changes the qualifications for Public Directors to include as eligible those individuals whose family members are employed by the UW and by the State of Wisconsin.
Faculty Vote on Changes to Bylaws	3.9	7-8	This section is split into two sub parts: Scheduling and Faculty Vote. It clarifies when a faculty vote will be necessary and includes a cross-reference to §14.2. The requirement that the advice of CoC and CoF is moved to 14.2.
Committees	3.18(b)	10	Clarifies that no committee, except Executive and Compensation Review Committees, is empowered to promulgate policy on behalf of Foundation.
Standing Committees	3.18(c)	10	Funds Flow Oversight Committee is added and number of standing committees is increased to "10."
Council of Faculty	5.1	12	Removal of reference to directors outside of Dane county
Council of Faculty	5.1	12	Note as had originally been written, the Faculty Directors of the Board were ex-officio and **voting** members of Council of Faculty ("CoF"). This created an over-representation of some departments on CoF. This change clarifies that each Department shall have only one vote on CoF.
Committees	6	13	Clarifies that standing committees, except Executive and CRC, are advisory, only.
Compensation Development Committee	6.1(b)	13	Clarifies that compensation outside the maximum is subject to the written approval of both the Dean and the Compensation Review Committee (which is comprised of Public Directors).
Changes to Foundation Compensation Plan	6.3	14	Clarifies that compensation plan requires faculty approval only when change is material. A faculty vote shall not be required if any change is necessitated by state/federal law/regulation as noted in section 14.2. Note – all faculty vote requirements are moved to 14.2 so that there is no ambiguity.
Nominations Committee	6.6(d)	16	Allows Board to designate Executive Committee to function as Nominations Committee – to be consistent with current practice.
Executive Committee	6.8(c)	17	Allows Board to designate Executive Committee to function as Nominations Committee – to be consistent with current practice.
Retirement Plan Committee	6.10	17	Clarifications to be consistent with current practice.
Funds Flow Oversight Committee	6.11(a)	18	Composition of the Funds Flow Oversight Committee ("FFOC"): Dean, Chair of Council of Chairs ("CoC"), Chair of CoF, Chair of Finance Committee, Chair of Operations Committee, Foundation CEO, 1 Public Director, 3 members of CoC as elected by the CoC, and Chair of the Compensation Development

ATTACHMENT A: INVENTORY OF PHASE II AMENDMENTS TO UWMF BYLAWS AND EXHIBITS JANUARY, 2008

Change	Section	Page	Description
			Committee.
Funds Flow Oversight Committee	6.11(b)	18	Description of FFOC and its functions, which are detailed in Bylaws' Exhibit J. Specifies that FFOC provides strategic oversight for Strategic Investment Fund and all funds flow matters.
Amendments to Bylaws	14.1	24	Clarifies that an addition subparagraph 14.4, has been added
Amendments to Bylaws	14.2	25	Clarifies when a faculty vote becomes necessary: This section specifically exempts from faculty vote any change which may be necessitated in order to comply with any state/federal law/regulation.
Exhibit B	District Grid	28	Adds Department of Dermatology to District 2, and corrects name of Department of Orthopedic Surgery and Rehabilitative Medicine.
Exhibit B	Text	28	Clarifies current practice.
Exhibit C	(A) (B) and (C)	29	Removes obsolete provisions and references.
Exhibit E – Committees	(C)	31	Clarifies current practice. Removes the requirement that each committee have at least one member who is a Chair representative.
Exhibit F- Executive Committee	Text	32	Per Phase I changes to Bylaws approved by BoR in June, 2007, UWSMPH Dean is now Chair of UWMF Board, therefore Exhibit F was clarified to reflect that status change.
Exhibit H – Compensation Principles & Policy	Entire Exhibit has been rewritten.		➢ The Compensation Plan is rewritten to be transparent, easily understood and direct. ➢ Splits out funds flow description into a separate policy, an amending process that was begun 2001 amendments. ➢ Contains definitions of several key terms and clarifies the Principles to be used to develop Departmental Compensation Plans. Brings Principles in line with IRS regulations. ➢ Definitions include regulatory language. ➢ Exhibit H details the linear progression of the shared governance process necessary to approve departmental compensation plans, and outlier compensation. ➢ Introduces the Compensation Development Report process as a part of shared governance.
Exhibit J – Funds Flow Policy	New Exhibit		➢ Defines the Strategic Investment Fund ("SIF") which supports both primary care and specialty care strategic goals. ➢ Defines mission and process of the FFOC and details the direct and active UWMF Board oversight for funds flow, including the development of strategic goals and the determination the percentage of revenue to be allocated to SIF. ➢ Exhibit J includes a transparent diagram detailing the funds flow model.

DRAFT BYLAWS OF THE UNIVERSITY OF WISCONSIN MEDICAL FOUNDATION TO BE AMENDED EFFECTIVE FEBRUARY 1, 2008 [1]

ARTICLE I
OFFICES

1.1 Principal Office. The University of Wisconsin Medical Foundation (hereinafter referred to as either the "Foundation" or the "Corporation") shall maintain a principal office in the State of Wisconsin, which shall be located in the City of Madison, Dane County. The Foundation may have such other offices, and may move its principal office either within or without the City of Madison, Wisconsin, as may be designated from time to time by resolution of the Board of Directors.

1.2 Address of Registered Agent. The Corporation shall maintain a registered agent in the State of Wisconsin whose address may be, but need not be, identical with the principal office of the Corporation. The identity and address of the registered agent may be changed from time to time by resolution of the Board of Directors and filing of a statement with the Wisconsin Secretary of State pursuant to the provisions of the Wisconsin Statutes.

ARTICLE II
PURPOSE

2.1 The Corporation has been organized and shall be operated as a medical education and research organization exclusively for charitable, educational and scientific purposes as set forth below. The Corporation shall, in performing its purposes, at all times be operated exclusively for the benefit of, and to support the purposes and operations of, the University of Wisconsin School of Medicine & Public Health ("UW Medical School" or "Medical School") and the University of Wisconsin-Madison. The purposes of the Foundation are:

(a) To further the provision of health care that is safe, effective, patient-centered, timely, efficient, and equitable to all the sick and injured who may come for diagnosis, treatment, and care, without regard to race, color, creed, sex, age or ability to pay for services; and in so doing, promote the improvement of health and the reduction of the burden of illness, injury, and disability in the community served by Foundation physicians. To provide care to Medicare and Medicaid recipients, and particularly to provide such medical care for persons who may seek such care at clinics and hospitals where Foundation physicians practice.

[1] Note – Yellow highlights denote material, non-formatting, changes. Exhibits H and J have been split off and are being sent as separate documents.

(b) To support high-quality instruction to medical students at the UW Medical School and to graduates of medical schools who are in post-graduate training programs at clinics and hospitals affiliated with the UW Medical School.

(c) To attract sufficient levels of patients seeking care at hospitals and clinics affiliated with the UW Medical School to support the teaching, research and service missions of the UW Medical School and the University of Wisconsin-Madison Schools of Nursing & Pharmacy.

(d) To support medical and scientific research whether that research is conducted independently or in conjunction with the University of Wisconsin-Madison Schools of Nursing & Pharmacy, University Hospital, the UW Medical School and/or other corporations, organizations, foundations, funds, institutions, governmental bodies or individuals.

(e) To support public and professional education on issues of health care through efforts which may include without limitation conducting, undertaking, promoting and developing discussion groups, forums, panels and lectures for the instruction and training of physicians, health care providers and personnel, patients, and the general public. Special emphasis shall be placed on preventive medicine and meeting the needs of under-served rural and urban populations.

(f) To develop the administrative capacity to organize the efficient delivery of medical care. To coordinate with hospitals providing such care and particularly with University Hospital.

(g) To conduct, undertake, promote, develop and carry on other charitable, scientific and educational work of any and every kind. The Foundation may do so either directly or by making or providing donations, gifts, grants, contributions, loans, guarantees, scholarships, fellowships or subsidies. The Foundation may use either net income or the principal assets of the Corporation, or both (without limit as to the amount going to any one recipient or in the aggregate to all recipients). Such donations, gifts, grants, contributions or loans may be to or for the use or benefit of other corporations, organizations, foundations, funds, institutions or governmental entities if they further the teaching, research and public service missions of the Medical School.

(h) To generate, negotiate, and manage relationships and/or affiliations between the UW Medical School Faculty with hospitals, clinics, health care provider organizations, third-party payors, and managed health care systems as necessary to the realization of the objectives set forth in (a) through (g) above.

(i) To accumulate and manage capital assets, and collect and distribute clinical revenues and investment income, in ways determined by the Board of Directors to enhance the UW Medical School missions of teaching, research, and public service.

(j) To engage in and take such action to further the purposes set forth in (a) through (i) above as are consistent with the Articles of Incorporation, the requirements of Chapter 181 Wisconsin Statutes and §501(c)(3) of the Internal Revenue Code of 1986 as amended from time to time.

ARTICLE III
BOARD OF DIRECTORS

3.1 Powers.

(a) **General Powers.** The affairs of the Corporation shall be managed by its Board of Directors and shall be subject to the terms of the agreement with the Board of Regents of the University of Wisconsin System ("Board of Regents") entitled, "Agreement Between the Board of Regents of the University of Wisconsin System and the University of Wisconsin Medical Foundation" ("Regents Agreement"). The Chancellor must receive advance notice of the formation of any other corporation or legal entity or any acquisition or merger with another corporation or legal entity.

(b) **Statements of Policy.** Exhibits A to ~~G~~J attached to these Bylaws are statements of policy by the Foundation Board of Directors. Except for Exhibit H ("Compensation Principles & Policy") and as otherwise provided in these Bylaws, the policies established in these Exhibits may be changed by majority vote of the Foundation Board with the written approval of the Dean, but without approval by or notice to the Chancellor or Board of Regents.

3.2 Number and Designation.

(a) **Generally.** The Board of Directors shall consist of nineteen (19) members. Changes to the composition of the Board of Directors

require approval by the Board of Regents. The nineteen (19) directors shall be made up of the following persons:

(i) one (1) director shall be the Dean of the UW Medical School/Vice Chancellor of Medical Affairs ("Dean");

(ii) one (1) director shall be the President of the Foundation ("President");

(iii) six (6) directors shall be independent members of the public ("Public Directors") nominated and elected as described in § 3.4(a);

(iv) four (4) directors shall be chairs of the Clinical Departments of the UW Medical School ("Chair Directors") appointed as described in § 3.4(b);

(v) six (6) directors including two (2) faculty representatives from district one, two (2) faculty representatives from district two, and two (2) faculty representatives from district three, shall be district faculty members ("Faculty Directors") nominated and elected as described in § 3.4(c); and

(vi) A Basic Science Chair representative, who will be selected via a process to be determined and implemented by the Chairs of the Basic Science Departments of the Medical School, and subject to the approval of the Nominati~~n~~gons Committee.

(b) Ex-Officio Directors. The Dean and the President, who are ex-officio directors, shall be full voting members of the Board of Directors.

3.3 Qualifications of Directors.

(a) Residence. Directors need not be residents of the State of Wisconsin.

(b) Public Directors. Public Directors shall be representative of the service region of the Foundation including community leaders, health care and health science professionals who are (a) not related to the employees or officers of the Foundation and (b) not ~~, or~~ employed by~~,~~ the Foundation, the University of Wisconsin System or the State of Wisconsin.

(c) **Chair Directors.** Only chairs of the Clinical Departments of the UW Medical School are eligible to serve as Chair Directors.

(d) **Faculty Directors.** Any faculty member of the Foundation, other than a chair of a Clinical Department, is eligible to serve as a Faculty Director.

(e) **Basic Sciences Chair Director.** Only chairs of the Basic Sciences Departments of the Medical School are eligible to serve as the Basic Sciences Chair Director.

3.4 Nomination and Election of Directors and Terms of Office.

(a) **Public Directors.** The Public Directors will be elected by the Board of the Foundation in a process established by Board policy. The Board policy is attached as Exhibit A.

(b) **Chair Directors.** The Council of Chairs shall select the four Chair Directors.

(c) **Faculty Directors.**

(i) **Districting.** For purposes of these Bylaws, the term "districts" shall be used to define the clinical categories of faculty members of the Foundation as set forth in Exhibit B to these Bylaws.

(ii) **Nomination and Election.** The Faculty will elect the Faculty Directors in a process established by Board policy. The Board policy is attached as Exhibit C.

(d) **Terms of Office.**

(i) **Terms of Office.** The four (4) Chair Directors, six (6) Public Directors, six (6) Faculty Directors, and the Basic Sciences Director shall each hold office for a term of three (3) years.

(ii) **Initial Term for 2007 Added Directors.** The Initial Terms for the Basic Sciences Director and the two (2) Public Directors who are being added to the Board in 2007, shall begin on or after July 1, 2007, and shall end on December 31, 2009. Thereafter, the terms of office for these directors shall be in accordance with the provisions of Article 3.4(d)(i) of these Bylaws.

(e) **Continuation.** Notwithstanding § 3.4(d)(i) and § 3.4(d)(ii), members of the Board shall hold office until their successor has been elected and qualified. During the term of the Regents Agreement, and prior to a notice of termination of that Agreement, removal of a director by the Chancellor creates an immediate vacancy.

(f) **Temporary or Interim Appointments.** A person appointed as an "acting" or "interim" Dean or President will be a director during the term of such appointment.

(g) **Re-election.** All directors may be re-appointed or re-elected, except that ex-officio directors serve until removed or a successor is appointed.

3.5 **Resignation.** A director may resign at any time by filing a written declaration of resignation with the Secretary of the Corporation.

3.6 **Removal.**

(a) **Removal by Chancellor.** The Chancellor shall have the power to remove, at his or her pleasure, any Faculty Director, any Chair Director or the Basic Sciences Director, subject to the terms of the Regents Agreement.

(b) **Chair Directors.** Chair Directors may be removed from office with or without cause by a written petition submitted to the Foundation Board and signed by two-thirds (2/3) of the members of the Council of Chairs.

(c) **Faculty Directors.** Faculty Directors may be removed from office with or without cause by a vote of two-thirds (2/3) of the eligible voters casting a ballot in a recall election. A recall election shall be called by the Board of the Foundation promptly upon presentation to the Board of a written petition signed by one-third (1/3) plus one (1) of the eligible voters. Eligible voters shall be the faculty members from the district represented by the Faculty Director.

(d) **Removal for Cause.** In the sole discretion of the Foundation Board, any Director may be removed for cause. The Foundation Board shall take into consideration the policy attached as Exhibit D to these Bylaws.

3.7 Vacancies. In the event a vacancy occurs on the Board of Directors for any cause such vacancy will be filled promptly.

(a) Faculty Directors. If a vacancy occurs among the Faculty Directors, the Foundation Board shall hold an interim election in accordance with § 3.4(c).

(b) Public Directors. If a vacancy occurs among the Public Directors, the Foundation Board shall hold an interim election in accordance with § 3.4(a).

(c) Chair Directors. If a vacancy occurs among the Chair Directors, the Council of Chairs will fill the position in accordance with § 3.4(b).

(d) Basic Sciences Chair Director. If a vacancy occurs for the Basic Sciences Chair Director, the Chairs of the Basic Science Departments of the Medical School will fill the position in accordance with § 3.2(a)(vi).

(e) Ex-Officio Members. If a vacancy occurs among the Ex-Officio Directors, the position will be filled by the successor or interim successor to the position of Dean or President, as the case may be.

(f) Term. A Chair Director, Faculty Director, Public Director or Basic Sciences Director elected in an interim election shall finish the term of his or her predecessor, unless the remainder of the term is less than six months at the time of the interim election. If the remainder of the term is less than six months, the Chair Director, Faculty Director, or Public Director will finish the term of his or her predecessor and serve the succeeding three-year term.

3.8 Advice on Personnel Matters. At least once each three (3) years, or more frequently in their discretion, the Board of Directors shall seek the advice of interested persons, councils, and committees regarding the performance of the CEO.

3.9 Annual or Special Faculty Meetings. Annually in conjunction with the Annual Faculty Meeting, there shall be a Foundation meeting of the Board of Directors with the Foundation's faculty.

(a) **Scheduling.** The Board shall seek the input of the Council of Chairs and the Council of Faculty in setting the agenda for this meeting. Special meetings shall be held on the written petitions of not less than twenty percent (20%) of the Faculty, not less than a two-thirds (2/3) vote of the Council of Faculty or on call of the

Board of Directors. The petition, the vote, or the call of the Board of Directors shall specify the agenda for the meeting and notice shall go to each Faculty employee specifying the date, place, and agenda for the meeting at least ten (10) days in advance.

(b) Faculty Vote on Certain Changes to Bylaws. Certain ~~P~~proposed changes to the Bylaws and to the Foundation's Compensation ~~Plan~~Principles & Policy, Exhibit H as defined in § 14.2, ~~adopted as part of this reorganization or changes to subsequent plans as adopted,~~ shall be presented as may be necessary by the Board of Directors at an annual or special Faculty meeting. Such changes shall not be adopted unless approved by not less than a two-thirds (2/3) vote of those voting in person or by proxy at the meeting or by a mail or electronic ballot circulated after the annual or special meeting. [2] ~~Whether a change is significant enough to require a Faculty vote is a question on which the Board of Directors shall seek the advice of the Council of Chairs and the Council of Faculty.~~

3.10 Regular Meeting. The Board of Directors shall provide by resolution for regular meetings of the Board of Directors, to be held at a fixed time and place, and, upon the passage of any such resolution, such meetings shall be held at the stated time and place without notice other than such resolution.

3.11 Special Meetings. Special meetings of the Board of Directors may be held at any time and place for any purpose or purposes, unless otherwise prescribed by statute, on call of the President, or upon the written request of any three (3) directors to the Secretary.

3.12 Notice and Waiver of Notice.

(a) Notice. Except as provided in § 3.10, notice of the date, time and place of meetings shall be given to members of the Board of Directors. Unless a different time is required by Chapter 181 of the Wisconsin Statutes, notice shall be given orally or in writing delivered personally to each director at least twenty-four (24) hours prior to the meeting. Written notice may be mailed or faxed to each director at least seventy-two (72) hours prior to the meeting in lieu of personal delivery of notice. If mailed, such notice shall be deemed to be delivered when deposited in the United States mail addressed to the director at his or her address as it appears on the records of the Corporation, with postage thereon prepaid. The purpose of and the business to be transacted at any special meeting

[2] The deleted section that followed the footnote has been moved to Section 14 on page 25.

of the Board of Directors shall be specified in the notice or waiver of notice of such meeting.

(b) **Waiver of Notice.** Whenever Wisconsin Statutes, the Articles of Incorporation or Bylaws of the Corporation require that the Corporation give any notice, a waiver thereof in writing signed at any time by the person or persons entitled to such notice, shall be deemed equivalent to the giving of such notice. The attendance of a director at a meeting shall constitute a waiver of notice of such meeting except where a director attends the meeting for the express purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened.

3.13 **Quorum.** Ten (10) directors, or, if there are vacancies, fifty-one percent (51%) or more of the directors then in office shall constitute a quorum for the transaction of business at any meeting of the Board of Directors. If fewer/less than such number/percentage are present at a meeting, a majority of the directors present may adjourn the meeting from time to time without further notice.

3.14 **Manner of Acting.** The act of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors, unless the act of a greater number is required by the Wisconsin Statues or by the Articles of Incorporation or Bylaws of the Corporation.

3.15 **Informal Action by Directors.** Subject to the requirement of the Regents Agreement that the ~~f~~Foundation be governed by the Wisconsin Public Meetings Law, the Board may take action by unanimous written consent of the Directors. The consent must be in a writing signed by all of the directors entitled to vote with respect to the subject matter thereof, and it must set forth the action to be taken. Such consent may be for any action that the Articles of Incorporation or Bylaws of the Corporation or any provision of law requires to be taken at a meeting, or any other action that might be taken at a meeting. Such consent shall have the same force and effect as a unanimous vote.

3.16 **Presumption of Assent.** A director of the Corporation, who is present at a meeting of the Board of Directors, or a committee thereof, at which action on any corporate matter is taken, is presumed to have assented to the action taken. This presumption will stand unless the director's dissent is entered in the minutes of the meeting or the director files a written dissent to the action with the person acting as the Secretary of the meeting. Such dissent shall be filed before the adjournment of the meeting or shall be forwarded by registered mail to the Secretary of the Corporation immediately after the adjournment of the meeting. Such right to dissent shall not apply to a director who voted in favor of such action.

3.17 Compensation. Directors may receive reimbursement for reasonable expenses incurred in connection with corporate matters, provided that such reimbursement policy is authorized by the affirmative vote of a majority of the directors at a meeting at which a quorum is present.

3.18 Committees.

(a) General Rules Applicable to Committees. The Board of Directors may create committees in addition to the Standing Committees set forth in paragraph (c) below, having such powers as specified by the Board, and as are then permitted by these Bylaws and by Chapter 181 of the Wisconsin Statutes. The Nominations Committee shall nominate, and the Board of Directors shall appoint members of committees subject to the Board policy, attached as Exhibit E. All committees, with the exception of the Compensation Review Committee and Executive Committee, may include individuals that are not directors. Administrators may be appointed to committees as voting members, except for the Compensation Review and Executive Committees. All committees shall have such powers and duties, as provided in these Bylaws and not inconsistent with paragraph (b) hereof, as may be provided in the resolution creating such committee or as thereafter supplemented or amended by further resolution adopted by similar vote**. The Board of Directors shall appoint the chairs of the committees.** The President shall be a member, ex officio, of all committees with the exception of the Compensation Review Committee and the Audit Committee.

(b) Nondelegable Powers; Rules of Committees. Except for the Executive Committee and the Compensation Review Committee, no committee of the Board of Directors shall be empowered (a) to act in lieu of the entire Board of Directors or (b) promulgate policy on behalf of the Foundation. Each committee shall fix its own rules governing the conduct of its activities, not inconsistent with rules promulgated by the Board of Directors, and shall make such reports to the Board of Directors of its activities as the Board may request. All the committees may perform an advisory function to the President at the President's request.

(c) Standing Committees. The Operations~~/Resource~~ Committee, Compensation Development Committee, Compensation Review Committee, Audit Committee, Finance Committee, Compliance Support Committee, Retirement Plan Committee, Nominations Committee, the Funds Flow Oversight Committee, and Executive Committee constitute the ten (10) Standing Committees of the Corporation. The names and duties of these committees may

change from time to time at the discretion of the Board of Directors. As provided in § 3.18(a), the Board of Directors may appoint other committees.

(d) Removal. The Board of Directors may remove or replace a committee member at any time for any reason.

3.19 Meetings by Telephone or by Other Communication Technology. Subject to the requirement of the Regents Agreement that the Foundation be governed by the Wisconsin Public Meetings Law, meetings of the Board of Directors or committees of the Board of Directors may be conducted by telephone or other communication technology in accordance with ch. 181.0820(3) Wis. Stats. or any successor statute thereto. If such a meeting is conducted, all participating directors shall be informed at the time the meeting is to begin that a meeting is taking place at which official business may be transacted and that any director participating in such meeting is deemed present in person at the meeting. At the beginning of such a meeting, and again at the time any vote is taken at such a meeting, each of the directors shall first verify his or her identity and ability to simultaneously hear each other and have communication immediately transmitted to each and all participating directors. Meetings may be held pursuant to this § 3.19 to address and to vote on any matter, which properly comes before the directors pursuant to these Bylaws.

ARTICLE IV
COUNCIL OF CHAIRS

4.1 Members. There shall be a Council of Chairs made up of the Chairs of the Clinical Departments at the UW Medical School.

4.2 Meetings. The Council of Chairs shall meet upon call of the Dean of the UW Medical School at least quarterly and shall meet upon call by the Council's Chair. Special meetings of the Council of Chairs may be held at any time and for any purpose upon call of the Council Chair or Dean.

4.3 Notice. Notice of meetings of the Council of Chairs shall be given by oral or written notice delivered by mail or personally to each Council member at least seventy-two (72) hours or personally to each member at least twenty-four (24) hours prior to a meeting.

4.4 Chair. The Chair of the Council of Chairs shall be elected according to the procedures adopted by such body.

4.5 Quorum. A majority of the members of the Council of Chairs present at a meeting of the Council of Chairs shall constitute a quorum for the transaction of business at any such meeting.

4.6 Powers and Duties. The Council of Chairs shall advise and consult with the Board of Directors, the President, and the Dean on matters relating to the teaching, research, clinical and public service missions of the UW Medical School and the Foundation and on other issues of mutual concern. Such matters include, but are not limited to, the sale of all or substantially all of the assets or liquidation of the Foundation, the acquisition of major debt (which shall be defined as debt in excess of ten percent [10%] of the Corporation's annual clinically derived revenues), and a change to these Bylaws or the Articles of Incorporation. It shall advise on the agenda for annual or special Faculty meetings. It may pass advisory resolutions and present them to the Board of Directors.

ARTICLE V
COUNCIL OF FACULTY

5.1 Members. [3] There shall be a Council of Faculty. Each of the Medical School's Clinical Departments shall elect a Faculty member to the Council of Faculty by majority vote of their Foundation Departmental Committee. ~~Faculty members practicing in Milwaukee County shall elect one (1) Faculty member and Faculty members practicing in locations outside of Dane and Milwaukee counties shall elect one (1) Faculty member.~~ The six (6) Faculty Directors of the Foundation Board of Directors shall be non-voting ex-officio members of the Council of Faculty, except that any ex-officio member who has been affirmatively chosen by his or her Department as that Department's representative on the Council of Faculty shall retain voting rights on the Council. [4]

5.2 Meetings. The Council of Faculty shall meet upon call of the Dean of the ~~UW~~ Medical School at least quarterly and shall meet upon call by the Council's Chair. Special meetings of the Council of Faculty may be held at any time and for any purpose upon call of the Council Chair or the Dean.

5.3 Notice. Notice of meetings of the Council of Faculty shall be given by oral or written notice delivered by mail or personally to each Council member at least seventy-two (72) hours or personally to each member at least twenty-four (24) hours prior to a meeting.

---

[3] Section 5.1 was rewritten to remove outdated references to Milwaukee faculty, and due to over representation of some Departments on the Council of Faculty.

[4] It is also being suggested that in order to avoid duplicate representation by Departments, that if a Clinical Department has a Faculty Director currently sitting on the Board, that the Faculty Director sit as the Department's representative to the Council of Faculty. Under the current scenario, for example, both Medicine and Family Medicine would have 3 representatives on the Council of Faculty. In order to avoid over representation, the language has been changed to limit the sitting Faculty Directors to being ex officio "non voting" members of the Council of Faculty.

5.4 Chair. The Chair of the Council of Faculty shall be elected according to the procedures adopted by such body.

5.5 Quorum. A majority of the members of the Council of Faculty present at a meeting of the Council of Faculty shall constitute a quorum for the transaction of business at any such meeting.

5.6 Powers and Duties. The Council of Faculty shall advise and consult with the Board of Directors, the President, and the Dean on matters relating to the teaching, research, clinical and public service missions of the UW Medical School and the Foundation and on other issues of mutual concern. Such matters include, but are not limited to, the sale of all or substantially all of the assets or liquidation of the Foundation, the acquisition of major debt (which shall be defined as debt in excess of ten percent [10%] of the Corporation's annual clinically derived revenues), and a change to these Bylaws or the Articles of Incorporation. It shall advise on the agenda for annual or special Faculty meetings. It may pass advisory resolutions and present them to the Board of Directors. Members of the Council of Faculty shall consult with their Foundation Departmental Committee and the faculty in their Department, and act as a liaison between their Department and the Board of Directors.

ARTICLE VI
COMMITTEES

Each committee of the Foundation Board of Directors shall consist of no less than three (3) members. Subject to the provisions of § 3.18, the Corporation shall have ten (10) ~~nine (9)~~ standing committees which act in an advisory capacity regarding policy and other matters to the Board of Directors. ~~.~~

6.1 Compensation Development Committee.

(a) Duties. The Compensation Development Committee shall act in an advisory capacity to the President, the Board of Directors, and the Compensation Review Committee. The Committee shall develop, recommend and monitor issues relating to compensation of the medical staff of the Corporation in accordance with the Foundation's Compensation ~~Plan~~Principles and Policy and to ensure compliance with the compensation requirements and limitations outlined in the Internal Revenue Service code and regulations.

(b) Limitations. The Foundation's Compensation ~~Plan~~Principles and Policy has~~shall~~ been developed and shall be administered in accordance with Internal Revenue Service code and regulations so as to avoid any claim of private inurement to any of the directors, officers or employees of the Corporation. All ~~The~~compensation

~~P~~plans shall reflect market conditions and be based on available compensation data and surveys prepared by outside consultants. The Foundation shall not pay compensation in excess of an applicable maximum without the express written approval of Compensation Review Committee and the Dean.

(c) Final Action. The Compensation Review Committee shall take final action on compensation formulae and policy.

6.2 Compensation Review Committee. There shall be a Compensation Review Committee.

(a) Composition. Notwithstanding the requirements of § 3.18, the Compensation Review Committee shall consist exclusively of the Public Directors.

(b) Powers. The Compensation Review Committee shall act in accordance with the Foundation's Compensation ~~Plan~~Principles and Policy. The Committee shall make final decisions on such matters after satisfying itself that the standards set in the Foundation's Compensation ~~Plan~~ Principles and Policy have been met. The Committee may request additional data or information prior to approving matters within its jurisdiction.

(c) Final Action. The Compensation Review Committee shall take final action to approve or disapprove all Foundation and Departmental compensation formulae and policy.

6.3 Changes to the Foundation's Compensation ~~Plan~~Principles and Policy**.** In addition to approval by the Board of Directors ~~,~~changes to the Foundation's Compensation ~~Plan~~Principles and Policy, attached as Exhibit H to these Bylaws, require:

(a) input from the Council of Chairs and Council of Faculty;

(b) approval by the members of the Faculty at a special or annual meeting as provided in § 3.9 (b) of these Bylaws but only with respect to those changes identified in § 14.2 as requiring a Faculty vote; and

(c) approval of the Chancellor and the Board of Regents as provided in § 25 of the Regents Agreement.

6.4 Finance Committee.

(a) **Budget.** The Finance Committee shall prepare and recommend to the Board of Directors an annual budget for the Corporation. The budget shall include the amounts to be contributed to the Medical School, capital projects, and staffing. The Committee shall coordinate such planning with the Dean of the UW Medical School, the CEO of University Hospital and other affiliated hospitals.

(b) **Additional Duties and Responsibilities.** The Finance Committee shall, subject to overall guidance by the Board of Directors, establish the fees for services rendered by the Corporation. The Finance Committee shall, subject to guidance from the Board of Directors, establish a billing and collection policy. Generally, the billing policy shall provide that all patients shall be billed for services rendered by the Foundation's employees, although all patients shall be treated without regard to their ability to pay and the Foundation shall fully participate in Medicare, Medicaid and prepaid medical care programs.

(c) **Other Recommendations and Reports.** The Committee shall recommend to the Board of Directors guidelines for department operating expenses, direct expenses of departments including Faculty business expenses. The Committee will receive at least annually, in a form satisfactory to the Committee, reports on department operating expenses, direct expenses, and Faculty business expenses. The Board of Directors shall adopt guidelines for operating expenses, direct expenses, and Faculty business expenses as it deems appropriate based on these recommendations.

6.5 **Compliance Committee.** The duties and responsibilities of the Compliance Committee shall be to establish, implement, maintain and monitor the Foundation Compliance Program.

6.6 **Nominations Committee.**

(a) **Method of Operation.** In advance of any appointment to any Committee, the Nominations Committee shall propose at least one (1) qualified person for each vacant Committee position, in the manner described in Exhibit E.

(b) **Broadest Possible Representation.** In making nominations for and appointments to committees, the Nominations Committee and the Board of Directors shall consider the following factors:

(i) The departments that may already have Board of Directors or committee representation; and

(ii) The length of time since a member of a department has been on the Board or a committee;

(iii) Geographic distribution to include non-University Hospital-based physicians; and

(iv) Competencies and past service to the organization.

Despite these considerations, the overall criteria of demonstrated interest and ability to contribute shall be paramount in making nominations.

(c) Composition, Duties and Responsibilities. The Board of Directors shall establish, by resolution to be set forth in Exhibit E, the duties, responsibilities, and composition of the Nominations Committee. The Nominations Committee shall include no fewer than four (4) Directors, including at least one (1) Public Director, and shall act in accordance with the principles outlined in subparagraph 6.6 (b), above. The Nominations Committee shall provide oversight for nominations and appointments to Board Committees as well as elections of Faculty Directors to the Board of Directors in accordance with the principles, above, and as are adopted by the Board of Directors and set forth in Exhibit E.

(d) Executive Committee. The Board shall have the discretion to designate that the Executive Committee shall function as the Nominations Committee. [5]

6.7 Audit Committee. There shall be an Audit Committee, which shall interview and engage an auditor for the Corporation and supervise the annual audit of its books and records.

(a) Duties. The duties of the Audit Committee shall be as described by the Board but the Committee shall address on a continuing basis the Foundation's compliance with rules relating to tax-exempt public foundations.

(b) Reports to Board. The Committee will work with the Board on the format of the annual audit, which the Committee shall submit to the Board.

6.8 Executive Committee.

[5] This change reflects current practice.

(a) Composition. The Board of Directors shall establish the composition of the Executive Committee. The initial composition of the Executive Committee is established in Exhibit F.

(b) Duties and Responsibilities. The Executive Committee shall have and may exercise, when the Board of Directors is not in session, the power of the Board in the management of the affairs of the Foundation except as limited by § 3.18 herein. The Executive Committee shall determine the agenda for the Board of Directors, oversee and integrate the activities of the Board's Committees, act on behalf of the Board of Directors in emergency situations between Board meetings, and provide a liaison function between the Foundation and the Medical School.

(c) Nominations Committee. The Board shall have the discretion to designate that the Executive Committee shall function as the Nominations Committee. [6]

6.9 Operations~~/Resource~~ Committee.

The Operations~~/Resource~~ Committee will set and monitor service and productivity standards for the Foundation. The Committee will conduct periodic departmental clinical operations reviews, identify and resolve operational issues, and oversee implementation of medical management standards. In addition, the Committee will identify ways to increase clinic efficiencies, and coordinate patient education activities and materials to improve service, delivery efficiency, and promote brand image.

