

SUMMARY OF CAMPUS PRIORITIES FOR FISCAL YEAR 2005

UW-EAU CLAIRE

- The School of Nursing at the University of Wisconsin-Eau Claire is proposing an accelerated program for second-degree students. Implementation of this proposal would result in accelerated program students completing degree requirements in only 18 months, an accelerated time frame for completion of baccalaureate nurse education. Start-up costs include building renovations to accommodate the additional classroom space, skills lab development and equipment. UW-Eau Claire is the only baccalaureate nursing program in northwest and north central Wisconsin. UW-Eau Claire is truly in a unique position to help address the need for nurses as each year there are at least twice the number of qualified applicants to the School of Nursing than can be accepted due to the present faculty, resources and space limitations.
- The University of Wisconsin-Eau Claire Materials Science Center provides a research environment for the advancement of materials science and nanotechnology. Individual and joint research programs under the center focus on how micro- and nanoscale structure influences materials properties. In an effort to broaden the scope of scholarly research, strengthen regional industrial collaborations, and enhance student-faculty research collaborations, funding to purchase instruments to assess nanostructure and nanocomposition, new computer modeling capabilities, and to upgrade existing instruments is requested.
- The University of Wisconsin-Eau Claire has implemented and seeks to expand a Campus Autism Program to provide state-of-the-art behavioral intervention for children diagnosed with autism. Presently there is a nationwide shortage of certified behavior analysis. Funding will be used to provide undergraduate students with behavioral intervention training, as well as in-home behavioral intervention for children with autism.

UW-GREEN BAY

- The new Paper Technology Transfer Center at the University of Wisconsin-Green Bay is an innovative project that will benefit the state and regional economy. Federal funding for the center was provided in the FY04 appropriations process. We are grateful for the ongoing support Congressman Green has provided to make the Center possible.

UW-LA CROSSE

- The Mississippi Valley Archaeology Center (MVAC) is a nationally recognized, not-for-profit unit at the University of Wisconsin-La Crosse. MVAC conducts research, resource conservation and public education in the Upper Mississippi River Valley; provides classroom instruction, training, internships and practical experience for archaeology majors in the Sociology/Archaeology Department; and serves as a federally recognized repository for archaeological collections. Because the present facility does not meet all

mandated federal regulations for curation and conservation of collections, funding is requested to remodel the present building and install an elevator to ensure handicap access.

- The University of Wisconsin-La Crosse has a decade of experience in applying high-performance computation and visualization technology to problems in bio-medical imaging. This funding request will establish a Center for Bio-Medical Visualization Applications. The research performed will focus on the development of software technologies that support bio-medical visualization in both clinical and educational settings, and will address problems in bio-computation and bio-informatics.
- The Research Center for Cultural Diversity and Community Renewal (CDCR) is dedicated to developing and promoting a renewed vision for achieving a harmonious and socially just community through education. CDCR has been involved in providing programming that assists students of Hmong ancestry in attaining Wisconsin teacher certification, and has identified other areas of needed attention, such as formal mentoring and professional development.

UW-MADISON

- See UW-Madison *Federal Initiatives* for Fiscal Year 2005.

UW-MILWAUKEE

- The lake sturgeon (*Acipenser fulvescens*), one of our freshwater sturgeon inhabiting the waters of North America, is the largest fish and the only sturgeon found in the Great Lakes. Lake sturgeon are an ancient and primitive fish belonging to a group that predates the dinosaurs by many millions of years. The University of Wisconsin-Milwaukee Great Lakes Wisconsin Aquatic Technology and Environmental Research (WATER) Institute, in conjunction with the Wisconsin Department of Natural Resources, requests federal funding to support the establishment of the Center for Sturgeon Research, Education and Conservation.
- The mission of the Great Lakes Aquaculture Center is to support the advancement of Great Lakes species aquaculture technology and its application to producing a high quality protein food source for human consumption. Federal funding is requested to expand the Great Lakes Aquaculture Center in cooperation with USDA/Agricultural Research Service.
- The University of Wisconsin-Milwaukee, under the auspices of the Great Lakes Wisconsin Aquatic Technology and Environmental Research Institute (WATER) requests federal funding to solidify the development of the Center for Water Security, and create an enduring program with the university. The overall mission of this center is to conduct research aimed at ensuring “the security, quality, and quantity of freshwater supplies serving the citizens of the U.S.” Federal funds will be used to make the University of Wisconsin at Milwaukee a national leader in protecting our freshwater and meeting America’s military and homeland security needs.
- The advanced materials and manufacturing technology capabilities developed at the University of Wisconsin-Milwaukee, under federally and privately funded programs,

have demonstrated significant benefits in reliability, affordability, and power-to-weight ratios of civilian transportation systems. These lightweight materials development capabilities, and the capabilities of rapid manufacture using casting, in partnership with Wisconsin industries, are now ready for application to military transportation systems. Federal funding will enhance this effort.

- The University of Wisconsin-Milwaukee College of Nursing seeks federal funding to deliver school health services and to work with the Milwaukee Public School System to develop a model of school health that will improve the health outcomes of children. The UWM College of Nursing has a proven track record of developing partnerships with community-based organizations and MPS schools to provide health care and health promotion services to many of Milwaukee's most vulnerable children and their families. The UWM College of Nursing has been offered a unique opportunity to work with the leadership at MPS to expand and test a model of school nursing that can serve all of Milwaukee's children.
- The University of Wisconsin-Milwaukee seeks federal funding to create a training center for family and professional caregivers for older adults, particularly older adults with dementia. Studies on pharmacological interventions are still many years away from finding a cure for Alzheimer's disease. Better supporting and training professional and family caregivers who are charged with caring for the four million Americans with Alzheimer's disease (and considerably more with general dementia) can help radically transform the experience of this disease for those suffering with it, those who care for them, and the American workers who pay for it.
- The University of Wisconsin-Milwaukee Center for Addiction and Behavioral Health Research seeks federal funding for a jail based program of research supported prescreening, screening, assessment, motivation, and coordinated care practices for addressing alcohol and other drug use disorders experienced by inmates and those in transition to community living. The initiative is in partnership with the Milwaukee County Criminal Justice Facility, as well as several non-profit agencies in partnership with jails (e.g., Horizons, Inc., Benedict Center). The initiative will improve the effectiveness of addressing alcohol and other drug use disorders experienced by individuals in jail and individuals making the transition from jail to community living. In addition to this local impact, it is expected that the initiative will result in models and strategies with implications for communities across the nation.

UW-OSHKOSH

- Northeastern Wisconsin manufacturers have identified the need for an array of educational services to ensure their adaptation and growth. The University of Wisconsin-Oshkosh, in partnership with the University of Wisconsin-Stout, will meet that need with a regional demonstration project, the Competitive Manufacturing through Technology Management Hub, a business incubator and manufacturing resource center that will offer programs and technical assistance for small manufacturers.

UW-PARKSIDE

- The University of Wisconsin-Parkside requests funding for the Center for Solutions for Economic Growth (SEG). The SEG Center serves as the hub of several southeastern

Wisconsin entities committed to improving the economic climate of southeast Wisconsin and the region.

- The University of Wisconsin-Parkside requests funding for the Office of Educational Innovation, a cooperative effort with Gateway Technical College and Parkside's Center for Community Partnerships, to create model programming to fast-track qualified minority teaching paraprofessionals to certification and licensure.
- To address the scarcity of qualified clinical faculty with Master's of Science Nursing degrees, the University of Wisconsin-Parkside and the University of Wisconsin-Milwaukee propose the expansion of the Master of Science in Nursing Consortial Program. Federal funds would be used to develop a virtual classroom to meet the nursing needs of the southeastern Wisconsin region.
- The University of Wisconsin-Parkside is home to the Environmental Resource Center. To provide lead risk assessment and clearance testing to county housing offices participating in EPA and HUD programs, UW-Parkside is requesting federal funding to remodel and purchase equipment.
- UW-Parkside is the lead institution in the University of Wisconsin's Cyber-Security Consortium (consisting of six UW campuses, including UW-Superior, UW-Stevens Point, UW-La Crosse, UW-Madison and UW-Milwaukee). The consortium is developing a common program to enhance the ability of participating campuses to offer courses and programs in cyber security. Through a NSF Scholarship for Service grant secured in 2003, Phase I (capacity building) is underway. Federal funds are requested to develop the infrastructure for Phases II and III of the program.
- The Department of Biological Sciences at the University of Wisconsin-Parkside is unique because of its established Bioinformatics and Molecular Biology curriculum. The Departments of Biological Sciences and Business requests federal funding to (1) provide workshops to professionals on topics ranging from Bioinformatics to molecular biology to immunology and (2) continuing education courses for elementary and secondary school educators about the disciplines of Genomics and Proteomics.

UW-PLATTEVILLE

- The University of Wisconsin-Platteville requests federal funding to assist with construction costs for the new Swine Center on UW-Platteville's Pioneer Farm. The new Swine Center will address four national concerns: (1) non-point source water pollution; (2) odors from swine production facilities; (3) farm profitability; and (4) the development of a well-trained agricultural workforce. The Center will be used to research and demonstrate more economically efficient swine production systems and will support undergraduate and outreach activities in agriculture and environmental studies.
- The University of Wisconsin-Platteville requests federal funds for the Rural Business Development Center. The Center's mission is to identify strategic, high-growth industry clusters for and within the Southwest Wisconsin region and to develop an action plan that utilizes the region's assets to further comparative advantages within the clusters. Agribusiness is the initial focus for the Center, specifically food and fiber conversion operations and related business services.

- The University of Wisconsin-Platteville's School of Education requests federal funds to support development and delivery of an on-line teacher preparation curriculum which will provide licensure for persons either employed with emergency licenses in schools or seeking an alternative method for obtaining licensure because they are time and place bound. *No Child Left Behind* encourages the development of innovative programs to improve teacher quality, including finding alternative methods of becoming a teacher so experienced professionals can enter the field more quickly. It also requires that school districts hire highly qualified staff, defined as having full certification, a bachelor's degree, and demonstrated competence in subject knowledge and teaching. This project would enable UW-Platteville to prepare persons from Wisconsin and beyond for positions in our schools.
- The University of Wisconsin-Platteville College of Engineering, Mathematics, and Science requests federal funds to support the development of engineering laboratory facilities required to deliver the Micro-Electro-Mechanical Systems engineering curriculum. With the support of the State of Wisconsin and the Board of Regents of the University of Wisconsin System, UW-Platteville is significantly increasing the number of students enrolled in undergraduate engineering programs. One of the new emphasis areas will be Micro-Electro-Mechanical Systems, a rapidly growing area of manufacturing in need of specially trained engineers. A new laboratory will be developed that requires a variety of testing and diagnostic equipment, including an atomic force microscope, a scanning tunneling microscope and a variety of chemical process stations.

UW-RIVER FALLS

- The University of Wisconsin-River Falls is requesting federal funding to develop a recipe for yak cheese that will consistently produce stable, high quality product using the equipment, labor, and supplies available in Western China. This project has the potential to turn the Chinese into cheese consumers as well as producers and thereby open another market for Wisconsin cheese. It will also create opportunities for Wisconsin-China trade in dairy expertise and equipment.
- The University of Wisconsin-River Falls proposes the establishment of The Center for the Study of the Rural-Urban Interface. The Center will examine the many ways the urbanization of rural areas affects the local economy, culture, schools, taxes, land use, agriculture, lifestyle, and politics; and how local politics and culture affect urban growth. River Falls is uniquely situated to serve as the laboratory for this endeavor given its proximity to the Twin Cities; indeed, the largest employer of the residents of River Falls is 3M in St. Paul. Federal funding will support applied research projects, case studies for courses in agriculture, business, economics, political science and other disciplines, and opportunities for undergraduates to engage in research projects and pursue internships.
- Food safety is an area of growing concern throughout the United States and around the world. The University of Wisconsin-River Falls requests federal funding to establish a joint Food Safety program with the University of Minnesota. Both campuses are eager to proceed with the collaborative program that will result in a UWRF Bachelor of Science degree and a University of Minnesota Masters in Public Health.