6.10 Retirement Plan Committee

(a) Composition & Reporting. The Board of Directors shall establish the composition of the Retirement Plan Committee by resolution which shall be added as Exhibit I to these Bylaws. The Retirement Plan Committee shall report directly to the Board of Directors. The Board of Directors, through Exhibit I, shall establish:

(i) the composition of the Retirement Plan Committee;

(ii) the minimum number of times per year that the Retirement Plan Committee shall meet; and

[6] This change reflects current practice.

(iii) the delegation of specific authority for the Retirement Plan Committee to act to set policy and participant investment options and guidelines, provided that at least three (3) directors are elected to the Retirement Plan Committee by the Board of Directors.

(b) Duties and Responsibilities. The Retirement Plan Committee shall provide oversight and review of fund performance compared to appropriate benchmarks, changes in fund management, and important developments within the economy and securities markets, all of which may have a potential impact on investment strategy, asset allocation, and overall portfolio performance. The Retirement Plan Committee, on an ongoing ~~annual~~ basis, will review the menu of funds offered to the ~~fund~~Plan's participants to determine if the risk level returns, investment discipline and style remain appropriate to the policies and guidelines set forth as provided in Exhibit I. The Retirement Plan Committee in conjunction with the Plan's Trustee will also develop, review, and distribute educational materials, including newsletters and quarterly reports~~, will be provided~~ to the ~~fund~~Plan's participants.

6.11 Funds Flow Oversight Committee.

(a) Composition. The initial composition of the Funds Flow Oversight Committee shall consist of the Dean of the Medical School, the Chair of the Council of Chairs, the Chair of the Council of Faculty, the Chair of the Finance Committee, the Chair of the Operations Committee, the Foundation CEO, one Public Director, three (3) members of the Council of Chairs as elected by the Council of Chairs, and the Chair of the Compensation Development Committee. Thereafter, the Board may determine the membership of the Funds Flow Oversight Committee through policy as established by the Foundation Board in "Exhibit J" to these Bylaws.

(b) Duties and Responsibilities. The Funds Flow Oversight Committee provides strategic oversight for the "Strategic Investment Fund," The Funds Flow Oversight Committee is advisory to the Foundation Board in setting the funding needs for and the administration of the Strategic Investment Fund and the current Funds Flow model, in accordance with Exhibit J.

ARTICLE VII
FOUNDATION DEPARTMENTAL COMMITTEES

7.1 **Composition.** Physician Faculty members of each clinical department who are also Foundation employees contributing clinical revenues to the Foundation, shall organize themselves into a Foundation Departmental Committee. By agreement of the Dean and the Board of Directors, Faculty health care specialists other than physicians may be eligible to participate in these committees.

7.2 **Powers.** The Foundation Departmental Committees will make recommendations to the Nominations Committee of the Board of Directors for Standing Committee and other committee positions and elect the members of the Council of Faculty. The Foundation Departmental Committees shall, within the guidelines set by the Board of Directors, decide on direct expense levels for the clinical departments. The expense levels shall include departmental operating expenses, Faculty business expenses, and the level of research and development funds contributed over the minimum level of two-and-one-half percent (2.5%) of Department revenue (or as otherwise agreed to with the Board of Regents). These decisions may annually be delegated to the departmental chairs by majority vote of the eligible Faculty in each department.

ARTICLE VIII
OFFICERS

8.1 **Number.** The principal officers of the Corporation shall be a President, one (1) or more Vice Presidents (the number thereof to be determined by the Board of Directors), a Secretary, and a Treasurer, each of whom shall be elected by the Board of Directors. The Board of Directors may designate one (1) of the Vice Presidents as Executive Vice President and may elect such other officers and assistant officers and agents as may be deemed necessary. Any two (2) or more offices may be held by the same person, except the offices of President and Secretary, or President and Vice President.

8.2 **Election and Term of Office.** The Board of Directors shall elect the officers of the Corporation by the affirmative vote of a majority of directors present at a meeting at which a quorum is present. The Board of Directors will determine the term of office for officers. Each officer will hold office until a qualified successor is elected upon expiration of the term of that officer, or until that officer's death, or until that officer shall resign or shall have been removed in the manner hereinafter provided.

8.3 **Qualifications of Officers.** Officers need not be residents of the State of Wisconsin. The President shall be a practicing physician member of the Faculty.

8.4 **Removal.** Any officer or agent elected or appointed by the Board of Directors may be removed or not reappointed by the Board of Directors, whenever, in its judgment, the best interests of the Corporation will be served thereby. Such

removal shall be without prejudice to the contract rights, if any, of the person so removed. Election or appointment shall not of itself create contract rights.

8.5 Vacancies. The Board of Directors may fill a vacancy in any office because of death, resignation, removal, disqualification or other reason, for the unexpired portion of the term.

8.6 Duties. Officers and agents elected or appointed by the Board of Directors shall have such powers and perform such duties as may, from time to time, be prescribed by resolution of the Board of Directors. Upon the Board of Directors failure to adopt such a specific resolution, such officers and agents shall have the powers and perform the duties that are normally incident to their respective offices.

8.7 President. The President shall be the Chief Executive Officer of the Corporation and, subject to the control of the Board of Directors, shall in general supervise and control all of the business and affairs of the Corporation. The President shall have authority, subject to such rules as may be prescribed by the Board of Directors, to appoint such agents and employees of the Corporation as he or she shall deem necessary, to prescribe their powers, duties and compensation and to delegate authority to them. Such agents and employees shall hold office at the discretion of the President. The President shall have authority to sign, execute and acknowledge, on behalf of the Corporation, all deeds, mortgages, bonds, stock certificates, contracts, leases, reports and all other documents or instruments necessary or proper to be executed in the course of the Corporation's regular business, or which shall be authorized by resolution of the Board of Directors; and, except as otherwise provided by law or the Board of Directors. The President may authorize the Executive Vice President, if one be designated, or any Vice President or other officer or agent of the Corporation to sign, execute and acknowledge such documents or instruments in his or her place and stead. In general, the President shall perform all duties incident to the office of Chief Executive Officer and such other duties as the Board of Directors may prescribe from time to time.

8.8 Executive Vice President. The Executive Vice President, if one is designated, shall assist the President in the discharge of supervisory, managerial and executive duties and functions. In the absence of the President or in the event of his or her death, inability or refusal to act, the Executive Vice President shall perform the duties of the President and when so acting shall have all the powers and duties of the President. He or she shall perform such other duties as from time to time may be assigned to him or her by the Board of Directors or the President.

8.9 Vice Presidents. In the absence of the President and the Executive Vice President, or in the event of their deaths, inability or refusal to act, or in the event for any reason it shall be impracticable for them to act personally, the Vice

President shall perform the duties of the President. In the event that there is more than one Vice President, the Vice President to perform the duties of the President shall be determined in the order designated by the Board of Directors, or in the absence of any designation, then in the order of their election. When so acting, the Vice President shall have all the powers of and be subject to all the restrictions upon the President. Any Vice President shall perform such other duties and have such authority as from time to time may be delegated or assigned to him or her by the President, the Executive Vice President or the Board of Directors. The execution of any instrument of the corporation by any Vice President shall be conclusive evidence, as to third parties, of his or her authority to act in the stead of the President.

8.10 Physician-in-Chief. At the President's discretion, the President may retain the title of Physician-in-Chief. If the President does not elect to retain the title, the Board of Directors may appoint a Physician-in-Chief who may also be appointed one of the Vice Presidents. The Physician-in-Chief shall be responsible for coordinating the effective, efficient and economic delivery of medical services and for such other duties as may, from time to time, be assigned by the President and the Board of Directors.

8.11 Secretary. The Secretary shall:

(a) keep the minutes of the Board of Directors' or Committees' meetings in one or more books provided for that purpose;

(b) see that all notices are duly given in accordance with the provisions of these Bylaws or as required by law;

(c) be custodian of the corporate records; and

(d) in general, perform all duties incident to the office of Secretary and such other duties as from time to time may be assigned by the President or by the Board of Directors.

8.12 Treasurer. If required by the Board of Directors, the Treasurer shall give a bond for the faithful discharge of his/her duties in such sum and with such surety or sureties as the Board of Directors shall determine. The Treasurer shall:

(a) have charge and custody of and be responsible for all funds and securities of the Corporation;

(b) receive and give receipts for monies due and payable to the Corporation from any source whatsoever; and deposit all such monies in the name of the Corporation in such banks, trust companies or other depositories as shall be selected in accordance with the provisions of these Bylaws; and

(c) in general, perform all of the duties incident to the office of Treasurer and such other duties as from time to time may be assigned by the President or by the Board of Directors.

8.13 Other Assistants and Acting Officers. The Board of Directors shall have the power to appoint any person to act as assistant to any officer, or to perform the duties of such officer whenever for any reason it is impracticable for such officer to act personally. Such assistant or acting officer appointed by the Board of Directors shall have the power to perform all the duties of the office to which such person is appointed to be assistant or acting officer, except as such power may otherwise be defined or restricted by the Board of Directors.

8.14 Additional Officers. Any additional officer not specified above shall have only such authority, duties and responsibilities as shall be specifically authorized and designated by the Board of Directors.

8.15 Chair of the Board.

(a) The Dean of the Medical School as Chair. The Dean of the Medical School shall be the Chair of the Board.

(b) Election and Term of Vice Chair. The Vice Chair of the Board of Directors shall be the President of the Foundation. The Vice Chair of the Board of Directors shall hold office for so long as he or she remains President. If a vacancy occurs in the position of Vice Chair, the interim successor to the position of President shall fill the position of Vice Chair.

(c) Duties/Role. The duties and role of the Chair of the Foundation Board shall be as established by resolution of the Foundation Board.

ARTICLE IX
INDEMNIFICATION OF OFFICERS, DIRECTORS, AND OTHERS

9.1 Mandatory Indemnification. The Foundation shall to the maximum extent permitted under Chapter 181 of the Wisconsin Statutes, as amended, indemnify and allow reasonable expenses of any person who:

(a) was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative,

(b) by reason of the fact that:

(i) he or she is or was a director, officer, employee or agent of or volunteered services to the Foundation; or

(ii) is or was serving at the request of the Foundation as a director, officer, employee or agent of any committee or of any other Foundation enterprise.

Such right of indemnification shall inure to the benefit of the heirs, executors, administrators and personal representatives of such a person.

9.2 Indemnification Excess. The indemnification provided directors, officers, agents or employees shall be excess (except as may otherwise be provided by law) to any right of indemnification that they may have as agents or employees of the State of Wisconsin while they are acting within the scope of that employment.

9.3 Supplementary Benefits. The Foundation may supplement the right of indemnification under § 9.1 by the purchase of insurance, indemnification agreements, and/or advances for expenses of any person indemnified.

ARTICLE X
FISCAL YEAR

The fiscal year of the Foundation shall be July 1 to June 30, or as otherwise designated by the affirmative vote of a majority of directors present at a meeting at which a quorum is present.

ARTICLE XI
SEAL

There shall be no corporate seal.

ARTICLE XII
CORPORATE ACTS, LOANS, AND DEPOSITS

12.1 Corporate Acts. Unless otherwise directed by resolution of the Board of Directors or by law, all checks, drafts, notes, bonds, bills of exchange, and orders for the payment of money of the Foundation, and all deeds, mortgages, conveyances, and other written contracts, agreements and instruments to which the Foundation shall be a party, and all assignments or endorsements of stock certificates, registered bonds, or other securities owned by the Foundation shall be signed by the President and by any one (1) of the following officers who is a different person: Vice President, Secretary, or Treasurer. The Board of Directors

may, however, delegate such authority, or may authorize any one (1) of such officers or one (1) or more other officers or agents to sign any of such instruments for and on behalf of the Foundation without necessity of counter signature.

12.2 Loans. No fund indebtedness shall be contracted on behalf of the Foundation and no evidences of such indebtedness shall be issued in its name unless authorized by a resolution of the Board of Directors. Such authority may be general or confined to specific instances.

12.3 Deposits. All funds of the Foundation, not otherwise employed or subject to immediate distribution, shall be deposited from time to time to the credit of the Foundation in such banks, savings and loan associations, trust companies or other depositories as the Board of Directors may select.

12.4 Creation of State Assets. Financial support required by the terms of the Regents Agreement to be made available to or on behalf of the Medical School becomes an asset of the University of Wisconsin System as that support becomes due. The Chancellor and the Foundation will determine the due dates for various contributions annually by written agreement. The Board of Regents has the right to bring an action for specific performance to obtain the agreed financial support if it is not transmitted by the Foundation when due in accord with the referenced Agreement. All funds generated by Foundation activities that are not expressly dedicated in the Agreement to the Medical School constitute assets of the Foundation, consistent with the historic understanding between the Board of Regents and the Clinical Practice Plan regarding Faculty ownership of clinical fees.

ARTICLE XIII
PHYSICIAN APPOINTMENTS

The Foundation shall consult with the Dean and relevant UW Medical School academic departments before hiring or contracting with physicians in a particular specialty who are not appointed as Faculty. The employment or personal services contracts with non-Faculty physicians shall expressly provide that they do not become employees of the UW-Madison as a result of said contract, and that the State of Wisconsin is not responsible for their insurance or liability coverage. Foundation physicians who wish to care for patients at University Hospital must have UW Medical School Faculty appointments.

ARTICLE XIV
AMENDMENTS

14.1 By the Board of Directors. Except as provided in §§ 14.2 ~~and~~through 14.4~~3~~ below, these Bylaws and the Articles of Incorporation may be altered, amended,

or repealed, and new or restated Bylaws or Articles of Incorporation may be adopted by the Board of Directors at any regular or special meeting thereof by the affirmative vote of not less than two-thirds (2/3) of the directors then in office unless a higher number is required by law. All amendments are subject to prior consultation with the Council of Chairs under § 4.6 and the Council of Faculty under § 5.6. All proposed amendments must be submitted to the Chancellor and the Board of Regents at least sixty (60) days prior to the time they become effective.

14.2 Amendments Requiring a Faculty Vote. The following alterations, amendments and changes to the Bylaws and Articles of Incorporation shall be approved by a Faculty Vote in accordance with § 3.9 (b):

(a) Any change which the Foundation Board, after consultation with the Council of Chairs and the Council of Faculty, has determined is significant enough to require a Faculty vote; and

(b) Material changes to the Foundation's Compensation ~~Plan~~Principles and Policy, attached as "Exhibit H."

(c) Exception. Any alteration, change, or amendment which is required for compliance with state or federal law or regulation is hereby specifically exempted from the requirements of § 3.9 (b) and § 14.2 (a) and (b), and shall not require a Faculty vote.

14.3~~2~~ Approvals. If approved by the Faculty as provided in § 3.9 (b), amendments to these Bylaws and to the Articles of Incorporation shall take effect immediately. The Agreement with the Board of Regents may provide the Chancellor with a right to disapprove such changes during the term of such Agreement and prior to notice of termination of that agreement. The Board of Regents shall be given advance notice of any change to the Bylaws.

14.4~~3~~ Board Composition. Changes to the composition of the Board of Directors will require prior approval of the UW Board of Regents or its designee if so stated in the Agreement with the Board of Regents.

ARTICLE XV
INTERPRETATIONS

15.1 Agreement. These Bylaws are part of an overall arrangement with the Board of Regents of the University of Wisconsin System embodied as the Regents Agreement. These Bylaws and that Agreement shall, during the term of the Regents Agreement, be interpreted together to promote the purposes of each.

15.2 The Board of Directors may interpret, define and clarify the Regents Agreement and these Bylaws as required to conform its operations to changing economic conditions, evolving state and national health policy, and the changing needs of medical education. Such interpretation, definition and clarification by the Board of Directors must be consistent with the Board's obligations to the Board of Regents.

15.3 The term "Faculty" when used in these Bylaws includes physician Faculty and physician academic staff with tenure, tenure track, CHS or other UW-Madison-recognized titles, including paid clinical-track physicians. By agreement of the Medical School and the Foundation, individual psychologists, optometrists and dentists having Medical School appointments may be included as participating Faculty and may be eligible to be elected and/or to vote in elections for Foundation directors.

ARTICLE XVI
INFORMATION

16.1 **Minutes.** The minutes of the meetings of the Board of Directors and the meetings of its committees shall be open to review by participating Faculty.

16.2 **Annual Reports and Audit.** The Board of Directors will prepare an annual report on operations and distribute it to the Dean and to participating Faculty. The Board of Directors will submit to the Dean a copy of the Annual Audit of the Corporation.

16.3 **Reports to Council of Chairs.** The Foundation will prepare at least quarterly financial reports to the Council of Chairs and the Council of Faculty for their review.

ARTICLE XVII
DISSOLUTION

The Foundation shall dissolve within six (6) months of the termination of the Agreement referenced in § 15.1 of these Bylaws (or an amended version thereof). The six (6) month period is to be used for the winding up of the affairs of the Foundation.

UWMF POLICY ON NOMINATION AND ELECTION OF PUBLIC DIRECTORS (EXHIBIT A)

(A) Nomination. Seated Public Directors shall nominate individuals to serve as Public Directors of the Foundation Board. The seated Public Directors shall determine the number of individuals that are nominated. The Foundation Board of Directors may reject the nominations of the Public Directors, in which case the Public Directors shall submit further nominations to the Foundation Board of Directors.

(B) Election. Public Directors will be elected to the Board of Directors by a majority of the votes cast at a meeting of the Board of Directors at which a quorum is present.

UWMF POLICY ESTABLISHING DISTRICTS

(EXHIBIT B)

UWMF Department Districts

District 1
OB/GYN
Family Medicine
Pediatrics
Psychiatry
District 2
Medicine
Neurology
Human Oncology
Dermatology
District 3
Anesthesiology
Neurological ~~s~~Surgery
Orthopedic Surgery & Rehabilitative Medicine
Ophthalmology
Pathology
Radiology
Surgery

The districts may be amended from time to time by the affirmative vote of at least two-thirds ~~sixty percent (60~~2/3~~%)~~ of the directors present at a meeting at which a quorum is present.

UWMF POLICY ON NOMINATION AND ELECTION OF FACULTY DIRECTORS (EXHIBIT C)

Department Chairs will not be eligible for Faculty Director seats.

(A) Nominations. The Board of Directors shall be responsible for sending a written notice to the Department Chairs of each District for which a Faculty Director seat is (or will be) open, requesting Foundation Departmental Committee nominations for Faculty Directors. Each Departmental Committee may nominate up to two Faculty members from their Department for each Faculty Director seat. [7] ~~For the Initial Term (as defined in § 3.4(d) of the Foundation Bylaws), Departmental Committees shall nominate Faculty members from the appropriate division.~~

(B) Elections. The Board of Directors shall compile the nominations of the Departmental Committees, create ballots and send the ballots to the appropriate Faculty members. There shall be a separate ballot created for each district ~~(and each division, if applicable)~~ that contains the names of all of the individuals nominated for that district ~~(and division, if applicable)~~. The Board of Directors shall send the ballots to Faculty members in the respective districts ~~(and divisions, if applicable)~~ of the Foundation asking them to vote for (1) candidate for Faculty Director for their own district ~~(and division, if applicable)~~. The Board of Directors shall afford the Faculty a reasonable period of time to return their ballots.

(C) Runoff Elections. If a candidate receives a majority of the votes cast in his/her district ~~(and division, if applicable)~~ that candidate shall be the director from that district ~~(and division, if applicable)~~. If no candidate receives a majority of votes cast, the Board of Directors shall conduct a run-off election between the two candidates receiving the most votes.

[7] The changes to these paragraphs delete obsolete provisions.

UWMF POLICY ON REMOVAL OF DIRECTOR FROM OFFICE FOR CAUSE (EXHIBIT D)

The Board of Directors of the Foundation has a responsibility to ensure that the Foundation benefits from the best leadership possible. Such leadership must begin with the Board of Directors. Thus, the Board of Directors must, from time to time, assess the performance, competence, quality, and interests of its individual Directors to assure that the Foundation receives the leadership it needs and deserves.

The Board of Directors may remove a Director that, in the sole discretion and determination of the Board,

- takes action as a Director in a matter in which the Director has a conflict of interest,
- has been convicted of a felony or of a misdemeanor involving moral turpitude,
- focuses on narrow interests of a particular constituency to the detriment of the Foundation as a whole,
- fails to maintain confidentiality of information with which he/she is entrusted, to the detriment of the Foundation,
- fails to attend at least 60% of Board and/or committee meetings scheduled during any six-month period, or
- otherwise conducts him/herself in a manner that harms the interests of the Foundation.

UWMF POLICY ON NOMINATION AND APPOINTMENT OF COMMITTEES (EXHIBIT E)

Nomination/Appointment of Committee Members. The nomination and appointment process for committee members shall be overseen by, and the responsibility of, the Nominations Committee.

(A) Call for Nominations. The Nominations Committee shall be responsible for sending a written notice to the Chairs of each Clinical Department requesting Foundation Departmental Committee nominations for committee members. Each Chair may nominate up to two (2) faculty members from only their own Department.

(B) Appointment. The Nominations Committee shall compile the nominations received pursuant to the above process, and choose at least one, but no more than two candidates for each available committee position. The Nominations Committee shall submit its recommendations to the Foundation Board, and the Foundation Board shall act, as described in § 3.14 of the Foundation Bylaws, to appoint committee members.

(C) Composition. Each committee, other than the Executive Committee and the Compensation Review Committee, shall include at least: one faculty representative from each district, ~~one Department Chair representative,~~ and one Board representative. [8]

(D) Term of Office. Except for the Executive Committee and the Compensation Review Committee, terms of office for committee members will be three years.

(E) New Committees. Notwithstanding the foregoing paragraph (D), for any new committee, the Initial Term of office for committee members shall be for one, two, or three years. The "Initial Term" shall be the first term of office to which the Board appoints committee members after the adoption of these Amended and Restated Bylaws. After the Board appoints committee members, each committee shall hold a lottery to determine terms of office for the Initial Term of committee members. The committee shall structure the lottery so that approximately one-third of the committee members shall have a term of one-year, one-third of the committee members shall have a term of two-years, and one-third of the committee members shall have a term of three-years.

[8] This change was made to reflect current practice.

UWMF POLICY ON COMPOSITION OF EXECUTIVE COMMITTEE (EXHIBIT F)

The Executive Committee shall be made up of:

(A) the Dean, as

~~**(B)**~~ the Chair of the Foundation Board of Directors,

(~~C~~B) the President,

(~~D~~C) one (1) Public Director, who shall be selected by the Public Directors,

(D~~E~~) two (2) Chair Directors:

1. one of whom shall be selected by the Chair Directors; and

2. the second of whom shall be the Chairperson of the Council of Chairs so long as that Chairperson is also a Chair Director, otherwise the second Chair Director shall be selected by the Chair Directors.

(E~~F~~) Beginning January 1, 2004, three (3) Faculty Directors, who shall be selected by the Faculty Directors to serve on the Executive Committee.

(~~G~~F) The selection of Executive Committee members as made pursuant to paragraphs (~~D~~C), (~~E~~D), and (~~F~~E), above, shall be subject to confirmation by the UWMF Board, and each such Executive Committee term shall not exceed two (2) years.

UWMF DEFINITION OF PROFESSIONAL INCOME (EXHIBIT G)

The professional income required to be included in Foundation receipts consists of all collected fees derived from the diagnosis and treatment of patients by the Faculty member. Professional income shall also include fees for court appearances, pre-trial legal consultations and all other activities associated with medical-legal services, or other services related to patient care or human health. In addition, professional services include consultation with respect to the operation, supervision and quality control in laboratories.

Professional income does not include honoraria, royalties, lecture fees, military pay, or payment for editing scientific publications. Income received for consultations of a purely scientific or educational nature which do not involve, directly or indirectly, the care of specific patients or consultations involving human health is excluded from professional income; because human health is a broad term, the Foundation Board or a designated subcommittee may grant exceptions as warranted. Work for charitable organizations may also be exempted by agreement of the Foundation and the Dean. All such outside activities must conform to Medical School and UW-Madison rules and regulations governing the conduct of Faculty and academic staff employees.

UNIVERSITY OF WISCONSIN MEDICAL FOUNDATION, INC.

COMPENSATION ~~PLAN~~PRINCIPLES AND POLICY

(EXHIBIT H) *REWRITTEN*

I. Introduction

Since its formation, the University of Wisconsin Medical Foundation (the "Foundation") has operated under a series of compensation plans based upon the Foundation's Agreement with the Board of Regents of the University of Wisconsin System. The original plan addressed both compensation and funds flow. The original plan was amended in 2001 and replaced with a policy document (Exhibit H) which focused on compensation principles and process.

This 2007 version of Exhibit H ("Policy") amends the 2001 policy and builds upon the concepts of compensation at fair market value, transparency of compensation determination, and independent oversight for the ongoing development, review and approval of each individual Foundation departmental compensation plan. Each departmental compensation plan will prospectively define and establish the formula and method by which faculty physician compensation is determined. This Policy is designed to ensure that the Foundation complies with all Internal Revenue Service, Stark, and Anti Kickback statutes and regulations relative to physician compensation.

II. Definitions

Compensation Development Committee ("CDC") is defined in Section 6.1 of the Foundation's Bylaws.

Compensation Review Committee ("CRC") is defined in Section 6.2 of the Foundation's Bylaws.

A **Compensation Development Report** ("Report") is made by the Compensation Development Committee to the Compensation Review Committee on an annual basis or more often, as necessary, to facilitate CRC oversight responsibilities. The Report is a set of recommendations made by the CDC for approval by the Foundation Board of Directors ("Board") and the CRC. The Report contains information regarding those Compensation Plans reviewed, a synopsis of any documentation used by the CDC to recommend approval of a Plan, and an affirmative finding by the CDC that all Compensation Principles in Section III have been met.

A **Compensation Plan** ("Plan") is the written document which prospectively establishes the method of determining compensation for clinical faculty physicians ("Physician[s]") belonging to a specific Department. The method must be set forth in sufficient detail so that it can be objectively verified, must not take into account the volume or value of referrals generated by a Physician, and must comply with the Compensation Principles outlined in Section III, below.

Compensation Principles ("Principles") means the set of principles outlined in Section III.C.

Department or Departmental refers to a clinical department of the University of Wisconsin ("University") School of Medicine & Public Health ("UWSMPH").

Fair Market Value means the value in an arms-length transaction, consistent with the general market value that would ordinarily be paid for like services by a like enterprise under like circumstances as the result of *bona fide* bargaining between well-informed parties.

Rebuttable Presumption Process ("Process") means that process, as defined by the Internal Revenue Service, which, if followed with respect to the compensation, results in what is presumed to be reasonable compensation.

III. Compensation Principles

A. Introduction. The UWSMPH appoints a Physician and the Foundation supports the clinical practices of the Physician. A Physician is generally appointed to a position in a Department, or infrequently, in two Departments. A Physician has responsibilities that may include academic, research, clinical and service work. A Physician receives compensation from both the Foundation and the University in exchange for carrying out those responsibilities. Compensation is paid out in accordance with the Physician's Departmental Compensation Plan. Each Departmental Compensation Plan is developed in accordance with the Principles.

B. Shared Governance & Review. Each Compensation Plan is developed through shared governance processes. The CDC, the Foundation's Board of Directors ("Board"), the Dean of the UWSMPH ("Dean") and the CRC all review and approve each Compensation Plan in accordance with this Policy and must approve any modifications to these Plans.

C. Principles.

1. **Allocations.** A Compensation Plan establishes the appropriate allocation of funds to Physicians in order to constitute total compensation to be received by each Physician.

2. **Total Effort.** A Compensation Plan is based on the concept of total effort, which is the aggregate of each Physician's quality and quantity of academic, research and clinical effort for a specific and predetermined period of time.

3. **Elements.** A Compensation Plan recognizes the patient care, teaching, administrative and research role of each Physician and establishes a connection between each of these elements and the compensation earned by a Physician. A Compensation Plan may also recognize a Physician's community service and other contributions consistent with the Foundation's corporate purpose.

4. **Quantity and Quality.** A Compensation Plan formula allows for compensation to vary in accordance with the amount and quality of a Physician's academic, research and clinical work.

5. **Set In Advance.** A Compensation Plan is set in advance and in sufficient detail so that it can be objectively verified, and is constructed in a manner that does not take into account the volume or value of referrals generated by a Physician.

6. **Fair Market Value.** A Compensation Plan provides for Physician compensation that is reasonable, responsive to market changes, and based on Fair Market Value following a consideration of prevailing compensation levels for comparable types of physicians and for comparable amounts of work as determined by both independently sourced benchmarks as well as by the availability of funds.

7. **Legal Compliance.** A Compensation Plan ensures that a Physician's compensation complies with all federal, state, and local legal standards current at the time compensation is paid.

D. Compensation Plan Process. Each Compensation Plan shall include specific processes for appeals and amendments.

1. Appeals. A Compensation Plan includes an appeal process for a Physician to question annual compensation determinations.

2. Amendments. A Department may amend its Compensation Plan through an adequately noticed vote of a two-thirds majority of the Physicians (Tenure, CHS, and Clinical track) voting within the Department to approve such amendment. All amendments are subject to governance review and approval as outlined in Section III.B.

E. Compliance Audit. The CDC, the Foundation's Board, the Dean, and/or CRC each has the authority to ensure compliance with the Principles and to audit the administration of any Department's Compensation Plan. The CDC, the Foundation Board, the Dean, and the CRC may request financial data in any format determined necessary for the conduct of any such audit.

IV. Compensation Process

A. Departmental Compensation Committee. Each Departmental Compensation Committee will develop a Department Compensation Plan based on the Principles. The Departmental Committee will submit its plan to the CDC for review and initial recommendation for approval.

B. Compensation Development Committee Review.

1. Review. The CDC is the initial point of review for consideration of a Compensation Plan and other matters relating to Physician compensation. The CDC ensures that each Compensation Plan complies with the Principles and may establish guidelines for its review in order to implement this Policy.

2. Compensation Maxima. The CDC annually reviews available independent compensation data, studies, surveys, and opinions and may make recommendations to the Dean and the Board regarding compensation maxima based upon that information. Exceptions to such maxima are subject to approval by the CRC.

3. Compensation Development Report. The CDC develops the Compensation Development Report. The Report includes the CDC's recommendations for changes to Compensation Plans. The Report attaches all independent information, data, and surveys as sufficiently necessary to support the CDC's recommendations and to facilitate the CRC's informed oversight obligations. The Report will include the CDC's certification that its recommendations comply with the Principles and with current IRS standards for Physician compensation.

C. Independent Consultant. An independent consultant will be engaged as necessary to provide written advice and opinions regarding compensation matters to ensure compliance with the Principles. The Consultant's written and oral advice will be part of the CDC's Report made to the Board, the Dean, and the CRC.

D. Board of Directors. As part of the shared governance process, the Board receives the CDC's Report, including all supporting documentation, to consider approval of a Compensation Plan or other CDC recommendations as the Board deems appropriate to the Foundation's stated purpose and mission. The Board then submits its recommendations and the CDC Report to the Dean for approval and to the CRC for final action.

E. Compensation Review Committee.

1. Purpose. The CRC is an independent committee whose members are not affected by the compensation matters it considers. The CRC provides oversight for compensation matters, receives all compensation recommendations and Reports from the CDC and all actions taken by the Board recommending approval of changes to Compensation Plans, standards for compensation maxima, and recommendations from Department Chairs for exceptions to the maxima relative to an individual Physician.

2. Review. The CRC makes final decisions on the compensation matters outlined above after receipt of approvals from the Board and from the Dean, and following consideration of the Report and a determination that the CDC has provided certification that the Principles of this Policy have been met. The CRC may request additional data or information prior to acting on any matter within its jurisdiction. The CRC documents its decisions and the basis for those decisions and may choose to use the Report for this purpose. Decisions of the CRC on compensation matters are the final decisions of the Foundation, except that action to approve a payment above a compensation maximum requires approval of the Dean for employees holding UWSMPH appointments.

V. Changes to the Foundation's Compensation Plan

Material changes to the Foundation's Compensation Plan, as noted in § 14.2 of the Foundation Bylaws, require input from the Foundation's Council of Chairs and Council of Faculty, approval by the members of the Faculty at a special or annual meeting as provided in § 3.9 of the Foundation's Bylaws, and approval of the Chancellor and the Board of Regents as provided in § 25 of the Regents Agreement.

UNIVERSITY OF WISCONSIN MEDICAL FOUNDATION, INC.

RETIREMENT PLAN COMMITTEE

(EXHIBIT I)

RESERVED

UNIVERSITY OF WISCONSIN MEDICAL FOUNDATION, INC.

FUNDS FLOW MODEL

(EXHIBIT J) *NEW DOCUMENT*

I. Introduction

The most current University of Wisconsin Medical Foundation ("UWMF") Funds Flow Model 2008 (the "Model") is described below. The Model describes the methods by which Revenue is allocated through the UWMF to reach clinical departments and support UWMF strategic initiatives.

II. Funds Flow Model

A. Overall Considerations. The Model describes how UWMF Revenues move through the organization; how Revenues are expended to cover UWMF expenses; and how Revenue is allocated to each Clinical Department ("Department"). The Model does not stipulate the details of Departmental Compensation Plans, nor does it dictate how Departments expend Revenues for academic purposes. The current version of the Model improves upon the previous model by modifying it to achieve greater simplicity, transparency, consistency, and rationality of funds flow. The significant changes that distinguish the new Model from the old are explained in more detail below.

B. Capitation Allocation.

1. Capitation is an important component of Revenue as approximately thirty two (32%) percent of total UWMF Revenue is received from payers who reimburse UWMF on a per member per month basis.

2. In the Model, capitated revenue is allocated as sub-capitation, meaning that the Capitation payment per Department is pre-determined on an annual basis. Sub-capitation is determined on the basis of 50/50 blend of relative value units and charges for each Department and the Primary Care group. The rationale for implementing this new Model is to encourage management of care for this population, and to eliminate certain allocation inequities that were existent in the previous model.

C. Flow of UWMF Clinics Revenues and Expenses. Under the new Model, revenues and expenses incurred in the UWMF managed clinics flow to the respective Departments.[9] The rationale for this change was to greatly simplify the accounting for Revenue allocation, provide increased incentive for efficient clinic management, gain a more precise

[9] This change eliminates the previously imposed "clinic assessment."

understanding of the financial status of each of the UWMF clinics, and eliminate the controversial allocation methodology for the Revenue generated by global fees. The impact of these changes is almost universally positive as the combination of additional Revenues and the elimination of the clinic assessment more than offset the additional burden of clinic expenses. The Model anticipates that the Revenue and expense allocation methodology may result in a negative margin for Primary Care, and it is the purpose of the Model that this excess expense is to be supported by UWMF through the Primary Care portion of the SIF.

D. Strategic Investment Fund

1. Revenue Sharing. In the Model, the Strategic Investment Fund ("SIF") replaces the Compensation Adjustment Fund. The SIF is intended to be the sole mechanism for inter-departmental revenue sharing within the Model. The purpose of the SIF is to establish a budgeted portion of Revenue to be used to provide support for mission-based clinical work that may not generate adequate Revenue to support: market-appropriate and competitive compensation in the current reimbursement environment, strategic initiatives at both the organizational and departmental level, and other initiatives as deemed appropriate by the Funds Flow Oversight Committee (the "FFOC"). The total SIF is comprised of the Primary Care Strategic Investment Fund and the Specialty Strategic Investment Fund.

2. Budget Process. The FFOC recommends the size of the SIF to the Finance Committee and the UWMF Board of Directors (the "Board") as part of the annual UWMF budgeting process. Budget recommendations incorporate consideration of several factors, including: productivity and compensation benchmarks based on independent surveys; the strategic goals of UWMF as determined and documented by the Board; current workload expectations; new program development; outreach activity; organizational goals such as access, quality, and patient satisfaction; external sources of funding; the financial consequences of clinic operations; the Departments' budgeted Revenues; compensation goals; and expense structure. The process is as objective and data based as possible. Each of the foregoing factors is discussed with each Departmental Chair.

3. Access to Funding. Access to SIF funding depends, in part, upon a Department's ability to manage expenses within a set of current organizational fiscal and operational standards, and to maintain adequate departmental balances as required by the UWMF's "Policy for Research and Research & Development Funds."

4. Range. The size of the total SIF, a combination of Primary Care and Specialty Strategic Investment Funds, will range from a low of two-and-one-half (2.5%) percent to a high of six (6%) percent of Revenue as defined, below.

III. Definitions

Revenue as described in the Model includes fees collected for the diagnosis and treatment of patients, as well as ancillary revenue, technical revenue and other allocable revenue.

Primary Care as described in the Model includes the Department of Family Medicine; the section of General Internal Medicine, and the section of Geriatrics within the Department of Medicine; and the section of General Pediatrics within the Department of Pediatrics. Each faculty member who belongs to the Primary Care group will remain in his/her traditional clinical department for all purposes except clinical budgeting, for which Primary Care will be treated as a separate cost center for the purposes of clear accounting and to ensure that Primary Care support comes from the entire organization.

Specialty Care as described in the Model includes all other departments and the departments of Medicine and Pediatrics exclusive of their general sections.

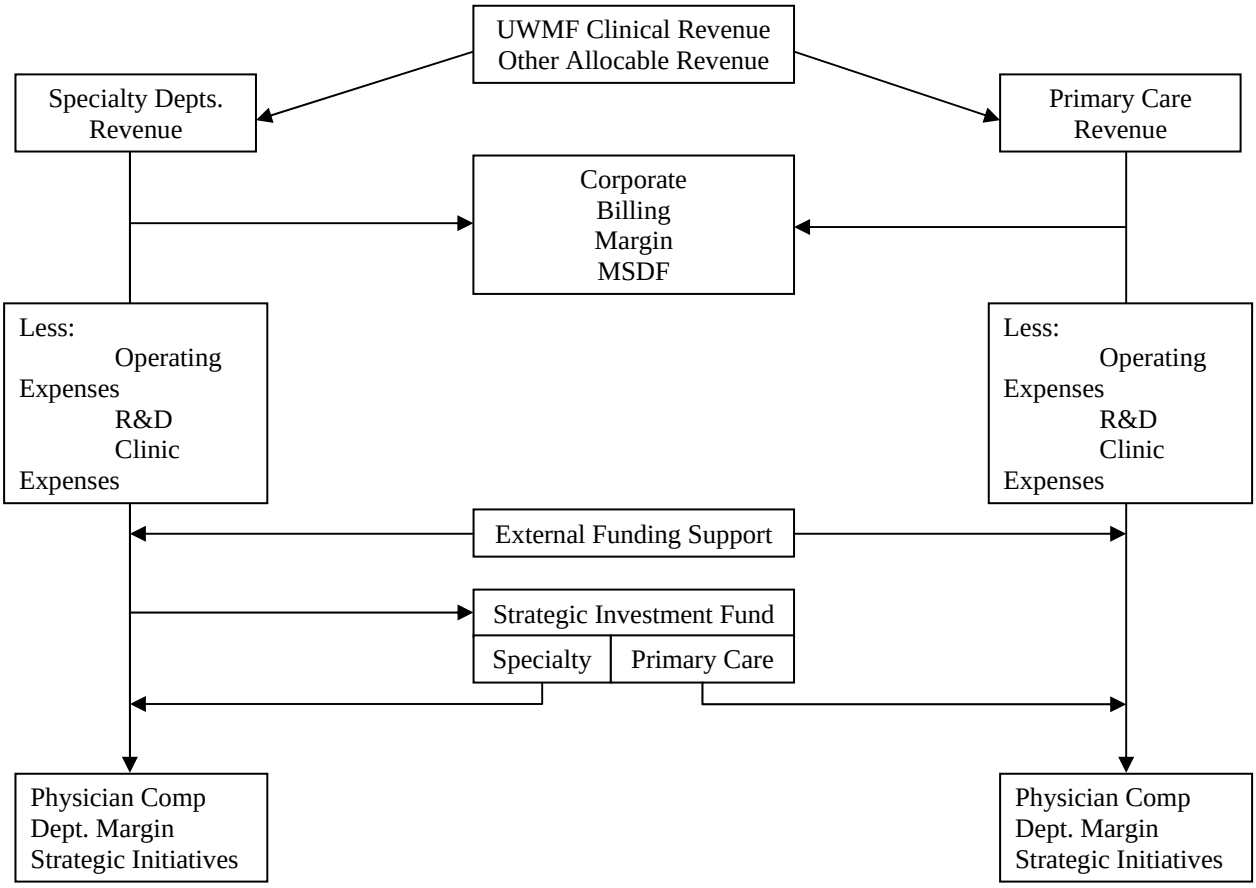
Capitation as used to describe the distribution in the Model, is the contract payment made by certain payers to UWMF on a per member per month basis regardless of the utilization of clinical services of those members.

IV. Historical Note

At the time of its formation, the University of Wisconsin Medical Foundation developed a Compensation Plan, which was marked as Exhibit H to the UWMF Bylaws ("Bylaws") and which included a description of the then current Funds Flow Model and its relation to the Compensation Plan. The original Exhibit H document was amended in 2001 to focus on compensation principles and process, and a separate policy document was created which focused on a new Funds Flow Model. The current Model forms the basis of this document which constitutes "Exhibit J" of the Bylaws.

[*Proceed to Next Page for Diagram of Funds Flow Model*]

PROPOSED FUNDS FLOW MODEL



BUSINESS, FINANCE, AND AUDIT COMMITTEE

Resolution:

That, upon the recommendation of the students and Chancellor of the University of Wisconsin-Platteville and the President of the University of Wisconsin System, the Board of Regents approves differential tuition for all UW-Platteville undergraduate students beginning in the Fall Semester of 2008-09. The tuition differential would be an additional 1.9 % of the resident undergraduate tuition rate set by the Board of Regents. The dollar amount would be $50 per semester ($100 per year) in academic year 2008-09. The differential would be prorated for part-time undergraduate students.

UNDERGRADUATE DIFFERENTIAL TUITION
UW-Platteville

EXECUTIVE SUMMARY

BACKGROUND

At its March 2008 meeting, the Board of Regents discussed tuition and financial aid options and issues. As discussed, differential tuition is one of the flexibilities available to the Board to target tuition revenue to key campus priorities. UW-Platteville proposes establishing an undergraduate differential tuition to provide additional high need academic and support services (retention, mental health, career services), and to undergraduates to provide support to students completing their senior capstone project.

REQUESTED ACTION

Approval of Resolution I.2.d.

DISCUSSION AND RECOMMENDATIONS

UW-Platteville continually assesses student engagement in learning through participation in the National Survey on Student Engagement (NSSE) and monitors student academic success. To the extent allowed by state budgetary limitations, resources have been reallocated to enhance support services and efforts have been made to expand services through use of University foundation funds. For example, reallocated resources allowed the University to provide a 50% release time for a faculty member to lead the First Year Experience program. Foundation funds supported pilot academic support strategies, such as Supplemental Instruction, and provided funding for student tutors when state funds were exhausted midway through spring semester.

Even with these actions, the University is short of necessary funding and services to assist students who are experiencing academic or emotional difficulty, or who need assistance as they prepare to make the transition from student to employed citizen. To that end, the University proposes to charge a differential tuition that would expand and enhance support services for undergraduate students. These services would enhance and expand retention services, mental health services, and career planning. In addition, the funding would support all students in a senior capstone experience.

This differential tuition proposal supports the UW System's Growth Agenda, specifically targeting increased graduates as well as preparing students with integrative learning skills. UW-Platteville proposes a differential tuition rate equal to 1.9% of resident undergraduate tuition. In 2008-09, this would result in a differential tuition amount of $50 per semester ($100 per year), which would be paid by all full-time undergraduate students. The amount would be prorated for

part-time undergraduate students. This amount would be adjusted each year to remain at 1.9% of the general resident undergraduate tuition rate.

UW-Platteville would create an oversight committee with equal representation of students, faculty, and staff who would annually review progress toward goals and ensure the funding is being appropriately spent. In addition, this oversight committee would lead a reauthorization review of the differential tuition initiative after four academic years. The estimated differential tuition revenue that would be generated in the first year of implementation is $593,000. UW-Platteville does not expect any decrease in enrollment as a result of this differential tuition. Rather, the campus expects its enrollment to increase as a result of the improvements and enhancements and their positive impact on student retention.

Four areas have been identified that would improve student retention, success, and employability:

1. Retention: Funding would be used to expand the Introduction to College Life course including adding a focus on transfer student needs; increasing the services in the University Writing Center (which serves students in all majors and across all levels of classes); expanding the services in the University Tutoring Center through increased numbers of tutors as well as adding innovative new methods such as Supplemental Instruction. The first year cost of this component would be $164,000.

2. Mental Health: Funding would be used to add a full-time counselor in the University Counseling Center as well as adding a staff person to assist the University Risk Awareness Team. These new staff would serve as campus ombudspersons and assist students experiencing emotional or psychological situations which may interfere with successful completion of their academic career. The first year cost of this component would be $114,000.

3. Career Services: Funding would be used to hire staff who would focus on assisting students in their transition from college to the world of work. Services to be enhanced would include interview preparation, simulation, and training; development of employment portfolios and co-curricular transcripts; and mini-seminars on topics such as the assessment of employment offers (insurance, fringe benefit comparisons, etc). The first year cost of this component would be $65,000.

4. Engagement Center: Funding would be used to provide financial support for students completing their senior capstone projects through the University Engagement Center. These capstone experiences would be offered in all academic programs, and would focus on the application of knowledge and skills gained throughout the college career. These experiences would allow students to think beyond their discipline, major, or concentration, and would be personally designed for each student with guidance from the faculty in the University Engagement Center. The first year cost of this component would be $250,000.

On March 3, 2008 the UW-Platteville Student Senate passed a motion to approve the proposed differential tuition initiative. In addition, Student Senate leadership was involved in the development of the initial proposal. That proposal was discussed at three different Student Senate meetings, and their discussions resulted in a modification to resources focused on

retention. This differential tuition initiative is a reflection of the priorities of UW-Platteville students and their commitment to enhancing and supporting the student experience.

RELATED REGENT POLICIES

Study of the UW System in the 21st Century (June 1996)

Consideration of Salary Adjustments for Senior Academic Leaders to Address Recruitment and Retention Challenges for the Chancellors at UW-Green Bay and UW-Oshkosh and a Provost at UW-Oshkosh

BUSINESS, FINANCE, AND AUDIT COMMITTEE

Whereas, pursuant to ss. 20.923(4g) and 36.09(1)(j), Wisconsin Statutes, the salaries of UW System senior academic leaders must be set within the salary ranges established by the Board of Regents, and based upon a formula derived from the salaries paid by peer institutions to their academic leaders, and

Whereas, section 36.09(1)(j), Wisconsin Statutes, authorizes the Board of Regents to increase Chancellors' and other university senior academic leaders' salaries to address salary inequities or to recognize competitive factors in the periods between pay plan adjustments, and

Whereas, at the February 2006 Board of Regents meeting, the Business, Finance and Audit Committee endorsed the recommendation that the President of the UW System periodically perform a review and assessment of individual Chancellor's salaries to determine whether there is a need for an adjustment to recognize competitive factors or correct salary inequities among senior academic leadership, as allowed by law, and

Whereas, the Board of Regents affirms that leadership is critically important to the performance of our institutions and the students and citizens they serve and, therefore, places a high value on recruiting and retaining our outstanding senior academic leaders.

Now, therefore, be it resolved;

That, upon recommendation of the President of the University of Wisconsin System, the annual salary for Chancellor Shepard, Chancellor Wells, and Provost Earns be adjusted due to competitive market factors and equity reasons as set forth in the attached, effective April 11, 2008.

CONSIDERATION OF SALARY ADJUSTMENTS FOR SENIOR ACADEMIC LEADERS TO ADDRESS RECRUITMENT AND RETENTION CHALLENGES FOR THE CHANCELLORS AT UW-GREEN BAY AND UW-OSHKOSH AND A PROVOST AT UW-OSHKOSH

EXECUTIVE SUMMARY

BACKGROUND

In accordance with ss. 20.923(4g) and 36.09(1)(j), Wisconsin Statutes, the salaries of UW System senior academic leaders must be set within the salary ranges established by the Board of Regents, and based upon a formula derived from the salaries paid by peer institutions to their academic leaders. Senior academic leaders also are eligible to receive increases to their salaries conforming to the amounts approved by the state for general state employee pay plan adjustments, pursuant to s. 230.12(3)(e), Wisconsin Statutes. In addition, section 36.09(1)(j), Wisconsin Statutes, authorizes the Board of Regents to increase employees' salaries to address salary inequities or to recognize competitive factors in the periods between pay plan adjustments.

REQUESTED ACTION

Approval of Resolution I.2.e.1.

DISCUSSION

The Business, Finance, and Audit Committee recommended in their February 2006 meeting that the President of the UW System shall periodically conduct a review and assessment of individual senior academic leader's salaries, taking into consideration the evaluation of the performance of the senior academic leader in his/her current position, to determine whether there is a need for an adjustment in the salary due to competitive market factors and equity reasons. The Business, Finance, and Audit Committee endorsed this new process as a step in the right direction. The President of the UW System has therefore initiated this process and, with this resolution, is forwarding for approval a base salary adjustment for two Chancellors and a Provost.

RELATED REGENT POLICIES

Regent Policy 6-5
Wisconsin Statutes, s. 20.923(4g), s. 36.09(1)(j), and s. 230.12(3)(e)

Peer Salary Comparisons for Non-Doctoral Chancellors

Salary Range Effective 07/01/08 Calculated in Accordance with Board of Regents' Policy:

2006-07 peer group median salary:	$218,338
CUPA-HR projects 4.0% increase in 2007-08	x 1.04
2007-08 projected peer group median:	$227,072
Executive salary policy cost-of living adjustment	x .95
Regents Salary Range Midpoint:	$215,718
Regents Salary Range Minimum (90%):	$194,146
Regents Salary Range Maximum (110%):	$237,290

2006-07 Peer Group Salaries:

University of Akron	$325,077
Central Michigan University	$285,000
University of Northern Iowa	$275,000
University of Illinois-Springfield	$251,000
Michigan Technological University	$250,000
Oakland University	$230,827
University of Michigan-Dearborn	$229,295
University of Michigan-Flint	$229,293
Minnesota State University-Mankato	$226,615
St. Cloud State University	$226,615
Eastern Michigan University	$225,000
Youngstown State University	$224,121
Northeastern Illinois University	$220,000
Minnesota State University-Moorhead	$219,176
Southern Illinois University-Edwardsville	$217,500
University of Minnesota-Duluth	$215,000
Bemidji State University	$207,998
Indiana-Purdue University-Ft. Wayne	$200,100
University of Southern Indiana	$196,650
Winona State University	$192,510
Saginaw Valley State University	$192,000
Eastern Illinois University	$186,293
Grand Valley State University	$185,000
Indiana University-Northwest	$181,500
Ferris State University	$180,353
Northern Michigan	$170,000
Indiana University-South Bend	$163,100
Indiana University-Southeast	$163,100
Mean	$216,719
Median	$218,338

UW System Non-Doctoral Institution Chancellor Salaries 2/08/08

UW-Stout	$211,965
UW-Platteville	$209,888
UW-Oshkosh	$205,663
UW-Superior	$203,723
UW-Green Bay	$200,563
UW-Parkside	$197,503
UW Colleges/Extension	$196,350
UW-Stevens Point	$195,346
UW River Falls	$193,316
UW-Eau Claire	$190,230
UW-La Crosse	$184,000
UW-Whitewater (Interim)	$180,000
Mean	$197,379
Median	$196,927

Recommendation for Base Salary Adjustment for Chancellor Bruce Shepard

The following is an analysis of Chancellor Shepard's salary compared to peers and the broader market for similar institutions and for internal equity considerations.

Chancellor Shepard assumed his current position 11/01/01. Most recent information on peer median salaries place his salary $26,509 (-11.67%) below the projected peer median salary for 2007-08. Based on an American Council on Education 2007 survey, the average tenure of chancellors is 8.5 years. Effective April 1, 2008, Chancellor Shepard will have served 6.4 years as chancellor. Assuming therefore that someone with 8.5 years of service would be at the midpoint of the BOR range, Chancellor Shepard's salary should be approaching the midpoint of the BOR range, to be market competitive. Budget size is also part of the consideration as a proxy for relative complexity of the job compared to other institutions. Of the 11 comprehensive institutions, UW-Green Bay's budget is the ninth largest at $80,783,865 for 2007-08. For comparison, UW-Whitewater has the largest budget of the comprehensive institutions at $182,975,616, nearly 2.3 times larger.

The projected CUPA-HR median salary for institutions with a comparable mission and budget size to UW-Green Bay is $232,783, less than 3% higher than the peer median and therefore not used as a factor in these market considerations.

Finally, while the market data from peers and CUPA-HR supports an increase of at least $12,873, such an increase is not possible due to current economic and budgetary constraints. Therefore, $9,437 is recommended. This increase for Chancellor Shepard will set his salary at $210,000. The salary adjustment is made in order to reflect current market conditions and the need to maintain competitive salaries for our academic leaders.

Proposed Salary Range and External Market/Competitive Factors

	Minimum	Midpoint	Maximum
BOR Current Range	$176,113	$195,681	$215,249
BOR Range (07/01/08)	$194,146	$215,718*	$237,290
Peer Median (projected for 07/08)		$227,072	
CUPA HR Median for UW-Green Bay		$232,783**	

* 95% of Peer Median. Ranges for 2007-08 were based on 2006-07 salary survey data adjusted by 4.0% and recommended to the Board of Regents for 2007-08.

** Based on institutions of the similar size budget and masters level programs from the CUPA-HR (College and University Professional Association – Human Resources) 2006-07 Survey of 1,329 institutions adjusted by 4.0%.

Base Salary Adjustment Recommendation

7/1/2007 Salary	$200,563	
Base increase requested effective 04/11/08 with Board approval	**$9,437**	
04/11/08 base salary	$210,000	
Base Adjustment Percentage Increase		**4.71%**
Percent below projected peer median ($227,072)		**-7.52%**
Percent below CUPA HR median for UW-Green Bay ($232,783)		**-9.79%**

Recommendation for Base Salary Adjustment for Chancellor Richard Wells

The following is an analysis of Chancellor Wells's salary compared to peers and the broader market for similar institutions and for internal equity considerations.

Chancellor Wells assumed his current position 10/01/00. Most recent information on peer median salaries place his salary $21,409 (-9.43%) below the projected peer median salary for 2007-08. Based on an American Council on Education 2007 survey, the average tenure of chancellors is 8.5 years. Effective April 1, 2008 Chancellor Wells will have served 7.5 years as chancellor. Assuming therefore that someone with 8.5 years of service would be at the midpoint of the BOR range, Chancellor Wells's salary should be approaching the midpoint of the BOR range, to be market competitive. Budget size is also part of the consideration as a proxy for relative complexity of the job compared to other institutions. Of the 11 comprehensive institutions, UW-Oshkosh's budget is the third largest at $159,592,403 for 2007-08. For comparison, UW-Whitewater has the largest budget of the comprehensive institutions at $182,975,616, 14.6% larger.

The projected CUPA-HR median salary for institutions with a comparable mission and budget size to UW-Oshkosh is $254,753, over 12% higher than the peer median and enough to be considered in this market assessment.

Finally, while the market data from peers and CUPA-HR supports an increase of at least $22,996, such an increase is not possible due to current economic and budgetary constraints. Therefore $9,586 is recommended. This is also the maximum of the current range. A new range does not go into effect until 07/01/08. The salary adjustment is made to reflect current market conditions and the need to maintain competitive salaries for our academic leaders.

Proposed Salary Range and External Market/Competitive Factors

	Minimum	Midpoint	Maximum
BOR Current Range	$176,113	$195,681	$215,249
BOR Range (07/01/08)	$194,146	$215,718*	$237,290
Peer Median (projected for 07/08)		$227,072	
CUPA HR Median for UW-Oshkosh		$254,753**	

* 95% of Peer Median. Ranges for 2007-08 were based on 2006-07 salary survey data adjusted by 4.0% and recommended to the Board of Regents for 2007-08.

** Based on institutions of the similar size budget and masters level programs from the CUPA-HR (College and University Professional Association – Human Resources) 2006-07 Survey of 1,329 institutions adjusted by 4.0%.

Base Salary Adjustment Recommendation

7/1/2007 Salary $205,663

Base increase requested effective 04/11/08 with Board approval $9,586

04/11/08 base salary $215,249

Base Adjustment Percentage Increase 4.66%

Percent below projected peer median ($227,072) -5.21%

Percent below CUPA HR median for UW-Oshkosh ($254,753) -15.51%

Peer Salary Comparisons for Non-Doctoral Provosts/Vice Chancellors

2007-08 OSER Recommended and JOCER Approved Salary Range:

OSER Range Midpoint:	$141,037
OSER Range Minimum	$124,262
OSER Range Maximum	$157,814

2006-07 Peer Group Salaries:		**UW System Non-Doctoral Institution Provost/Vice Chancellor Salaries 2/08/08**	
University of Akron	$220,000		
Oakland University	$190,528		
University of Michigan-Dearborn	$190,000		
Southern Illinois University-Edwardsville	$185,100		
University of Northern Iowa	$181,178		
Grand Valley State University	$175,329		
University of Michigan-Flint	$173,880		
Minnesota State University-Mankato	$166,293		
Eastern Michigan University	$165,120		
St. Cloud State University	$164,037		
University of Illinois-Springfield	$163,892		
Northern Michigan	$162,318		
Eastern Illinois University	$161,568		
University of Minnesota-Duluth	$160,256		
Ferris State University	$159,331		
		UW-Platteville	$157,529
Saginaw Valley State University	$155,000		
Youngstown State University	$154,500		
Minnesota State University-Moorhead	$152,709		
Northeastern Illinois University	$151,524		
Indiana-Purdue University-Ft. Wayne	$151,410		
		UW-Green Bay	$150,872
		UW-La Crosse (Interim)	$150,489
Bemidji State University	$150,196		
		UW-Oshkosh	$147,900
		UW-Eau Claire	$147,500
		UW-Stout	$146,880
		UW-Stevens Point	$144,000
Indiana University-South Bend	$143,400		
		UW-Extension (Interim)	$142,500
		UW-Whitewater (Interim)	$142,500
		UW-Superior	$142,290
Indiana University-Northwest	$141,000		
Winona State University	$140,000		
		UW Colleges (Interim)	$139,500
		UW-Parkside (Interim)	$139,500
		UW-River Falls (Interim)	$139,500
University of Southern Indiana	$135,068		
Indiana University-Southeast	$129,757		
Mean	$162,438	Mean	$145,458
Median	$160,912	Median	$144,000

Recommendation for Base Salary Adjustment for Provost Lane Earns

The comprehensive Vice Chancellor/Provost peer median salary projected for 2007-08 is $167,348. This projected peer median salary is nearly $10,000 above the maximum salary range recommended by the Office of State Employment Relations (OSER) and approved by the Joint Committee on Employment Relations (JCOER) for comprehensive Provosts and represents a significant retention and recruiting challenge. Several Provosts are nearing the top of this range and we currently have six interim Provosts covered by this salary range.

Therefore, in response to the request from Chancellor Richard Wells and based on a review of external market/competitive factors and internal salary equity considerations, a $6,500 base adjustment for Provost Lane Earns is recommended.

Salary Equity & Market Considerations

- Lane Earns is our fourth longest serving provost having assumed his current position 2/01/05.
- The salary increase requested will place him $12,948 below (-7.74%) the peer median salary.
- The salary increase requested will place him $31,136 (-16.78%) below the CUPA HR median for UW-Oshkosh.

The salary adjustment is made to reflect current market conditions and the need to maintain competitive salaries for our academic leaders.

Salary Ranges and External Market/Competitive Factors

	Minimum	Midpoint	Maximum
OSER Approved Range (07/01/07)	$124,262	$141,037	$157,814
Peer Median (projected for 07/08)		$167,348	
CUPA HR Median for UW-Oshkosh		$185,536*	

* Based on institutions of the similar size budget and masters level programs from the CUPA-HR (College and University Professional Association – Human Resources) 2006-07 Survey of 1,329 institutions adjusted by 4.0%.

7/1/2007 Salary	$147,900
Base increase requested effective 04/11/08 with Board approval	**$6,500**
04/11/08 base salary	$154,400

Base Adjustment Percentage Increase 4.4%

Percent behind 2007-08 Projected peer median ($167,348) -7.74%

Percent behind CUPA median of comparable budget size ($185,536) -16.78%

UW-Stout
Bookstore Contract with
Validis Resources

BUSINESS, FINANCE, AND AUDIT COMMITTEE

Resolution:

That, upon the recommendation of the Chancellor of the University of Wisconsin-Stout and the President of the University of Wisconsin System, the Board of Regents approves the five-year contract with Validis Resources to provide Bookstore Services at the University of Wisconsin-Stout effective May 22, 2008.

April 11, 2008 Agenda Item I.2.e.2.

CONTRACTUAL AGREEMENT WITHUW-STOUT AND VALIDIS RESOURCES

BACKGROUND

Board of Regents approval is required for contracts over $500,000 with for-profit companies. The University of Wisconsin-Stout invited vendors to submit a sealed Bid for the operation of Bookstore Services. UW-Stout Bookstore has been a contracted operation since May 1995. The Bookstore Services facility is located in the Memorial Student Center on campus and does not include text rental services, which are operated by the campus directly to its students.

The University was interested in a relationship with a Bookstore Services contractor that would offer innovative ideas for management of the campus bookstore. Student input was sought and received through multiple avenues. Those avenues included Student Government approval of the operating revenues and expenses through the annual budget process. In addition, the students were involved in the initial contract specification review which included discussions regarding prices, products, e-commerce, hours of operation, and the potential for future store renovations.

The overall goal was to create a Bookstore Services program that meets the unique needs of a diverse student body, faculty, and staff with an emphasis on providing supplementary textbooks and materials, school supplies, soft goods and technology peripherals. In 2007, approximately 42% of total store sales were derived from UW-Stout branded clothing. The campus would like to expand the offerings so that the Bookstore is more than a place to purchase UW-Stout branded clothing. They have encouraged an aggressive marketing program while setting high standards of excellence in quality and service to be provided at a reasonable cost to the University community.

The University and the contractor will work cooperatively to complement the mission of the campus and enhance campus life.

REQUESTED ACTION

Approval of Resolution I.2.e.2.

That, upon recommendation of the Chancellor of the University of Wisconsin-Stout and the President of the University of Wisconsin System, the Board of Regents approves the five-year contract with Validis Resources to provide Bookstore Services at the University of Wisconsin-Stout effective May 22, 2008.

DISCUSSION AND RECOMMENDATION

A request for bid process was used and two vendors submitted bids. Validis Resources provided the highest commission and the bid meets all of the desired outcomes of UW-Stout while maintaining pricing at an acceptable level. Some highlights of the contract are as follows:

- Contractor will assume operation of the Bookstore Services operations for five years.
- Annual net revenue to the Contractor is valued at approximately $810,000 per year.
- The University will receive a twelve percent commission of all sales valued at approximately $97,500 annually. The previous contract provided a commission rate of 10% of all sales with an annual guarantee of $85,000.
- The University will receive a financial investment of up to $165,000 to refurbish the current store. In addition, the university will receive $50,000 upon contract signature and $3,000 annually for student scholarships over the term of the contract.

Procurement documents are available at the UW System Office of Procurement.

RELATED REGENT POLICIES

Authorization to Sign Documents 13-3.

UW-Parkside
Bookstore Contract with
Validis Resources

BUSINESS, FINANCE, AND AUDIT COMMITTEE

Resolution:

That, upon the recommendation of the Chancellor of the University of Wisconsin-Parkside and the President of the University of Wisconsin System, the Board of Regents approves the seven-year contract with Validis Resources to provide Bookstore Services at the University of Wisconsin-Parkside effective April 11, 2008.

April 11, 2008 Agenda Item I.2.e.3.

CONTRACTUAL AGREEMENT WITH UW-PARKSIDE
AND VALIDIS RESOURCES

BACKGROUND

Board of Regents approval is required for contracts over $500,000 with for-profit companies. The University of Wisconsin-Parkside invited vendors to submit a sealed Request for Proposal (RFP) for the operation of Bookstore Services. The Parkside bookstore will move from its current location in Wylie Hall to a contractor funded space in the newly remodeled Student Union.

The University was interested in a relationship with a Bookstore service contractor that would engage the campus community and offer innovative ideas for management of the campus program. The University requested proposals with a plan to operate for a short period, in the existing facility, while working with campus administration to create a new bookstore area in the newly renovated Student Union.

The goal is to create a bookstore service program that meets the needs of a diverse student body, faculty, and staff. UW-Parkside encouraged innovative marketing to maintain a high used textbook ratio, educate the campus community on textbook cost factors, and enhance supplies and soft goods, while setting high standards of excellence in quality and service, to be provided at a reasonable cost to the students. The University and the contractor will work cooperatively to complement the mission of the campus and enhance campus life.

REQUESTED ACTION

Approval of Resolution I.2.e.3.

That, upon recommendation of the Chancellor of the University of Wisconsin-Parkside and the President of the University of Wisconsin System, the Board of Regents approves the seven-year contract with Validis Resources to provide Bookstore Services at the University of Wisconsin-Parkside effective April 11, 2008.

DISCUSSION AND RECOMMENDATION

The University is in the middle of a major remodeling and addition to the University Union, which will have a significant effect on all operations. To prepare for this new construction and remodeling project, the University completed an exhaustive examination of operations. The process resulted in the development of a Strategic Master Plan for Campus Services. One of the primary goals of this plan is to concentrate all service operations in the University Union building on campus.

A request for proposal process was used to seek bookstore contractors and two vendors' submitted proposals. Validis Resources received the highest score and was chosen by an evaluation committee comprised of campus staff, students, and a System representative. The proposal submitted meets all of the desired outcomes of UW-Parkside while maintaining pricing at an acceptable level. Some highlights of the contract are as follows:

- Contractor will assume operation of the Bookstore service operation for seven-years**.**
- Annual net revenue to the Contractor is valued at approximately $2,500,000 per year.
- The Bookstore area build out is valued at $332,000.
- In addition, the University will receive $150,000 upon contract signature and $6,000 in annual student scholarship award donations.
- The University will receive a twelve and one half percent commission of all sales to $2,000,000 and fourteen and one half percent commission for all sales over $2,000,001 valued at approximately $322,000 annually. The previous contract provided a commission rate of ten and one half percent of all sales over $2,000,000 and eleven and one half percent over $2,000,001 with an annual guarantee of $200,000.

Procurement documents are available at the UW System Office of Procurement.

RELATED REGENTS POLICIES

Authorization to Sign Documents 13-3

BUSINESS, FINANCE, AND AUDIT COMMITTEE

Resolution:

That, upon recommendation of the President of the University of Wisconsin System, the Board of Regents approves the 2008-09 UW System annual distribution adjustments.

April 11, 2008 Agenda Item I.2.e.4.

2008-09 UW SYSTEM ANNUAL DISTRIBUTION ADJUSTMENTS

Annual distribution adjustments are provided for those 2007-09 UW System budget initiatives that affect second year (2008-09) funding.

I. DISTRIBUTION ADJUSTMENTS FOR NEW FUNDING

A. NEW UW SYSTEM DISTRIBUTION ADJUSTMENTS

1. RECRUITMENT AND RETENTION OF FACULTY AND RESEARCH ACADEMIC STAFF

The 2007-09 biennial budget provides an additional $3,333,400 in 2008-09 to support competitive compensation for faculty and research academic staff in high-demand and/or mission-critical academic disciplines. Funding will be distributed based on each institution's proportion of the approved, all funds October 2006 payroll base for faculty and research academic staff.

Guidelines for Use of Funds

- Use of funds is limited to salary dollars.
- Because of the critical need for funding to address competitive salary concerns, all recruitment and retention dollars should be used in the year allocated.
- Funding is not limited to matching outside offers but can be used to support proactive market based salary increases when those disparities can be documented.
- Recruitment and retention funding cannot be provided in an across-the-board fashion.
- This funding may not be used to address widespread compression issues.
- Funding may not be granted to deans, or any individual who has a working title of dean.
- Awards should be no less than $1,000 per individual.