UW-STEVENS POINT

- Since 1967, the Reserve Officers Training Corps (ROTC) and the Department of Military Science have maintained a long and solid association with the University of Wisconsin-Stevens Point. The ROTC and Military Science programs seek to achieve integration within the broader campus learning community. Due to space constraints, however, the Department of Military Science, an academic program, is currently located in a non-academic, administrative building that is inadequate for programming needs. Stevens Point is seeking funding for relocation of its ROTC and Military Science programs to an academic building elsewhere on campus and facilities renovation.
- The University of Wisconsin-Stevens Point is establishing a new Economic Development Institute (EDI) to provide faculty expertise and student assistance to the domestic and international business community through faculty consultation, student internships, and continuing education curricula. The EDI will serve as “one front door” in central and northern Wisconsin, as well as abroad, for business and public agencies looking for specific expertise among faculty and students. UW-Stevens Point seeks federal funding to help establish the new institute.
- Housed in the University of Wisconsin-Stevens Point College of Letters and Science, the Raymond E. Mundt Center for Ethical Studies is being established to study ethics in business, the environment and everyday life through participation in courses in Business Ethics, Environmental Ethics, and related fields of study. The Center will assure that all students who participate in the program graduate with a clear sense of appropriate ethical behavior regardless of future career choice. Driven by the vision of its namesake, the Mundt Center will emphasize honesty, integrity, and civic responsibility of leaders as each makes decisions that shape the nature of American business, the American economy, and American society. Start-up funds are requested to enable the Center to be established while on-going funding is sought.
- The University of Wisconsin-Stevens Point’s Nelson Hall, built in 1915, is the oldest existing dormitory of the former State Normal School System. UWSP’s Board of Visitors has unanimously approved a resolution in support of making every possible effort to preserve it. The University of Wisconsin-Stevens Point is seeking funding to restore the historic building at the entrance of campus.

UW-STOUT

- The Research and Training Center (TRTC), Stout Vocational Rehabilitation Institute, College of Human Development, University of Wisconsin-Stout was established in 1970 to conduct research, development, training, and dissemination with a focus to improve the employment possibilities and economic status of individuals with disabilities. Working with a transdisciplinary team of colleagues at academic research institutions across the United States, federal funding is being requested to cross-validate and implement practices that research suggests can increase the employment and economic status of people with disabilities.
- Since inception, the University of Wisconsin-Stout’s Technology Transfer Program has reported impacts totaling over \$110 million. The program has also created and retained 1,800 jobs as reported by the manufacturers it has served over the past decade. Extended

funding will allow UW-Stout to expand the number of manufacturers served with services related to strengthening their global competitiveness.

- The University of Wisconsin-Stout works with over 200 start ups and existing businesses annually through the Stout Technology Transfer Institute. The Institute has a long track record of success. Inventors and existing manufacturers in rural Wisconsin are having difficulty accessing new and emerging technologies. This project will expand access to technologies under development at UW-Stout.

UW-SUPERIOR

- A prospectus for a proposed academic building project will be forwarded under separate cover.

UW-WHITEWATER

- With the assistance of a congressionally mandated FIPSE grant, the first phase of the new Technology, Workforce and Economic Development Center at the University of Wisconsin-Whitewater became operational. The Center provides one point of contact for those in need of assistance with workforce, business and not-for-profit issues in southeastern Wisconsin. Continued federal support will allow the Center to continue to assist individuals, businesses and not-for-profits with training, planning and technical assistance designed to build and strengthen the region's economy.
- The Wisconsin Innovation Service Center (WISC) at UW-Whitewater helps existing and aspiring entrepreneurs make more profitable product and market development decisions. In its 22 years of existence, WISC has provided services to over 6,000 companies, more than half of which are manufacturing firms. Federal funds are requested to establish the Open Market Innovation Project, a network to bring at least 40 traditional manufacturing businesses together with students and faculty to provide innovative product ideas and solutions. Initiatives in this project will address successful new product development, marketing and technical expertise.
- The University of Wisconsin-Whitewater seeks federal funding to establish a Fiscal and Economic Research Center to provide economic development and planning expertise to communities in southeastern Wisconsin. The purpose of the proposed research center would be to (1) provide research and technical assistance in the design of local fiscal and economic policy and assist in economic development issues; and (2) provide skills and expertise to communities of southeastern Wisconsin that may need assistance in meeting the requirements of the Smart Growth legislation. The Center will be a conduit for collaborative work across departments and colleges within the university, will provide opportunities for students to gain practical experience, and has potential for economic development.

UW COLLEGES

- The University of Wisconsin Colleges seeks federal funding to upgrade network connectivity for the 13 freshman-sophomore campuses of the UW Colleges. Because of the unique governmental status of UW Colleges, it is disadvantaged in providing the necessary bandwidth to students, faculty and staff. Each UW Colleges' campus currently

has two T1 lines as the 'last mile' linking the campus to the WiscNet statewide educational network and the Internet. Federal funding would pay for one-time acquisition and start-up costs for high-speed fiber and replacements of 'last mile' connections. This, in turn, would allow UW Colleges to increase the capacity of the 'last mile' connection between each campus and WiscNet, and would allow more course offerings, reduced congestion, increased ability to control traffic and connection to Internet2.

- The UW Colleges commits itself to planning and delivering the freshman-sophomore years of baccalaureate programs and professional students, and places a major emphasis on serving returning adult students, minority students, first generation college students, and economically disadvantaged students. UW Colleges has developed and implemented an "Engaging Students in the First Year" program. The program promotes an understanding and appreciation of liberal education and assists students in developing strategies and attitudes to maximize academic success. The program focuses on first-year students as they make the transition from their high school or post-high school experiences to the college experience. National research has shown that student engagement in the first year of college is key to student retention, academic success and persistence through the baccalaureate degree. Funding funding will support new first year students at UW Colleges.
- The UW Colleges are seeking federal funds to establish an Institute for 21st Century Instruction in Math and Science. The goals of this effort are to increase enrollment in UW Colleges mathematics and science courses, reduce attrition in math and science courses, and prepare students better for future work in math and science-based disciplines. Funds are being sought for several purposes, including the purchase of updated science equipment, technology for the delivery of course materials and to establish a physical structure at one of the 13 UW Colleges campuses.

UW-EXTENSION

- The University of Wisconsin-Extension is requesting federal funding for Teachers' PET: Professional Education & Technology. Teachers' PET will use innovative technological solutions to connect teachers and resources for professional development and will enhance teacher quality through career-spanning professional development. The initiative is a collaboration with the Wisconsin Education Association Council to provide a model for teacher quality and student learning collaboration using innovative technology.
- The University of Wisconsin-Extension seeks federal funds to coordinate and provide leadership for parent education to prevent childhood obesity. The comprehensive, collaborative, educational program, led by UW-Extension faculty and staff, will focus on twelve to fifteen counties in each year, for two years.
- The University of Wisconsin-Extension seeks federal funds to expand Youth Courts in Wisconsin. Youth Courts are relatively new to Wisconsin. However, the model has proven successful. This project proposes to build support for youth courts throughout Wisconsin through a statewide planning process. Federal funds would be used to support technical assistance from the University of Wisconsin-Extension and to support a series of planning events that would bring interested stakeholders together.

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REQUEST FOR FUNDS:
SCHOOL OF NURSING ACCELERATED/SECOND DEGREE PROGRAM

ORGANIZATION: The School of Nursing (SON) at the University of Wisconsin Eau Claire has a long and successful history in baccalaureate nursing education, operating both campus based and off-campus baccalaureate programs. The UW-Eau Claire School of Nursing, accredited by CCNE, is proposing an accelerated program for second-degree students. With the School of Nursing's history of successful programming and highly sought after graduates, UW-Eau Claire is well suited to provide this new program of study to aid the State of Wisconsin, and particularly west/central/and northern Wisconsin in meeting the ongoing professional nursing needs. UW-Eau Claire provides institutional support for the nursing program through continuous facilities updating and renovation, excellent faculty, distance education equipment, and student scholarships. Support from health care agencies has been ongoing, providing access to clinical facilities/clients, and providing personnel to assist in supervision/education of students. In addition, Saint Joseph's Hospital, Marshfield, continues to contribute office and classroom facilities, distance education support and faculty/staff funding for the nursing program at the Marshfield site.

DESCRIPTION: UW-Eau Claire has had an increasing number of inquiries about the nursing program from individuals who already have undergraduate degrees in other fields. Currently, completion of the BSN for all admitted students requires three years due to the sequencing of the nursing courses; for traditional undergraduate students, general education courses are integrated throughout the three years of nursing courses. If this proposal were implemented, the accelerated program students could complete the degree requirements in only 18 months, an accelerated time frame for completion of baccalaureate nurse education.

The program, utilizing summers and winterim sessions, would provide the requirements for the nursing degree in 18 months. Some of the course work might be provided with the traditional students (therefore, more classroom seating and lab space/resources and clinical sights are needed). Most courses would need to be taught separately, requiring additional teaching and lab space/resources. Also, a component of this instruction could be offered via distance technology to the Marshfield satellite location. A cohort of fourteen students (two clinical instruction sections of seven students) would be admitted yearly beginning with summer enrollment, therefore a total of 28 students will be enrolled when the program is fully operational. The need for additional personnel (faculty, support staff, program coordination) and other resources (space, service and supplies) are needed by the SON to implement this new program.

Start-up costs include necessary building renovations to accommodate the additional classroom space needed for student, faculty/staff/program offices, and developing the nursing skills lab. Building remodeling is needed to develop an additional large classroom and office space for the new faculty, staff and program offices. Skills lab development includes physical space remodeling as well as acquisition of state-of-the-art skills lab instructional technologies. Start-up equipment costs include instructional technologies for classrooms, including equipment for additional distance education

teaching to Marshfield. Program personnel are calculated based on current teaching loads for nursing faculty with associated program and student support needs. Usual and customary costs of offering the program are also included.

TIMETABLE: The UW-Eau Claire School of Nursing will request funding for Fiscal Year 2005.

CONTACT: L. Elaine Wendt, Ph.D., RN, Associate Dean and Educational Administrator
University of Wisconsin Eau Claire School of Nursing, 715.836.5287

PAST FUNDING: This is a new request; no past funding has been received for this project.

COSTS:	Total Costs in FY 2005:	<u>\$2,158,989</u>
	Facilities:	776,550
	Equipment:	189,663
	Personnel*:	1,004,826
	Service and Supplies:	187,950

Federal Funding Requested in FY 2005: None

*First year personnel costs of a multiyear project. Additional funding will be required over the subsequent 4 years.

SIGNIFICANCE: The State and nation are currently experiencing a relentless shortage of registered nurses. The shortage of baccalaureate educated nurses is particularly severe in northern and central Wisconsin. According to the American Hospital Association, 126,000 nurses are needed to fill today's hospital nursing vacancies; similar needs have been identified by the nation's other health care facilities (i.e. nursing homes, home health care agencies, public health). The present predications are that by 2020, the height of the baby boomers retirement, there will be a 20% shortage in the number of nurses needed to serve the health care needs of the entire population. In addition, during the 1990s a decrease in enrollments to nursing programs across the US and issues of attrition are becoming a great concern. UW-Eau Claire is the only baccalaureate nursing program in northwestern and north central Wisconsin. UW-Eau Claire is truly in a unique position to help address the need for nurses, as each year there are at least twice the number of qualified applicants to the SON than can be accepted due to the present faculty, resources, and space limitations. The SON has an exceptionally high graduation rate (95%) of the students accepted to the SON.

CONTACTS WITH
CONGRESS: None to date.

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REQUEST FOR FUNDS:
UWEC MATERIALS SCIENCE CENTER

ORGANIZATION: The University of Wisconsin-Eau Claire Materials Science Center provides a research environment for the advancement of materials science and nanotechnology. It supports advances in scholarly research, facilitates collaborations among multidisciplinary science faculty, promotes interactions between UWEC and local industries, and encourages research experiences for undergraduate students. Faculty in the departments of Biology, Chemistry, Geology, and Physics have individual and joint research programs focused on how micro- and nanoscale structure influences materials properties. The Center's instrument holdings are key components in enabling these collaborative efforts and have already been used to collaborate with local industry and for ongoing faculty research projects.

DESCRIPTION: The Materials Science Center will acquire new instruments and upgrade existing ones to broaden the scope of scholarly research, strengthen regional industrial collaborations, and enhance student-faculty research collaborations. The Center's instruments are primarily devoted to determining material structure and composition at the nanoscale. The requested funding will be used to purchase two new instruments (one to assess nanostructure and one to assess nanocomposition), new computer modeling capabilities, and to upgrade existing instruments (the Scanning Tunneling Microscope, the X-ray Photoelectron Spectroscopy system, and the Transmission Electron Microscope). The expanded capabilities afforded by the upgrades will greatly enhance the capabilities of the Materials Science Center.

TIMETABLE: The Materials Science Center requests funding for Fiscal Year 2005.

Specifications and Bidding: January-March
Assembly and implementation: April-December
Commissioning: January-March

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PAST FUNDING: Past funding has been provided by grants from the National Science Foundation, the Petroleum Research Fund, the Research Corporation, the U.S. Department of Education, and the University of Wisconsin Eau Claire.

<i>Years</i>	<i>Federal Agency and Program</i>	<i>Amount of funds</i>
2000-2003	National Science Foundation	\$138,357
2001-2004	National Science Foundation	\$203,614
2002-2005	National Science Foundation	\$261,000
2003-2005	U.S. Department of Education	\$422,238

COSTS:	Total Costs in FY 2005:	<u>\$950,000</u>
	Atomic Force Microscope	\$250,000
	Scanning Auger Microscope	\$155,000
	Computer modeling: hardware and software	\$75,000
	Scanning Tunneling Microscope upgrade:	\$300,000
	Transmission Electron Microscope upgrade:	\$170,000

Federal Funding Requested in FY 2005: \$470,630

SIGNIFICANCE: The advancement of materials and nanotechnology as well as the development of new materials is critical to our nation's economic development. The development of materials plays a key role in a wide range of technological arenas, such as microelectronics, homeland security, national defense, and commercial products. The interdisciplinary nature of materials science is vital to the development of nanotechnology. Upgrading and expanding the instrumentation capabilities of the Materials Science Center at UW-Eau Claire will allow for the training of more students and give them a broader education in these critical areas. These students are the future scientists that will keep the United States at the forefront of technological advances. The new and upgraded instruments will also enable state of the art research that is expected to lead to the development of new materials, new processes and new technologies. The enhanced instruments will also strengthen collaborations between the Center and regional and local industry in the development of new products and markets and to enhance existing products. Interactions of these companies with the University of Wisconsin System bring new opportunities for high-tech development and employment in the State of Wisconsin.

CONTACTS WITH
CONGRESS:

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REQUEST FOR FUNDS:
CAMPUS AUTISM PROGRAM

ORGANIZATION: The University of Wisconsin-Eau Claire has implemented and seeks to expand a Campus Autism Program (CAP) to provide state of the art behavioral intervention for children diagnosed with autism. Families with autistic children currently have few options for effective therapy since behavioral intervention therapy is not available in Wisconsin schools.

The UW-Eau Claire CAP serves two broad purposes. One is to train undergraduate students to provide scientifically validated behavioral intervention for young children in order to address a nationwide shortage of certified behavior analysts. The second purpose is to provide a service to the local community. Behavioral intervention is the only scientifically validated treatment for children with autism and difficult for families to obtain in Wisconsin, especially given the changes in State funding to provide autistic children with in-home behavioral therapy.

DESCRIPTION: The CAP was started a year ago and has generated significant interest on campus and in the local community. Expansion of services is warranted but federal funds are needed to meet this training and service need. The program will provide in-home behavioral intervention for children with autism. This in-home program would compliment new Wisconsin programs for providing up to 35 hours per week of therapy for young children with autism. The CAP is also poised to expand by starting a program to train students who are pursuing special education certification.

TIMETABLE: The UW-Eau Claire CAP requests funding for Fiscal Year 2005. The program will provide undergraduate student behavioral intervention training and begin in-home services as resources are available.

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PAST FUNDING: This program has not been funded in the past.

COSTS:

Total Costs in FY 2005:	<u>\$190,000</u>
Personnel cost:	\$140,000
Education Materials:	\$20,000
Equipment:	\$15,000
Transportation:	\$15,000
<u>Federal Funding Requested in FY 2005:</u>	<u>\$500,000 over five years</u>

SIGNIFICANCE: The diagnosis of autism has increased rapidly across the United States over the past decade. In Wisconsin alone it is estimated that there are more than 25,000 people with autism with a lifetime economic impact of 13 billion dollars. The only treatment scientifically validated to help children enter kindergarten like typical peers is behavioral intervention. Scientific evidence has shown that intensive behavioral intervention (i.e., 30+ hours per week) is crucial to the recovery of pre-school children with autism. As a result, the United States Surgeon General and the New York State Department of Health have recommended behavioral intervention for all children with autism. Access to behavioral intervention, however, is often difficult or impossible due to a shortage of trained and certified therapists. In Wisconsin, for example, there are only two Board Certified Behavior Analysts. Families are thus left to try a myriad of therapies with no proven efficacy. This leaves families with children who don't progress and tax payers with a bill for non-effective therapies. The UW-Eau Claire CAP will address this problem by training more students to become nationally certified behavior analysts and by providing services to more families in the local area.

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NO FUNDS REQUESTED FOR 2005

UW-Green Bay has no appropriations requests for Fiscal Year 2005.

The campus successfully secured \$500,000 in federal funding for a new paper technology transfer center in an appropriations bill last year, thanks to help from Representative Mark Green. The center is designed to be a world-class research facility that will serve as home to leading paper scientists who will be encouraged to develop patentable technologies that can be transferred from the laboratory to the marketplace.

UW-Green Bay did submit summaries describing three key sources of funds for their institution: NASA Space Grants, Teach American History Grants, and the US AID partnership program. These summaries can be found under the “Key Federal Funding” tab at the beginning of the binder.

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REQUEST FOR FUNDS:
MISSISSIPPI VALLEY ARCHAEOLOGY CENTER (MVAC)

ORGANIZATION:

The Mississippi Valley Archaeology Center (MVAC) is a nationally recognized research and educational unit of the University of Wisconsin-La Crosse. MVAC conducts basic and sponsored research, archaeological resource conservation and public education in the Upper Mississippi River Valley.

MVAC is affiliated with the Archaeological Studies Program at the University of Wisconsin-La Crosse and provides classroom instruction, training, internships, and practical experience for Archaeology majors in the Sociology/Archaeology Department.

MVAC serves as a federally recognized repository for archaeological collections, including collections from the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and Fort McCoy, as well as projects on state and private land conducted as part of federally mandated Cultural Resource Management activities.

DESCRIPTION:

Capital Construction and Improvements- Archaeology Center and Laboratories

Collection and Conservation Facility: While MVAC is currently a designated federal repository, the present facility does not meet all mandated federal regulations for curation and conservation of collections. This project would entail an addition and remodeling of the present building. Presently \$40,000 is available for compactor shelving for this project from other sources.

Elevator Installation: The present facility is multi-storied and has no elevator. It is in non-compliance with federal law requiring handicap access. Laboratory and curatorial facilities are in the basement of the building. This project would require installation of an elevator in the present facility concurrent with the development of the collection and conservation facility.

TIMETABLE:

The University of Wisconsin-La Crosse will request funding for this project in Fiscal Year 2005. Twelve to fourteen months are estimated for completion of these projects within a two year planning time frame. Planning/Start-up Phase: January –July. Implementation and Construction Phase: July- following October. Outcomes/Completion: November-December.

CONTACT: Joseph Tiffany, Director
Mississippi Valley Archaeology Center
(608)785-8463

PAST FUNDING: How was this program funded in the past? If you have received funding from other Federal agencies in the past, include information on the amount of funds, the years received, and the name of the federal agency and program providing the funding.

MVAC receives funding from grants and contracts, contributions and donations, sales, services and educational contracts, local funding raising groups (United Fund for the Arts and Humanities), University of Wisconsin-La Crosse and University of Wisconsin-La Crosse Foundation support. The fund balance from these varying sources has averaged \$730,869 annually. Of these funding sources circa 93% comes from grants and contracts annually.

<i>Years</i>	<i>Federal Agency and Program</i>	<i>Amount of funds</i>
1997-2000	Department of Health and Human Services "Healthy Start"	\$500,000/year
2001-2005	Department of Health and Human Services "Family First" funds	\$105,000/year

FEDERAL FUNDS REQUESTED IN FY 2005.

\$1,100,000 for curational facility with elevator.

SIGNIFICANCE:

MVAC is a nationally recognized teaching and research program at the University of Wisconsin-La Crosse. As part of the archaeological research we undertake, MVAC curates and manages collections as a regional repository in the upper Mississippi Valley for state and federal agencies. Contracted archaeological work is undergoing explosive growth nationally. The responsible long term housing and conservation of collections and supporting documentation in addition to providing access and use to researchers, students, and the public to these materials that have been recovered on federally sponsored work is a growing concern. MVAC can not continue to provide the region with curational support for the long term without improving its facilities. Continued growth will require an appropriate curational facility that meets federal standards. Otherwise, collections will have to be moved elsewhere (most likely out of Wisconsin) where they will not be readily accessible for teaching and research and public appreciation in our service area. MVAC is playing an active role in the development and curation of collections within the professional community. Wisconsin can contribute significantly to resolution of an on-going national problem by supporting the continued development and improvement of regional repositories such as MVAC.

CONTACTS WITH CONGRESS:

None.

UNIVERSITY OF WISCONSIN – LA CROSSE
Douglas Hastad, Chancellor
1725 State Street • La Crosse, WI 54601
Phone: 608.785.8000 • Fax: 608.785.8544 • www.uwlax.edu

REQUEST FOR FUNDS:
CENTER FOR BIO-MEDICAL VISUALIZATION APPLICATIONS

ORGANIZATION: The University of Wisconsin – La Crosse has been involved with applying high-performance computation and visualization technology to problems in bio-medical imaging for a decade. This work has resulted in the development of several software systems applicable to both educational and clinical settings. This work has been conducted through grants and contracts from a variety of sources including the UW-System, the National Science Foundation, NASA and the National Institutes of Health. This has resulted in active collaborations with the SUMMIT Group at the Stanford Medical School, the NASA Ames Research Center Bioinformatics Laboratory, the Stanford Biocomputation Laboratory, CSIRO in Canberra Australia, the University of Michigan and the University of Chicago.

One of the first software systems developed at the University of Wisconsin – La Crosse was the Digital Cadaver environment. This system provides students of human anatomy at the undergraduate and professional level with intuitive tools for working with the Visible Human Project data produced by the National Library of Medicine. This system provides students with a “personal digital cadaver” that retains the essential cognitive features of the historic “dissect & sketch” paradigm. Students engage in a cycle of observation, decision and action that builds a robust 3D understanding of anatomy.

For the last four years the University of Wisconsin – La Crosse has collaborated with the SUMMIT group at the Stanford Medical School on a Next Generation Internet project funded through the National Library of Medicine (NIH). This has resulted in the development of several software systems that, by leveraging the performance capabilities of networks such as Internet2, enable new applications of information technology in medical education. These software systems span the range from immersive virtual environments to nomadic wireless applications. The Immersive Segmentation environment combines high-performance compute servers with low-cost client workstations to create a visually immersive environment for exploring anatomical data sets. The Nomadic Anatomy application allows the user harness the power of remote data set servers to provide on demand access to anatomical data sets from a wireless handheld computer.

DESCRIPTION: This funding request will establish a Center for Bio-Medical Visualization Applications at the University of Wisconsin – La Crosse. The research performed by the Center will focus on the development of software technologies that support bio-medical visualization in both clinical and educational settings. The funding will support construction (through remodeling) of an appropriate facility for the center as well as major research equipment and staff to support the research efforts of faculty and students. Research projects will focus on visualization applications but will also include problems in bio-computation and bio-informatics.