2. LAWTON UNDERGRADUATE MINORITY RETENTION GRANT/ADVANCED OPPORTUNITY PROGRAM (AOP)

The budget increases funding for the Lawton program by $268,300 and the AOP by $346,400 in 2008-09. Total funding for 2008-09 will be allocated based on each institution's proportion of a three-year rolling average headcount of minority students.

3. UTILITIES

The budget provides an increase of $11,911,700 for utilities in 2008-09. The total budget for utilities ($131,626,200) will be redistributed. The base level of funding is the 2005-06 expenditure level. The base is adjusted using the Department of Administration's (DOA) inflation scalers by commodity code.

Funding for new space and other cost increases is added, based on the amounts funded in the biennial budget, by campus.

4. STUDENT TECHNOLOGY FEE

The budget provides an additional $1,288,500 in 2008-09 to meet student needs for instructional technology and information access. Allocation of this funding is proportional to 2006-07 combined academic year and summer session tuition budgets excluding the student technology fee.

5. NURSING EDUCATION

The budget provides $3,024,900 in 2008-09 to expand off-site and nurse educator programs, create accelerated programs, and increase capacity in graduate programs to increase number of baccalaureate and graduate level nurses. The allocation is based on the request approved by the Board of Regents in August 2007. Those amounts have been prorated to match the lower amount provided in the 2007-09 biennial budget.

	NURSING INITIATIVE	GPR & FEES
Eau Claire	Accelerated BSN	$296,200
	Marshfield Site Outreach	$208,500
Oshkosh	Expand Nurse Educator	$364,800
	Direct Entry MSN	$364,800
	Wausau Site Outreach	$208,500
Green Bay	Offsite Expansion	$156,300
Milwaukee	Expand Offsite Programs	$362,300
	Expand Grad Capacity	$376,900
Madison	Accelerated BSN	$362,300
	Nurse Educator Program	$99,300
	Lab Equipment/Managers	$225,000
Total		**$3,024,900**

6. TEACHER EDUCATION

The budget provides $2,629,700 in 2008-09 to enhance the cultural and social competencies of education students, recruit and retain a diverse student body, and assess and evaluate teacher education programs. Funding will be allocated to provide 1 instructional staff and 1 recruiter/advisor at all 4-year institutions except UW-Green Bay, which included Teacher Education in its institutional initiative. In addition, funding for an LTE to create and maintain a database for assessment purposes will be provided to every 4-year institution.

Systemwide funding of $276,700 will support a director, evaluator, and teaching assistant for the Urban and Rural Institute. An additional $231,900 will support a UW System Marketer and a Coordinator for Data Collection and Assessment.

The teacher education funding is distributed as follows:

Madison	$176,300
Milwaukee	$176,300
Eau Claire	$174,400
Green Bay	$24,500
La Crosse	$174,400
Oshkosh	$174,400
Parkside	$174,400
Platteville	$174,400
River Falls	$174,400
Stevens Point	$174,400
Stout	$174,400
Superior	**$174,400**
Whitewater	**$174,400**
Systemwide	**$508,600**
Total	**$2,629,700**

7. **APPLIED RESEARCH**
   The budget provides $239,400 in 2008-09 to match a private sector grant to increase funding for the applied research program for faculty and staff who conduct research in partnership with the private sector to promote economic growth within the state. This funding will be allocated to UW Systemwide. Funding is awarded though a competitive process.

8. **TRANSFER INFORMATION SYSTEM**
   The budget provides $166,400 in 2008-09 to implement the fourth phase of the transfer information system. This funding will be allocated to UW Systemwide.

9. **EARLY MATH PLACEMENT TEST**
   The budget provides $124,500 in 2008-09 to fund an early math placement testing program to measure the math skills of college-bound high school juniors. This funding will be allocated to UW-Madison, which has the expertise needed to develop and administer the exam.

B. INSTITUTIONAL INITIATIVES

Funding for institutional initiatives will be allocated to the designated institution based on gubernatorial and legislative intent.

1. **UW CANCER CENTER – LUNG CANCER RESEARCH**
   The budget provides $2,500,000 in 2008-09 in one-time funding for lung cancer research. It is required that the UW School of Medicine and Public Health receive $2,500,000 in gifts and grants from private sources for lung cancer research to expend these funds. This funding is allocated to UW-Madison.

2. MEDICAL PRACTICE IN UNDERSERVED AREAS

The budget provides $400,000 in 2008-09 for the Department of Family Medicine in the UW School of Medicine and Public Health to support the Wisconsin Academy for Rural Medicine, the Academy for Center-city Medical Education and the Wisconsin Scholars Academy. It is required that the UW School of Medicine and Public Health receive $400,000 in gifts and grants from private sources in a fiscal year to receive this funding in that fiscal year. This funding is allocated to UW-Madison.

3. UW SYSTEM INSTITUTIONAL INITIATIVES

The budget provides $23,205,900 in 2008-09 for Growth Agenda initiatives at various campuses, as follows:

UW-Eau Claire	$ 1,818,600
UW-Green Bay	1,706,200
UW-Milwaukee	9,629,500
UW-Oshkosh	2,530,200
UW-Parkside	1,223,500
UW-Platteville	552,900
UW-River Falls	316,100
UW-Stevens Point	259,400
UW-Stout	$1,150,700
UW-Superior	1,099,500
UW-Whitewater	371,000
UW Colleges/Extension	2,548,300
Growth Agenda Total	$23,205,900

4. UW-LACROSSE: GROWTH AND ACCESS INITIATIVE

The budget provides $901,400 in 2008-09 to support the campus' growth and access initiative.

II. DISTRIBUTION ADJUSTMENTS FOR COMPENSATION

A. 2008-09 UNCLASSIFIED PAY PLAN

The 2007-09 faculty and academic staff pay plan was acted upon by JCOER in November 2007. The 2008-09 pay plan provides phased increases with 2% effective July 1, 2008 and an additional 1% on April 12, 2009. Allocations will be made based upon the approved October 2006 payroll base.

B. 2008-09 CLASSIFIED PAY PLAN

The 2007-09 nonrepresented classified pay plan was acted upon by JCOER in November 2007. The 2008-09 pay plan provides phased increases with 2% effective on July 6, 2008 and an additional 1% on April 12, 2009. These allocations will be made based on the approved October 2006 payroll base.

UW System Policies for Large or Vital

Information Technology Projects

BUSINESS, FINANCE, AND AUDIT COMMITTEE

That, upon the recommendation of the President of the University of Wisconsin System, the Board of Regents approves the attached UW System Policies for Large or Vital Information Technology Projects and directs the System Administration to submit the policies to the Legislative Joint Committee on Information Policy and Technology for approval as directed by 2007 Wisconsin Act 20.

April 11, 2008 Agenda Item I.2.e.5.

UW SYSTEM POLICIES FOR LARGE OR VITAL INFORMATION TECHNOLOGY PROJECTS

EXECUTIVE SUMMARY

BACKGROUND

As prescribed in 2007 Wisconsin Act 20, the Board of Regents is required to create specific and detailed policies on all "large" IT projects [defined as costing over $1 million] or projects defined as vital to the functions of the system or the institutions, and submit those policies, and any future amendments to those policies, to the Joint Committee on Information Policy and Technology for approval.

Draft policies were presented to the Board of Regents Business, Finance, and Audit Committee for review and discussion at its February, 2008 meeting.

REQUESTED ACTION

Approval of Resolution I.2.e.5.

DISCUSSION AND RECOMMENDATIONS

This requirement of the statutes centers on the creation of specific and detailed policies for all "large" information technology projects. The proposed policies governing high cost and vital information technology projects are attached. Subsequent to the Board's discussion in February, there were no suggested changes to the draft policies previously presented.

Once approved by the Board of Regents, these policies will be submitted as required to the Joint Committee on Information Policy and Technology for approval

RELATED REGENT POLICIES

25-2 Guide to plan and implement management information systems

UNIVERSITY OF WISCONSIN SYTEM

BOARD OF REGENTS POLICIES FOR

LARGE OR VITAL INFORMATION TECHNOLOGY (IT) PROJECTS

1. The University of Wisconsin System and each UW institution will submit a "Strategic Plan for IT Projects" to the Board of Regents each year by March 1. The institutional strategic plans for March 1, 2008 shall be those already developed and implemented. Those institutions without an IT strategic plan shall develop a plan to submit by March 1, 2009. As a part of the plan, in a separate document, the UW System and each institution must identify all high cost (exceeding $1,000,000) and IT projects that are vital to the functions of the system, institution or college campus, including ongoing IT projects (in the process of implementation) and proposed projects.
    a. UW System and each UW institution will designate a project as high cost or vital ***if***:
        i. The project's total cost is greater than $1 million[1], ***or***
        ii. Failure to complete the project on time or on budget would prevent the system, the institution or the campus from running any of its enterprise-wide systems or fulfilling any of its essential missions of instruction, research, extended training or public service for 30 days.
    b. Policies governing High Cost and Vital Projects at UW System and UW institutions:
        i. Every project must have a governance structure that includes executive sponsors, a project steering committee, a project manager, and an appropriate project implementation team.
        ii. Every project must have a Project Charter containing a clear business case, detailed project objectives, project principles, project structure, project management strategies, and project management controls.
        iii. Every project must have a communication plan.
        iv. Every project must identify affected business processes before implementation begins, and establish effective change control procedures when the complexity of the business process or policy requires modifications or customizations to the software application.
        v. Every project must have a project plan, timeline and budget at the beginning of implementation.
        vi. The project plan must address the issue of independent project quality assurance (i.e., outside audits).

[1] GPR funded staff reassigned to a project are *not* considered part of a project's cost. Any staff hired to backfill for GPR funded staff assigned to a project are considered part of a project's cost.

vii. In the event that a project proposal recommends some solution other than a commercial off-the-shelf (COTS) product the proposal must contain:
    1. An analysis of five year costs associated with purchase and maintenance of the COTS product versus the cost to build or support the product.
    2. An analysis of business requirements and needs

viii. Each of the above elements (i. through vii.) of all UW System and UW institution high cost or vital projects must be submitted to the UWSA Project Management Office (PMO) for review before the beginning of the implementation phase. The same elements will be included in the "Strategic Plan for IT Projects" report to the Board of Regents by March 1.

2. Policies and procedures for routine monitoring of large or vital information technology projects:

For Individual Universities or Colleges

a. A university project steering committee provides management oversight of individual campus projects, including:
    i. Approval of all project specification changes
    ii. Approval of all timeline changes
    iii. Approval of all cost changes
b. The university project steering committee must:
    i. Confer with the UW System Office of Project Management (UWSA PMO) before discontinuing or substantially modifying a large or vital information technology project.
    ii. Provide the UWSA PMO with a quarterly project progress report (including all elements outlined in 2.d.i.1 below) to be included in the semi-annual BOR report (June 1st and December 1st) to the Joint Committee on Information Policy and Technology (JCIPT).

For UW System

c. All major UW System IT projects are managed and monitored by the UWSA PMO, and governed by System-wide or institutional Executive Steering Committees. The Steering Committees provides management oversight of individual System-wide projects, including:
    i. Approval of all project specification changes
    ii. Approval of all timeline changes
    iii. Approval of all cost changes
d. The Common Systems Review Group (CSRG) monitors the budget and fiscal health of each System-wide project. CSRG responsibilities include:
    i. Provides to the BOR progress reports for each System sponsored project prior to the BOR report to JCIPT on June 1st and December 1st. The progress reports will include:
        1. Original and updated project costs
        2. Original and updated project timelines
        3. Explanation of major cost or timeline changes

4. Executive summary of previously unreported contracts related to an IT project
5. Funding sources for each project, including master leases
6. Project status

ii. Recommends to the chancellors and president all System-wide projects.
iii. Recommends to the chancellors and president all project funding on an annual basis
iv. Recommends to the chancellors and president extraordinary increases in total CSRG project funding
v. Recommends to the chancellors and president discontinuing or significantly modifying projects
vi. Creates a System-wide IT Plan for the BOR by March 1st each year.

Office of Operations Review and Audit

Program Review

Protecting Computer Networks and Data in the UW System

March 2008

Table of Contents

	Page
Executive Summary	i
Scope	1
Background	1
Discussion and Recommendations	2
Information Protection Laws and Disclosures	3
IT Organization and Staffing	5
IT Structures	5
Computer Security Function Staffing	6
Computer Security Policies and Procedures	10
Principal UW Computer Security Policy	10
Issue-Specific Institutional Policies	11
Computer Security Incident Response	12
Network and Data Access	13
Security Hardware and Software	13
Passwords	17
Physical Access to Data Centers and Network Equipment	17
IT User Education	18
Conclusion	20
Appendix	22

EXECUTIVE SUMMARY

Institutions of higher education rely on information technology (IT) for many of their critical operations, including admissions, financial aid, student records, research, and instruction. Increased use of IT increases the risk of unauthorized disclosure of confidential data. College and university IT leaders identify computer security as one of the top ten IT issues their institutions face. The Office of Operations Review and Audit reviewed efforts to protect computer networks and private electronic data in the UW System. The review examined: information protection laws, computer security staffing, policies and procedures related to computer security, access to computer networks and data, and user education. The review also examined computer security staffing, policies, and practices at other higher education institutions. This review is not a security audit which, by definition, includes systematic and technical assessments of IT systems, applications, processes, and specific measures.

Information Protection Laws and Disclosures

Protection of personally identifiable information is governed by a combination of federal and state laws, UW policies, and consumer credit card policies. These include the Family Educational Rights and Privacy Act (FERPA); the Health Insurance Portability and Accountability Act (HIPAA); the Gramm-Leach Bliley Act (GLBA); UW Regent Policy Document (RPD) 25-3 covering the use of IT resources; the Payment Card Industry (PCI) Data Security Standards; and s. 895.507, Wis. Stats.

According to the Privacy Rights Clearinghouse, a total of 190 data breaches or unauthorized disclosures involving colleges and universities in the United States were reported between January 1, 2005 and December 31, 2007. More than four million students, faculty, staff, and alumni records were involved in these 190 breaches. These breaches resulted from hackers, stolen computers or storage media, and accidental or unintentional acts by internal staff.

IT Organization and Staffing

UW institutions have developed their computer security function in one of two ways: by establishing an office or appointing a full-time information security officer, or by assigning computer security duties to certain IT staff as part of the staff's varied IT responsibilities. Having a person or an office solely responsible for computer security is recommended by various IT security professional organizations. Many institutions of higher education have also established a central security office or officer.

A security function enables an institution to be more proactive in addressing computer security issues and coordinating computer security efforts across the institution. In order to ensure that appropriate attention is paid to computer security, the report recommends that UW institutions, if they have not already done so, designate a computer security officer position that has computer security as its primary responsibility and that requires the necessary computer security skills. Two UW institutions were recently able to establish such a position through internal reallocations.

Computer Security Policies and Procedures

UW Regent Policy Document (RPD) 25-3, "Policy on Use of University Information Technology Resources," was not intended to be a computer security policy. However, RPD 25-3 does require users to take reasonable care to ensure that unauthorized persons are not able to use their access to UW computer systems and encourages UW institutions to protect electronic documents containing private and confidential information. In addition to RPD 25-3, UW institutions have adopted institution-level policies to address a wide range of areas and issues. Some universities in other states have developed a comprehensive information security policy that typically goes beyond acceptable use of IT resources. A common theme in many of these policies is defining and classifying data that need protection. Only two UW institutions address data classifications in their policies. The report recommends that UW System institutions, if they have not done so, develop an institutional policy that identifies the specific types of data that need additional protection.

All UW institutions visited for this review reported having procedures for reporting a computer security incident – any real or suspected adverse event in relation to the security of a computer system or computer network. However, only two UW institutions have formal, written procedures documenting the process for responding to a computer security incident. To ensure that procedures are in place when data breaches are detected and when statutory notification requirements need to be considered, the report recommends that UW System institutions develop formal, written policies and procedures on computer security incident response.

Network and Data Access

UW System institutions have implemented some security hardware and software common to the IT industry and institutions of higher education. These include firewalls, anti-virus software, and anti-spyware software. Most UW institutions require password standards and regular password changes in accessing the main campus networks. UW institutions have also implemented some common measures to protect their data centers. However, the nature of IT threats is continually changing. Therefore, the report recommends that all UW System institutions perform periodic vulnerability assessments of their networks, including reviewing security hardware and software, passwords, and access to data centers and departmental servers, and that they mitigate any identified risks accordingly.

IT User Education

UW System institutions have offered varying degrees of computer security awareness education for their campus computer users. Education is provided through campus websites, flyers, posters, and mass e-mails. Information provided covers issues such as passwords, patches, data storage, anti-virus protection, and anti-spyware. The National Institute of Standards and Technology recommends specific information that should be provided in a computer security education program. Since it is critical that computer users are aware of threats and follow good computer security practices, the report recommends that UW System institutions assess their education programs for computer users to ensure the programs cover information that is essential for safe and secure IT usage.

SCOPE

The University of Wisconsin (UW) System Office of Operations Review and Audit reviewed efforts to protect computer networks and private electronic data in the UW System. This review is not a computer security audit which, by definition, includes systematic and technical assessments of information technology (IT) systems, applications, or processes. While we examined security measures UW System institutions have implemented, we did not conduct a technical assessment of these measures to determine their effectiveness or adequacy. The review focused on IT staffing, policies and procedures, access, and user education.

To conduct this review, we: 1) analyzed UW System and institutional policies related to computer security; 2) researched computer security staffing, policies, and practices at other higher education institutions; and 3) visited UW-Madison, Milwaukee, Oshkosh, Parkside, River Falls, Whitewater, UW Colleges, and UW-Extension and conducted surveys and telephone interviews with staff at all UW campuses we did not visit. UW staff we interviewed included chief information officers (CIOs), information security officers, network administrators, and data center managers. During the visits, we also walked through some data centers to examine physical security measures at these centers.

BACKGROUND

Information technology permeates every aspect of higher education operations. Institutions of higher education rely on IT for more and more of their critical operations, including admissions, financial aid, accounts payable, accounts receivable, student records, research, and instruction. IT appears to have increased productivity and efficiency and reduced costs in some of these operations.[1, 2, 3] IT also increases access to higher education and often improves the quality of the student learning experience. At the same time, however, increased use of IT increases certain associated risks. According to the 2007 Current Issues Survey by EDUCAUSE, an organization that promotes intelligent use of IT in higher education, U.S. college and university IT leaders identified computer security as one of the top ten IT issues facing their institutions.[4]

One concern about computer security stems from the potential effects of unauthorized disclosures of personally identifiable information or breaches. Data breaches can and have resulted in:

- *Identity theft*: Identity theft involves the use of another individual's personally identifiable information to commit fraud. A survey conducted by the Federal Trade Commission (FTC)

[1] Twigg, Carol. "Improving Quality and Reducing Costs: Designs for Effective Learning." *Change*, July/August 2003.
[2] Frazier, Lavon R. "An Admissions Process Transformed with Technology." *EDUCAUSE Quarterly*, November 2000.
[3] Newpher, Cameron. "An IT Evolution in the Classroom." *Techniques: Connecting Education and Career*, May 2006.
[4] Camp, John S., Peter B. DeBlois, and the EDUCAUSE Current Issues Committee. "Current Issues Survey Report, 2007." *EDUCAUSE Quarterly*, Number 2, 2007.

estimated that 3.6 million households, or 3.1 percent of the households in the United States, became victims of identity theft in 2004.[5]

- *Financial losses*: When a breach is detected, resources are needed to address the breach. Where data loss occurs, legal actions could be and have been brought against colleges and universities. While most of the financial losses resulting from identity theft are borne by financial institutions, some colleges and universities where data loss occurred have had to pay the costs for credit monitoring for individuals affected by the breach. Gartner, an IT research company, estimated that a mid-range breach of tens of thousands of records would cost an organization between $90 and $100 per affected record.[6] A study by Forrester Research found that the average security breach can cost a company between $90 and $305 per lost record.[7]

- *Damaged reputation*: Students, staff, faculty, and alumni trust colleges and universities with the safekeeping of their personal data. Data losses tarnish colleges' and universities' reputations if it is perceived that colleges and universities contributed to or were responsible for the losses.

- *Violation of law, policies, and standards*: Protecting private information of UW students, faculty, staff, and alumni is required by: 1) certain federal and state laws, such as the Family Educational Rights and Privacy Act (FERPA) and the Health Insurance Portability and Accountability Act (HIPAA); 2) by UW policies, including a Board of Regents policy on use of university information technology resources; and 3) by data security standards, such as the Payment Card Industry (PCI) Data Security Standards. Unauthorized disclosure of private information may be deemed violations of these laws, policies, and standards.

The literature on computer security and the opinions of various IT security experts indicate that protecting personal data and computer networks will continue to be an issue and a challenge for colleges and universities. According to the Chronicle of Higher Education, "increased identity theft, online stalking, cyberterrorism," and "increased willful disruption of campus networks" are among the ten trends to watch in campus technology.[8]

DISCUSSION AND RECOMMENDATIONS

There appears to be a growing concern about the unauthorized disclosure of private information, as evidenced by the federal and state legislation related to privacy. Protecting computer networks and data (also referred to as computer or information security in this report) is complex, however. Effective computer or information security requires the integration of

[5] Baum, Katrina. "Identify Theft, 2004." *Bureau of Justice Statistics Bulletin*, April 2006.
[6] Wood, Lamont. "The Cold, Hard Costs of Data Exposure," September 27, 2006, <http://www.esj.com/news/print.asp?editorialsId=2169>.
[7] Gaudin, Sharon. "Security Breach Cost $90 to $305 Per Lost Record." *InformationWeek*. April 11, 2007.
[8] Martin, James and James E. Samels. "10 Trends to Watch in Campus Technology – Plus 8 Myths and 7 Key Skills for CIO's." *The Chronicle of Higher Education*, January 7, 2007, <http://chronicle.com/weekly/v52/i18/18b00701.htm>.

technologies, policies, and people. This report discusses: 1) information protection laws and disclosures; 2) IT organization and staffing; 3) IT policies and procedures; 4) network and data access; and 5) IT user education.

INFORMATION PROTECTION LAWS AND DISCLOSURES

Protection of personally identifiable information is governed by a combination of federal and state laws, UW policies, and consumer credit card policies:

- *The Family Educational Rights and Privacy Act (FERPA)*: FERPA is a federal law that protects the privacy of education records. Schools may disclose, without consent, directory information, such as student name, address, telephone number, date and place of birth, honors and awards, and dates of attendance. Schools may disclose, without consent, personally identifiable information from education records only to certain parties and under certain circumstances, such as to school officials with a legitimate interest, to appropriate parties in connection with financial aid to the student, and to appropriate officials in cases of health and safety emergencies.

- *The Health Insurance Portability and Accountability Act (HIPAA)*: HIPAA protects individually identifiable health information in certain circumstances. Individually identifiable health information includes common identifiers, such as name, address, date of birth, and Social Security number.

- *The Gramm-Leach Bliley Act (GLBA)*: GLBA protects personally identifiable financial information. GLBA also requires covered entities to implement a comprehensive information security program along with a risk assessment process.

- *Regents Policy Document (RPD) 25-3*: RPD 25-3, "Policy on Use of University Information Technology Resources," requires UW institutions to take reasonable precautions to protect electronic documents containing private and confidential information.

- *Payment Card Industry (PCI) Data Security Standards*: The major credit card associations -- Visa, MasterCard, American Express, and Discover -- require that credit card processors and merchants accepting payment cards and storing, processing, or transmitting credit cardholder data implement certain security measures and computer system configurations.

- *Section 895.507, Wis. Stats.*: Wisconsin is one of 39 states that have enacted a data security breach law. Section 895.507, Wis. Stats. requires businesses and organizations operating in Wisconsin, including the UW System, to notify individuals to whom the personal information pertains when their information has been disclosed to an unauthorized person. Under s. 895.507, Wis. Stats., which went into effect on March 31, 2006, a notification is only required if the disclosure creates a material risk of identity theft or fraud to the individuals to whom the personal information pertains.

The Privacy Rights Clearinghouse, a nonprofit consumer information and advocacy organization, began to track incidents of data loss and theft in 2005. The Clearinghouse does not define data-loss incidents but, rather, compiles data that entities are required to report under their own states' security breach notification laws. States' reporting requirements vary; thus, the reported incidents may or may not have involved information that was ultimately used for identify theft, monetary theft, or similar purposes. Between January 1, 2005 and December 31, 2007, a total of 190 data breaches or unauthorized disclosures at colleges and universities in the United States were reported. Over 4.7 million students, faculty, staff, and alumni records were involved in these 190 breaches or disclosures. Table 1 shows the number of data breaches or disclosures, records involved, and institutions with the largest number of records involved.

Table 1: Examples of Data Breaches at Institutions of Higher Education* (Calendar Years 2005, 2006, and 2007)

Year	Number of Breaches	Total Records Involved	Institutions with Largest Number of Records Involved
2005	57	1.7 million	University of Southern California (admissions); University of Hawaii (various); Boston College (alumni); Tufts University (alumni); University of Utah (personnel); and University of California Berkeley (research).
2006	65	2.1 million	University of California Los Angeles (financial aid); Western Illinois University (admissions, bookstore, financial aid, and hotel); University of Texas (various); Ohio University (health); Sacred Heart University (recruitment); and Metropolitan State College (enrollment).
2007	68	830,500	Community College of Southern Nevada (various); Stonybrook University (various); University of Louisiana System (testing and personnel); University of Idaho (various); and East Carolina University (various).

Source: Analysis is based on data obtained from the Attrition Dataloss Listserve. The Privacy Rights Clearinghouse also obtains its data from this listserve.
* Excludes university hospitals and medical facilities.

These data breaches reported by the Privacy Rights Clearinghouse represent only a subset of breaches that occurred. The breaches reported were primarily from states that have laws in effect requiring notification of individuals affected by the breach. As noted, only 39 of the 50 states, including Wisconsin, have passed such laws.

Outside hackers were involved in 60 percent of the reported incidents in 2005. In 2007, only 25 percent of the reported incidents were the result of hackers. Since 2005, stolen laptops and storage devices accounted for an increasing number of the reported incidents. Other incidents were the result of accidental or unintentional acts by internal staff, such as posting files that contain private information on the internet, sending e-mails that contain private information to unauthorized individuals, and losing storage media that contain private data.

IT ORGANIZATION AND STAFFING

A successful computer security program involves identifying the risks, developing measures and controls to mitigate those risks, monitoring the known risks, ensuring compliance with policies and procedures, and responding to incidents promptly and appropriately when they occur. We reviewed UW institutions' IT organizational structures and examined staffing levels assigned to perform these tasks.

IT Structures

How the IT function is structured influences strategies to protect computer networks and confidential data that are stored on these networks. IT organizational structures vary across UW System institutions. For example:

- Most UW institutions, including UW-Madison, Milwaukee, and Oshkosh, have decentralized IT operations, through which various major departments have their own IT staff and even operate their own computer networks.

- UW-Green Bay is the only UW institution where a central IT department provides all of the IT support and manages all of the computer networks.

- UW-Platteville and UW Colleges/Extension have variations of a centralized IT structure. UW-Platteville IT hosts and maintains all campus networks, and IT support staff are part of a central IT unit, but the staff members are physically located at the respective campus departments. UW Colleges/Extension's central IT unit manages the networks connecting all two-year campuses, but individual campuses operate and maintain their own campus networks.

Despite the variations, all UW System institutions have individuals who are responsible for computer security. These include chief information officers (CIOs), IT committees, and IT security officers or staff:

- The CIOs have overall responsibility for IT security at their institutions. At most UW institutions, the CIOs report to the Provosts. However, the CIOs at UW-Stout and UW Colleges/Extension report to the Chancellor. The CIO at UW-River Falls reports to the Vice Chancellor for Administration and Finance.

- Seven of the eight UW institutions we visited have at least one IT committee. These committees typically review and make recommendations on campus IT strategic plans, issues, and policies. Some IT committees are part of shared governance, which means that faculty, staff, and students participate. Others are standing subcommittees of the faculty committee or advisory committees to the CIOs. New institutional IT policies are typically brought to these committees, although committee approval is not required.

- Each UW institution has assigned day-to-day computer security responsibilities to certain staff. At UW-Madison, Milwaukee, and Whitewater, these staff members hold the title of

information or computer security officer, and computer security is their primary responsibility. At other UW institutions, the network administrators or data center managers have security duties as one part of their other responsibilities. IT security duties include coordinating the deployment of security measures and policies, monitoring computer security threats, investigating and responding to computer security incidents, and coordinating computer security awareness education for campus IT users.

Computer Security Function Staffing

Literature we reviewed indicates there is a long-established practice in the IT industry of having a central person or unit responsible solely for computer security. This might be an information security officer (ISO), computer security officer (CSO), or an information security office. Various standards bodies and organizations also recommend staff be assigned specifically to computer security, because computer security requires specialized skills and competencies and involves coordination of computer security efforts across an organization. For example, information security standards issued by the International Organization for Standardization, an international standards-setting body, specify that computer security responsibilities should be assigned to a single manager within the organization. The Federal Information Security Management Act (FISMA) of 2002 requires federal agencies to designate a senior agency information security officer. The officer must possess information security qualifications and have information security duties as his/her primary duty. In addition, EDUCAUSE's assessment tool for higher education delineates these principles pertaining to the computer security function:

- the person assigned to the computer security function should have computer security as his/her primary responsibility;

- leaders and staff of the computer security function should have the necessary experience, qualifications, and skills; and

- the computer security function should have the resources and authority it needs to manage and ensure compliance with the computer security program across the organization.

UW institutions have developed their computer security functions in one of two ways. UW-Madison, Milwaukee, and Whitewater established an office or appointed full-time information security officers devoted exclusively to computer security. At the remaining UW institutions, certain IT staff members are assigned computer security as part of their varied IT responsibilities. Some UW institutions, such as UW-Green Bay, La Crosse, Oshkosh, Stevens Point, Superior, and UW Colleges/Extension, assign a specific percentage of the staff members' position descriptions to computer security. However, computer security is not their primary responsibility. Table 2 on the next page shows the staffing levels assigned to the computer security function.

At the time of our visits, three UW institutions we visited were in the process of reorganizing or were planning to restructure their IT operations. Changes being considered included centralizing the IT organization, consolidating or reorganizing the network infrastructure, and refining IT

Table 2: Computer Security Staffing and Staff Reporting (as of February 2008)

UW Institution	Security Staffing	Reporting Structure
Eau Claire	At least three staff members in Technical Services handle security as part of their responsibilities. No specific percentage of job time is assigned.	Manager of Technical Services reports to the director of Learning and Technology Services. The Director of Learning and Technology Services reports to the Provost. The CIO reports to both the Director of Learning Technology Services and the Provost.
Green Bay	Ten percent of Network Manager's position description is assigned to security. UW-Green Bay plans to eventually assign one full-time equivalent staff to computer security.	Network Manager reports to the CIO.
La Crosse	An Information System supervisor in Network Services is the designated chief information security officer, and 15 percent of the position is assigned to security. Individuals from UW-La Crosse's Server Group, Enterprise Systems, and Help Desk Support also assist in addressing security issues.	The Information System supervisor reports to the CIO.
Madison	Within the Office of Campus Information Security, 12 full-time positions are assigned to computer security exclusively.	Director of the Information Security Office reports to the CIO.
Milwaukee	Three full-time staff within the Information Security Office are assigned to computer security exclusively.	Information Security Office Director reports to the CIO.
Oshkosh	The Database Administrator holds the title of Data Security Officer, and 20 percent of his time is assigned to data security. The Network Administrator also handles security as part of her responsibilities, but no specific percentage of job time is assigned.	The Database Administrator/Data Security Officer and the Network Administrator report to the CIO.
Parkside	The Network Services Director handles security as part of his responsibilities. No specific percentage of job time is assigned. A requested desktop architect position will also have computer security responsibilities.	Network Services Director reports to the CIO.
Platteville	Security responsibilities are included in the two network services staff's position description. No specific percentage of job time is assigned.	Network services staff report to the CIO.

UW Institution	Security Staffing	Reporting Structure
River Falls	Network Services Manager handles security as part of her responsibilities. No specific percentage of job time is assigned.	Network Services Manager reports to the CIO.
Stevens Point	One half-time security officer position and two other staff serve as the security team.	Security Officer reports to the CIO.
Stout	Multiple Network Service and Support staff handle security as part of their responsibilities. No specific percentage of job time is assigned.	The Network Service and Support Supervisor reports to the CIO.
Superior	Twenty percent of Network Supervisor's position description is assigned to network security.	Network Supervisor reports to the CIO.
Whitewater	One full-time Information Security Officer position is assigned to computer security exclusively.	Information Security Officer reports to the CIO.
Colleges/ Extension	Forty percent of the Network Administrator's position and 40 percent of the Network/Data Center Manager's position are assigned to security responsibilities.	The Network Administrator reports to the Network/Data Center Manager, who then reports to the CIO on security matters.

Source: UW Institutions.

staff roles and responsibilities. Therefore, staffing levels and responsibilities are likely to change when the reorganizations are completed.

It appears that the practice of having a dedicated computer or information security office or officer has gained popularity among colleges and universities. For example, we obtained the results of a 2005 EDUCAUSE survey and a survey conducted in 2006 by the security officer at the University of South Carolina on the number of staff positions dedicated to computer security at colleges and universities. Although direct comparisons with the UW System are not valid because of variations in institutions' staff size, enrollment, IT operations, and resources, the two surveys made some noteworthy findings:

- approximately 91 percent of the 46 institutions that responded to the University of South Carolina survey and 61 percent of those institutions responding to EDUCAUSE's 2005 survey had at least one full-time staff position devoted to computer security exclusively;

- thirty-five percent of the institutions in EDUCAUSE's 2005 survey had an IT security officer or equivalent, an increase from 22 percent in 2003;

- sixty-two percent of the institutions in EDUCAUSE's 2005 survey had one central IT security office, an increase from 39 percent in 2003; and

- day-to-day responsibilities for computer security have shifted away from directors of network services to computer security officers (CSOs).