CONTACT: Dr. Steven Senger, Dept. of Computer Science, UW-La Crosse
senger@cs.uwlax.edu, 608-785-8387

PAST FUNDING:

<i>Years</i>	<i>Agency/Program</i>	<i>Amount of funds</i>
1991	NSF Instrumentation and Laboratory Improvement Program	\$123,000
1997-98	NSF Research Experiences for Undergraduates Program	\$67,000
2000	NASA Ames Research Center Bioinformatics Lab	\$58,000
2000-2002	NSF phase II SBIR	\$90,000
1999-2002	NLM/NIH Next Generation Internet	\$300,000
2003-05	NSF Advanced Computational Research program	\$180,000
2003-2006	NLM/NIH Scalable Information Infrastructure (SII) (thru Stanford)	\$500,000

COSTS:

Remodeling:	\$100,000
SMP Compute Server:	\$150,000
Visualization Wall:	\$150,000
Network Infrastructure:	\$100,000
Access Grid Collaboration Node:	\$100,000
Staff:	\$200,000
<u>Federal Funding Requested in FY 2005:</u>	<u>\$800,000</u>

There are no current or pending funding proposals that duplicate this request to develop a Center for Bio-Medical Visualization Applications. Specific research projects at UW-La Crosse are currently funded through NSF and NLM/NIH

SIGNIFICANCE: The Bio-medical Visualization work performed at the University of Wisconsin – La Crosse helps address a national need to leverage information technology in biology and medicine. The application areas being explored at UW-La Crosse have significance for education in biology and medicine, as well as clinical practice. The continuing work, done in collaboration with Stanford, has helped to explore application areas that are enabled by high-performance information networks such as the Internet2 projects. This work has helped to define the need for national high-performance network infrastructure.

In addition to these national issues, the work performed at UW-La Crosse has significant regional potential by fostering collaboration with the expanding local health-care centers.

CONTACTS WITH

CONGRESS: None.

UNIVERSITY OF WISCONSIN – LA CROSSE
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REQUEST FOR FUNDS:
PROJECT TEACH AND PROJECT FORWARD

ORGANIZATION: The University of Wisconsin-La Crosse has been involved with assisting the Research Center for Cultural Diversity and Community Renewal (CDCR) in developing campus-wide initiatives in support of social justice for its students, faculty and staff.

CDCR is part of the School of Education at the University of Wisconsin-La Crosse. CDCR is dedicated to developing and promoting a renewed vision for achieving a harmonious and socially just community through education. CDCR's focus is on the complex and potentially beneficial relationships between the issues of cultural diversity, education and community renewal.

CDCR's primary goals:

- To engage students in research efforts designed to build greater understanding of the relationship among cultural diversity, teacher education and community renewal.
- To develop collaborative relationships between the University of Wisconsin-La Crosse and other mid-western universities, institutions, and communities.
- To obtain significant federal, state, and private funding focused on research and programming related to the issues of diversity, education, and community.
- To develop innovative and holistic strategies for recruiting and retaining students of color at the University of Wisconsin-La Crosse.
- To bring conscious people together to have fun while working hard for social justice through open communication and a results oriented focus.
- To assist in shaping educational policy that is designed to address and eliminate institutional racism.

DESCRIPTION: CDCR has been involved in providing two programs that assist students of Hmong descent in attaining Wisconsin teacher certification: Project TEACH and Project FORWARD, two U.S. Department of Education Title VII bilingual Education Career Ladder grants. These programs have been established at UW-Stevens Point, UW-Eau Claire, UW-Stout, and UW-La Crosse. The projects, which received funding for five years starting in September 1999 and 2000, pay the tuition of Hmong students enrolled in teacher education programs on various campuses in Wisconsin.

Research indicates a strong need for teachers of Hmong descent in many Wisconsin communities. Wisconsin has a large number of students of Hmong descent who comprise anywhere from six to 24% of the public school enrollment in several medium-sized communities. Further, Wisconsin's Hmong students comprise 60% of all Limited English Proficiency (LEP) students in the state. Self-confident, well-prepared teachers of Hmong descent will make a significant difference to Wisconsin students, serving as role models for students of Hmong descent, and as capable, empathetic, cross-cultural, and bilingual educators who will serve students of all backgrounds and ethnicities.

One of the difficult conditions confronting the adjustment of the Hmong people living in the U.S. has been English acquisition. Limited English Proficiency (LEP) is an important component of interpersonal discrimination according to Hein's (2000) research in Eau Claire, Wisconsin. While some of the Hmong people have been in the United States for 25 years, learning the English language has been difficult. A significant number of Hmong students continue to be LEP students who need assistance in school to acquire English language skills. LEP students in Wisconsin score well below the national average in all content areas of testing. Furthermore, according to the Wisconsin Department of Public Instruction, the Hmong comprise over 60 percent of the nearly 11,000 LEP students in the state.

CONTACT: Ronald S. Rochon, Ph.D. Research Center for Cultural Diversity and Community Renewal (CDCR). Phone: (608) 785-5080. Fax: (608) 785-5082

PAST FUNDING:

<i>Years</i>	<i>Agency/Program</i>	<i>Amount of funds</i>
1997	Braitmeyer Private Foundation	\$36,000
1998	Central Investment Fund (UW-System)	\$155,970
1998-2005	USDE Title VII Career Ladder Grant	\$2,376,759
1999-2002	Wisconsin Department of Public Inst., Refugee Children and Refugee Teacher	\$175,800
1999	Discipline-Based Grant (UW-System)	\$3,000
2001-02	Conference grant (UW-System)	\$2,000

TIMETABLE: The most productive way to increase the number of Hmong teachers in Wisconsin is to support these students while they are earning their teaching degrees and certification. The CDCR is able to pay for student tuition and the expenses of administering Project TEACH and Project FORWARD. However, Hmong students face a variety of financial barriers above and beyond college tuition. If this proposal were funded, the programs listed below would be implemented during FY 2005, starting in October 2004 and ending in September 2005:

COSTS:

Child Care:	\$150,000
Insurance:	\$960,000
Mentoring Program:	\$250,000
Travel/Conferences:	\$10,000
Staff Member to Coordinate Mentoring Program:	\$35,000
Fringe Benefits:	\$12,250
Supplies and Equipment:	\$82,750
<u>Federal Funding Requested in FY 2005:</u>	<u>\$1,500,000</u>

SIGNIFICANCE: English as a Second Language (ESL) instructors in several Wisconsin public schools describe the situation as being considerably more complex than it has been in the past. Teaching a language (English in this case) to people who already have a sound understanding of one language is one thing, but teaching a language to people who do not have a sound footing in a primary language is quite another. The challenge to ESL instructors is all the more taxing, and exacerbated by shifting public school budgets that can curtail ESL expenditures.

While the communities of Eau Claire, Green Bay, LaCrosse, Menomonie, Oshkosh, Stevens Point, Wausau, and Wisconsin Rapids have substantial numbers of Hmong children in the public schools, there are few Hmong teachers, counselors, or

administrators to serve as role models (see Table 1). The school systems have hired Hmong paraprofessionals to be teacher assistants or translators, however, the paraprofessionals are not certified, serve as assistants, have annual contracts, and are often limited to part-time employment. Several of these paraprofessionals have been working for a number of years in the public schools. After such a lengthy period of employment, many of the Hmong paraprofessionals have had an interest in becoming certified teachers. This interest on the part of Hmong paraprofessionals was the stimulus to develop a program for teacher certification for the Hmong people in Wisconsin's northern tier.

**Hmong Students, Teachers and Paraprofessionals in
Select WI School Districts, 2000-2001**

School District	# Hmong Students	% Hmong students	# Hmong teachers	# Hmong Paraprofessionals
Eau Claire	1,068	9%	2	16
La Crosse	1,070	14	4	25
Menomonie	378	11	1	5
Stevens Point	710	8	0	13
Wausau	2,150	24	4	45
Wisc. Rapids	381	6	0	5

CONTACTS WITH

CONGRESS: Congressman Ron Kind has been contacted regarding Projects TEACH and FORWARD.

University of Wisconsin-Milwaukee
Recent Projects in Review

The University of Wisconsin-Milwaukee deeply appreciates the support of the Wisconsin Congressional delegation in its continued efforts to improve the flow of federal resources to the state's only public urban research university.

In FY 2003 and FY 2004, UW-Milwaukee received federal funding to create and implement numerous initiatives benefiting the Milwaukee community and the State of Wisconsin. These included funds to:

- Establish and expand the Center for Water Security at the UW-Milwaukee Great Lakes WATER Institute, located on Lake Michigan to ensure the quality, safety and quantity of freshwater supplies serving the citizens of the United States.
- Establish a Great Lakes Aquaculture Center to support the advancement of Great Lakes species aquaculture technology, and maintain the environmental compatibility of aquaculture throughout the Great Lakes Basin.
- Support a relationship between the US Geological Survey and UW-Milwaukee to work toward the long-term goal of establishing a Center for Sturgeon Research, Education and Conservation to protect the species from human-made stressors that have driven many sturgeon populations to the brink of extinction
- Promote the advanced manufacture of lightweight materials in an effort to increase economic development for Wisconsin businesses associated with the production or procurement of military transportation components, while at the same time, improving the efficiency of those components.
- Support the staffing and expansion of urban health partnerships through community nursing centers serving challenged areas and by educating nurses who will be responsive to the needs of vulnerable communities.

The above projects and those following for our FY 2005 requests fit within the mission of *The Milwaukee Idea*, the university's plan to improve education, economic development, environment and health for all of Wisconsin. We applaud our delegation for its past support and look forward to another good year.

About the Great Lakes WATER Institute

The Great Lakes WATER Institute is a University of Wisconsin System research facility located on Lake Michigan at the University of Wisconsin-Milwaukee. The mission of the WATER Institute is to provide the State of Wisconsin with a focal point for research, education and outreach aimed at a thorough understanding of the Great Lakes and other aquatic and environmental resources of local, state, national and international importance. To achieve its mission, the WATER Institute promotes a broad spectrum of multidisciplinary, interactive aquatic and environmental research. The Institute also promotes education and outreach through UWM and in cooperation with other educational institutions. The WATER Institute is home to the University of Wisconsin-Milwaukee Center for Great Lakes Studies, a UWM and UW System Center for Excellence, the Aquaculture and Fisheries Research Center, the NIEHS Freshwater Biomedical Sciences Center and the Center for Water Security.

From its dockside site in the port of Milwaukee, the WATER Institute represents the *only* major aquatic research institution located on Lake Michigan and the largest U.S. institution of its kind in the Great Lakes region. Under the auspices of the institution, the UWM Center for Great Lakes Studies, a UW System "Center of Excellence", conducts multidisciplinary research throughout the lakes utilizing the Institute's research vessel *Neeskay*. The ship provides year-round access to the lakes and a fully functional research platform and floating laboratory. The Aquaculture and Fisheries Research Center is a leader in developing new methods of producing high quality seafood for the dinner table and new entrepreneurial opportunities for Wisconsin citizens. The Wisconsin Department of Natural Resources Southeast District Lake Michigan Fisheries Management and Enforcement units operate out of the Facility to manage and protect commercial and recreational fish harvest; and the NIEHS Marine and Freshwater Biomedical Core Center is conducting critical research on the toxicological impacts and linkages between contaminants and the health of humans and aquatic organisms.

The Great Lakes WATER Institute has emerged as one of the leading freshwater institutes in this country in the use and development of underwater technology in support of limnological research. Over the last 10 years, investigators working at the Center have been involved in the first manned submersible and unmanned robotics research dives in Lake Superior, Michigan and Huron and in Lake Baikal (the largest, deepest lake in the world) in eastern Siberia.

The Facility brought the highly regarded Jason Project to Milwaukee and UWM. This program brings 15,000 MPS and local school children to UWM annually and innovations within the UWM program are used as models for other Jason sites around the country. The Center played the key role in getting local industries and foundations to support the Jason Project and was awarded two prestigious Community Service Awards in 1993.

The WATER Institute provides one of the best research environments for graduate students within the University of Wisconsin System. Students have been the recipients of fellowship awards from NASA, the Mott Foundation, the National Research Council, the International Association of Great Lakes Research, the Great Lakes Foundation, and others.

UW-Milwaukee FY 2005 requests

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- E. Advanced Manufacture of Lightweight Materials and Components for Military Applications

Center for Water Security

Developing Technologies and Strategies to Protect the Nation's Freshwater – 2005 Sustained Effort Initiative

Need and Mission

The University of Wisconsin-Milwaukee, under the auspices of the Great Lakes Wisconsin Aquatic Technology and Environmental Research Institute (WATER), requests **\$4,700,000 in FY 2005** to solidify the development of the Center for Water Security, and create an enduring program within the University. The overall mission of this center is to conduct research aimed at ensuring “the security, quality, and quantity of freshwater supplies serving the citizens of the U.S.” Funds will be used to make University of Wisconsin at Milwaukee and national leader in protecting our freshwater and meeting America’s military and homeland security needs.

Background and Justification

The University of Wisconsin Milwaukee (UWM) Great Lakes Wisconsin Aquatic Technology and Environmental Research (WATER) Institute’s Center for Water Security is well positioned to address critical security issues surrounding water supply. In 1993, Milwaukee suffered the largest water borne disease outbreak in the history of the U.S. An estimated 400,000 people became ill with over 100 attendant deaths. The agent, a chlorine resistant intestinal parasite, *Cryptosporidium*, entered the drinking water drawn from Lake Michigan and within a matter of hours was distributed throughout a large portion of the metropolitan area. As a consequence, this community (private industry, government, medical service providers and academia) is highly sensitized and responsive to the issue of water security – having felt the effects first hand. Drawing drinking water from surface waters is a common practice, particularly in the Great Lakes where an abundant supply of high quality water serves over 15 million people. The largest single drinking water supply system in the world is in Lake Michigan serving the City of Chicago.

It is clear that both the stakes and the importance of this effort have greatly increased since the original proposal for the establishment of the Center for Water Security was put forward by the University in July of 2001. The Great Lakes WATER Institute recognizes the unique position it is in – there is no other academic research institution in the Great Lakes region that has the combination of facilities, Great Lakes experience, understanding of the compelling need for a mission directed at these issues, and a community attuned to the safety and security of freshwater supplies. Since September 2001, both the expectations of the public and the very real potential for terrorist attacks on water supplies have placed upon all research enterprises a greater responsibility than ever anticipated. The task of safeguarding a system as large and complex as the Great Lakes is daunting. The theater in which these threats may be executed is very broad in scope: atmospheric fallout from

local or regional injections emanating from dirty bombs or incendiary weapons over 100's of kilometers; direct injection into source reservoirs and surface waters; treatment facilities and infrastructure that serve millions of people; highly vulnerable, complex distribution systems; storage facilities; small scale water supply systems at the individual building level (pressure and holding tanks, water softeners, etc.); and interdependent, ancillary systems serving water supply facilities (power, computer control systems, chemical reagent supplies, etc.).

Many agents (both biological and chemical) are resistant to disinfection and are stable in water for long periods. Some of these have been weaponized while many others must be considered as potential threats in the hands of terrorists determined to contaminate drinking water systems and potentially reach hundreds of thousands of people, with little possibility for detection until the onset of acute symptoms or disease. The advent of genetic engineering technologies exponentially complicates threat identification and new microencapsulation technologies could compromise the effectiveness of dilution as a means for mitigation of contamination in a millions-of-gallons-per-day water distribution networks.

Furthermore, the viability, fate and persistence of biological and chemical contaminants in these complex systems are not known. The "ecology" of infectious diseases, for example, in the surface waters of Lake Michigan is virtually unstudied, and the potential for re-infection following even a small contamination event is unknown. Ten years after the Cryptosporidium event, the source, distribution and pathways to humans for this newly emerged water borne pathogen are still vague. Twenty years ago Cryptosporidium was virtually unheard of. The development of rapid detection techniques that produce neither false positives nor false negatives in waters with a natural background of 10^6 microorganisms per milliliter is a major analytical challenge. Furthermore, the disruptive potential of deliberately introduced exotic species is a form of ecological terrorism that can have billion dollar consequences to the Great Lakes ecosystem. Despite their size, the Great Lakes are surprisingly vulnerable systems.

Institutional Uniqueness

The WATER Institute, administered by UWM's Graduate School, is the premier, academic freshwater research institute in the Great Lakes region. Housed in a 130,000 square foot industrial, waterfront facility on Milwaukee's inner harbor, the WATER Institute is a multi-disciplinary center for research and training in aquatic science and engineering. The Institute serves scientists from the Colleges of Letters and Science, Engineering and Applied Science, Health Sciences, and from the Schools of Architecture and Urban Planning and Business Administration. The Institute is home to the Great Lakes Aquaculture Center, the premier regional center for research on freshwater food production, as well as the NIEHS Marine and Freshwater Biomedical Sciences Center, the National Institute of Environmental Health Science's single freshwater center for the study of aquatic toxicology and human health.

Addressing Challenges

To date the Center for Water Security has received \$3 million in support over 3 years (2002-2004), although in terms of the actual expenditure cycle we are currently 17

months and ~\$1M into this funding as of February 2004. This funding has already provided critical infrastructure support for state-of-the-art instrumentation, has created a program of pilot research projects designed to encourage University scientists to address these issues with the goal of making them more competitive for research support in the broader funding climate, and has elevated this issue in the minds of both the scientific community and the public. The WATER Institute now routinely receives inquiries from water utilities and agencies facing these issues from across the nation.

To date, UWM scientists are conducting collaborative research in a wide variety of areas including:

- developing a fiber optic based sensor network that will safeguard distribution systems over kilometer distances in real time, and analytical techniques for high-resolution chemical “finger-printing” and analysis of target compounds, including ricin and other bio-toxins;
- developing bio-sentinel systems in which aquatic organisms themselves act as early-warning “canaries in the mine”, e.g. zebra fish that “light up” like fireflies in the presence of pollutants; laser imaging systems that can track real time, subtle behavioral changes in microscopic animals exposed to micro quantities of contaminants; continuous monitoring of water supplies by a small clam – *Driessena polymorpha* – more commonly known as the zebra mussel;
- developing rapid molecular-based techniques for the detection of a single cell of a water borne pathogen in natural waters which contain over one million non-pathogenic bacterial cells in every thimble-full of water, including high speed tests, with “in time, today” results for bacterial contamination responsible for beach closings through out the Great Lakes and marine coasts – the current test takes 24 hours;
- producing atmospheric and hydrological forecast models to determine where, to what extent and how quickly a contamination event is dispersed in the air and water of the Great Lakes region, including support for a *32 processor Origin 3800 supercomputer* - the largest computational platform of its kind in Milwaukee;
- examining state-of-the-art, ultra low level radiochemical tracer techniques to track the age and purity of water in drinking water distribution systems on a time scale of hours;
- developing residential demand-side strategies to address the question of what households and communities can do to mitigate the impact – and thus reduce the likelihood – of water safety threats to a central water supply system. Since high-profile threats tend to be centered in large urban areas, our effort is focusing on the city environment - first at the level of the individual household and then at the scale of the city block.

The University of Wisconsin at Milwaukee WATER Institute seeks funding to become a national leader in this field of research on a sustained basis and build upon current progress and success given sufficient resources.

Over the next 5 years the Center will focus its efforts on the development and implementation of strategies, techniques, and protocols, for methodologies and systems that will:

- improve our ability to discern and detect potentially harmful chemical and biological alterations in aquatic and atmospherically coupled surface reservoirs, treatment operations, and distribution systems supplying freshwater to the nation's communities;
- improve our ability to forecast and predict the dispersion, transport and fate of such contaminants within these systems;
- provide *in situ* monitoring and early warning systems and networks capable of operating in large lake and coastal systems over the range of sea states and climatic conditions observed in the Laurentian Great Lakes;
- assist, where appropriate, the responsible public agencies in efficiently and effectively responding to threats to water supply systems and in determining the appropriate means and efficacy of remediation efforts.

In addition to research in those areas, and beyond, the 2005 requested funding will accomplish the following necessary steps:

- Recruit and hire three full time research scientists and engineers in the field of water security, including an experienced senior level scientist, for a period of 4 years
- Staff the Center administrative and technical support needs
- Develop a much demanded outreach and public education component
- Provide matching funds in the form of graduate student and postdoctoral fellowships for scientists seeking extramural support for water security relevant research
- Develop new instrumentation and analytical capacity within the Center to keep pace with expanding analytical technologies
- Develop plans for physical facilities and infrastructure for the Center in order to approach the state and other funding agencies for capital improvements
- Host conferences and workshops targeted at addressing the unique vulnerabilities of freshwater supplies and ecosystem integrity in the Great Lakes
- Develop partnerships with other federal, state and academic entities with programs directed at water security relevant issues

The 2005 request will bring the total support for this activity to only \$7.7 million, however this will allow the University to seek and plan for investment in the long term, and establish a research Center uniquely directed at safeguarding the freshwater supplies of the United States.



For further information contact:

Director, Center for Water Security
University of Wisconsin-Milwaukee
Great Lakes WATER Institute
600 E. Greenfield Ave.
Milwaukee, WI 53204
www.glwi.uwm.edu/cws





Great Lakes Aquaculture Center: 2005 Initiative

Requested Action

The University of Wisconsin-Milwaukee Great Lakes Wisconsin Aquatic Technology and Environmental Research (WATER) Institute requests \$1.2 million for supporting the expansion of the Great Lakes Aquaculture Center in Cooperation with USDA/Agricultural Research Service (ARS) Program.

Background and Justification

Aquaculture related commerce within the US Great Lakes locality continues to be an emerging industry. The Great Lakes is home to approximately 29% of the US population that consumes more than one billion pounds of sea food products per year, however the commercial aquaculture industry in the Great Lakes area generates less than 4% of all US production. This raises the obvious question: What are the constraints that are limiting aquaculture production within the US Great Lakes and what action is required to address this problem? The Great Lakes are host to numerous unique species, including lake whitefish, sturgeon, lake trout, yellow perch, walleye, northern pike, and muskellunge. Most of these fish are economically important to the recreational and commercial fishery of the Great Lakes. With recent declines in natural species populations, especially those linked to the commercial fishery, there exists a shortfall in supply for the seafood market in the Great Lakes. However, the demand for Great Lakes seafood products by consumers remains high and is increasing. Because the wild harvest of some species is at or below the allowable sustainable level, we must seek alternatives to the wild seafood production. Consequently, there is an identified need for aquaculture production related to Great Lakes species. While some Great Lakes species aquaculture research such as with yellow perch is addressed on a smaller-scale basis by the North Central Regional Aquaculture Center, there is no large-scale activity to develop the aquaculture industry in the Great Lakes area.

Funding is requested to expand the Great Lakes Aquaculture Center (GLAC) in Cooperation with USDA/Agricultural Research Service (ARS). The mission of the Great Lakes Aquaculture Center is to support the advancement of Great Lakes species aquaculture technology, and its application to producing a high quality protein food source for human consumption. The GLAC, through the support of fundamental and applied research, training, and outreach programs will focus on five essential areas:

- Aquaculture Technologies
- Science in Support of Aquaculture
- Marketing/Economics/Business
- Training/Outreach/Extension/Education
- Consumer Safety and Environmental Protection

Aquaculture Technologies

Improving and Developing:

- Intensive Aquaculture Technology (IAT)
- Recirculating Aquaculture Systems (RAS)
- Engineering low-cost systems
- Hydroponics/Aquaponics
- Alternative feed development
- Dairy and farm conversion technology

Science in Support of Aquaculture

Fundamental and Applied Research:

- Early life stage aquaculture
- Fish genomics and proteomics
- Fish physiology
- Reproductive Biology
- Commercial strain development: genetic selection for rapid growth, density tolerance, disease resistance, sterility, etc.
- Nutritional requirements
- Disease treatment techniques
- Feed conversion efficiency improvements
- Out-of-cycle spawning

Marketing/Economics/Business

Assessment and Evaluation:

- Regional and global market economics
- Market research – valued added products specific to the Great Lakes Region
- Marketing strategies for the individual entrepreneur
- Aquaculture cooperatives

Training/Outreach/Extension/Education

Developing and Providing:

- Graduate education: Masters and Doctoral training in aquaculture science
- Minority aquaculture training programs
- High school internships and aquaculture curriculum programs
- Urban fish gardening program
- Native American leadership training programs
- Demonstration of rearing systems
- Specialized workshops and technical on-site assistance
- Cooperative research (industry based)
- Technology transfer to provide information and assistance in a timely fashion

Consumer Safety and Environmental Protection

Technology Assessment and Transfer:

- Safety and human consumption
- Wetland protection programs
- Permitting and environmental regulation
- Best management practices
- Aquaculture farm certification programs
- Monitor, evaluate, and maintain environmental compatibility of aquaculture
- Source and receiving water ecosystem modeling

The Federal funds requested for the expansion of the Great Lakes Aquaculture Center will be used to recruit new Aquaculture Research Scientists and associate

staff. Additionally, these funds will be used to support new Aquaculture Research Scientists within USDA/ARS. This combined team effort, through the sharing of resources and expertise, will provide the most cost-effective approach for the Advancement of Great Lakes aquaculture.