The size of the computer security function depends on the institutions' vulnerabilities, which may vary from institution to institution. UW institutions are in the best position to determine their unique vulnerabilities and what risks they can tolerate. To make this determination, and because the vulnerabilities may change, UW institutions need an effective computer security function. Having an effective security function does not eliminate the risks, but the function enables institutions to be more proactive in addressing computer security by: 1) assessing computer security weaknesses, 2) developing policies, standards, and procedures to alleviate the identified weaknesses, and 3) developing programs to educate university computer users about safe and secure computing. An effective security function would also enable institutions to coordinate computer security efforts across the campus.

Staff with computer security skills and competencies are necessary for an effective computer security function. Computer security skills and competencies can be built through training, and a number of different training-based certificates are available. At the time of the review, there were certified computer security staff at UW-Madison, Milwaukee, Stevens Point, Whitewater, and UW Colleges/Extension. In order to ensure that appropriate attention is paid to computer security, ***we recommend that UW institutions, if they have not done so, designate a computer security officer position that has computer security as its primary responsibility and that requires the necessary computer security skills and competencies.***

Some smaller UW System institutions indicated that resource constraints would present difficulties in designating a computer security officer position with computer security as its primary responsibility. However, UW-Green Bay is in the process of reallocating staff resources to increase the amount of time devoted to computer security. UW-Green Bay plans to increase the amount of time currently devoted to security from 10 percent to 60 or 65 percent in the near future, and to eventually assign one full-time equivalent staff to computer security.

Seeking additional funding specifically for computer security is an option, but a more realistic alternative may be to find potential cost savings from existing IT operations. The CIOs at UW-Milwaukee and Whitewater reported that their security functions were created through internal reallocation and reorganization and not through positions being added. For example, UW-Milwaukee's IT Division consolidated its IT operations in 2006, reducing seven departments to four, and used the savings from administrative positions to create its information security office. UW System Administration made computer security the primary responsibility of the IT security officer position through internal reallocation in 2003.

Identifying specific ways to maximize the use of IT resources is beyond the scope of this review. However, during our research we did find examples where some colleges and universities have achieved costs savings:

- The University of Houston reported saving about $1 million annually by developing web-based questions and answers to address the previous phone and e-mail workloads across the major functional areas, such as admissions, financial aid, and the registrar's office.

- The University of North Carolina at Charlotte determined that one-third of its 4,500 personal computers can be replaced with network computers without hard drives, CD-ROM players,

and expansion slots (known as thin clients) without sacrificing functionality. The university estimated that it would save about $400,000 to $600,000 a year on acquisition costs.

- In 2003, Brevard Community College (Florida) replaced its communication system with Voice over Internet Protocol (VoIP), a technology that allows voice conversations to be routed through the Internet. At the time, the college was using an analog switch and it was showing signs of failure. Brevard Community College estimated that the switch to VoIP resulted in one-time savings of about $600,000, compared to the costs of replacing the existing lines at its campuses.

COMPUTER SECURITY POLICIES AND PROCEDURES

According to IT security literature, sound policy is the cornerstone of effective strategy to protect computer networks and data.[9] Policies are intended to establish the standards or lay out the expectations to be followed. We discussed with UW institution staff the extent to which existing Board of Regents or systemwide IT policies provide UW institutions with clear expectations about computer security and adequate authority to enforce compliance with their computer security measures. We also obtained from UW institution staff and IT websites formal computer security-related policies to determine what computer security areas or issues are addressed by the institutions.

Principal UW Computer Security Policy

Literature indicates universities have generally addressed computer security issues through their acceptable use policies,[10] which set forth the principles that govern appropriate use of university computers and networks. This is also true in the UW System.

RPD 25-3, "Policy on Use of University Information Technology Resources," was not intended to be a computer security policy. However, RPD 25-3 does require users of UW IT resources to "take reasonable care to ensure that unauthorized persons are not able to use their access to the system." RPD 25-3 also encourages UW institutions to "take reasonable precautions to protect electronic documents containing private and confidential information." (RPD 25-3 is included as Appendix 1.)

In addition, most UW institutions have adopted their own institutional policies on acceptable use, which are an adaptation or expansion of RPD 25-3. Most UW staff we interviewed also reported that RPD 25-3 provides adequate authority for IT staff to confront any situations where computer security might be compromised.

[9] Boes, Richard, Tom Cramer, Vicky Dean, Roger Hanson, and Nan McKenna. "Campus IT Security: Governance, Strategy, Policy, and Enforcement." *EDUCAUSE Center for Applied Research*, Research Bulletin, Volume 2006, Issue 17, August 15, 2006.

[10] Luker, Mark and Rodney Petersen (Editors). Computer and Network Security in Higher Education, (Jossey-Bass: 2003)

Issue-Specific Institutional Policies

Even though some UW System institutions do not have formal policies on a specific area or issue, they have adopted guidelines or practices that offer some security protection. As shown in Table 3, UW institutions have adopted institution-level policies to address a wide range of IT areas or issues.

Table 3: Areas or Issues Addressed by Institutional Policies

Area or Issue	Policy Purposes	UW Institutions with Policies in Place
Acceptable/ appropriate use	Establishes expectations for the use of university IT resources.	Green Bay, Madison, Milwaukee, La Crosse, Oshkosh, Platteville, River Falls, Stevens Point, Superior, Whitewater, and Colleges/Extension.
Network password	Establishes the standards for password strength and complexity.	Green Bay, Eau Claire, Madison, Stevens Point, Superior, and Whitewater.
Network access and use	Recommends or ensures that all devices connected and with access to the networks are administered in a way that minimizes problems for users of the network and maintains the security of data stored on the networks.	Green Bay, Eau Claire, Madison, Milwaukee, Parkside, River Falls, Whitewater, and Colleges/Extension.
Information or data access and security	Establishes the framework for computer security on campus.	Green Bay, La Crosse, Madison, Milwaukee, Oshkosh, Parkside, Platteville, River Falls, Superior, and Whitewater.
E-mail	Establishes appropriate use of e-mail resources.	Green Bay, Madison, Oshkosh, Parkside, River Falls, Stevens Point, and Whitewater. Superior was drafting a policy.
Electronic devices	Establishes standards for devices connected to university networks.	Madison, Oshkosh, Platteville, Stevens Point, Superior, and Whitewater.
Remote access and wireless	Establishes guidelines and procedures for remote access and wireless.	Green Bay, La Crosse, Madison, Oshkosh, and River Falls.
Software and/or hardware	Establishes standards for hardware and appropriate use of software.	Green Bay, Milwaukee, Oshkosh, Platteville, River Falls, Stevens Point, Whitewater, and Colleges/Extension.

Source: UW institutions and UW institution websites.

We researched policies related to computer security at the University of Arizona, University of California, California State University, University of Colorado, University of Georgia, Indiana University, University of Illinois, University of Iowa, Ohio State University, University of Michigan, University of Minnesota, Minnesota State Colleges and Universities, University of Missouri, and University of Texas. As in the UW System, individual institutions within these university systems have adopted institution policies addressing a wide range of computer security issues.

While this range of security issues is important and should be addressed as time and resources allow, we found that institutions of higher education in other states are devoting resources to develop a comprehensive information security policy. This policy goes beyond acceptable use. These policies define data that need protection and specify the roles and responsibilities of users, data custodians, departments, and central IT security staff.

A number of UW institutions have some type of information security policy. However, only UW-Madison's and UW-Milwaukee's information security policies actually designate certain personal data for enhanced protection. At UW-Madison, information such as Social Security numbers, driver's license numbers, financial account numbers, DNA profile, biometric data, and protected health information, are designated restricted. University departments that process or store any of the restricted information are required to implement security measures consistent with the Payment Card Industry Data Security Standards. At UW-Milwaukee, data are classified as either confidential, sensitive, or public. UW-Milwaukee's guidelines provide recommendations as to the appropriate security measures for each class of data. Defining data that need priority for protection and what level of protection is acceptable is basic to computer security; however, few UW institutions address this area in their policies. ***We recommend that all UW System institutions, if they have not done so, develop an institutional policy that identifies the specific types of data that need additional protection.***

Computer Security Incident Response

A criticism of some other universities that experienced data breaches was the slow response to security incidents or breaches and the delay in notifying individuals affected by the breaches. A security incident is defined as any real or suspected adverse event in relation to the security of computer systems or computer networks. Timely action to resolve the incident and to notify individuals affected is critical to mitigate the negative consequences of data breaches when they occur.

All UW institutions we visited reported having procedures for reporting security incidents. UW-Madison and UW-Milwaukee established on-line processes for reporting such incidents. At other UW institutions, institutional web sites, brochures, and e-mails to campus departments instruct campus computer users to contact the security officer, the network administrator, or the help desk when an incident is detected.

At UW institutions, upon receiving a report of an incident, the security officer or the network administrator is to assemble a team of appropriate staff to investigate and take the necessary actions to mitigate the incident. At UW-Milwaukee, the Campus Security Incident Response Team (CSIRT) includes staff from central IT services, department IT representatives, risk management, legal affairs, and internal audit. If the incident involves personal data, campus administration then makes the determination as to whether a notification is required.

At the time of our visits, only UW-Madison and Milwaukee have documented in writing the process of responding to computer security incidents. UW-Madison's policy and procedures on data security breach was still a draft. UW-Milwaukee had adopted a set of guidelines related to

incident response. These guidelines establish the expectations for central IT staff and define the roles of various offices.

The entire campus needs to know what to do and what steps to take when a data breach is detected. Having institutional policies and procedures on computer security incident response would establish roles, responsibilities, and the process for actions. It would also ensure that there is a process for implementing the notification requirements in s. 895.507, Wis. Stats., and would identify the staff who should be involved in the process. ***We recommend that UW System institutions that have not done so develop formal, written institutional policies and procedures on computer security incident response.*** At a minimum, the computer security incident response policy and procedures should:

- define computer security incidents that must be reported;
- establish a classification of incidents as a form of triage for proper response;
- establish the contact for incident reporting;
- establish the incident response team and its roles and responsibilities;
- specify documentation of the incident that must be maintained;
- establish a process for communicating the incident internally and externally; and
- establish a process for reviewing the resolution of the incident.

All eight UW System institutions we visited for this review reported at least one computer security incident within the last two years, but most of the known incidents did not involve personal data. For the few incidents that occurred after s. 895.507, Wis. Stats., went into effect and in which personal data were involved, UW institution staff indicated that they have complied with the requirements specified in the law. According to staff and documentation we reviewed, actions were taken on each incident that involved personal data. Actions included removing the information from the affected computer or server, changing passwords, patching the servers, reformatting the hard drives, disconnecting the server from the network, and placing the server behind a firewall.

NETWORK AND DATA ACCESS

Controlling access to computer networks and data is a balancing act. Too many restrictions would render the network inefficient. At the same time, too few restrictions might allow unauthorized users easy access to the networks and private data stored on these networks. We examined security hardware and software UW institutions use to limit access to computer networks and data, password practices, and access to data centers and network equipment.

Security Hardware and Software

Security hardware and software represent one layer of protection. There is not a single standard set of hardware and software that meets the needs of all UW institutions. What security hardware and software to use is best determined based on UW network configuration and resources.

UW System institutions establish and maintain integrated networks of computers. The typical UW computer network consists of multiple workstations or personal computers connected to a server, a computer dedicated to running certain applications or storing data via a hub or a switch.

With the exception of UW-Green Bay and UW-Platteville, IT operations are decentralized. Departments operate their own IT networks and often have hundreds of servers and workstations. For example, the Computer Science Department at UW-Madison maintains more than 100 servers and more than 600 workstations; UW-Milwaukee's College of Letters and Science has 10 servers and more than 1,200 workstations. In addition to the workstations, UW institutions have both university-owned and personally-owned devices, such as routers, laptops, and hand-held devices, that are connected to the networks. UW System institutions also run a variety of operating systems on their networks, including Apple, Windows, Linux, and Novell. Windows is by far the most popular operating system run by UW System institutions, although some departments run Apple or Linux almost exclusively.

Considering the different network configurations and operating systems, various security hardware and software are available. However, these hardware and software are most effective when they work in tandem with each other and are integrated with other security measures. We found that all UW System institutions have implemented or were considering implementing some type of security hardware and software. Table 4 lists the security hardware and software used to protect UW institutions' main campus networks.

Table 4: Security Hardware and Software Used to Protect UW Institutions' Main Campus Networks (as of February 2008)

Hardware or Software	Description and Purpose	Number of UW Institutions *
Anti-spyware software	Spyware refers to software that is installed on computers, often without consent, to collect and track personal information, to track computer system configuration, and to display pop-up advertisements. Anti-spyware software protects against the installation of spyware and removes spyware that has already been installed.	All.
Anti-virus software	Viruses are programs or pieces of code that, once loaded onto the computers or networks, can cause computer or network disruption. Anti-virus software monitors the computer for virus activities and attempts to remove the detected viruses.	All.
Encryption **	Encryption is either a software or technology that transforms information into a form that is unintelligible except to those having the means for a reversible translation. Encryption is used in data storage as well as in data transmission.	All used encryption for web transactions. Eight institutions used encryption on their wireless networks. One institution was considering encryption for some laptops.

Hardware or Software	Description and Purpose	Number of UW Institutions *
Firewalls	Firewalls are hardware and software that enforce a boundary between networks. Perimeter firewalls control traffic between internal networks and external networks. Interior firewalls control traffic between segments of internal networks. Application firewalls limit access by the particular application to the operating system of a computer.	All.
Intrusion Detection System	Intrusion Detection System (IDS) is an application that monitors and analyzes network traffic, especially patterns of traffic that might indicate an attack.	Thirteen.
Intrusion Prevention System	Intrusion Prevention System (IPS) is a hardware or software device that monitors the network and blocks traffic from a suspect port.	Six.
Virtual Private Network (for remote access)	Virtual Private Network (VPN) is a secure tunnel used to connect remote sites or users together through the Internet.	Thirteen.

Source: UW staff interviews.
* UW Colleges and UW-Extension are counted as two institutions.
** Even though some UW System institutions do not use wireless encryption, sign-on is still required.

We researched the literature to determine how common the security hardware and software used by UW institutions are among businesses, governmental agencies, and institutions of higher education. We located two surveys. Both were conducted in 2005, and their results were released in 2006. One survey was conducted by the Computer Security Institute, a membership organization that serves IT security professionals, and the San Francisco Federal Bureau of Investigation's Computer Intrusion Squad. In this CSI/FBI survey, 616 U.S. corporations, government agencies, financial institutions, medical institutions, and universities participated.[11] EDUCAUSE Center for Applied Research conducted the other survey, in which 492 colleges and universities in the U.S. and Canada participated.[12] Appendix 2 lists the results on the use of technologies. A direct comparison on the use of security hardware and software would be difficult as they may vary within each organization. Nonetheless, it appears that UW institutions have implemented some security hardware and software that are commonly used in the IT industry, including firewalls, anti-virus software, and anti-spyware software.

In addition to the various computer security hardware and software UW institutions have implemented, UW institutions we visited also have adopted a number of security practices as part of their overall strategies to restrict unauthorized access to computer networks and data. Examples include:

- *Establishing campus-wide security standards*: UW-Madison is rolling out the 21st Century Network project. The project will upgrade UW-Madison's network. The project will also establish minimum security standards across the entire campus, including firewalls, an

[11] Gordon, Lawrence A., Martin P. Loeb, William Lucyshyn, and Robert Richardson. *"2006 CSI/FBI Computer Crime and Security Survey."* Computer Security Institute.
[12] Kvavik, Robert B., and John Voloudakis. "Safeguarding the Tower: IT Security in Higher Education 2006." *EDUCAUSE Center for Applied Research*, Volume 6, 2006.

intrusion detection system (IDS), and anti-virus and anti-spyware programs. At the time of our visit, firewalls and IDS were only implemented at certain segments of the networks. When the project is completed, firewalls and IDS will be implemented at most, if not all, networks operating on campus.

- *Segmenting the networks*: Many schools and departments within a UW institution operate their own networks and have their own IT services. These networks are connected to the main campus network. To minimize disruption to the main campus networks should security breaches occur at the departmental networks, UW institutions segmented off these networks. All UW System institutions we visited reported the use of network segmentation, especially in the networks at student residence halls; however, the extent of use varied.

- *Conducting vulnerability assessments and security reviews*: A number of UW System institutions we visited have initiated security reviews of their computer networks or IT operations. UW-Milwaukee completed a review of its data center in 2006. UW-Parkside completed an evaluation of its IT operations in 2006, including a security review of its networks. UW-Madison and UW-Whitewater also regularly scan their network for vulnerabilities.

- *Consolidating and centralizing server maintenance*: Dedicated servers which run many of the main university applications and store university data must be properly maintained. In order to ensure that campus servers are properly maintained and secured, UW-Milwaukee and UW-Whitewater have collaborated with university departments to move their servers to campus data centers or to allow central IT staff to maintain these servers.

UW institutions we did not visit also indicated they have adopted some similar practices.

While controlling access to UW networks and data is done largely at the institution level, we identified noteworthy collaboration among UW System institutions on computer security. Since 2007, the UW chief information officers have been working with UW-Madison's Office of Campus Information Security to oversee the implementation of systemwide access to the PeopleSoft Shared Financial System (SFS). The implementation process entailed each UW System institution's conducting an internal assessment of its controls and procedures for authenticating users. The goals are to ensure a higher level of assurance for authenticating and authorizing users of SFS and other systems, and to secure the databases and directories where user access credentials are stored.

The collaboration also has extended to training and educational materials. Examples of collaboration include systemwide training hosted and provided by the UW-Madison Office of Campus Information Security and UW-Green Bay's adoption of educational materials from UW-Milwaukee.

Passwords

Passwords are the most common mechanism to authenticate user access. Regular password changes and strong passwords, which typically include six characters or more and contain a mixture of upper case and lower case letters, digits, and special characters, are recommended best practices for computer security. Weak passwords make it easier for hackers to crack and assume the individual's identity to access the networks and data. We examined UW institution password requirements.

In 2006, UW System Administration (UWSA) adopted a password policy for UWSA computer users, requiring complex passwords. The UWSA password requirements were used as a template by UW System institutions. All but one UW institution requires complex passwords, and three UW institutions do not require regular password changes. The systemwide credential assessment process led by the UW-Madison Office of Campus Information Security for the PeopleSoft Shared Financial System will eventually lead to all UW System institutions adopting a higher level of assurance for authenticating and authorizing users.

As noted earlier, most UW System institutions operate a decentralized IT operation. Decentralization makes it challenging to adapt the same password standards across an entire campus. UW institutions also run other applications that require separate log-in user identifications and passwords. Institution staff reported that rather than memorizing a complex network password and all other passwords, especially when these passwords must be changed periodically, faculty, staff, and students tend to write the passwords down and to post them where they are easily accessible. This practice defeats the purpose of requiring strong passwords. A number of CIOs reported that their UW institutions are moving toward a single sign-on for all applications to reduce the number of passwords.

Physical Access to Data Centers and Network Equipment

Another layer of computer security is the physical safeguards to protect against unauthorized access to facilities that house computer equipment. We discussed with staff physical security measures the institutions implemented. We also toured data centers at some UW institutions we visited.

UW institutions use a combination of measures to secure their data centers. The facilities are locked and only a limited number of IT staff and campus individuals have access to these facilities. Some institutions use electronic devices to log individual entry into and exit out of the facilities. Surveillance cameras are also installed to monitor all entries to and exits from the facilities and movement within the facilities. We detected many of these security measures implemented at the data centers we toured. None of the UW institutions we visited reported a successful break-in into their facilities within the last two years.

While data center managers and central IT network administrators we interviewed were confident in the safeguards implemented for the data centers, they expressed concerns about access to wiring closets and servers at various university departments. At some UW institutions with older buildings, the wiring closets also serve as janitorial closets. Campus staff noted that

separating janitorial and wiring closets may require funding through the capital project process. If so, institutional, System Administration, and State Building Commission involvement would be needed, and advance planning would be required. Central IT staff also indicated that they did not know how some departmental servers were physically secured.

The nature of security threats keeps changing.[13, 14, 15] Previously, worms and viruses were intended to disrupt networks. Recently, worms and viruses were meant to extract personal information. Early hackers were mostly individuals who wanted to experiment with their newfound hacking skills or to gain notoriety. Today hackers are sophisticated professionals, and according to the Computer Emergency Response Team (CERT) Coordination Center, part of a research and development center funded by the U.S. Government and charged with coordinating communication among security experts during security emergencies, some may be part of organized crime, seeking financial gains from the personal data they can access. Furthermore, networks change frequently. Thus, vulnerability assessments need to be completed on a periodic basis.

Since we did not perform technical assessments of the hardware and software UW institutions implemented and the access controls UW institutions put in place, we cannot comment on their adequacy and effectiveness for protecting computer networks and the data stored in these networks. However, UW institutions are in the best position to determine what their needs are and what security risks they can tolerate. Thus, ***we recommend that all UW System institutions perform periodic vulnerability assessments of their networks, including security hardware and software, passwords, and access to data centers and departmental servers, and mitigate the identified risks accordingly.***

While the technical assessments of UW networks are best performed by individuals with the appropriate expertise, assessing the effectiveness of some controls and procedures aimed at protecting computer networks and data might be performed by UW institutions' internal auditors. The assessment could be done in collaboration with campus IT staff, with assistance from staff experts at other UW institutions, or with external consultants. Institutional internal auditors can also assist with ongoing monitoring compliance with controls and procedures.

IT USER EDUCATION

Computer users play a significant role in security, and IT experts agree that people are the greatest source of IT security problems. Statistics show that the majority of security breaches are caused by insiders.[16] Many insider breaches were the result of employees who were not aware of security threats. According to EDUCAUSE Center for Applied Research (ECAR), "continual security education is likely one of the most cost effective and important defensive strategies an

[13] Sieberg, Daniel. Hackers shift focus to financial gain. *CNN.com*, December 12, 2006, <http://www.cnn.com/2005/TECH/internet/09/26/identity.hacker/index.html>.
[14] William, Martyn. Security threat changing, says Symantec CEO. *Security.itworld.com*, December 12, 2006, <http://security.itworld.com/4337/061103securitythreat/pfindex.html>.
[15] Kvavik and Voloudakis. (See reference #12.)
[16] Gordon, Loeb, Lucyshyn, and Richardson. (See reference #11.)

institution can make."[17] Furthermore, the Health Insurance Portability and Accountability Act (HIPAA) and the Gramm-Leach Bliley Act (GLBA) require security awareness training for employees and management.

The UW System employs more than 38,000 faculty and staff and enrolled approximately 170,000 students in the 2006-07 academic year. Each faculty member, staff member, and student is a potential computer user and, therefore, is a potential contributor to the computer security problem if they are not aware of security threats. We reviewed computer security education programs that are aimed at increasing the campus computer users' awareness about computer security.

UW institutions have offered varying degrees of security awareness education for their campus computer users. Offering information about security on institution websites is common. UW institutions have also developed flyers and posters and sent e-mails to users about specific computer security issues. Information provided covers issues such as passwords, patches, data storage, virus and spyware alerts, anti-virus protection, anti-spyware, phishing (an attempt to acquire private information by masquerading as an established and legitimate entity), and vulnerabilities associated with social networking sites, such as MySpace and Facebook. Figure 1 shows a sample of the type of information UW institutions provide to faculty, staff, and students.

Figure 1: Sample of Information Provided to UW Computer Users on Security.

Source: UW-Whitewater website (http://www.uww.edu/security/)

[17] Kravik and Voloudakis. (See reference #12.)

In general, we noted a more coordinated plan and effort in recent years to educate computer users at UW institutions with dedicated security offices or staff. In addition to information posted on institutional websites, UW-Madison, Milwaukee, Stevens Point, and Whitewater have also done formal presentations on security to various faculty, staff, and student groups on their campuses. UW-Milwaukee produced a kit on compact disc for students. The kit includes free anti-spyware and anti-virus software and other information about safe and secure computing. UW-Madison's security education strategy for faculty and staff has been to begin with IT staff and then expand the education to faculty and staff in other areas. CIOs we interviewed generally agreed that their institutions need to offer more security educational programs to students, faculty, and staff.

Educational awareness is designed to change behavior or to enforce good security practices. To be effective, basic information about computer security must be provided to all users and provided on an ongoing basis. The National Institute of Standards and Technology (NIST), an agency of the U.S. Department of Commerce that supplies industry, academia, and government with standard reference materials, lists information that should be provided in a computer security education program. Some of the topics include:

- password usage and management, including creation, frequency of changes, and protection;
- protection from viruses, worms, Trojan horses, and other malicious codes;
- policy and implications of noncompliance;
- e-mail attachments;
- incident reporting and response;
- use of encryption and the transmission of sensitive/confidential information over the Internet;
- laptop computer security;
- personally owned systems and software at work;
- desktop security, such as use of screensavers, restricting visitors' view of information on the screen, and limited access to systems; and
- concerns regarding confidential information.

Since security education and awareness programs are critical to ensure that users are aware of threats and follow good computer security practices, ***we recommend that UW System institutions assess their education programs for computer users to ensure the programs cover information that is essential for safe and secure IT usage.***

To ensure that all users receive the information, mandating computer security training could be an option. Some universities, such as Virginia Tech and Oklahoma State University, and government agencies, including the Federal Deposit Insurance Corporation and the National Institutes of Health, made computer security education mandatory for students, staff, and faculty. The training is offered online and at the users' convenience.

CONCLUSION

Threats to university networks and data stored on these networks are real, and colleges and universities, including UW institutions, have experienced security incidents. Protecting

computer networks and data is a complex task that is enhanced by a comprehensive information security program. Although this review is not a computer security audit, we determined that UW institutions have put considerable efforts into protecting university computer networks and confidential data. UW institutions have put various access controls in place; developed a wide range of policies; assigned staff resources to computer security; and provided education to faculty, staff, and students to increase their awareness of safe computing practices. However, protecting computer networks and data is a never ending process. With the increasing and changing nature of threats, UW institutions will need to increase attention to securing their computer networks and confidential data, to mitigate threats to UW computer networks and private data. We have recommended that all UW System institutions:

- designate a computer security officer position that has computer security as its primary responsibility and that requires the necessary computer security skills and competencies;

- develop an institutional policy that identifies the specific types of data that need additional protection;

- develop formal, written institutional policies and procedures on incident response;

- perform periodic vulnerability assessments of their networks, including security hardware and software, passwords, and access to data centers and departmental servers, and mitigate the identified risks accordingly; and

- assess their education programs for computer users to ensure the programs cover information that is essential for safe and secure IT usage.

Appendix 1

Board of Regents Policy Document (RPD) 25-3
Policy on Use of University Information Technology Resources

(Formerly RPD 97-2)

In accordance with its mission to disseminate and extend knowledge, to foster the free exchange of ideas, and to provide effective support for its teaching, research, and public service functions, it is the policy of the University of Wisconsin System to afford broad access to information technology resources [1] for university [2] students, faculty, and staff for use in fulfilling the university's missions, and for appropriate university-related activities.

Access by Individuals
Access to information technology resources carries with it the responsibility for ensuring that the use of these resources is primarily for university purposes and university-related activities, and for maintaining the integrity and security of the university's computing facilities. In the interest of making the use of information technology resources a natural part of the day-to-day work of all members of the university community, incidental personal use is tolerated. However, one should use non-university sources of e-mail, internet access, and other information technology services for activities of an extensive or recurring nature that are not related to university purposes. For the security of the information technology system, individuals having access to information technology resources must take reasonable care to ensure that unauthorized persons are not able to use their access to the system.

Dissemination of Information and Official Documents
Information technology resources are a dynamic mechanism for the free exchange of knowledge, and it is desirable for the university to foster the robust dialogue that results from the use of the resource, and to encourage students, faculty, and staff to participate in that dialogue . Those exchanges that reflect the ideas, comments, and opinions of individual members of the university community must, however, be distinguished from those that represent the official positions, programs and activities of the university. Students, faculty and staff using information technology resources for purposes of exchanging, publishing, or circulating official university documents [3] must follow institutional requirements concerning appropriate content and style.

The university is not responsible for the content of documents, exchanges or messages, including links to other information locations on the internet or world wide web, that reflect only the personal ideas, comments, and opinions of individual members of the university community, even where they are published or otherwise circulated to the public at large by means of university information technology resources.

Inter-institutional Cooperation
During times when they are away from the University of Wisconsin Institution where they are enrolled, students may benefit from the ability to use the information technology resources of another University of Wisconsin campus. To the extent possible with available resources, each University of Wisconsin System Institution should allow access to its information technology

resources by students taking distance education and other courses from other University of Wisconsin System Institutions.

Limitations on the Availability of Information Technology Resources
The university's information technology resources are, by nature, finite. All members of the university community must recognize that certain uses of university information technology resources may be limited for reasons related to the capacity or security of the university's information technology systems, or as required for fulfilling the university's primary teaching, research, and public service missions.

Privacy and Confidentiality of Electronic Documents
No information technology resources can absolutely guarantee the privacy or confidentiality of electronic documents. University of Wisconsin Institutions should, however, take reasonable precautions to protect electronic documents containing private and confidential information, and to assure persons using university information technology resources to transmit e-mail or electronic documents that the university will not seek access to their messages or documents except where necessary to:

1. Meet the requirements of the Wisconsin Public Records Law, or other statutes, laws, or regulations [4];
2. Protect the integrity of the university's information technology resources, and the rights and other property of the university;
3. Allow system administrators to perform routine maintenance and operations, and respond to emergency situations; or
4. Protect the rights of individuals working in collaborative situations where information and files are shared.

University of Wisconsin System Institutions may choose to establish more detailed procedures for determining when access to electronic documents will be sought by the institution. As encryption products become more readily available, institutions may also wish to make them available to information technology users as appropriate to protect privacy interests.

Other Limitations on Use of Information Technology Resources
In addition to the general principles set forth in this policy, the use of information technology resources may be affected by a number of other legal and ethical principles. While it is not possible to list all potentially applicable laws and regulations, the following are particularly likely to have implications for the use of university information technology resources:

1. Ethical standards of conduct for the appropriate use of one's university position and university resources are established for faculty and academic staff in Chapter UWS 8, Wisconsin Administrative Code, and for classified staff in Chapter ER-MRS 24, Wisconsin Administrative Code.
2. Chapters UWS 14 and 17, Wisconsin Administrative Code, establish standards and disciplinary processes relating to academic and nonacademic misconduct by students, including prohibitions on disruption of university activities, damage to university facilities, harassment, and similar matters.
3. Chapter UWS 18, Wisconsin Administrative Code, governs conduct on university lands, and applies to all members of the university community. Chapter UWS 21, Wisconsin Administrative Code, regulates the use of university facilities.

4. Section 943.70, Wisconsin Statutes, defines and prohibits certain computer crimes.
5. Chapter 11, Wisconsin Statutes, restricts the use of state facilities for political activities by state employees.
6. The federal copyright law applies to materials published or circulated through the use of computing resources.
7. The federal Family Educational Rights and Privacy Act restricts access to personally identifiable information from students' education records. Students, faculty and staff are responsible for understanding and observing these and all other applicable policies, regulations and laws in connection with their use of the university's information technology resources.

University of Wisconsin System Institution Responsibilities
In order to assist members of the university community in fulfilling their responsibilities with respect to use of information technology resources, each University of Wisconsin Institution shall disseminate this policy, together with guidance, as to any specific campus policies affecting the use of information technology resources.

Failure to Comply with Information Technology Resource Policies
Failure to adhere to the provisions of this policy may result in the suspension or loss of access to university information technology resources, appropriate disciplinary action as provided under existing procedures applicable to students, faculty, and staff, or civil or criminal prosecution.

To preserve and protect the integrity of information technology resources, there may be circumstances where the university must immediately suspend or deny access to the resources. Should a student's access be suspended under these circumstances, the university shall inform the student immediately and shall afford the student an opportunity to respond. The university shall then determine whether disciplinary action under Chapter UWS 17, Wisconsin Administrative Code, or some alternative course of action, is warranted and shall follow the procedures established for such cases.

---

1 Information technology resources include computers, software, e-mail accounts, internet access, and similar computing tools.
2 "University" is used in this document to refer to the University of Wisconsin System and its institutions.
3 Official university documents are those which purport to speak for the university and its official programs and departments, such as policy documents, official forms, curriculum information, institutional statistics, and departmental home pages on the world-wide web.
4 The electronic records of university employees are subject to disclosure in accordance with the Wisconsin Public Records Law. Student records, including electronic documents, are protected against disclosure by the Family and Educational Rights and Privacy Act, which restricts access to personally identifiable information from students' education records.

History: Res. 7461 adopted 6/6/97.

Appendix 2

Security Hardware and Software Implemented By Businesses, Governmental Agencies, and Institutions of Higher Education

Hardware or Software	CSI/FBI Survey (N=616)	EDUCAUSE Survey (N=492)
Firewalls	98%	Perimeter – 89%; Interior – 80%
Anti-virus software	97%	Not specifically included in survey.
Anti-spyware software	79%	Not specifically included in survey.
Server-based access control list	70%	Not specifically included in survey.
Intrusion Detection System	69%	63%
Encryption	Transmission – 63% Storage – 48%	Transmission – 68% Storage – 27%
Intrusion Prevention System	45%	56%
Log management software	41%	60%
Application-level firewall	39%	57%
Smart card/one-time password token	38%	Not specifically included in survey.
Forensics tools	38%	Not specifically included in survey.
Public key infrastructure	36%	Without pin – 8% With pin – 7%
Specialized wireless security system	32%	Not specifically included in survey.
Endpoint security client software	31%	Not specifically included in survey.
Biometrics	20%	5%
Other	4%	Not specifically included in survey.
Virtual Private Network	Not specifically included in the survey.	85%
Centralized data backup system	Not specifically included in survey.	87%
Enterprise directory	Not specifically included in survey.	83%
Active filtering	Not specifically included in survey.	64%
Digital certificate	Not specifically included in survey.	59%
Security standards for application or system development	Not specifically included in survey.	51%
Electronic signature	Not specifically included in survey.	18%
Shibboleth (a web-based identity and access management technology)	Not specifically included in survey.	8%

Sources: Computer Security Institute and EDUCAUSE websites

UW SYSTEM OFFICE OF OPERATIONS REVIEW AND AUDIT FOLLOW-UP REVIEW: A BEST PRACTICES REVIEW OF POLICIES AND PROCEDURES ADDRESSING COPYRIGHT INFRINGEMENT ISSUES

EXECUTIVE SUMMARY

BACKGROUND

In 2003, the University of Wisconsin System Office of Operations Review and Audit reviewed policies and procedures related to copyright, copyright education programs, and enforcement activities at UW System institutions. The primary aim of the report was to "identify practices at UW System institutions and various other higher education institutions upon which the UW System could build to effectively address copyright infringement issues."