Goals

The goals of the Great Lakes Aquaculture Center are:

Through fundamental and applied research, improve and develop advanced aquaculture technology for the commercial production of Great Lakes species such as lake whitefish; lake trout, yellow perch, walleye, northern pike, muskellunge, sturgeon, etc. as a high quality protein food source for human consumption. The research efforts will focus on closing the technological gaps (developing the aquaculture tool box) and applying this advanced technology in the most cost-effective way. The research will encompass a broad spectrum of scientific disciplines including reproductive physiology, molecular biology, genetics, fish nutrition, fish health, behavior, developmental biology, and engineering; focused on improving, enhancing, and developing Great Lakes species aquaculture technology. Additionally, we will monitor, evaluate, and maintain the environmental compatibility of Great Lakes aquaculture by utilizing a multi-disciplinary team of scientists (limnologists, water chemists, fish ecologists, hydrologists, invertebrate ecologists, etc.) to meet the challenges of this extremely important aspect in conjunction with commercial aquaculture growth within the Great Lakes. Through the GLAC Training/Outreach/Extension/Education component, we will develop and implement a “Technology Transfer” program to provide the best information and assistance in a timely fashion to benefit commercial aquaculture in the Great Lakes area.

The primary goal of the GLAC is to conduct fundamental and applied research as a function of improving aquaculture technology for Great Lakes species production to advance commercial aquaculture. Secondly, this research can benefit numerous other fish culture programs. Recreational fishing within the Great Lakes is valued at more than one billion dollars per year. The culture technology “tool box” could also be used in conjunction with the hatchery production of fin fish for stocking and for Great Lakes species rehabilitation and restoration efforts.



Center for Sturgeon Research, Education and Conservation: 2005 Initiative

Requested Action

The University of Wisconsin-Milwaukee Great Lakes Wisconsin Aquatic Technology and Environmental Research (WATER) Institute, in conjunction with the Wisconsin Department of Natural Resources, requests \$580,000 in the FY2005 Interior Appropriations Bill and Report, U.S. Geological Survey, Biological Sciences Account for supporting the establishment of the Center for Sturgeon Research, Education and Conservation.

Background and Justification

The lake sturgeon (*Acipenser fulvescens*), one of four freshwater sturgeon inhabiting the waters of North America, is the largest fish and the only sturgeon found in the Great Lakes. Lake sturgeon are an ancient and primitive fish belonging to a group that predates the dinosaurs by many millions of years.

Sturgeon populations throughout the northern hemisphere (North America and Eurasia) have been negatively impacted by man-made stressors. Overharvest, pollution, loss of habitat, and transformations in water regimes (dams) have driven many populations to the brink of extinction.

Today, within the U.S. waters of the Great Lakes, lake sturgeon are considered depleted throughout most of their native range. They are presently a species of special concern in Wisconsin, listed as threatened in Michigan, endangered and extinct in other U.S. Great Lakes states, and considered a Federal Species of Concern by Region Three of the U.S. Fish and Wildlife Service. The catastrophic decline of lake sturgeon throughout the Great Lakes and their U.S. range is an extremely serious situation that demands our immediate attention. The U.S. Department of Interior has defined the status of lake sturgeon native to the Great Lakes as a high priority species for rehabilitation.

The US Geological Survey and its Great Lakes Science Center have an ongoing conservation and rehabilitation program for lake sturgeon in the Detroit River, Lake St. Clair, and St. Clair River. The program has identified historic and current spawning habitat, and provided critical information on seasonal movement and habitat use. However, there is no conservation and rehabilitation program for Lake Sturgeon in Lake Michigan, the Milwaukee River, and the ____ River. This is a critical gap because....insert

Long term sustainability and recovery of sturgeon are questionable unless significant efforts are made to increase our knowledge base of their biology, environmental requirements, and management, improve on regulation and enforcement, and emphasize education. A well organized and broad based research program will contribute significantly toward accomplishing these objectives and the eventual goal of sturgeon restoration.

Institutional Uniqueness

Scientists at the University of Wisconsin-Milwaukee Great Lakes WATER Institute have been involved in sturgeon research and education for the past 25 years. To date, most of our lake sturgeon research has focused on the Lake Winnebago system, which represents the largest and healthiest lake sturgeon population in North America. The Wisconsin Department of Natural Resources has been conducting sturgeon management efforts in Wisconsin for 100 years. This wealth of sturgeon conservation data and experience, combined with the research program at the UWM WATER Institute, will provide the necessary leadership for lake sturgeon rehabilitation in the Great Lakes and throughout their U.S. range.

These critical rehabilitation issues are presently being addressed on small scale systems by the USGS and the UWM WATER Institute and Wisconsin DNR. These three research/management organizations are in the best position to coordinate the Great Lakes lake sturgeon rehabilitation program through a partnership of sharing expertise and resources, striving for a common goal using the most cost-effective approach.

Goals

Additional funding is necessary to develop and implement new, large scale regional initiatives (research, education and conservation) to restore, preserve and protect lake sturgeon populations that would support viable fisheries for future generations. A network of experts from throughout the Great Lakes region would be established to contribute to this long term rehabilitation effort. Specifically, funding will be used to determine the best and most cost effective propagation techniques, stocking strategies for re-introducing lake sturgeon into Great Lakes waters, to assess and improve critical spawning and nursery habitat in Great Lakes rivers and streams, to efficiently assess existing and reintroduced sturgeon populations, and to effectively involve the public in sturgeon rehabilitation programs.

Wisconsin's proud sturgeon history and expertise will serve as the foundation of the Center for Sturgeon Research, Education and Conservation. Our leadership in this endeavor will benefit sturgeon populations in the United States and throughout the world. Our mission for the Center for Sturgeon Research, Education and Conservation are:

- to lead the research initiatives for restoration and rehabilitation to enhance ecosystem bio-diversity and gene pool preservation
- to restore and enhance North American sturgeon populations to support viable fisheries in the future e.g. such as the lake sturgeon rehabilitation effort for Lake Michigan. An experimental stocking program was initiated in 2003. As a result, lake sturgeon are swimming in the Milwaukee River for the first time in over 100 years. The UWM-WATER Institute, in cooperation with the WDNR, intends to continue this program in 2004 and beyond.

- to continue and expand efforts to work on a national level with scientists at the U.S. Geological Survey Great Lakes Science Center, Ann Arbor, Michigan, where the research and management emphasis is on lake sturgeon rehabilitation in the Great Lakes. Additionally, we are working with the Fisheries and Aquatic Resources Program Coordinator at the U.S. Geological Survey headquarters at Reston, Virginia, where the research emphasis is on the development of an information infrastructure for North American fisheries and aquatic resources. We will also continue our collaboration with other state agencies and Native American tribes on sturgeon conservation.
- through public forums, to engage the user groups to contribute input regarding policy decisions on sturgeon management and conservation.
- through educational programming, to define the linkage of science to the public to promote a better understanding of the fundamental principles of sturgeon preservation, protection and management.

UWM College of Nursing has been recognized for our national and international leadership in the development and testing of collaborative models of health care delivery in partnership with community based organizations, including public schools. MPS has sought the College out as a partner to assist in the development of a demonstration model for school nursing in Milwaukee schools. We have the experience and credibility to work effectively and collaboratively with a complex system such as MPS.

UWM College of Nursing is the largest school of nursing in the state and has risen to the challenge of the critical shortage of nurses in the state by increasing our capacity by more than 30% in the past 3 years over our largest enrollment in our history (1986). This was a 100% increase over our lowest enrollment year in 2000. UWM College of Nursing is the only school in the state that has developed and operates community nursing centers that provide not only much needed services to vulnerable urban families, but create a unique clinical learning laboratory that facilitates the education of health professionals as community sensitive, culturally competent practitioners. We have the student capacity to make a difference in the school nurse labor pool immediately.

The first UWM community nursing center - UWM Silver Spring Community Nursing Center - is an exemplary public/private partnership that has been recognized nationally and internationally as a model for the delivery of "comprehensive, collaboratively, coordinated, continuous, culturally competent, community based care." The primary community of service is the Westlawn housing development (the largest subsidized housing development in Wisconsin) and the surrounding multi-racial community on Milwaukee's northwest side. Currently, this CNC provides school-based services to Browning Elementary School and Silver Spring Academy on Milwaukee's northwest side.

The UWM Riverwest Pierce CNC was founded in 1996 in partnership with Franklin Pierce Elementary School in a largely Hispanic community where immunization rates were lower than many third world countries and many families had no access to primary health care. All three school based programs include a wide variety of health care services that are available to both MPS students and their families. These include:

- Immunizations, screening and other preventive care to MPS students
- Classroom based health education classes to increase health literacy in areas of personal hygiene, nutrition, healthy life styles, high risk behaviors, etc.
- Monitoring of chronic diseases such as asthma and childhood diabetes
- Crisis counseling
- Pregnancy prevention programs for adolescents
- Consultation and support of MPS teachers and staff of health related issues
- Extensive case management of complex families, including home visits as necessary
- Primary healthcare for uninsured families

The UWM Institute for Urban Health Partnerships has earned a reputation for implementing and maintaining successful community-based partnership models.

- UWM community nursing centers have always been developed in collaboration with trusted and long-standing community social service agencies or educational institutions (rather than as free standing centers). *The resulting continuity of*

service delivery and “community ownership” of the centers exemplifies a best practice upon which to build this MPS partnership.

Specific Requested Action

The FY2005 funds will be used to accomplish the following objectives:

1) support school nursing and primary health care services to over 1,000 uninsured and underinsured children and their families through three MPS schools;

2) implement a program based on the *HRSA Kids into Health Careers* program in three schools that will link MPS students with UWM College of Nursing and other health related programs and help prepare them for health professional careers in order to improve the numbers of health providers in Milwaukee from underrepresented groups; and

3) expand the numbers of nursing students educated in MPS school settings so as to produce an adequate supply of school nurses for Milwaukee and other communities throughout Wisconsin. We believe that this comprehensive approach to school nursing is required to make a significant impact on the exceptionally poor outcomes that currently plague students in Milwaukee.

In summary:

With adequate funding, the potential is very good for the UWM College of Nursing to 1) continue to provide critically needed health services to the MPS students in several very vulnerable communities, while expanding this initiative to 2) prepare young persons of color to enter health professional careers, and 3) inspire student nurses to consider school nursing as a career at a time when there is a great shortage.



SUPPORTING JAILS IN PROVIDING DRUG ABUSE SERVICES

Applying research based prescreening, screening, assessment, motivation, and coordinated care practices in jail settings to address inmates' alcohol and other drug use disorders.

Requested Action

The University of Wisconsin-Milwaukee's (UWM) Center for Addiction and Behavioral Health Research (CABHR) seeks \$750,000 in the FY2005 Commerce-Justice-State Appropriations Bill and Report, Edward Byrne Memorial State and Local Law Enforcement Assistance Program, for a jail based program of research supported prescreening, screening, assessment, motivation, and coordinated care practices for addressing alcohol and other drug use disorders experienced by inmates and those in transition to community living. The initiative is in partnership with the Milwaukee County Criminal Justice Facility, as well as several non-profit agencies in partnership with jails (e.g., Horizons, Inc., Benedict Center).

Serving 1,000 (one thousand) women, the initiative will improve the effectiveness of addressing alcohol and other drug use disorders experienced by individuals in jail and individuals making the transition from jail to community living. In addition to this local impact, it is expected that the initiative will result in models and strategies with implications for communities across the nation.

Identified Need

Clear evidence indicates a problem with alcohol and other drug use among individuals in jails. According to the Bureau of Justice Statistics Special Report (2000), 7 in 10 local jail inmates in 1998 had used drugs regularly or had committed a drug offense; up to 80% of individuals were under the influence of alcohol or drugs at the time of the offenses for which they were convicted. Currently, as many as 80% of drug-involved offenders have been under some form of correctional supervision at least once before (Prendergast & Wexler, 2004).

However, many jails, particularly larger jails, have been forced to drastically reduce their programs addressing drug use – such as drug testing and treatment. Most have reduced or eliminated their drug testing protocols. For example, the U.S. Department of Justice has recently announced a decision to end their program to test all incoming inmates for drugs. About 70% of people in state prisons need substance abuse treatment, but as many as 45% of the facilities do not offer any kind of treatment (SAMHSA, 2000). The forms of substance abuse intervention that facilities may offer include detoxification, professional counseling, residential stays, or maintenance programs. However, these are not the programs proven to be most effective, and are both expensive and difficult to sustain. Currently, treatment interventions for offenders are especially poorly organized and implemented in correctional settings. It is likely that the lack of adequate substance abuse intervention may contribute to high recidivism rates (Prendergast & Wexler, 2004).

Fortunately, a range of research-supported interventions for alcohol and other drug use problems have been developed in recent years and are available to the general public. The most successful and cost-effective intervention strategies often involve combination therapies, for example combining pharmaceutical intervention with behavioral interventions that motivate substance abusers to change behavior and support this behavior change to prevent relapse. One of the components of inmate substance abuse treatment with long-term success is establishment of continuity of care through community transition. Unfortunately, these innovations are not in general practice in jail settings with the population of inmates who could benefit from them. Implementation of the proposed interventions represents a contemporary orientation that promotes nationwide correctional substance abuse treatment programs (Prendergast & Wexler, 2004), and is consonant with an expectation of rehabilitation effort.

Finally, it is important to note that substance use among women is now reaching similar levels to that observed among men (SAMHSA, 2003). Increasing numbers of women are being incarcerated for crimes related to substance use, yet there are relatively few research-supported treatment programs for incarcerated women (Hall, Prendergast, Wellisch, Patten, & Cao, 2004). What is known is that substance abusing offenders who participate in appropriately designed prison-based treatment, and those who continue treatment after release, do better in terms of recidivism and substance abuse outcomes than non-participating individuals (Hall, et. al, 2004). For these reasons, and for reasons of feasibility, the proposed work will initially address 1,000 (one thousand) women in jails, and later be extended to address the population of men in jails.

Background

The Center for Addiction and Behavioral Health Research (CABHR) at the University of Wisconsin-Milwaukee (UWM) is ideally positioned to facilitate the formulation and dissemination of research-validated responses to alcohol and other drug use disorders among inmates—particularly women. Since its creation in 1991, the Center for Addiction and Behavioral Health Research (CABHR) has promoted, conducted, and disseminated its interdisciplinary research in the areas of mental and behavioral health and substance abuse (alcohol and other drugs). The Center's scientists and staff work locally, regionally, nationally, and internationally to educate and train professionals to adopt current, research-based practices around substance abuse and other behavioral health concerns.

The Center is regularly engaged in numerous, varied community partnerships, which include but are not limited to: child welfare, domestic violence, school violence, workplace violence, criminal justice, and health care systems. These partnerships result in the development, implementation, and empirical testing of intervention and prevention models with implications for adoption across the nation, as well as scientifically rigorous program evaluations. The CABHR consortium currently includes the University of Wisconsin-Milwaukee, Marquette University, Aurora Healthcare, and Rogers Memorial Hospital.

Specific Requested Action

The overall action plan calls for the following steps: (1) an initial period of protocol development with jail staff and community based practitioners; (2) implementation of the protocol with women in jail; (3) evaluation research and possible protocol refinement; (4) implementation of a protocol extension for women transitioning from jail to community living; and, (5) expansion of the program to other correctional facilities.

Phase 1: Initial 6 months

During the project's initial phase, CABHR at UWM will recruit relevant community based practitioners, criminal justice services, and jail staff. CABHR will be leading the development of collaborative discussions concerning efficacy of approaches and issues in their application to jail and transitional settings, and guiding the development of protocols for application in jail and transitional settings. The protocols will be guided by current research literature concerning elements of effective substance abuse treatment for incarcerated individuals, and founded on the screening, intervention, and coordinated systems of care approaches currently being used in the CABHR-sponsored research concerning Milwaukee TANF programs for women on Temporary Aid to Needy Families who have substance problems. CABHR at UWM will create a local coalition and plan for subsequent activities. It is estimated that monthly meetings (and weekly intervening telephone contacts) will be needed for refining and solidifying implementation and evaluation research plans. This phase will involve: (1) establishing specific protocols for referral and integrated treatment services; (2) establishing specific protocols for tracking service recipients involved in initiative activities; (3) collecting baseline data for the initiative evaluation; and (4) developing training and supervision structures necessary for successful implementation.

Phase 2: 6 months-end of year 1

CABR will provide ongoing training and consultation about implementing the prescreening, screening, assessment, motivation, and coordinated care protocols to the recruited human service and jail workers and their supervisors. In addition, the University of Wisconsin-Milwaukee will assign student interns and volunteers to the project, in order to ensure the requisite capacities to effectively pre-screen, screen, assess, motivate, and coordinate services to the women in jail and women making transition back to community living. Concurrently, the initiative will involve careful monitoring and process evaluation of the implementation of this integrated service model. (A demonstrated key ingredient in successful jail-based treatment of substance use disorders is rigorous, ongoing program evaluation.) The original planning group will continue to meet monthly, as an ongoing monitoring and facilitation team. The action phase will coincide with the

evaluation and research period. The evaluation research will address both process and outcomes. Additional related research will address basic planning and intervention efficacy questions.

Phase 3: Years 2 & 3

The refinement phase of the initiative will involve a continuation of the phase 2 processes, including revision of the model and/or its implementation with respect to the evaluation results. In addition, the intervention protocol will be extended to include women in transition to community living. Furthermore, the planning collaboration will begin to examine means of extending the effective elements of the protocol to work with men in jails who have alcohol or other drug problems. This final period will emphasize (1) establishing mechanisms for ongoing support of the integrative approach, and (2) developing strategies for translating the effective components of the initiative to other communities.

Summary

The University of Wisconsin-Milwaukee Center for Addiction and Behavioral Health Research (CABHR) requests three years of support for the establishment of a research-practice initiative to enhance the capacity for effectively addressing alcohol and other drug use problems experienced by individuals in jail and in transition to community living. CABHR is in a unique position to facilitate the collaborative initiative, based on its mission, history, past successes, and current community partner relationships.



The UW-Milwaukee **Center on Age and Community** *Transforming care for people with dementia*

Requested Action

The University of Wisconsin Milwaukee seeks \$500,000 to create a training center for family and professional caregivers for older adults, particularly older adults with dementia. Studies on pharmacological interventions are still many years away from finding a cure for Alzheimer's Disease. Better supporting and training professional and family caregivers who are charged with caring for the 4 million Americans with Alzheimer's Disease (and considerably more with general dementia), can help radically transform the experience of this disease for 1) those suffering with it, 2) those who care for them, and 3) the American workers who pay for it.

Background/Institutional Uniqueness

The Center on Age and Community at the University of Wisconsin Milwaukee is uniquely poised to become a leading hub for interdisciplinary training and research that can significantly improve care for older adults and persons with dementia throughout the state of Wisconsin and the United States.

UWM is fortunate to have a unique interdisciplinary core of faculty members with cross-cutting expertise and extensive experience conducting research focused on improving the quality of care for persons with dementia. This core of scholars includes senior faculty in the Schools of Nursing, Health Sciences, Architecture, Social Welfare, Arts and the College of Letters and Science. Over the past decade faculty who are now associated with UWM have conducted numerous, local, regional and national projects funded by foundations, NIH and HHS. These projects have included: (1) an investigation of pain management for persons in late stages of Alzheimer's Disease; (2) the development and evaluation of respite programs, educational programs and other support services of families caring for persons with Alzheimer's Disease in the community; (3) the development of innovative strategies for enhancing the relationships between direct care staff and residents of nursing homes and clients of adult day care centers; (4) the design and assessment of special care environments for persons with Alzheimer's Disease in nursing homes and adult day care settings; (5) the development of films and national programs to promote public understanding of care needs of persons with Alzheimer's disease and the complex array of professional and family relationships that influence this care.

With the recent funding of an Endowed Chair in Gerontology and the creation of the Center on Age and Community at UWM, the resources of the university have been wedded to the resources of the community to create a fertile foundation for continued research focused on care for persons with dementia in a full continuum of care environments. Current collaborative efforts are being directed toward identifying strategies to recruit, train and retain a competent dementia-capable pool of professional and paraprofessional workers to meet the needs of persons with dementia and their families both in the community and in institutional settings. Research generated in these fields can potentially reduce care-worker turnover; improve the quality of life of both caregivers and people with dementia; decrease costs of care; improve comfort and efficiency of care; and improve caregiver satisfaction – all of which have significant impact on the lives of older adults in particular and families in general in the United States.

Community Partners

The Center on Age and Community works in partnership with many other organizations in the Milwaukee community. Our collaborative relationships extend beyond our Leadership Council members. The University of Wisconsin Milwaukee also hosts several centers whose mission and expertise complement our own, including the Institute for Urban Health Partnerships and the Community Nursing Centers; Center for Rehabilitation and Disability; and the Center for Urban Initiatives and Research. Partnerships outside of the University include University of Wisconsin Extension, which provides access to rural educational settings across the state; the Wisconsin Alzheimer's Institute; state chapters of the Alzheimer's Association; Milwaukee County Department on Aging; and state Area Agencies on Aging.

Specific Requested Action

The University of Wisconsin at Milwaukee requests \$500,000 to support the creation of a training and research center. This center is unique in two crucial ways: 1) it aims to achieve “seamless” care, for older adults, particularly those with dementia, by training the full team of caregivers, from family members to geriatric case managers, from front line workers to their supervisors; 2) it aims to find as yet elusive answers to the question – does training have a positive impact on quality of care? Wisconsin is a pioneer in creating best practices in aging services. But the impact of these practices are rarely if ever rigorously researched, making it difficult to disseminate them widely or raise them to the level of policy.

The Center on Age and Community aims to create a training system through which best practices can be taught and researched simultaneously, enabling us to more quickly and thoroughly impact the quality of care locally, in our state, and eventually, in the country.

In Wisconsin 13.1% of the population is 65 or more years of age and more than 17% of them reside in Milwaukee County. It is estimated that there are over 70,000 persons with Alzheimer's disease live in the state and 12,170 of these person live in Milwaukee County. The vast majority of these persons with family members or live alone in the

community. As families struggle to care for their members with Alzheimer's disease, they not only need skills and knowledge to act as caregivers, but they also need formal support. The most frequent request made by family caregivers is for respite care in group settings or in their homes. The provision of respite care, however, is not a simple matter of funds. While many families need financial assistance to pay for services, there is an equally pressing need in the community and across the state for respite programs and nursing homes that are adequately staffed with qualified workers. Direct care workers provide eight of every ten hours of paid care received by long-term care clients. Unfortunately, demand for direct care workers is steadily increasing at a time when recruitment and retention of these are widely reported to be problematic. This shortage of direct care workers has proven to be one of the most difficult challenges for programs that serve families with Alzheimer's Disease, because they not only need a workforce of sufficient size, but also a workforce that is adequately prepared to deal with the special needs of Alzheimer's patients.

Training programs are the mechanisms most frequently used to address staffing issues of the long-term care direct service workforce (Stone and Wiener, 2001), and to assist family caregivers with Alzheimer care. However, worker training programs and educational programs for family caregivers tend to be offered on intermittent bases, are uneven in quality, and are rarely carefully evaluated in terms of outcomes for patient care or worker retention.

Two research and planning initiatives were completed this past year that provide evidence of the critical need for adequately trained direct care workers in Milwaukee and across Wisconsin. The Wisconsin Department of Health and Family Services completed a state-wide study of direct workers and the Milwaukee Aging Consortium completed a study in for workers and agencies within Milwaukee County as part of the planning phase of a caregiver retention project funded by the Robert Wood Johnson Foundation. As a result of these efforts both groups have identified the development of an adequate direct care workforce as key goal for their organizations. Faculty members from UWM are collaborating with both groups to further develop training programs and research strategies to assess the impact of these programs on quality of care and on worker retention. Faculty members are also collaborating with other groups within the community and at the University of Wisconsin Madison to create curriculums for family caregivers. The proposed training center would provide a venue and the infrastructure necessary to fully capitalize on the synergy of these diverse community and government efforts to create a viable mechanism for enhancing the direct care workforce in Milwaukee and across the state.