Copyright law is broad in that it protects not only literature, such as printed books, essays and articles, but also other media, such as art, movies, music, and other audiovisual works that are capable of being downloaded or shared over the internet. The 2003 report summarized the efforts of UW System institutions to comply with the various U.S. copyright laws, including the U.S. Copyright Act of 1976 (17 U.S.C. 106); the Digital Millennium Copyright Act of 1998 (DMCA); and the Technology, Education and Copyright Harmonization Act of 2002 (TEACH). These laws all provide for the protection of copyrighted works.

To conduct this follow-up review, the Office of Operations Review and Audit surveyed UW staff with involvement in copyright issues. These staff included: copyright officers, attorneys, chief information officers (CIOs), administrators of residence hall networks ("ResNet"), library directors, and other staff. Thirteen institutions participated in the survey. Online policies and procedures were collected for all UW institutions.

REQUESTED ACTION

This item is for information only.

DISCUSSION

This summary discusses UW institutions' efforts since the previous report to provide safeguards against copyright infringement by: maintaining copyright expertise; adopting and revising copyright policies and procedures; educating students, faculty and staff on the need to protect copyrights; and enforcing the provisions of copyright policies and laws.

Maintaining Copyright Expertise

Original Finding: The 2003 review found that significant copyright expertise existed within the UW System. Some UW institutions had a formalized structure to carry out such copyright functions as setting and enforcing policy. Two approaches showed the potential for effectively fostering compliance with copyright laws. One approach was to assign copyright functions to an individual campus copyright officer. UW-Eau Claire, Parkside, and Stevens Point had designated

copyright officers. The other approach was to establish a group of individuals representing various campus units to coordinate copyright activities.

Update: Copyright expertise continues to exist in the UW System. As in prior years, the UW System Office of General Counsel and the Office of Learning and Information Technology continue to provide copyright expertise to UW institutions and assume lead roles in educational programs to cultivate expertise at the institutions. Legal counsel at UW-Madison, Milwaukee, and Green Bay also have experience with intellectual property and copyright matters. In addition, UW System and UW-Madison legal staff have been involved in national discussions focused on DMCA issues as a result of the Recording Industry Association of America (RIAA) placing pressure on institutions to ensure students comply with copyright law.

Day-to-day administration involving copyright issues and the division of labor for handling these issues has not changed significantly since the previous report. UW-Eau Claire, Parkside, Platteville, and Stevens Point now have designated copyright officers. If issues become serious and cannot be resolved informally, such as when repeat offending occurs, students may be referred to the Dean of Students for disciplinary action. If policies and procedures need to be revised, an ad hoc committee, typically consisting of the CIO, library director, legal staff (UW-Green Bay, Madison and Milwaukee), and other appropriate staff, will meet.

Adopting and Revising Copyright Policies and Procedures

Original Finding: UW institutions had adopted policies to address specific copyright issues, such as acceptable use[1] of university computers, library reserves, and use of the internet. Some UW institutions published their policies online at a single location for easy access. The review also found that some UW System institutions developed procedures to implement the DMCA and other copyright laws, focusing on course packs; audio, video, and multimedia materials; and electronic reserves.

Update: All UW institutions continue to maintain policies that address copyright issues. UW-Stout prohibits copyright violations related to file sharing through a policy developed prior to our 2003 review. Since the previous report, 12 UW institutions have updated their copyright policies and procedures by adding file sharing provisions influenced by recent issues involving students allegedly illegally downloading music and video files. UW-River Falls and UW-Platteville staff indicated that their policies are being updated; UW-Platteville has policies that prohibit both file sharing and file sharing technology.

Also, four-year UW institutions revised their policies related to library materials – publications, electronic reserves, multimedia materials – to better clarify and define the roles and responsibilities of users of library materials under current copyright law (see Appendix). With respect to two-year institutions, UW Colleges staff indicate they began in fall 2007 to form a committee to develop education and enforcement policies that will provide for consistency among all of the UW Colleges while recognizing the unique set of issues that exists at each campus.

[1] An acceptable use policy (AUP) is a policy that a user must agree to follow in order to be provided with access to a network or to the Internet.

Providing Copyright Education to Students, Faculty, and Staff

Original Finding: The 2003 review found that UW System Administration and all UW System institutions had provided some type of copyright education to faculty, staff, and students. Copyright education targeting faculty and staff was provided through seminars, conferences, flyers, and online presentations. Copyright education targeting students varied. However, some UW institutions and other higher education institutions found ways to include copyright topics in curricula and in other student activities.

Update: Copyright education is ongoing at all UW institutions. To create awareness of copyright protection, all institutions are providing resources and policies, such as acceptable use policies, on websites and online presentations. Other education methods include: emails sent to students, particularly at the beginning of the academic year or semester; copyright policies in brochures, newsletters, and special mailings to students and parents; and copyright policies posted adjacent to copy machines and computers.

Library staff at UW institutions indicated they continue to hold orientation sessions on copyright issues for both students and faculty and to provide updates on an as-needed basis. Library staff reported that one-on-one training takes place with a faculty member (and sometimes a student) in order to resolve an issue. Staff at UW-River Falls indicated that students lead seminars on copyright issues. Some officials believe that hearing the message from a student peer can be very effective in helping to get the message across.

Staff at all UW institutions expressed that they have intensified their efforts in education due, in large part, to the RIAA's campaign to obtain settlements from students allegedly involved in the illegal downloading of music files. Staff at several campuses indicated that new students sometimes bring bad habits of illegally downloading music from their secondary school experiences and must be retrained to understand that they can become subjects of a lawsuit. Examples of education practices used by institutions since the previous report include:

- UW-Green Bay has held campus-wide brown bag seminars on copyright issues, including computer file sharing.

- At UW-Madison, students living in residence halls will activate their ResNet connections after viewing a video informing them of the potential consequences of illegal file sharing. While the video is made available to all UW-Madison students, it is targeted at students in residence halls.

- Both UW-Madison and UW-Milwaukee staff noted they are now including more opportunities for education for faculty and staff. For example, at UW-Madison, two articles were published in the November issue of *Computing@UW-Madison* and distributed to all UW employees as a newsletter insert in October 2007. The articles were timed for later in the year because of the "explosion of information" that inundates students and faculty at the beginning of the academic year.

- UW-Milwaukee's University Information Technology Services' website lists answers to frequently- asked questions about copyright law and peer-to-peer file sharing.

- UW-Platteville requires all freshmen to attend a seminar on copyright issues (focusing on both library resources and computer file sharing) at the beginning of the academic year.

- UW-River Falls and UW-Stevens Point staff reported using a public service video on student file sharing produced by the RIAA in conjunction with EDUCAUSE (a nonprofit association that promotes the intelligent use of information technology) and the American Council on Education (ACE). The video, entitled "Campus Downloading," addresses the consequences of illegal file sharing. The video can be used during student orientation sessions, when students log on to campus accounts, or on campus or local cable television channels. Free DVDs of the video are available to institutions through the RIAA.

- UW-Stevens Point held a "Cyber Security Day Event" with booths to highlight computer user issues, such as email scams, how to deal with computer viruses and spyware, and illegal file sharing.

- UW-Stout reports education and prevention efforts that include copyright training as part of laptop deployment to students, copyright information for new faculty and academic staff, and purchase of a music-sharing program intended to dissuade students from illegal downloading.

Enforcing Copyright Laws and Policies

Original Finding: All UW System institutions reported having received reports of actual or alleged incidents of copyright infringement at the time of the 2003 review. However, no UW institutions had been sued for alleged copyright infringement activity. UW staff indicated, and documentation we reviewed at the time confirmed, that legitimate incidents were fully investigated and were satisfactorily addressed in a timely manner. In addition, the review found UW System institutions had adopted some practices to reduce the incidence of copyright infringement. For example, seven institutions used "PacketShaper" or similar technology to ensure adequate bandwidth for legitimate uses, such as web browsing and email, and to reduce the bandwidth for other uses, such as peer-to-peer file sharing, which slows transmission.

Update: Since the 2003 report, various national events involving incidents of alleged illegal downloading of music and videos have occurred, prompting institutions of higher education, including the UW System, to respond by adjusting their policies and procedures. For example:

- On February 21, 2007, the RIAA released a list of universities that received notices about students who allegedly illegally downloaded copyrighted songs. The list indicates the 25 institutions that received the most notices during the 2006-07 academic year. Included on this list were two UW institutions – UW-Madison and UW-Eau Claire.

- On May 4, 2007, a bipartisan group of lawmakers from the House Judiciary Committee sent letters to the heads of 19 universities, including UW-Madison, asking them to explain how they protect against the use of their campus networks for illegal downloading. UW-Madison wrote a letter of response to the committee, explaining the efforts and steps taken to enforce the provisions of the DMCA.

- On September 20, 2007, the RIAA announced that it was sending pre-litigation settlement letters to 22 universities nationwide. The letters identified students by Internet Protocol (IP) address and were sent to the universities that provide the internet service. The letters alleged illegal copying and distribution of RIAA-member copyrighted sound (music) recordings and urged students to contact the RIAA to settle the claim for a reduced amount in order to avoid litigation. Nearly all of the students involved were residents in university housing and users of the residence hall network. According to the RIAA press release, 62 letters were sent to six UW institutions: UW-Eau Claire, Madison, Milwaukee, Stevens Point, Stout, and Whitewater.

UW institutions have become more aggressive in formalizing their enforcement procedures with respect to illegal file sharing since the previous report. This is due, in part, to RIAA's legal actions affecting students. As of the previous report, two UW institutions had established formal procedures for investigating infringements and removing the infringing materials, while none of the institutions had formal procedures regarding how repeat violations would be addressed. As of 2007, all institutions that we surveyed had developed formal, written procedures; nine out of the thirteen institutions surveyed specify escalating penalties based on the number of offenses.

UW institutions have developed their own unique enforcement procedures. However, the following synopsis of UW-Platteville's policy is illustrative of the common elements of the new, escalating penalties that are used at many UW institutions that were surveyed:

- For a first offense, the student is required to meet with the resident hall director to discuss copyright policies and laws; to sign a compliance form; and to take all steps required, including removing the copyrighted material(s). The student's in-room connection to the network is deactivated for thirty days.

- For a second offense, the student is required to meet with the residence hall network manager for counseling on copyright policies and laws; to sign a compliance form; and to take all steps required, including removing the copyrighted material(s). Students may be assigned a writing assignment or another project relevant to the issue of copyright infringement. The student's in-room connection to the network is deactivated for 16 weeks.

- For a third offense, the student must meet with the residence hall network manager or the Department of Student Affairs for counseling on copyright policies and laws; sign a compliance form; and take all steps required, including the verified removal of the copyrighted material(s). The student loses all campus network access for up to twelve calendar months of enrollment and faces possible additional sanctions, including probation or suspension from the institution, as permitted under Chapter UWS 17, Wis. Admin. Code, "Student Non-Academic Disciplinary Procedures."

IT administrators and CIOs indicated that it is sometimes difficult to track repeat violations, as students may use "tunneling" technologies to make them appear anonymous to the network. However, institution staff believe that repeat offenses do not occur frequently because of the potential loss of computer access, other disciplinary action, or the financial repercussions of an RIAA settlement (which may be $3,000 or more).

Staff at all UW institutions indicated that they are not using anti-piracy technology to monitor the content of users, including downloaded files. Anti-piracy technology works by allowing the network administrator to see what the student is viewing. Several IT administrators noted that anti-piracy technology is not used because it can be easily thwarted by students; there are costs to implement the software; and PacketShaper, or other technology that limits bandwidth, is already effective in deterring illegal activity. Our interviews indicate that PacketShaper technology is used at 12 UW institutions that were surveyed, up from 7 UW institutions in 2003. This practice is consistent with the practice at other universities. According to a 2005 EDUCAUSE survey, 73 percent of institutions surveyed nationwide "shape" network bandwidth to limit possible illegal activity.

CONCLUSION

UW institutions that we surveyed are working to ensure that safeguards exist, by maintaining copyright expertise; adopting and revising copyright policies and procedures; educating students, faculty, and staff on the need to protect copyrighted material; and enforcing copyright policies and laws. Since the last report:

- UW institutions continue to have expertise in addressing copyright issues. Copyright expertise has become more focused on DMCA issues as a result of the RIAA placing pressure on institutions to motivate students to comply with copyright law.

- Nearly all institutions have updated their policies and procedures with respect to copyright infringement since the previous report, addressing the appropriate use of network resources and file sharing, as well as copyright protection of library resources.

- UW institutions continue to provide information to students, faculty, and staff about the importance of compliance with copyright laws. Since individuals are responsible for their own actions with respect to copyright laws, education of these users about the importance of compliance is a vital function that UW institutions provide.

- Staff at all surveyed institutions reported that they have acted quickly when a first offense occurs, to help ensure that the offense is not repeated. Updated policies and enforcement procedures are in place to address offenders and re-offenders.

RELATED REGENT POLICIES

None.

Appendix

UW SYSTEM INSTITUTIONS' COPYRIGHT POLICIES

UW INSTITUTION	LIBRARY- RELATED	SOFTWARE AND COMPUTER-USE	WEB-RELATED AND OTHER
Eau Claire	See "Web Related and Other" category.	Computer and Network Usage Guidelines/File Sharing of Electronic Media (Rev. 2007)	Copyright Policy (2006*)
Green Bay	Interlibrary Loan Copyright Policies/Procedures; Reserve Policies (Rev. 2005); Special Collections Policies (Rev. 2005)	Installation of Instructional Software Student Labs (2001); Employee Acceptable Use Policy for Technology and the Internet (Rev. 2005); Student Acceptable Use Policy for Technology (Rev. 2007)	Policies and Procedures for the Campus Web Site (Rev. 2004)
La Crosse	Electronic Reserves Policy (2002)	Use of University Information Technology Resources, Responsible Use of Computing Resources (Rev. 2005)	World Wide Web Policy Statement (1995); Web Accessibility Policy (2003)
Madison	Library Policy for Electronic Reserve Access to Published Copyrighted Materials (Rev. 2004)	Guidelines for Appropriate Use of UW-Madison Information Technology Resources; UseNet News Usage Policy (Rev. 2007); ResNet Bandwidth Info. and Usage Policy (2007*)	Photocopying Policy (1978); Equipment and Media Services (L&S); Digital Publishing and Printing Services-Course Pack Copyright Clearance (2007*)
Milwaukee	UWM SAAP 32 (UW System Policy GAAP 27) (1997); Copyright Guidelines: Reserves and Electronic Reserves (2002); Music & Sound Recording Collection Copyright Policy (2003)	Web/CWIS Policies; Policy and Guidelines for the Use of I&MT Systems (1990); Acceptable Use of University Information Technology Resources (2004*)	Policies & Guidelines Concerning the Electronic Publication of Information (2001)
Oshkosh	Electronic Reserve Access to Published Copyrighted Materials (2002)	Acceptable Use of Computing Resources (Rev. 2007); ResNet Acceptable Use Policy	Web Policy and Procedures (Rev. 2001)
Parkside (web search)	Library Policy for Electronic Reserve Access to Published Copyrighted Materials (Rev. 2006); Collection Development Policy (Rev. 2006)	ResNet Acceptable Use Policy (Rev. 2003)	Web Policy – Policy #73 (2001); Copyright Policy – Policy #76 (2005*)
Platteville	Plagiarism Prevention – UWP Library Guide (Rev. 2007); Reserve Policy and Procedures (Rev. 2007*); Interlibrary Loan Copyright Restrictions (2003)	Acceptable Use Policy for Information Technology (1998)	World Wide Web Policy (Rev. 2005); General Copyright Guidelines (2005*)

UW INSTITUTION	LIBRARY- RELATED	SOFTWARE AND COMPUTER-USE	WEB-RELATED AND OTHER
River Falls	Copyright in the Library - course reserves, interlibrary loan	FredNet Acceptable Use Policy; Internet Use Policy (2000); Computer Software Use (Rev. 2004); Acceptable Use Policy for Info. Technology Resources (Rev. 2006)	World Wide Web Policy, Administrative Policy Paper Number: AP 44 (2003); Television Service Copyright Policy
Stevens Point	Faculty Handbook, Chapter 5 Section 6: Copyright Materials	Copyright Law and You @UWSP (2007*); UWSP Network Policies; ResNet Terms of Service (Rev. 2007); RIAA Offense Policy (2007*); Responsible Use of UWSP's Remote Access Service	University Store – Course Pack Policy (1998); Guidelines for Web Presence (2000); UWSP Online Accessibility Policy and Implementation Plan (2005*)
Stout	Copyright Subject and Reference Guide for UW-Stout Library (Rev. 2008)	Internet and Network Resources Policy (acceptable use) (2002)	Web Information Policy (2002); Web Publishing Standards (2006*); Web Site Scripting Policy
Superior (web search)	Copyright and Reserves (1999); Collection Development Policy (Rev. 2005)	Guidelines for Appropriate Use of UW-Superior Information Technology Resources (2001); ResNet Network Access Policy (2006)*	Web Publishing Guidelines
Whitewater	Collection Development Policy (Rev. 2007)	Technology and Information Resources Policies (1997); Computing and Network Usage Policy (1997)	Policies on Electronic Publications (1997); Copyright Policy (2005*)
Colleges	Libraries Collection Development Policy (Rev. 2007)	Software Policy (Rev. 2001); Computing and Networking Usage Guidelines (Rev. 2005)	Web Page Guidelines (2002)
Extension		Guidelines for Appropriate Use of UW-Extension Information Technology Resources (Rev. 2006); UW-Extension Software Policy (Rev. 2006)	UW-Extension Policy on Web Accessibility (2002); Copyright Policy (Rev. 2004)

*Policy added since 2003 program review report.

OFFICE OF OPERATIONS REVIEW AND AUDIT
QUARTERLY STATUS UPDATE

BACKGROUND

This report is presented to the Board of Regents Business, Finance, and Audit Committee to provide: (1) a status report on the major projects the UW System Office of Operations Review and Audit is conducting; and (2) an update on Legislative Audit Bureau projects in the UW System.

REQUESTED ACTION

For information only.

MAJOR OFFICE OF OPERATIONS REVIEW AND AUDIT PROJECTS

(1) Computer Security Policies, Procedures, and Practices examines how UW institutions structure and manage computer security functions and the extent to which adequate safeguards are in place to minimize the risk of unauthorized access to private information. A report is included with the committee materials for April.

(2) Student Mental Health Services will provide information about mental health services UW System institutions provide, policies and procedures related to these services, and UW institutions' preparedness to address student mental health needs and mental health-related emergencies. A report is being drafted.

(3) Energy Conservation will identify energy conservation practices at UW System institutions, good practices in energy conservation policy, and possible policy options for further consideration.

(4) Oversight of Student Organizations will identify efforts to manage risk associated with student organization activities.

(5) Academic Fees audits are being conducted to determine the adequacy of policies, procedures, and internal controls related to the assessment and collection of student fees.

(6) A National Collegiate Athletic Association Independent Accountant's Report on the application of minimum agreed-upon procedures for revenues and expenses associated with the UW-Milwaukee athletics department was completed in January.

LEGISLATIVE AUDIT BUREAU PROJECTS

The Legislative Audit Bureau has completed its annual compliance audit of federal grants and expenditures for fiscal year 2006-07, and will issue the report later this spring.

UW SYSTEM TRUST FUNDS
ANNUAL ENDOWMENT PEER BENCHMARKING REPORT

EXECUTIVE SUMMARY

BACKGROUND

Each year, both the National Association of College and University Business Officers (NACUBO) and the Commonfund conduct detailed surveys of college and university endowments. These surveys gather data on investment and spending policies and practices, investment performance and fees, staffing, and other measures. The surveys provide overall averages, as well as statistics for endowments by different size categories. This data is supplemented by results from a limited Big Ten survey conducted quarterly by Penn State University.

REQUESTED ACTION

This item is informational only.

DISCUSSION AND RECOMMENDATIONS

The annualized investment returns for the UW Trust Funds endowment (i.e., the Long Term Fund) have handily exceeded the average performance of its most comparable peer group (endowments with $100 to $500 million in assets) over 1-,3-,5-, and 10-year periods ended June 30, 2007. UW Trust Funds asset allocation still remains somewhat overweight to equities and significantly underweight to "alternatives" (more specifically, to hedge funds) versus the peer group. Other key observations in comparing UW Trust Funds to various peer groups are the following: 1) growth from new gifts is comparable to peer levels, 2) UW's spending rate of 4.0 percent is below the peer average of 4.8 percent, 3) long-term investment return assumptions are in line with all peer groups, 4) investment staffing is in line with peer groups' staffing, 5) UW does not use an investment consultant, while most peer groups do, 6) UW employs significantly fewer different investment firms than do peers, and 7) UW considers "social responsibility" criteria to some extent, as do roughly one-quarter of its peers.

The attached report provides more details on key data from the fiscal year 2007 surveys.

RELATED REGENT POLICIES

None.

UNIVERSITY OF WISCONSIN SYSTEM
TRUST FUNDS

Annual Endowment Peer Benchmarking Report
Year Ended June 30, 2007

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

INTRODUCTION

- The Annual Endowment Peer Benchmarking Report utilizes three informational sources: 1) the 2007 National Association of College and University Business Officers (NACUBO) Survey; 2) the 2007 Commonfund Benchmarks Study; and 3) the informal Big Ten survey conducted by Penn State University.

- The peer benchmarking data presented in this report fall into the following categories:

    1. Asset Allocation
    2. Investment Performance
    3. Cost of Managing Investment Programs
    4. Investment Management Practices
    5. Endowment Growth from New Gifts
    6. Spending Policies
    7. Investment Return Assumptions
    8. Underwater Funds
    9. Staffing, Resources, and Governance
    10. Socially Responsible Investing Practices

- The NACUBO and Commonfund surveys represent essentially the same population of institutions. Therefore, when similar data is provided in both surveys, results from only one of the surveys is presented here. In some cases, only one of these two surveys provides certain types of data. Big Ten data is presented wherever possible, as this information represents a distinct subset of the larger population.

- Except where otherwise noted, data presented are equal-weighted averages.

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

SUMMARY DATA

	NACUBO Study	Big Ten Survey	Commonfund Study
Number of Institutions Reporting: Total	785	17	767
Number of Institutions Reporting: Public	269	16	188
Number of Institutions Reporting: Private	516	1	579
Largest Endowment – Public:	$15.6 billion[1]	$7.3 billion[3]	$15.6 billion[1]
Largest Endowment – Private:	$34.6 billion[2]	$6.4 billion[4]	$34.6 billion[2]
Average Endowment Size:	$523.8 million	$1.7 billion	N/A
Median Endowment Size:	$91.1 million	$1.3 billion	N/A
Participating UW Institutions:	UW System Trust Funds	UW System Trust Funds	UW System Trust Funds
	UW-Madison Foundation	UW-Madison Foundation	UW-Madison Foundation
			UW-Superior Foundation
			UW-River Falls Foundation
UW System Trust Funds Endowment:	***$352 million***		

[1] *University of Texas System*
[2] *Harvard University*
[3] *University of Michigan*
[4] *Northwestern University*

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

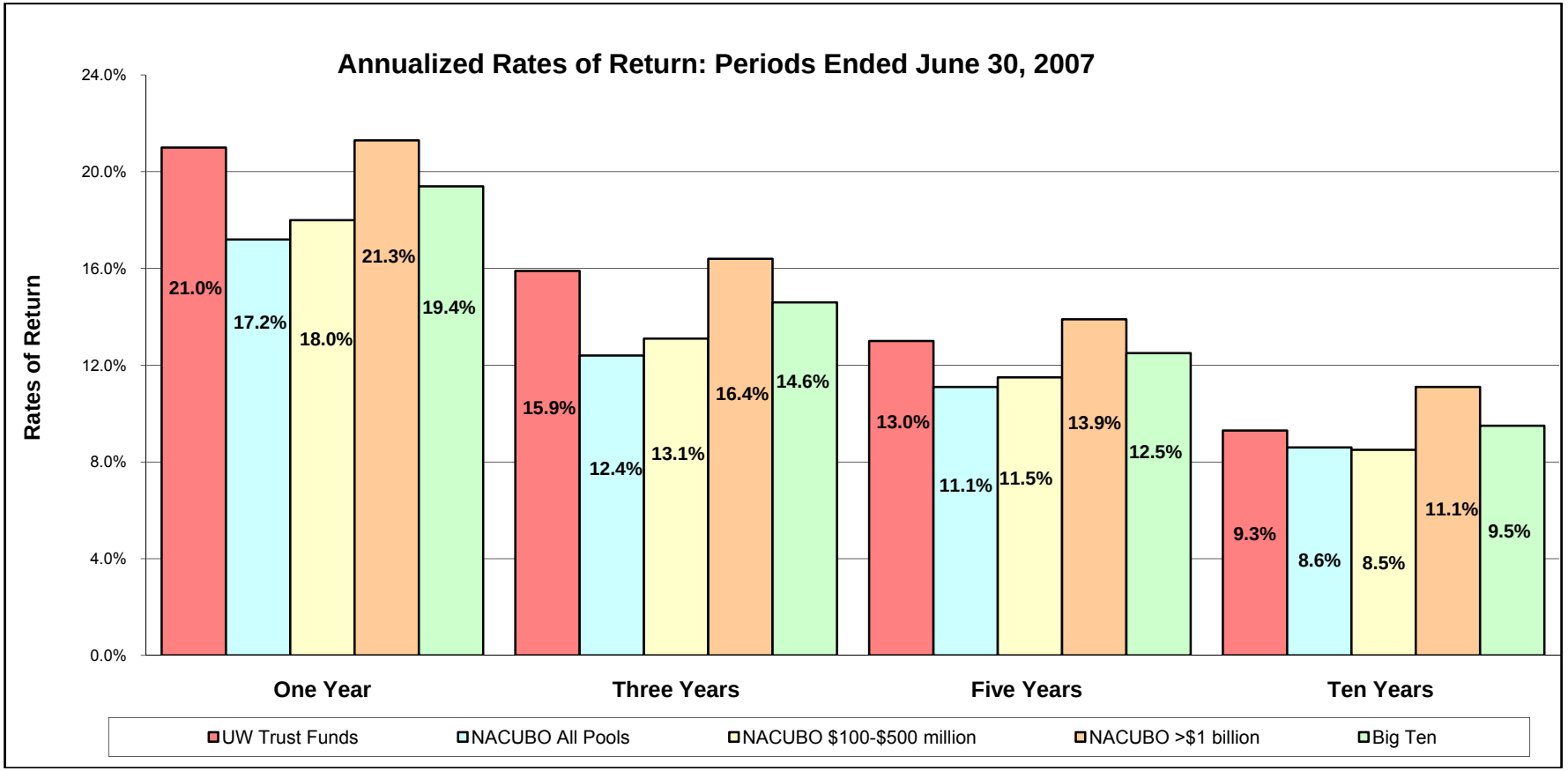
ASSET ALLOCATION

ASSET CLASS	*UW Trust Funds*	NACUBO All Pools	NACUBO $100-$500MM	NACUBO >$1B	Big Ten Average
Equities	***62.1%***	57.6%	56.6%	47.0%	52.5%
Fixed Income	***18.4%***	18.6%	15.1%	11.2%	16.4%
Alternatives	***14.1%***	18.9%	23.4%	39.5%	29.1%
Private Capital [1]	***6.5%***	3.2%	3.9%	10.4%	8.7%
Hedge Funds [2]	***7.6%***	10.6%	13.8%	20.5%	12.2%
Real Estate [3]	***0.0%***	3.5%	3.6%	5.0%	5.5%
Natural Resources [4]	***0.0%***	1.6%	2.1%	3.6%	2.7%
Cash	***4.5%***	3.5%	2.8%	1.6%	1.3%
Other	***0.9%***	1.4%	2.1%	0.7%	0.7%
TOTAL	***100.0%***	100.0%	100.0%	100.0%	100.0%

[1] Category consists primarily of venture capital and other private equity.
[2] Category consists primarily of unregulated private investment partnerships investing in mostly marketable securities, but employing strategies (long/short, convertible arbitrage, leverage, etc.) designed to provide for more absolute returns with low correlation to the markets.
[3] Category includes both public and private real estate.
[4] Category includes timber, oil and gas partnerships, and commodities.

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

INVESTMENT PERFORMANCE



UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

INVESTMENT PERFORMANCE

Range of Returns: NACUBO All Pools

	1 Year	3 Year	5 Year	10 Year
75th Percentile	19.0%	14.0%	12.4%	9.5%
Median	17.2%	12.3%	11.3%	8.4%
25th Percentile	15.6%	10.7%	9.8%	7.3%
UW Trust Funds Return	***21.0%***	***15.9%***	***13.0%***	***9.3%***
UW Trust Funds Rank	***1st Quartile***	***1st Quartile***	***1st Quartile***	***2nd Quartile***

COST OF MANAGING INVESTMENT PROGRAMS

- In the past, the Commonfund Study attempted to report investment costs on a percent-of-assets basis, to improve comparability across different sizes and types of institutions.

- The Commonfund Study now reports direct investment costs simply in total dollar terms and asks what types of fees are included and excluded by respondents.

- The NACUBO study requests “dollars withdrawn” to fund direct investment management and custody fees and translates this into an average percent of assets, but cautions against interpreting the results as average total fees in basis points.

- The increasing use of different fee structures and investment vehicle types has rendered calculations and comparisons more difficult and suspect, especially when attempting to express costs as a percent of total assets.

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

INVESTMENT MANAGEMENT PRACTICES

	Percent Internally Managed[1]	Percent Passively Managed[2]	Percent Actively Managed
NACUBO All Pools	7.8%	15.9%	84.1%
NACUBO $100-$500 million	3.8%	16.3%	83.7%
NACUBO >$1 billion	9.6%	8.7%	91.3%
UW Trust Funds *	***9.4%***	***14.4%***	***85.6%***

[1] UW Trust Funds' "internally-managed" endowment assets are comprised of the U.S. Treasurys and U.S. TIPS portfolios managed by UW-Madison's Applied Security Analysis Program.

[2] Passively managed assets are comprised of the U.S. Treasurys and U.S. TIPS portfolios being managed "internally," as well as a portion of the total allocation to U.S. Small/Mid Cap Equities.

.

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

ENDOWMENT GROWTH FROM NEW GIFTS

New Gifts as a Percent of Average Endowment Value*

NACUBO All Pools	3.2%
NACUBO $100-$500 million	3.7%
NACUBO >$1 billion	2.7%
UW Trust Funds	***3.0%***

** Rates are computed by dividing new gift dollars received by the average of the fiscal year beginning and ending market values.*

New Gifts in Dollars ($ Millions)

Commonfund All Pools	$8.0
Commonfund $100-$500 million	$7.6
Commonfund >$1 billion	$66.5
UW Trust Funds	***$9.8***

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

SPENDING POLICIES

Spending Methodology*

	Commonfund All Pools	Commonfund $100-$500 million	Commonfund >$1 billion
Percent of a moving average	75.0%	77.0%	71.0%
Average percentage used	4.8%	4.8%	5.0%
Decide on an appropriate rate each year	9.0%	9.0%	4.0%
Spend a pre-specified percentage of beginning market rate	5.0%	5.0%	0.0%
Weighted average or hybrid method	5.0%	5.0%	14.0%
Last year's spending plus inflation	3.0%	5.0%	7.0%
Spend all current income	2.0%	1.0%	0.0%
Grow distribution at a predetermined inflation rate	1.0%	1.0%	2.0%
Other	8.0%	5.0%	7.0%
UW Trust Funds	***4% of moving 12-quarter average***		

** Multiple responses were allowed.*

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

SPENDING POLICIES

Average Spending Rates*

Commonfund All Pools	4.4%
Commonfund $100-$500 million	4.6%
Commonfund >$1 billion	4.4%
Big Ten	4.8%
UW Trust Funds	***3.6%***

**Average spending rates are computed as a percentage of market value.*

INVESTMENT RETURN ASSUMPTIONS

Long-Term Investment Return Assumptions

Commonfund All Pools	8.3%
Commonfund $100-$500 million	8.6%
Commonfund $500-$1 billion	8.7%
Commonfund > $1 billion	8.4%
UW Trust Funds	***8.0%-9.0%***

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

UNDERWATER FUNDS*

	Percent of Institutions Reporting Underwater Funds	Percent of Endowment Underwater
Commonfund All Pools	16%	1.7%
Commonfund $100-$500 million	23%	0.9%
Commonfund > $1 billion	21%	0.5%
UW Trust Funds	***None***	***0.0%***

** "Underwater funds" represent individual endowment accounts whose market values are below their "historic dollar value" (i.e., the original value of the gift).*

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

STAFFING, RESOURCES, AND GOVERNANCE

Committee Size and Investment Staffing

	Average Number of Committee Members	Average Investment Staffing	Investment Staff Range *	Percent Using Consultants *
Commonfund All Pools	7.6	1.4	0-28	74.5%
Commonfund $100-$500 million	8.7	0.9	0-4	87.2%
Commonfund > $1 billion	8.9	11.5	0-28	52.2%
UW Trust Funds	***5.0***	***2.0***	***N/A***	***No***

** These numbers are from the NACUBO Study.*

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

STAFFING, RESOURCES, AND GOVERNANCE

Average Number of Separate Investment Firms Used

Commonfund All Pools	15.4
Commonfund $100-$500 million	18.4
Commonfund > $1 billion	75.6
UW Trust Funds	***8***

Average Number of Separate Investment Firms Used by Asset Class

	Commonfund All Pools	Commonfund $100-$500 mm	Commonfund > $1 billion	***UW Trust Funds***
Domestic Equities: U.S.	3.8	4.8	7.6	***3***
Fixed Income	1.9	2.0	3.1	***2***
International Equities: Non-U.S.	2.8	2.8	7.5	***2***
Alternative Strategies – Direct	15.8	9.6	59.6	***1***
Alternative Strategies – Fund of Funds	3.2	4.2	3.6	***3***

UW SYSTEM TRUST FUNDS
Annual Endowment Peer Benchmarking Report
Fiscal Year Ended June 30, 2007

SOCIALLY RESPONSIBLE INVESTING PRACTICES

Percent That Consider Social Responsibility Criteria

NACUBO All Pools	24.0%
NACUBO $100-$500 million	22.0%
NACUBO > $1 billion	28.2%
UW Trust Funds	***Yes****

** UW Trust Funds actively votes proxies, solicits student and public comment on social issues, and may take ad hoc actions on social responsibility issues.*

UW System Voting of 2008
Non-Routine Proxy Proposals

BUSINESS, FINANCE, AND AUDIT COMMITTEE

Resolution:

That, upon recommendation of the President of the University of Wisconsin System, the Board of Regents approves the non-routine shareholder proxy proposals for UW System Trust Funds, as presented in the attachment.

April 11, 2008 Agenda Item I.2.g.2.

UW SYSTEM TRUST FUNDS
VOTING OF 2008 NON-ROUTINE PROXY PROPOSALS

EXECUTIVE SUMMARY

BACKGROUND

Regent Policy 31-10 contains the proxy voting policy for UW System Trust Funds. Non-routine shareholder proposals, particularly those dealing with the environment, discrimination, or substantial social injury (issues addressed under Regent Policies 31-5, 31-6, and 31-13, respectively), are to be reviewed with the Business, Finance, and Committee so as to develop a voting position.

REQUESTED ACTION

Approval of Resolution I.2.g.2.

DISCUSSION AND RECOMMENDATIONS

The dominant social issues for the 2008 season are the following: the environment and "sustainability," corporate political contributions, equal employment opportunity, and human rights. For most of the proxies related to these dominant issues, the Trust Funds' investment managers will be directed to vote in the affirmative, as they fall under the 21 social issues or themes that the Business, Finance, and Audit Committee has already approved for active voting.

The full report on shareholder proposals for the 2008 proxy season, including summaries of pre-approved issues, is attached.

RELATED REGENT POLICIES

Regent Policy 31-5: Investments and the Environment
Regent Policy 31-6: Investment of Trust Funds
Regent Policy 31-7: Interpretation of Policy 78-1 Relating to Divestiture
Regent Policy 31-10: Procedures and Guidelines for Voting Proxies
Regent Policy 31-13: Investment and Social Responsibility

UNIVERSITY OF WISCONSIN SYSTEM TRUST FUNDS

Shareholder Proposals and Recommended Votes for 2008 Proxy Season

Background

This annually-provided report is intended to highlight significant "non-routine" proposals, from shareholders or management, which will be voted on by shareholders during the 2008 proxy season. Regent Policy 31-10, "Procedures and Guidelines for Voting Proxies," stipulates that significant non-routine issues are to be reviewed by the Business, Finance, and Audit Committee so as to develop a voting position on them. Non-routine issues are defined as the following: acquisitions and mergers; amendments to corporate charter or by-laws which might affect shareholder rights; shareholder proposals opposed by management; and "social responsibility" issues dealing with the environment, discrimination, or substantial social injury (issues addressed under Regent Policies 31-5, 31-6, and 31-13, respectively).

The majority of significant non-routine proposals are those dealing with social responsibility issues and corporate governance-related proposals which are often opposed by management. To the extent possible, similar shareholder proposals are grouped into identifiable "issues." Generally, it will be these issues (covering similar or identical proposals at various companies) that are reviewed and potentially approved for support by the Committee. On occasion, individual, company-specific proposals not falling under a broad "issue" will also be presented.

The 2008 Proxy Environment

Shareholders concerned with companies' management of social and environmental issues have filed approximately 305 proposals so far for U.S. firms' annual meetings in 2008, in line with the 320 filed at this point last year. The dominant social issues for the 2008 season are the following: the environment and "sustainability," corporate political contributions, equal employment opportunity, and human rights.

Since 2004, concerns about the environment have generated the largest single category of social issue proposals. Over 75 environmental proposals have been filed so far in 2008. These proposals generally question companies about whether they have undertaken sufficient strategic planning to reduce their greenhouse gas emissions, to increase their energy efficiency, or to otherwise prepare for global climate change. In addition, proponents continue to focus on proxies asking companies to issue sustainability reports, with 28 such proposals filed this year. [Mathiasen, Risk Metrics 2008]

For corporate governance issues, nearly 440 governance-related shareholder resolutions have been filed for 2008, on pace with last year. The dominant governance issue focuses

on corporate political contributions and the rationale for them, including engagement in political activity through trade associations (generally a company funded public relations organization whose purpose is to promote a specific industry through activities such as advertising, publishing, lobbying, and political donations). Twenty-eight proposals dealing with political contributions have been filed so far this year.

The Trust Funds proxy voting list may change as more resolutions are filed or come to light. Moreover, some proponents are likely to withdraw their resolutions if the companies agree to some or all of their requests, and other resolutions will be omitted if the Securities and Exchange Commission finds them to be in violation of its shareholder proposal rules.

Specific New Issues for 2008

No new issues have been identified for the 2008 proxy season at this juncture.

Issues Previously Approved

Given below is a list of those issues that the Business, Finance, and Audit Committee has previously approved for support (i.e., voting in the affirmative). A brief re-cap of each of these issues then follows. Any company-specific proposals not falling under a pre-approved issue are given in the voting detail attachment.

PREVIOUSLY APPROVED ISSUES

Issue	Issue	Recommended Vote	Related Regent Policy
1	Report on/implement pharmaceutical policy/pricing	FOR	31-13
2	Report on/label genetically modified organisms (GMOs)	FOR	31-13
3	Shareholder approval for future golden parachutes	FOR	Non-routine corp. governance
4	Redeem or vote on poison pill	FOR	Non-routine corp. governance
5	Report on/implement recycling development programs	FOR	31-5
6	No consulting by auditors	FOR	Non-routine corp. governance
7	Endorse core ILO principles	FOR	31-13
8	Predatory lending prevention	FOR	31-6 and 31-13
9	Report on executive compensation as related to performance and social issues	FOR	31-13 and corp. governance
10	Report on global warming	FOR	31-5

11	Report on international lending policies	FOR	31-13
12	Global labor standards	FOR	31-13
13	Endorse CERES principles	FOR	31-5
14	Report on EEO	FOR	31-6
15	Increase and report on board diversity	FOR	31-6
16	Implement MacBride principles	FOR	31-6
17	Adopt sexual orientation non-discrimination policy	FOR	31-6
18	Report on health pandemic in Africa	FOR	31-13
19	Sustainability reporting	FOR	31-13
20	Review animal welfare methods	FOR	31-13
21	Report on political donations	FOR	31-13

1. Pharmaceutical Policies

A major new initiative for the 2002 proxy season were proposals to drug companies on the affordability of AIDS, tuberculosis, and malaria drugs in poor countries. The resolutions ask the companies to "develop and implement a policy to provide pharmaceuticals for the prevention and treatment" of the three diseases “in ways that the majority of infected persons in poor nations can afford." As discussed under the new issue of reporting on the health pandemic in Africa, individual shareholder proposals should be reviewed here to determine what exactly will be expected of the company. Although proposals asking for reporting on the investigation, analysis and development of policies or programs to provide "affordable" drugs in Africa and other underdeveloped, pandemic-stricken areas should likely be universally supported, proposals requiring implementation of such policies or programs should be individually reviewed.

2. GMOs (Genetically Modified Organisms)

Food manufacturers are not required to label products made with bioengineered ingredients, and as a result many U.S. consumers may not be aware that they are eating foods made from GMOs. GMO developers, many farmers and the U.S. government all say that bioengineered plants are safe, but critics worry that the plants may threaten the environment, harm humans, and perhaps lead to the extinction of crops’ wild cousins, an important repository of plant genetics. The majority of related resolutions ask companies to label their foods made from bioengineered ingredients or to report to shareholders on their use of bioengineered plants and food ingredients made from these plants, as well as the company's position regarding the risks to which these uses may expose it.

3. Golden Parachutes

Large severance compensation agreements for executives, contingent on a change in corporate control have been the subject of shareholder and management interest for many years. Particularly during the 1980s, when hostile takeovers were commonplace, both shareholders and managers came to realize the costs and potential uses of these safety nets. Shareholder proposals typically ask for shareholder approval of future golden parachutes.

4. Poison Pills

Under a typical plan, shareholders are issued rights to buy stock at a significant discount from the market price. The rights are exercisable under certain circumstances, such as when a hostile third party buys a certain percentage of the company's stock. If triggered, the pill would dilute the value and voting power of the hostile party's holdings to such an extent that the takeover attempt presumably would never be made. Pills are not intended to be triggered, but rather serve as a tool to deter any hostile takeover and force would-be acquirers to deal with the board of directors and potentially increase their purchase bid. Boards are not required to get shareholder approval to adopt poison pills, and they rarely do so. Various academic and institutional studies have not convincingly shown that poison pills generally work to the benefit of or detriment of existing shareholders from a purely economic standpoint. The adoption of poison pills can more unambiguously serve to entrench existing boards and management. Convincingly, critics say the overriding issue is the right of shareholder/owners to decide for themselves what protections they want.

5. Recycling

Social investment firms are continuing to press for more recycling. Most proposals ask companies to research how they could make substantive progress in the use of recycled content for their products. Other resolutions ask for a report on the means for achieving a specified percent recovery rate within a reasonable time period. The reports should provide a cost-benefit analysis of options and an explanation of the company's position on recycling policies. In addition, reports should list all steps the company took in investigating options for the cost-effective use of recycled materials.

6. Auditors

There has been a growing concern by both investors and regulators about the provision by auditors of both audit and non-audit services to their audit clients, and the effects of these services on the independence of the audit process. The provision of certain non-audit services by a company's auditor may impair the auditor's independence and impartiality.

7. ILO Principles

The proposals ask companies to endorse core standards promoted by the International Labor Organization (ILO), a multilateral agency affiliated with the United Nations that represents national employer, labor and government bodies of 174 member states.

8. Predatory Lending

Predatory lending, most often associated with the sub prime sector, is a loosely defined term that encompasses any number of unethical and illegal practices inflicted upon unsuspecting borrowers, often causing them financial distress or ruin. Activist shareholders have intensified a campaign for financial corporations to take steps which address predatory lending. The proposals primarily ask that the companies develop a policy to ensure against predatory lending practices and to report to shareholders on the enforcement of such policies.

9. Executive Compensation

Institutional investors have expressed interest in ensuring that executive pay levels are linked to corporate performance. In fact, increasing pressure since the late 1980s to tie executive compensation more directly to a company's success is contributing to the surge in executive pay. CEO compensation is now steeped with stocks and options, which have become popular vehicles to more closely align management's interests with shareholders' interests. Shareholder groups are asking boards of directors to study and report on executive compensation, and to consider ways to link compensation to corporate financial, environmental, and social performance.

10. Global Warming

Activist shareholders have intensified a campaign for corporations to take steps which address global warming. The typical resolution on global warming asks for a report on (i) what the company is doing in research and/or in action to reduce greenhouse gas emissions, (ii) the financial exposure due to the likely costs of reducing those emissions, and (iii) actions which promote the view that climate change is exaggerated, not real, or that global warming may be beneficial.

11. Equal Employment Opportunity

The shareholder resolutions generally ask companies to make available information that is gathered for and reported to the Equal Employment Opportunity Commission. The information required includes statistical information in defined job categories, summary information of affirmative action policies, and reports on any material litigation involving race, gender, or the physically challenged.

12. International Lending Policies

The effect of international bank lending in developing nations has become an increasing concern for shareholders. Proponents concerned about poverty and debt in developing countries are submitting resolutions relating to commercial bank operations and services. The concern is that people in developing countries have not benefited from the recent increased capital flows to emerging markets. Proposals often ask for the development of a policy toward debt cancellation and provisions for new lending to heavily indebted poor countries or ask companies to develop policies which promote financial stabilization in emerging market economies.

13. Global Labor Standards

Concern about conditions in third world factories that supply U.S. corporations has led to a proliferation of shareholder resolutions from a variety of proponents throughout the 1990s. Proxy proposals will ask companies to take measures to ensure their global operations, or those of their suppliers, meet minimum labor and environmental standards. Companies that adopt favorable global labor policies will be less susceptible to negative impacts.

14. CERES Principles

The principles affirm that corporations have a "responsibility to the environment" and that they "must conduct all aspects of their business as responsible stewards of the environment." There are ten principle statements that address environmental protection and management commitment to the environment. A typical resolution on the environment and CERES (Coalition for Environmentally Responsible Economies principles) asks that the company endorse the CERES principles.

15. Board Diversity

The shareholder resolutions relating to Board diversity ask companies to report on the following issues: a) efforts to encourage diversified representation on the board; b) criteria for board qualification; c) process of selecting board nominees; and d) commitment to a policy of board inclusiveness.

16. MacBride Principles

The MacBride Principles offer a statement of equal opportunity/affirmative action principles for operations in Northern Ireland. These principle statements offer a code of conduct to combat religious discrimination in the Northern Irish workplace.

17. Non-Discrimination: Sexual Orientation

The shareholder resolutions ask companies to implement a policy that prohibits discrimination against employees on the basis of sexual orientation. A typical resolution would ask a company to adopt and implement a written equal opportunity policy barring discrimination on the basis of sexual orientation.

18. African Health Pandemics

The shareholder resolutions ask companies with substantial leverage in the labor markets of sub-Saharan Africa to report on the effect of deadly diseases on the company's operations as well as on any measures taken in response. In addition, resolutions ask pharmaceutical companies to "establish and implement standards of response to the health pandemic of HIV/AIDS, tuberculosis, and malaria in developing countries, particularly Africa."

19. Sustainability

A typical resolution asks firms to prepare a sustainability report at a reasonable cost. The most widely used definition of sustainability is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

20. Animal Welfare

A typical resolution asks firms to review or report on animal treatment or welfare practices, including slaughter methods, with the ultimate objective being to ensure more humane treatment of animals.

21. Report on Political Donations

A typical resolution on this issue asks firms to report on their corporate political contributions, with the objective of holding companies accountable for how corporate political dollars are spent.

Recommended Action

Trust Funds staff requests approval to vote in the affirmative for the 47 shareholder proposals presented in the attached list. Most of these proposals can be viewed as falling under one of the 21 pre-approved "issues." Furthermore, approval is requested to vote in the affirmative on additional proxies coming to vote in 2008 if the proposals can be viewed as falling under one of these approved "issues."

UW TRUST FUNDS

2008 Proxy Season Voting List: Proposals Under Preapproved Issues

Security Description	Mtg Date	Proposal	Policy	Vote
AMGEN	5/1	Review animal welfare standards	31-13	Affirmative
AT&T	5/1	Report on political contributions	CG	Affirmative
BORG WARNER	4/1	Implement Equality Principles	31-13	Affirmative
BRISTOL MYERS SQUIBB	5/1	Report on political contributions	CG	Affirmative
CARNIVAL CORP	4/22	Authorize independence of auditors	CG	Affirmative
CHEVRON	4/1	Review animal welfare standards	31-13	Affirmative
CHEVRON	4/1	Set greenhouse gas emission reduction goals	31-6	Affirmative
CHEVRON	4/1	Report on environmental review process	31-5	Affirmative
CHEVRON	4/1	Adopt comprehensive human rights policy	31-13	Affirmative
CHEVRON	4/1	Report on country selection standards	31-5	Affirmative
CITIGROUP	4/1	Report on political contributions	CG	Affirmative
CITIGROUP	4/1	Report on human rights policy	31-13	Affirmative
COMCAST	5/1	Report on political contributions	CG	Affirmative
COMCAST	5/1	Issue sustainability report	31-5/31-13	Affirmative
CONOCO PHILLIPS	5/1	Set greenhouse gas emission reduction goals	31-6	Affirmative
CONOCO PHILLIPS	5/1	Report policy on indigenous peoples	31-5/31-13	Affirmative
CONOCO PHILLIPS	5/1	Review National Petroleum Reserve	31-6	Affirmative
CONOCO PHILLIPS	5/1	Report on political contributions	CG	Affirmative
CONOCO PHILLIPS	5/1	Report on community hazards	31-5	Affirmative
COSTCO WHOLESALE	4/1	Review toxicity of product formulation	31-5	Affirmative
EXXON MOBIL CORP	5/28	Report on community hazards	31-5	Affirmative
EXXON MOBIL CORP	5/28	Report on plans to drill in Artic National Refuge	31-5	Affirmative
EXXON MOBIL CORP	5/28	Development of renewable energy alternatives	31-5	Affirmative
EXXON MOBIL CORP	5/28	Set greenhouse gas emission reduction goals	31-5	Affirmative
EXXON MOBIL CORP	5/28	Report on energy efficiency plans	31-5	Affirmative
EXXON MOBIL CORP	5/28	Adopt sexual orientation anti-bias policy	31-6	Affirmative
EXXON MOBIL CORP	5/28	Report on political contributions	CG	Affirmative
GENERAL ELECTRIC	4/23	Report on global warming	31-5	Affirmative
HALLIBURTON	5/1	Report on human rights policy	31-13	Affirmative
HALLIBURTON	5/1	Report on political contributions	CG	Affirmative
HARTFORD FINANCIAL	5/1	Issue sustainability report	31-5/31-13	Affirmative
JOHNSON & JOHNSON	4/24	Report on climate change science	31-5	Affirmative
JOHNSON & JOHNSON	4/24	Report on political contributions	CG	Affirmative
JP MORGAN CHASE	5/1	Report on political contributions	CG	Affirmative
JP MORGAN CHASE	5/1	Report on human rights policy	31-13	Affirmative
MERCK & CO	4/1	Report on policy on drug reimportation	31-13	Affirmative
MORGAN STANLEY	4/1	Report on human rights policy	31-13	Affirmative
OCCIDENTAL PETROLEUM	5/1	Report on climate change science	31-5	Affirmative
PRAXAIR INC	4/1	Report on political contributions	CG	Affirmative
RYDER SYSTEM INC	5/1	Report on climate change challenges	31-5	Affirmative
TARGET	5/1	Review product safety	31-5	Affirmative
UNITED HEALTH GROUP	4/1	Report on political contributions	CG	Affirmative
WELLS FARGO	4/29	Report on human rights policy	31-13	Affirmative
WELLS FARGO	4/29	Report on fair housing lending policy	31-6	Affirmative
WYETH	4/24	Review animal testing overseas	31-13	Affirmative
WYETH	4/24	Report on political contributions	CG	Affirmative
WYETH	4/24	Report on drug price reimportation efforts	31-13	Affirmative

Note: A "CG" designation represents a non-routine Corporate Governance proposal.

Revised 4/3/08

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

I.3. Physical Planning and Funding Committee

Thursday, April 10, 2008
Pyle Center
702 Langdon Street
Madison, Wisconsin

9:30 a.m. – All Regents Invited – Rooms 325-26

- UW Colleges and UW-Extension Presentation – Maximizing Access to Ensure a Sustainable Future (9:30 – 10:30 a.m.)

- Follow up on Tuition and Financial Aid Policy Discussion (10:30 – 11:15 a.m.) [Resolution A]

- 2009-11 Biennial Budget (11:15 a.m. – 12:15 p.m.)
  - Financial Aid Initiative
  - Student Budget Priorities

12:15 p.m. – Luncheon with UW Colleges and UW-Extension Youth Program Participants
Alumni Lounge, 1st floor

1:30 a.m. Physical Planning and Funding Committee – Room 332

a. Approval of the Minutes of the March 6, 2008 Meeting of the Physical Planning and Funding Committee

b. Presentation – Maximizing Access through Wisconsin Public Television's Digital Transition: University Place

c. UW-Madison: Approval of the Design Report and Authority to Construct the Chadbourne and Barnard Residence Halls Renovation Project
[Resolution I.3.c.]

d. UW-Milwaukee: Approval of the Design Report and Authority to Construct the Golda Meir Library Remodeling Project-Phase I
[Resolution I.3.d.]

e. UW-Oshkosh: Authority to Accept 1.95 Acres of Land from the Department of Military Affairs Through an Inter-Agency Transfer
[Resolution I.3.e.]

f. UW-Parkside: Authority to transfer General Fund Supported Borrowing from the Communications Arts Remodeling and Addition Project to the Union Parking Lot Reconstruction Project for the Purpose of Campus Road Construction
[Resolution I.3.f.]

h. UW-Whitewater: Authority to Enter into a Land Use Agreement to Allow the UW-Whitewater Foundation to Construct the Perkins Stadium Turf Replacement Project and Accept the Completed Facility as a Gift-In-Kind
[Resolution I.3.h.]

i. UW System: Authority to Construct Various Classroom Renovation/Instructional Technology Improvement Projects
[Resolution I.3.i.]

j. UW System: Authority to Construct All Agency Maintenance and Repair Projects
[Resolution I.3.j.]

k. Report of the Associate Vice President
   1. Building Commission Actions

x. Additional items which may be presented to the Committee with its approval

Approval of the Design Report and Authority to Construct the Chadbourne and Barnard Residence Halls Renovation Project, UW-Madison

PHYSICAL PLANNING AND FUNDING COMMITTEE

Resolution:

That, upon the recommendation of the UW-Madison Chancellor and the President of the University of Wisconsin System, the Design Report of the Chadbourne and Barnard Residence Halls Renovation project be approved and authority be granted to (a) substitute $2,000,000 Program Revenue-Cash for $2,000,000 Program Revenue Supported Borrowing and (b) construct the project at a total cost of $12,373,000 ($10,373,000 Program Revenue Supported Borrowing and $2,000,000 Program Revenue-Cash).

THE UNIVERSITY OF WISCONSIN SYSTEM

Request for
Board of Regents Action
April 2008

1. Institution: The University of Wisconsin–Madison

2. Request: Approval of the Design Report of the Chadbourne and Barnard Residence Halls Renovation project and authority to (a) substitute $2,000,000 Program Revenue-Cash for $2,000,000 Program Revenue Supported Borrowing and (b) construct the project at a total cost of $12,373,000 ($10,373,000 Program Revenue Supported Borrowing and $2,000,000 Program Revenue-Cash).

3. Description and Scope of Project: This project involves the renovation of two residence halls, Chadbourne Hall (83,649 ASF/138,808 GSF) and Barnard Hall (30,517 ASF/58,451 GSF). Chadbourne Hall is located at 420 N. Park Street, and Barnard Hall is located directly west of Chadbourne Hall at 970 University Avenue. Renovations will be accomplished in three stages beginning in May 2009 and occupancy will be maintained during the 2009-2010 academic year.

   The work in Chadbourne Hall encompasses approximately 57,200 GSF and will concentrate on the core area on each of thirteen floors and the entire first floor. Work in the core areas will involve demolition of one large community bathroom to develop three smaller bathrooms. Two existing elevators will be removed, and an elevator tower with three new elevators will be added. Lounge, den, kitchenette, and trash/recycling spaces will be created on each floor. On the first floor, the lobby area will be remodeled to accommodate the new elevators and modernize the building entry space. Improvements will reconfigure first floor common spaces including offices, meeting spaces, classrooms, and a resident apartment. First floor windows will be replaced. Finally, this project will complete the air conditioning system for the building and replace the building's electrical distribution system. A dedicated electrical room for the new distribution equipment will be added and the building transformer will be replaced.

   The renovation of 58,451 GSF in Barnard Hall will include the total replacement of the steam radiator system with a hot water baseboard system, the addition of cooling to select common areas, the removal of miscellaneous asbestos and asbestos-containing floor tile, some carpet replacement, accessibility improvements, resident room floor tile, lighting replacements, and painting.

4. Justification of the Request: UW-Madison has provided on-campus housing for students since the university was established in 1851, with a majority of the residence hall spaces added between 1958 and 1965. This project is the second of a two-phased renovation that will significantly improve housing accommodations and services at Chadbourne and Barnard halls. A Chadbourne Hall Food Service/Resident Room renovation project was completed in the fall of 2007.

The renewal of Chadbourn's building components and systems will ensure that it is capable of meeting the changing needs of students well into the future. Currently, each resident floor is served by a single bathroom which has never been renovated. All bathroom mechanicals are original and are in need of replacement. Chadbourn's single bathroom design limits privacy and the current number of showers per resident does not meet current building code requirements. The existing elevators suffer from frequent maintenance downtime and are not sufficient to serve the population.

Barnard Hall, the oldest residence hall still in use at UW-Madison, was occupied in 1913. The HVAC systems have only seen upgrades and repairs which have extended the life of those systems well beyond what is considered normal. Full replacement of specific systems are now required. Other project work will provide updates to deteriorated lighting, floor tiles, carpets, and accessibility improvements in the building.

Fee Impact: The cost for this project is included in the master plan rate schedule developed in 2004-2005. It is anticipated that annual room rates for all residence halls will increase between 4.5 percent and 7 percent by 2010. This increase includes adjustments for inflation, new residence hall construction, and planned maintenance and upgrades in residence halls.

5. Budget:

Construction	$9,520,000
Contingency	689,000
A/E Fees	788,000
DSF Management	421,000
Other Fees	97,000
Hazardous Material Abatement	325,000
Movable Equipment	502,000
Percent for Art	31,000
Total Project Cost	$12,373,000

Construction Cost/GSF	$82.32
Total Cost/GSF	$106.99

6. Previous Action:

August 2006 Resolution 9225	Recommended the Chadbourn/Bernard Residence Hall Renovation project be submitted to the Department of Administration and the State Building Commission as part of the UW System 2007-2009 Capital Budget at an estimated total project cost $11,377,000 Program Revenue Supported Borrowing. The project was subsequently enumerated at $14,627,000 Program Revenue Supported Borrowing.

Approval of the Design Report and Authority to Construct the Golda Meir Library Remodeling Project-Phase I, UW-Milwaukee

PHYSICAL PLANNING AND FUNDING COMMITTEE

Resolution:

That, upon the recommendation of the of the UW-Milwaukee Chancellor and the President of the University of Wisconsin System, the Design Report be approved and authority be granted to construct the Golda Meir Library Remodeling Phase I project at an estimated total project cost of $4,908,000 ($3,508,000 General Fund Supported Borrowing and $1,400,000 Gift/Grant Funds).

THE UNIVERSITY OF WISCONSIN SYSTEM

Request for
Board of Regents Action
April 2008

1. Institution: The University of Wisconsin–Milwaukee

2. Request: Approval of the Design Report and authority to construct the Golda Meir Library Remodeling Phase I project at an estimated total project cost of $4,908,000 ($3,508,000 General Fund Supported Borrowing and $1,400,000 Gift/Grant Funds).

3. Description: This project will remodel approximately 39,900 ASF / 52,800 GSF of space on the first and second floors of the west wing to create a Learning Commons. The Learning Commons will accommodate a wide variety of collaborative and group learning styles, provide space for complementary academic partners such as the Campus Writing Center and Tutoring Services, consolidate staff areas to streamline operations, increase accessibility for library users with special needs, increase access to technology, and improve building security and access during late hours.

   To accomplish this project some administrative spaces will be consolidated and relocated from the first floor to the northwest corner of the second floor, and the existing café will be relocated from the east wing to the Learning Commons. In addition, to provide space for the Learning Commons, some of the least used library reference and general collections will be relocated to off-site warehouse storage at the UW-Milwaukee University Services Building.

   The existing mechanical, electrical, and plumbing general infrastructure is adequate in size and capacity to support the proposed remodeling and will only require modest re-working. However, in order to comply with current building code requirements, it will be necessary to retrofit the first floor of the west wing with fire sprinklers.

4. Justification: A full justification for this project was included in the university's 2005-2007 Capital Budget request. In general the 273,583 ASF/ 376,071 GSF Golda Meir Library is the largest academic research library in southeastern Wisconsin with 5.2 million books and other materials, as well as online access to thousands of journals and databases. As the primary library for the campus, it is open 95.5 hours a week with over one million visits annually. The building was constructed in three stages completed in 1967, 1974, and 1987, and has not had any significant renovation in more than 20 years, even though enrollment and usage has increased over that time and library functions have changed.

   The 2001-03 and 2003-05 Capital Budget requests included a project that would update the library and increase the, but neither request was advanced for enumeration. The 2005-07

Capital Budget request included a remodeling project for a first phase that would address the highest priority needs, with a second phase to be requested at a later date. The Phase I project was intended to increase shelving capacity, implement an information commons, provide group study space, enlarge the archives area, and improve the circulation area and related support spaces. As the design for this project commenced it became clear that implementing a high-quality Learning Commons should be the primary focus of the project, since it would have the highest impact for the campus. The immediate need for additional book capacity can be solved by relocating some of the collection to available space in the off-campus University Services Building.

As part of the design process, a brief master plan was created to assure that the Phase I project and the future Phase II project would coordinate and support each other. This planning exercise resulted in a decision to focus the current project on the creation of a Learning Commons. It also verified that critical new space and remodeling needs in the library will continue to exist after the completion of Phase I, due to the continued expansion of the collections. The Phase II project will remodel and create an addition to the east wing and remodel portions of the west wing. That project is included in the UW-Milwaukee Capital Development Plan.

5. Budget:

Budget	%	Cost
Construction		$3,290,000
Hazardous Materials Abatement		150,000
A/E Design Fees	9.2%	304,000
Plan Review, Testing & Other Fees		40,000
DSF Mgmt. Fee	4.0%	147,000
Contingency	7.0%	230,000
Movable Equipment & Furnishings		415,000
Special Equipment		320,000
Percent for Art	0.25%	12,000
Total Project Cost		4,908,000

6. Previous Action:

August 15, 2000 Resolution 8175	Recommended that the Gold Meir Library Technology Center Addition and Remodeling project be submitted for planning to the Department of Administration and the State Building Commission as part of the UW System 2001-03 Capital Budget request at an estimated cost of $20,040,000 General Fund Supported Borrowing. The Department of Administration's final recommendations did not support advancing this project for planning in 2001-03.
August 22, 2002 Resolution 8582	Recommended that the Gold Meir Library Technology Center Addition and Remodeling project be submitted for planning to

	the Department of Administration and the State Building Commission as part of the UW System 2003-05 Capital Budget request at an estimated cost of $28,950,000 General Fund Supported Borrowing. The Department of Administration's final recommendations did not support advancing this project for planning in 2003-05.
August 19, 2004 Resolution 8888	Recommended that the Gold Meir Library Remodeling – Phase I project be submitted to the Department of Administration and the State Building Commission as part of the UW System 2005-07 Capital Budget request at an estimated cost of $4,800,000 General Fund Supported Borrowing. The project was subsequently enumerated at $4,908,000 ($3,508,000 General Fund Supported Borrowing and $1,400,000 Gifts/Grants).

Authority to Accept 1.95 Acres of Land from the Department of Military Affairs Through an Inter-Agency Transfer, UW-Oshkosh

PHYSICAL PLANNING AND FUNDING COMMITTEE

Resolution:

That, upon the recommendation of the UW-Oshkosh Chancellor and the President of the University of Wisconsin System, authority be granted to accept 1.95 acres of land located at 662 and 663 West Third Avenue in Oshkosh, Wisconsin, from the Department of Military Affairs through an inter-agency transfer.

THE UNIVERSITY OF WISCONSIN SYSTEM

Request for
Board of Regents Action
April 2008

1. Institution: The University of Wisconsin-Oshkosh

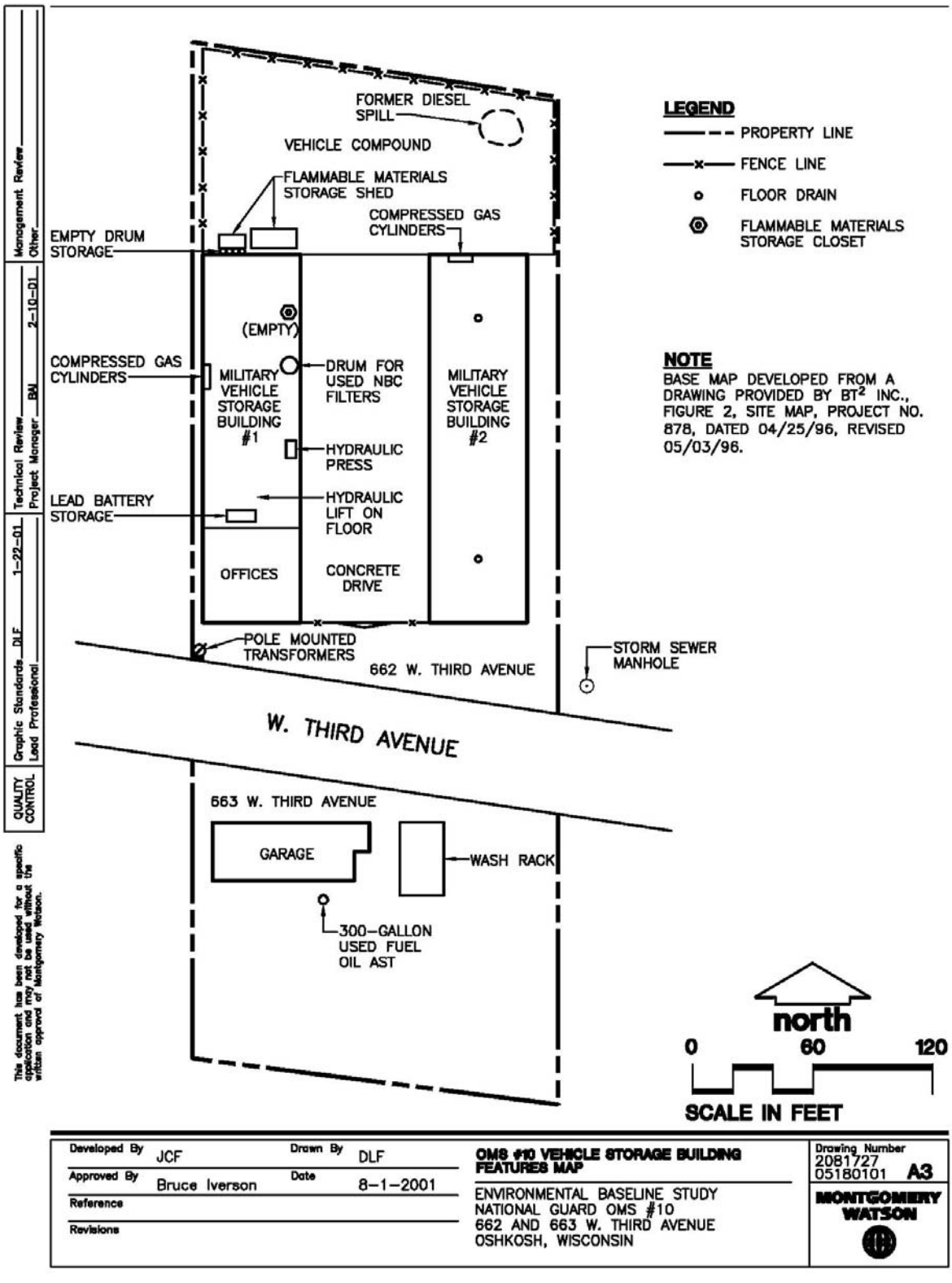
2. Request: Authority to accept 1.95 acres of land located at 662 and 663 West Third Avenue in Oshkosh, Wisconsin, from the Department of Military Affairs (DMA) through an inter-agency transfer.

3. Description and Scope of the Project: This approximately two-acre parcel is located west of the Fox River in Oshkosh, Wisconsin, at 662 and 663 West Third Avenue and is valued at $490,333. The property is improved with a 3,998-square foot heated vehicle maintenance building and two 9,016-square foot unheated storage buildings constructed of concrete block with metal roofs. Three independent market appraisals were completed in 2006: $631,000, $460,000, and $380,000. The appraisals established an estimated fair market property value of $490,333. The property is currently vacant and being offered for transfer by DMA; this property has been identified as surplus by DMA since constructing a larger facility nearby.

   An environmental audit has been performed and the site conditions found acceptable to the campus, UW System, and Division of State Facilities staff. Based on the review of environmental documentation on the site, the northern property, 662 West Third Avenue, has had a minor history of petroleum fuel contamination that is no longer considered a concern. The southern property, 663 West Third Avenue, is listed on the Department of Natural Resources Geographical Information System (GIS) Registry as "conditionally closed." This recognizes that past underground storage tanks leaked and that subsequent remediation was completed; a remaining groundwater use restriction precludes the drilling of a well for potable water. Since this property is currently and will remain on city of Oshkosh water, there is no current or anticipated need for drilling a well for potable water. Furthermore, ordinances preclude drilling of a well in an area served by city water.

4. Justification of the Project: The opportunity to receive this transfer of property is highly advantageous to the campus. In conjunction with a former Cub Foods property enumerated for purchase, the transferred surplus property will accommodate relocated campus maintenance facilities, thereby creating a site for a future the new academic building. The DMA facility will house a portion of the facilities maintenance operation more efficiently and cost effectively, thus expanding the value of the investment by accommodating additional campus needs including much needed storage.

5. Previous Action: None.



Management Review — Other

Technical Review — Project Manager BM — 2-10-01

Graphic Standards DLF — 1-22-01

Lead Professional

QUALITY CONTROL

Developed By JCF	Drawn By DLF	OMS #10 VEHICLE STORAGE BUILDING FEATURES MAP	Drawing Number 2081727 05180101 A3
Approved By Bruce Iverson	Date 8-1-2001	ENVIRONMENTAL BASELINE STUDY NATIONAL GUARD OMS #10 662 AND 663 W. THIRD AVENUE OSHKOSH, WISCONSIN	MONTGOMERY WATSON
Reference			
Revisions			

Authority to transfer $1,600,000 of General Fund Supported Borrowing from the Communications Arts Remodeling & Addition Project to the Union Parking Lot Reconstruction Project for the Purpose of Campus Road Construction, UW-Parkside

PHYSICAL PLANNING AND FUNDING COMMITTEE

Resolution:

That, upon the recommendation of the UW-Parkside Chancellor and the President of the University of Wisconsin System, authority be granted to revise the funding for the Union Lot Reconstruction project by an increase of $1,600,000 General Fund Supported Borrowing-Communication Arts Remodeling and Addition project; and a decrease of $1,600,000 Program Revenue Supported Borrowing-Utilities Repair and Renovation; for an estimated total project cost of $3,284,000 ($1,600,000 General Fund Supported Borrowing–Communication Arts Remodeling and Addition, $150,000 General Fund Supported Borrowing–UW Infrastructure, and $1,534,000 Program Revenue Supported Borrowing–Utilities Repair and Renovation).

THE UNIVERSITY OF WISCONSIN SYSTEM

Request for
Board of Regents Action
April 2008

1. Institution: The University of Wisconsin-Parkside

2. Request: Authority to revise the funding for the Union Lot Reconstruction project by an increase of $1,600,000 General Fund Supported Borrowing-Communication Arts Remodeling and Addition project; and a decrease of $1,600,000 Program Revenue Supported Borrowing-Utilities Repair and Renovation; for an estimated total project cost of $3,284,000 ($1,600,000 General Fund Supported Borrowing–Communication Arts Remodeling and Addition, $150,000 General Fund Supported Borrowing–UW Infrastructure, and $1,534,000 Program Revenue Supported Borrowing–Utilities Repair and Renovation).

3. Project Description and Scope: The Union Lot Reconstruction project will reconstruct the existing Union parking lot, widen a section of Inner Loop Road, construct a road segment connecting Inner Loop Road and Outer Loop Road, and remove a section of Outer Loop Road that will no longer be needed when the road changes noted above are completed. The parking lot reconstruction and road work will implement recommendations contained in the Campus Master Plan, and will coordinate with the student union and residence hall projects in that area of the campus. Construction will occur in two phases: the summer of 2008 and the summer of 2009.

4. Justification of the Request: The road system at UW-Parkside was originally designed and constructed to serve a campus of 25,000 students, and consists of Inner Loop Road and Outer Loop Road. The road system which was designed to separate what was anticipated to be much heavier flow of traffic, has no connection between the roads, which results in confusing way-finding and poor traffic flow. This issue was identified as an important deficiency in the master planning process, and the resultant Campus Master Plan recommended a solution of linking and redirecting the traffic flow of both roads into a single easily-traveled road system. A plan was developed that would implement portions of road work as part of a series of projects that would also reconstruct deteriorated parking lots.

   Both UW-Parkside and UW-Green Bay are unique in the university system for having the majority of campus access provided by university-owned road systems. Typically, the majority of roads and streets serving UW campuses are city-owned and maintained. When municipal roads are reconstructed, the university is assessed their share of the cost of improvements. Having university-owned roads makes it very difficult to fund any necessary road work from the limited amount of Utilities Repair and Renovation money available. Initially, UW-Parkside intended to use parking funds to accomplish the road reconfiguration. However, when the Communication Arts project was enumerated,

additional money was provided to accomplish necessary road changes. This request transfers money from the Communication Arts project into this project to fund those costs that are associated with the road work. Doing so will limit what would otherwise be a larger impact on parking rates to students, faculty, and staff.

5. Budget:

Budget	%	Cost
Construction		$2,572,000
A/E Design Fees	8.0%	205,800
Plan Review, Testing, & Other Fees		0
DSF Mgmt. Fee	4.0%	118,400
Contingency	15.0%	387,800
Percent for Art		0
Total Project Cost		$3,284,000

6. Fee Impact: Current annual parking rates range from $105 for commuter students to $110 for residential students, faculty, and staff. If General Fund Supported Borrowing funds were not available for campus road construction, parking fees would have to be increased by $18.50 each year for at least the next six years. With the proposed addition of General Fund Supported Borrowing, parking rates will be increased by an estimated $8.25 per year for the next seven years.

7. Previous Action:

August 17, 2006 Resolution 9225	Recommended that the UW-Parkside Communication Arts Renovation & Addition project be submitted to the Department of Administration and the State Building Commission as part of the UW System 2007-09 Capital Budget at an estimated cost of $34,176,000 ($32,100,000 General Fund Supported Borrowing and $2,076,000 Gift and Grant Funds). The project was subsequently enumerated in the 2007-09 Capital Budget at $37,376,000 ($35,300,000 General Fund Supported Borrowing and $2,076,000 Gift and Grant Funds).
April 13, 2007 Resolution 9335	Granted authority to construct the UW-Parkside Union Lot Reconstruction project at an estimated cost of $3,284,000 ($150,000 General Fund Supported Borrowing and $3,134,000 Program Revenue Supported Borrowing).

Authority to Enter into a Land Use Agreement to Allow the UW-Whitewater Foundation to Construct the Perkins Stadium Turf Replacement Project and Accept the Completed Facility as a Gift-In-Kind, UW-Whitewater

PHYSICAL PLANNING AND FUNDING COMMITTEE

Resolution:

That, upon the recommendation of the UW-Whitewater Chancellor and the President of the University of Wisconsin System, authority be granted to install artificial turf on the football field at Perkins Stadium under terms of a land use agreement between the Board of Regents and the UW-Whitewater Foundation, and authority to accept the completed project as a gift-in-kind.

THE UNIVERSITY OF WISCONSIN SYSTEM

Request for
Board of Regents Action
April 2008

1. Institution: The University of Wisconsin-Whitewater

2. Request: Authority to install artificial turf on the football field at Perkins Stadium under terms of a land use agreement between the Board of Regents and the UW-Whitewater Foundation, and authority to accept the completed project as a gift-in-kind.

3. Description and Scope of Project: This project will enable the UW-Whitewater Foundation to replace the natural turf at Perkins Stadium football field (~90,000 SF) on the campus of the University of Wisconsin-Whitewater with a modern synthetic turf. The cost of the turf replacement is estimated at $1,100,000. This upgrade will match turf technology of other fields in the NCAA Division III conference. Project work will include site preparation, stripping existing soil, regrading, application of geo-textile fabric, installation of a flat panel drainage system, application of a 6-inch layer of clear stone, application of a 3-inch layer of engineered fill, and installation of synthetic turf anchored to concrete perimeter curbing.

   All costs will be borne by the foundation. At the completion of the project, the university will have ownership of the field turf. The work will be accomplished under terms of a use agreement between the foundation and the Board of Regents. In accordance with Section 16.85(12), Wisconsin Statutes, the Division of State Facilities will have an opportunity to review the plans and oversee construction of the project.

4. Justification of the Request: The natural turf field is original to the construction of Perkins Stadium in 1970. The stadium accommodates 11,500 spectators and is one of the finest facilities in Division III football. Field use is limited to 10 games each year due to the abuse and damage sustained after each contest. The installation of an artificial turf will reduce the operational maintenance costs for the repair, mowing, and fertilizing of the turf and field striping. The installation of artificial turf will also allow field use for up to 50 events per year, including football practice and games, high school football games, marching band practice and events, and intramural and recreational use. This increase in the number and types of events the facility can host will increase facility use revenues.

5. Budget: Not applicable.

6. Previous Action: None.

Authority to Construct Various Classroom Renovation/Instructional Technology Improvement Projects, UW System

PHYSICAL PLANNING AND FUNDING COMMITTEE

Resolution:

That, upon the recommendation of the President of the University of Wisconsin System, the allocation of the Classroom Renovation/Instructional Technology Improvement project funds be approved and authority be granted for the construction of the related projects at an estimated total cost of $3,817,120 ($3,500,000 2007-09 General Fund Supported Borrowing and $317,120 Institutional Funds).

THE UNIVERSITY OF WISCONSIN SYSTEM

Request for
Board of Regents Action
April 2008

1. Institution: The University of Wisconsin System

2. Request: Approval of the allocation of the Classroom Renovation/Instructional Technology Improvement project funds and the construction of the related projects at an estimated total cost of $3,817,120 ($3,500,000 2007-09 General Fund Supported Borrowing and $317,120 Institutional Funds).

3. Description and Scope of Project: This request will provide funding to continue the UW System Classroom Renovation/Instructional Technology Improvement Program at all degree-granting institutions and UW-Extension. As in the past, funding will be utilized to update existing general assignment classroom environments and acquire associated furnishings and equipment to improve instructional technology.

   It is currently anticipated that the requested level of funding will involve approximately 77,700 assignable square feet, resulting in 74 updated classrooms with appropriate technology. The scope of projects will vary from campus to campus. Instructional technology will include equipment such as video projectors, audio playback, multi-media computers, VCR's, laser disks, and audio visual controls. Various maintenance needs and improvements in the learning environment will be undertaken such as lighting, flooring, HVAC, acoustics, and seating. In some cases, work may include reconfiguration to improve sight lines, support a variety of teaching models, and/or modify the space to meet class size needs.

4. Justification of the Request: This project continues the Classroom Renovation/Instructional Technology Improvements Program, which began in the 1995-97 Capital Budget to complete in-building wiring at several institutions and provide classroom renovation, technology improvements, and teleconferencing upgrades. The Board of Regents recommended continuation of this program at $6.5 million as part of the 2007-09 Capital Budget, and it was subsequently enumerated at $3.5 million.

   Over the past six biennia, nearly $48 million has been authorized to implement projects under the Classroom Renovation/Instructional Technology Improvements Program, including telecommunications cabling. That figure includes nearly $2.8 million of gift, grant and institutional funds provided by the institutions to augment this essential program. Funding to date has provided a wide spectrum of improvements in approximately 460 instructional environments. The overall magnitude of general assignment classroom deficiencies, however, still exceeds $40 million.

   General assignment classrooms serve the instructional needs of virtually every school and college in the UW System, especially undergraduate programs. Overall, the UW System, excluding UW Colleges, has nearly 1,600 general assignment classrooms of varying sizes, encompassing over 1.4 million square feet of space. Almost half of those classrooms are 20 to 30 years old, and over

21 percent are more than 50 years old. The vast majority of these essential instructional spaces have not been updated since construction. Survey results tabulated in the winter of 2006 indicate that approximately 36 percent of the total number of general assignment classrooms requires some degree of renovation and 34 percent are deficient in equipment.

The purpose of the Classroom Renovation/Instructional Technology Improvements Program is to provide appropriate environments to utilize contemporary learning and teaching methodologies. Targeted allotments to the institutions are based upon each institution's percentage of the total assignable square feet of systemwide general assignment classrooms. Slight adjustments in the targets were made to correlate with the estimated project costs and for rounding purposes.

The allotments enabled the institutions to submit high-priority projects proposed for implementation under this program during the 2007-09 Biennium. A proposal form for each project was submitted to the Division of State Facilities which outlined the purpose and scope, estimated budget, funding source(s) and anticipated construction timeline. Each submittal also includes movable and special equipment lists and a floor plan. Some institutions have opted to provide supplemental funding to achieve maximum benefit and address additional unmet, high-priority classroom needs. At this point, the institutions have committed $317,120 for that purpose, which will be used on an as-needed basis.

Based upon the foregoing, 2007-09 Classroom Renovation/Instructional Technology Improvements proposals for each institution will be funded as shown below:

2007-09

Institution	Classroom/IT GFSB	Other Funds	Total
Eau Claire	$ 290,000		$290,000
Extension	130,000		130,000
Green Bay	144,200		144,200
La Crosse	175,000		175,000
Madison	1,000,000	$193,000	1,193,000
Milwaukee	360,000	110,000	470,000
Oshkosh	236,600		236,600
Parkside	115,300		115,300
Platteville	169,800		169,800
River Falls	144,000		144,000
Stevens Point	230,000		230,000
Stout	194,600		194,600
Superior	80,500	7,122	87,622
Whitewater	230,000	6,998	236,998
TOTAL	$3,500,000	$317,120	$3,817,120

5. Previous Action:

August 17, 2006
Resolution #9225

Recommended that the UW System Classroom Renovation/Instructional Technology Improvements Project be submitted to the Department of Administration and the State Building commission as part of the UW System 2007-09 Capital Budget at a cost of $6.5 million General Fund Supported Borrowing. The project was subsequently enumerated at $3.5 million.

Authority to Construct All Agency Maintenance and Repair Projects, UW System

PHYSICAL PLANNING AND FUNDING COMMITTEE

Resolution:

That, upon the recommendation of the President of the University of Wisconsin System, authority be granted to construct various maintenance and repair projects at an estimated total cost of $5,111,700 ($435,000 General Fund Supported Borrowing, $3,979,600 Program Revenue Supported Borrowing, and $697,100 Program Revenue-Cash).

THE UNIVERSITY OF WISCONSIN SYSTEM

Request for
Board of Regents Action
April 2008

1. Institution: The University of Wisconsin System

2. Request: Authority to construct various maintenance and repair projects at an estimated total cost of $5,111,700 ($435,000 General Fund Supported Borrowing, $3,979,600 Program Revenue Supported Borrowing, and $697,100 Program Revenue-Cash).

ENERGY CONSERVATION

INST	PROJ. NO.	PROJECT TITLE	GFSB	PRSB	PR CASH	GIFT/GRANT	BTF	TOTAL
MSN	06L1J	Chamberlin Hall Energy Conservation	$ -	$ 3,745,000	$ -	$ -	$ -	$ 3,745,000
		EC SUBTOTALS	$ -	$ 3,745,000	$ -	$ -	$ -	$ 3,745,000

HEALTH, SAFETY, & ENVIRONMENTAL PROTECTION

INST	PROJ. NO.	PROJECT TITLE	GFSB	PRSB	PR CASH	GIFT/GRANT	BTF	TOTAL
LAX	08C3X	Multi-Res Hall Fire Alarm Repl	$ -	$ -	$ 476,100	$ -	$ -	$ 476,100
SUP	08C3Y	Multi-Bldg Fire Alarm Network	$ 244,500	$ -	$ 118,200	$ -	$ -	$ 362,700
		HS&E SUBTOTALS	$ 244,500	$ -	$ 594,300	$ -	$ -	$ 838,800

UTILITIES REPAIR & RENOVATION

INST	PROJ. NO.	PROJECT TITLE	GFSB	PRSB	PR CASH	GIFT/GRANT	BTF	TOTAL
MSN	07B1K	Herrick Dr. Asphalt Repr (Increase)	$ 40,300	$ -	$ 10,700	$ -	$ -	$ 51,000
OSH	04H3F	Woodland Ave. Parking Lot (Increase)	$ -	$ 234,600	$ -	$ -	$ -	$ 234,600
SUP	07H2Y	Utility Pit Pump/Elec Svc Repl (Increase)	$ 150,200	$ -	$ 92,100	$ -	$ -	$ 242,300
		UR&R SUBTOTALS	$ 190,500	$ 234,600	$ 102,800	$ -	$ -	$ 527,900

	GFSB	PRSB	PR CASH	GIFT/GRANT	BTF	TOTAL
APRIL 2008 TOTALS	$ 435,000	$ 3,979,600	$ 697,100	$ -	$ -	$ 5,111,700

3. Description and Scope of Project: This request provides maintenance, repair, renovation, and upgrades through the All Agency Projects Program.

Energy Conservation

MSN - Chamberlin Hall Energy Conservation ($3,745,000): This project implements energy conservation opportunities based on a recently completed comprehensive energy study. The debt service will be paid from the annual energy cost savings from the fuel and utilities appropriation.

This project replaces air handling units and updates controls to allow scheduling; converts constant volume air handling units into variable air volume (VAV) units with direct digital controls; reduces supply, return, and exhaust airflows; updates light fixtures; and installs new occupancy sensors.

The air handlers in Chamberlin Hall are worn, unsafe, need extensive upgrading, and cannot be scheduled through the energy management system for occupied periods. Replacement of the units was not part of the Chamberlin Hall Renovation Project. The ventilation systems have numerous problems, including improper zone airflow, high static pressure, an imbalance between supply and return airflows, airflow noise, and problems with maintaining proper discharge air temperatures. Detailed cooling loads analyses, and a room by room ventilation summary were performed for the redesign of the airflows to occupied spaces. Detailed load analysis and airflow studies indicate an excess of supply air in the building due to changing building needs and high discharge air temperatures.

Completion of this project will provide substantial energy cost savings while having a significant impact on the deferred maintenance of the ventilation systems in this building. Simple payback will take approximately four years. This project complements the UW-Madison "We Conserve" energy conservation campaign. This campaign proactively works to reduce energy costs twenty percent per square foot by the year 2010. This is consistent with the energy reduction goals established in Executive Order 145 dated April 11, 2006.

Health, Safety, and Environmental Protection

LAX - Multi-Residence Hall Fire Alarm and Smoke Detection System Replacement ($476,100): This project replaces fire alarm and smoke detection systems in three residence hall facilities, and upgrades current fire alarm and smoke detection system capabilities to meet applicable building codes and ADA guidelines.

This project replaces the fire alarm and smoke detection systems in Sandford Hall, Wentz Hall, and White Hall. Project work includes complete removal of the existing system and installation of a new annunciator panel, new pull stations, heat and smoke detectors, and new speaker/strobe signal devices as per current and applicable building codes, including ADA guidelines. The new fire alarm systems will provide the latest microprocessor technology which offers better fire detection and one way voice capability. The new fire alarm panels will be connected to the campus fire alarm central reporting network.

The fire alarm and smoke detection systems were installed in 1989 and are several generations old. The systems are obsolete and have not been factory supported for years. The systems are not compliant with current building codes or ADA guidelines. The fire alarm panels require service and component replacement with increasing frequency. The inability to obtain parts has made it difficult to address their problems in a timely fashion. The increasing downtime for these systems has caused concern about the possibility of wholesale system failures and the significant time needed to repair them. Without a working fire alarm system, the residence halls would not be safe to occupy.

SUP - Multi-Building Fire Alarm and Smoke Detection System Networking ($362,700): This project networks the fire alarm panels in all buildings to allow central reporting of fire alarms and voice communication announcements in the event of a perceived life safety concern.

This project installs a fire alarm central reporting system and an emergency communication

system throughout the campus, utilizing existing or new building fire alarm panels. Project work includes replacing panels and upgrading or replacing horn/strobe signal devices in the Heating Plant and University Services Building; upgrading two panels to allow voice communication in Barstow Hall, Curran Hall, and McNeil Hall; replacing the panel and horn/strobe signal devices with new speaker/strobe signal devices in the Environmental Health and Safety Building; and connecting two new subpanels with existing panels in Hawkes Hall and Ross Hall to allow voice communication. Project work also includes installing fiber modems and network cards in all panels to interface with the existing systems, installing fiber links between fire alarm panels and fiber optic racks, where necessary, and installing external voice and strobe signal devices.

The campus does not have a central monitoring system to report fire alarms for each building, nor a means of notifying the campus community of any life safety or weather concerns. This system will allow live voice or pre-recorded messages to be broadcast throughout campus from the Campus Safety Office or the University Services Building. A fire alarm central reporting system is needed to protect the contents of each unoccupied building. The ability to broadcast emergency messages to buildings is also needed.

Utilities Repair and Renovation Requests

MSN - Herrick Drive Asphalt Repairs ($51,000 increase for a total project cost of $200,688): This request increases the project budget to match recent bid results for the project scope that was approved under the Small Projects Program. This budget increase is needed to complete the originally approved project scope and intent.

OSH - Woodland Avenue Parking Lot Construction ($234,600 increase for a total project cost of $627,000): This request increases the project budget to match recent consultant estimates for the project scope previously approved by the State Building Commission. This budget increase is needed to complete the originally approved project scope and intent.

SUP - Utility Pit Sump Pump and Electric Service Replacement ($242,300 increase for a total project cost of $1,173,300): This request increases the project scope and budget to include replacing the local utility's transformer with a newer, larger capacity, state-owned transformer to accommodate pending and projected electrical power load demands.

This project replaces the 2,500 KVA, 13.8 KV/4,160 V utility-owned transformer located in the campus substation yard with a new 5,000 KVA state owned transformer. Installation includes a 15 KV pad mounted switch with metering to feed the new transformer. The new transformer will be connected to the university’s sheltered aisle 5 KV switchgear lineup. A new transformer structural support base will be provided and the transformer case ground will be terminated to the switchyard ground grid.

The local utility will not provide the campus with a larger capacity transformer to adequately serve the new facilities that will be constructed in the near future. When this project was originally approved, discussions with the local utility indicated they were willing to replace their transformer with a larger unit. More recent discussions with the local utility indicate they are no longer willing to bear this burden. This budget increase is

needed to allow the state to purchase and install a new transformer as part of this power distribution improvement project. Replacing the utility-owned transformer with a state-owned transformer will move the campus into a more favorable utility rate structure. Based on current power usage, the campus electrical bill will decrease by approximately $43,000 per year.

4. Justification of the Request: UW System Administration and the Division of State Facilities continue to work with each institution to develop a comprehensive campus physical development plan, including infrastructure maintenance planning. After a thorough review and consideration of approximately 450 All Agency Project proposals and over 4,500 infrastructure planning issues submitted, and the UW All Agency Projects Program funding targets set by the Division of State Facilities (DSF), this request represents high priority University of Wisconsin System infrastructure maintenance, repair, renovation, and upgrade needs. This request focuses on existing facilities and utilities, targets the known maintenance needs, and addresses outstanding health and safety issues. Where possible, similar work throughout a single facility or across multiple facilities has been combined into a single request to provide more efficient project management and project execution.

5. Budget:

General Fund Supported Borrowing	$ 435,000
Program Revenue Supported Borrowing	3,979,600
Program Revenue Cash	697,100
Total Requested Budget	**$ 5,111,700**

6. Previous Action:

02/11/2005 Resolution 8976	OSH - Woodland Avenue Parking Lot Construction was previously approved by the Board of Regents at a total project cost of $392,400 Program Revenue Supported Borrowing.
09/07/2007 Resolution 9391	SUP - Utility Pit Sump Pump/Electrical Service Replacement was previously approved by the Board of Regents at a total project cost of $931,000 ($577,200 General Fund Supported Borrowing and $353,800 Program Revenue Cash).

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

April 11, 2008
9:00 a.m.
Pyle Center
Rooms 325-326
Madison, Wisconsin

II.

1. Calling of the roll

2. Approval of the minutes of the March 6, 2008 meeting of the Board of Regents

3. Report of the President of the Board
   a. Report on the April 1 and 2, 2008 meetings of the Wisconsin Technical College System Board
   b. Additional items that the President of the Board may report or present to the Board

4. Report of the President of the System
   a. Achieving Excellence: Annual Accountability Report
   b. Additional items that the President of the System may report or present to the Board

5. Report of the Business, Finance, and Audit Committee

6. Report of the Physical Planning and Funding Committee

7. Report of the Education Committee

8. Additional Resolutions
   a. Resolution of appreciation to UW Colleges and UW-Extension

9. Communications, petitions, and memorials

10. Additional or unfinished business

11. Move into closed session to consider annual personnel evaluations, as permitted by s.19.85(1)(c), *Wis. Stats.;* to confer with legal counsel regarding pending or potential litigation, as permitted by s.19.85(1)(g), *Wis. Stats.;* to consider UW-Oshkosh honorary degree nominations, as permitted by s.19.85(1)(f), *Wis. Stats.;* and to consider request to extend leave of absence for a UW-Whitewater faculty member, as permitted by s.19.85(1)(c) and (1)(f), *Wis. Stats.*

The closed session may be moved up for consideration during any recess in the regular meeting agenda. The regular meeting will reconvene in open session following completion of the closed session.

Achieving Excellence:
The University of Wisconsin System
Accountability Report 2007-08

Executive Summary

BACKGROUND

Since 1993, the UW System has provided detailed annual accountability reports to the citizens of Wisconsin. These reports reflect the UW System's commitment to demonstrating the excellence of its institutions of higher education. Each annual accountability report covers a broad spectrum of higher education performance measures that address diverse constituent interests. Over the years, ongoing refinements and enhancements have been made to these reports to ensure their continued relevance and value as a resource for all potential users.

The first UW System accountability report, *Accountability for Achievement*, was initiated in March 1993, when then-Governor Tommy Thompson appointed a Task Force to suggest approaches to the development of the UW System's initial accountability document. The Governor's Task Force recommended 18 higher education performance measures. These measures were adopted by the Board of Regents as the basis for *Accountability for Achievement*. The report was issued on a yearly basis for a mandated period of three biennia.

After the initial mandate was concluded, the UW System embarked in July 1999 on a thorough review of the accountability reporting process. The Accountability Review Task Force reviewed the existing report and recommended a revised set of goals and indicators for the assessment of university performance. The Task Force members, which included students, faculty, staff, and administrators from all of the UW institutions, felt strongly that university performance should be measured in two distinct ways:

1) The achievement of student and institutional outcomes, and
2) The provision of a high quality student learning experience.

It was the latter of these two performance categories that led the Task Force to recommend a set of measures focused primarily on the ways in which the UW institutions provide an environment that fosters learning.

In June 2000, the Board of Regents accepted the recommendations of the Task Force and authorized the production of the new UW System accountability report entitled *Achieving Excellence*. The current document is the eighth annual edition of *Achieving Excellence*. It is available electronically on the internet at: www.uwsa.edu/opar.

REQUESTED ACTION

Information only.

DISCUSSION

Achieving Excellence represents the UW System's continuing commitment to broad-based accountability to the citizens of Wisconsin. All of the measures in *Achieving Excellence* were designed with the mission of the UW System in mind, concentrating on the many ways in which the University of Wisconsin seeks to serve its students and the State of Wisconsin. While it is not feasible to report on every possible area of university activity in a single document, *Achieving Excellence* presents a "balanced scorecard" approach to accountability reporting, reflecting a broad diversity of stakeholder interests.

Each new edition of *Achieving Excellence* includes updated information on university performance that addresses current accountability issues in higher education, both locally and on the national level. *Achieving Excellence* includes many of the same measures that are presented in *America's Best Colleges*, published by U.S. News and World Report, and in state-level accountability reports such as *Measuring Up*. *Achieving Excellence* also includes many measures that are not usually found in other state and national accountability documents. Specifically, *Achieving Excellence* combines the more traditional indicators of access, retention, graduation, and resource management with measures of the overall university learning environment and how well it fosters student success. By providing both process and outcome measures, the report more fully reflects the ways in which institutional activities promote the achievement of excellence.

In order to address both of these accountability concerns, it is necessary to augment regularly reported systemwide outcomes data with findings from student and alumni surveys. Each edition of *Achieving Excellence* reports findings from a cycle of surveys, including the National Survey of Student Engagement (NSSE) and the ACT Alumni Outcomes Survey. Each of these surveys provides national benchmarks, affording the opportunity to make comparisons of UW System performance with that of other higher education institutions. Moreover, the insights gained from these survey findings help to advance understanding of the non-survey data that are also presented in this report.

Each of the 15 UW institutions has created its own individual report as a companion to the systemwide *Achieving Excellence* report. These reports provide common performance measures across institutions, but also highlight the unique accomplishments of each UW campus. The institution-specific *Achieving Excellence* reports were produced in response to suggestions from members of the Board of Regents who felt that our accountability efforts would be enhanced by the reporting of institutional measures in a format that is consistent across all campuses. Although the systemwide *Achieving Excellence* report does include an appendix of selected institutional performance measures, the core purpose of the report is to assess performance at the system level. The institutional reports are designed to demonstrate accountability in light of the specific character and mission of each institution.

The 2008 Accountability Report
is posted online at

http://www.uwsa.edu/opar/accountability/

Board of Regents of
The University of Wisconsin System

Meeting Schedule 2008

February 7th and 8th, in Madison

March 6th, in Madison

April 10th and 11th, at the Pyle Center, Madison
(Hosted by UW Colleges and UW-Extension)

June 5th and 6th, at UW-Milwaukee

August 21st and 22nd, in Madison

October 2nd and 3rd, at UW-Stevens Point

November 6th, in Madison

December 4th and 5th, at UW-La Crosse

BOARD OF REGENTS OF THE UNIVERSITY OF WISCONSIN SYSTEM

President - Mark J. Bradley
Vice President - Charles Pruitt

STANDING COMMITTEES

Executive Committee
Mark J. Bradley (Chair)
Charles Pruitt (Vice Chair)
Jeffrey B. Bartell
Elizabeth Burmaster
Danae D. Davis
Brent Smith
Michael J. Spector
David G. Walsh

Business, Finance, and Audit Committee
Brent Smith (Chair)
Eileen Connolly-Keesler (Vice Chair) (Audit Liaison)
Elizabeth Burmaster
Peggy Rosenzweig
Thomas P. Shields

Education Committee
Danae D. Davis (Chair)
Michael J. Spector (Vice Chair)
Judith V. Crain
Mary Quinnette Cuene
Thomas A. Loftus
Colleene P. Thomas

Physical Planning and Funding Committee
Jeffrey B. Bartell (Chair)
Michael J. Falbo
José F. Vásquez
David G. Walsh

Personnel Matters Review Committee
Michael J. Spector (Chair)
Jeffrey B. Bartell
Judith V. Crain
Danae D. Davis
Peggy Rosenzweig

Committee on Student Discipline and Other Student Appeals
Brent Smith (Chair)
Thomas P. Shields
Michael J. Spector

OTHER COMMITTEES

Liaison to Association of Governing Boards
Eileen Connolly-Keesler

Hospital Authority Board - Regent Members
Peggy Rosenzweig
David G. Walsh

Wisconsin Technical College System Board
Peggy Rosenzweig, Regent Member

Wisconsin Educational Communications Board
Judith V. Crain, Regent Member

Higher Educational Aids Board

Research Park Board
David G. Walsh, Regent Member

Teaching Excellence Awards
Danae D. Davis (Chair)
Jeffrey B. Bartell
Colleene P. Thomas
José F. Vásquez

Academic Staff Excellence Awards Committee
Eileen Connolly-Keesler (Chair)
Danae D. Davis
Brent Smith
José F. Vásquez

Wisconsin Partnership Program
Roger E. Axtell, Regent Liaison

UW-Whitewater Chancellor Search Committee
Danae D. Davis (Chair)
Peggy Rosenzweig
Michael J. Spector
Colleene P. Thomas

UW-Madison Chancellor Search Committee
David G. Walsh, (Chair)
Mark J. Bradley
Thomas A. Loftus
Charles Pruitt
Colleene P. Thomas

UW-Parkside Chancellor Search Committee
Michael J. Falbo, (Chair)
Jeffrey B. Bartell
Eileen Connolly-Keesler
Judith V. Crain

The Regents President and Vice President serve as ex-officio voting members of all Committees.