Who We Will Train

We aim to maximize the capacity of the labor force available to care for the elderly. We aim to create and retain competent workers, and in doing so, help reduce the costs of care encumbered by the rampant burnout and turnover that plagues this field. We envision the caregiving workforce in a broad rubric, ranging from family caregivers to direct homecare workers and their supervisors. From direct caregivers in adult day, assisted living or nursing homes, to the supervisory staff that interface

with those workers. We also include workers who provide links between doctors and aging services, from geriatric care managers to discharge supervisors.

What We Will Teach

Wisconsin is a breeding ground for innovative approaches to care. Unfortunately, the costs of research and dissemination often make it difficult for these innovative practices to be proven effective and widely taught to those who could most benefit from them. UWM's Center on Age and Community will link, adapt, and strengthen existing training curricula, some of which come from our own Center Scholars.

Curricula will all emphasize the following:

- 1) Communication with older adults, particularly those with dementia.
- 2) Team building between all family and professional caregivers involved with the care of the older adult with dementia. Thus far the field of elder care has treated team members like an industry, separating them from each other. We will find commonalities in the messages of our trainings to unite workers in the care approach and information. Our "seamless" training model will link them and help them share essential information.

Examples of curricula currently ready for testing in the training center include:

- 1) WETA (worker education, training, and assistance program developed by the Wisconsin Alzheimer's Institute and the Center for Health Policy and Program Evaluation)
- 2) TimeSlips (nurturing creative expression among staff and older adults with dementia in group settings, developed by Center Director Anne Basting)
- 3) Powerful Tools for Caregivers
- 4) Assessing Pain in People with Dementia (currently being developed by Christine Kovach (RN PHD, UWM))

First step: test training

We would first hold trainings for a limited number of family and professional caregivers and test whether the training does connect with job satisfaction and other indicators of quality of care.

Second step: Identify Barriers to Adoption/Continuation of Trainings

We would assess what organizational barriers inhibit the adoption and continuation of trainings in order to create a training system that can consistently meet the needs of staff and families.

Third Step: State rewards agencies who offer this training

The goal of the research in steps one and two is to make a case for the state to provide incentives to agencies that provide services to older adults, particularly those with dementia, to utilize the trainings and channel the savings to improve the work conditions of their direct-care workers.

Fourth Step: local, regional, national dissemination

The Center on Age and Community's training program can work through existing relationships with collaborative partners on the local, state and national levels to widely disseminate its trainings in both urban and rural settings.



Advanced Manufacture of Lightweight Materials and Components for Military Applications

Requested Action

The University of Wisconsin-Milwaukee (UWM) seeks \$500,000 in Army RDT&E PE 0602601A Combat Vehicle and Automotive Technology to continue its partnership with the U.S. Tank-automotive Command (TACOM) and with Wisconsin industries and organizations for research on advanced and rapid manufacture of lightweight materials and components for military applications. The program will promote the procurement of critical military components and processes from Wisconsin industries and impact economic development in the State of Wisconsin.

Background/ Proposed Program

A major challenge facing the US Army is the ability to employ a highly mobile force. The Army has established a goal of being able to move a large number of troops, anywhere, within 48 hours. The Army also needs vehicles that can operate for prolonged periods without refueling. This requires ultra light vehicles with low fuel consumption. Improvements in the transportation systems being used by the Army are key to achieving this goal. The transportation systems need to be made out of stronger, lighter, stiffer and more affordable materials. These materials will then lead to lightweight, more reliable, low maintenance, and high performance components.

The U.S. Army, through its ***Tank-automotive and Armaments Command (TACOM)***, is engaged in an R&D program to develop a capability to produce replacement parts for equipment in the field at or near the point-of-need. This capability will enable the rapid repair and return to service of disabled equipment and address readiness.

The program is titled Mobile Parts Hospital (MPH) to bring home the analogy between MPH and the Mobile Army Surgical Units (M.A.S.H.). The M.A.S.H. units were very effective at returning soldiers to health in the field while the MPH units are designed to do the same for Army equipment. The overall approach is to develop a mini-factory that can be deployed to the field to manufacture replacement parts so that military equipment can be quickly returned to fully operational combat ready status.

To meet this objective, the Army is developing agile and rapid manufacturing capabilities including: casting, milling, grinding, pressing, broaching, hobbing, shaping, finishing, heat treating, hardening, coating, and painting, among others.

The advanced materials and manufacturing technology capabilities developed at UWM, under federally and privately funded programs, have demonstrated significant benefits in reliability, affordability, and power-to-weight ratios of civilian transportation systems. These lightweight materials development capabilities, and the capabilities of rapid manufacture using casting, in partnership with Wisconsin industries, are now ready for application to military transportation systems.

Initiatives/ Program Thrusts

The mission of the proposed program is the development, demonstration, and transfer of advanced and rapid manufacturing technology for military transportation system components. The end goal of the program is to attain higher performance, low-cost production, and weight reduction in the construction of these systems, and to develop capability to rapidly manufacture parts in agile and mobile environments. UWM has put together a team of industries in Wisconsin that will eventually become suppliers of these advanced materials, processes and components to the Department Of Defense [DOD]. The following will be the major program thrusts:

Weight Reduction – Demonstration of advanced processes for manufacture of military transportation components from advanced lightweight alloys, as well as micro- and nano-composites to reduce weight. Weight reduction of 30% to 40% for helicopters and army ground vehicles are goals of this program.

Low Cost Manufacture – Near net shaped casting technology will be used wherever possible to reduce costs.

Rapid Manufacturing Capability – Technology that will enable rapid manufacture of replacement parts for the military, will be further developed.

Industrial Technology Transfer – UWM supports the transfer of developed technology to DOD suppliers and commercial businesses, with special emphasis on Wisconsin manufacturers. Workshops and manufacturing demonstrations will be held, transferring the developed technology to industries in Wisconsin.

Participants

A significant portion of this effort will be performed at UWM by several faculty members from different disciplines under the guidance of Dr. Pradeep Rohatgi. Professor Rohatgi is a Wisconsin Distinguished Professor, Director of the UWM Composites Center, Laboratories for Tribology, Foundry and Solidification. He is internationally recognized for his research on lightweight materials. Some of the materials he has researched include composites, cellular solids and self-lubricating materials. He has worked extensively with manufacturers, especially in Wisconsin, to promote the manufacture and use of lightweight materials in engineering systems.

Partnerships will be established with individuals and organizations having capabilities and expertise in rapid manufacture of parts in Mobile Parts Hospital and Agile Manufacturing Node environments.

Selected industrial participants in Wisconsin will include: Oshkosh Truck, Ladish, Wisconsin Centrifugal, Eaton, Harley Davidson, Falk, ECK Industries, AO Smith, Stroh Die Casting, Est, Briggs and Stratton, Mercury Marine, Amcast, Grede, Neenah, Waukesha Foundry, Thermal Spray, Stork, Milwaukee Ductile Iron. A number of these companies have already been suppliers of defense components and the proposed project will enhance Wisconsin manufacture for military procurement.

Program Plan

The following tasks will be executed within the FY 2005 program with potential benefits for Army helicopter, land vehicle and artillery:

1. Continue work on improved properties for lightweight aluminum alloys including cast composites to enable them to replace heavier ferrous parts in military vehicles.
2. Work will be enhanced on nano-structured alloys and carbon nano-tube reinforced aluminum alloys and selected nano-composites. The nano-structured aluminum alloys can have very high strengths and wear resistance close to steel, and they can replace heavier ferrous parts. Target improvements: Enable 25% weight reduction, and improve durability by 20%.
3. Initiate experimental work on development of cast ultra light Mg alloys reinforced with SiC particulates and microballoons. Target: weight reduction of 30% with increased damping capacity.
4. Continue demonstration of the use of cast aluminum based syntactic foams for selected military components requiring ultra lightweight, self-healing, high-energy absorption and sound damping properties. Targeted Improvements: Enable 30% weight reduction and 20% increase in energy absorption.
5. Development of rapid manufacture of lightweight parts in Mobile Parts Hospital and Agile Manufacturing Node environments to replace parts which fail in the field. Rapid Manufacturing processes including casting will be developed to manufacture samples and specific military vehicle parts.

UNIVERSITY OF WISCONSIN - OSHKOSH
Thomas G. Sonnleitner, Vice Chancellor
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REQUEST FOR FUNDS:
COMPETITIVE MANUFACTURING THROUGH TECHNOLOGY MANAGEMENT HUB

ORGANIZATION: Nation-wide, manufacturers face the transition from low-tech, low-skill to high-tech, high-skill operations. Northeast Wisconsin manufacturers have identified the need for an array of educational services to ensure their adaptation and growth. The University of Wisconsin-Oshkosh, in partnership with the University of Wisconsin-Stout, will meet that need with a regional demonstration project, the Competitive Manufacturing through Technology Management Hub (CMTM). This model industry/higher education partnership will be transferable to other regions of the country facing similar economic transformations.

DESCRIPTION: The CMTM will offer programs and technical assistance for small manufacturers. Funds are requested to develop 1) a **business incubator** for fledgling manufacturing businesses, and 2) a **Manufacturing Resource Center (MRC)** to test new manufacturing technologies and processes. Manufacturers will receive technical assistance and training in lean manufacturing, technology management, technology transfer, occupational safety and health, and environmental analysis. These programs will preserve jobs and enhance the economy of the region by enabling the region's manufacturers to become more competitive in the regional, national and global markets.

TIMETABLE: Facilities Preparation: October 2004 – January 2005
Start-up Phase: January-April, 2005
Training and Technical Assistance Implementation Phase: May - September 2005
Manufacturing Resource Center operational: September-December 2005

CONTACT: Alan Hartman, 920.424.3441; hartman@uwosh.edu, or
Linda S. Freed, 920.424.1415; freed@uwosh.edu

PAST FUNDING:	2002-03	Federal (Small Business Development Center)	\$85,000
	2002-03	University (manufacturing needs assessment)	\$25,000

COSTS:	<u>04-05 Federal Request:</u>	<u>\$250,000</u>
	Program Development (for incubator and MRC)	\$100,000
	MRC Equipment	\$150,000
	<u>State and Partner Support:</u>	<u>\$1,125,000</u>
	Facilities Investment (University & State)	\$1,000,000
	Operating support (University & Partners)	\$25,000
	Staff (University and Partners)	\$100,000
	<u>Total Funding:</u>	<u>\$1,375,000</u>

SIGNIFICANCE: This project is significant nationally and locally. The nation has experienced a 35% loss of manufacturing jobs in the last 2-3 years. Wisconsin has fallen below the national average in several key economic indicators, including per-capital income. Northeast Wisconsin has one of the highest industrial concentrations in the country, with over 24%, or double the national average, of the workforce engaged in manufacturing. While preservation and development of the manufacturing base

is essential to the economic stability and growth of the region, this project will also be a national model of higher education/business partnerships easing the transition from low-tech, low-skill to better paying high-tech, high-skill manufacturing. A business incubator and other support for fledgling manufacturing businesses are keys to the development of high-tech manufacturing in Northeast Wisconsin. The incubator will house at least six developing businesses, producing at least one viable independent business each year. There is well-documented need for manufacturing technology and engineering education in the region; the CMTM will deliver technical assistance and non-credit programs to 1000 individuals per year from at least 25 different organizations.

CONTACTS WITH CONGRESS: Congressman Tom Petri and Senator Herb Kohl have been contacted.

UNIVERSITY OF WISCONSIN-PARKSIDE
900 Wood Road – Box 2000
Kenosha, WI 53141-2000

REQUEST FOR FUNDS:
Solutions for Economic Growth (SEG) Center

ORGANIZATION:

The following is a brief summary of the University of Wisconsin-Parkside's (UW-Parkside) Center for Solutions for Economic Growth (SEG):

- The **SEG Center** serves as the hub of several southeastern Wisconsin entities committed to improving the economic climate of the area. These include the Center for Technology Innovation (CATI), Small Business Development Center, (SBDC) and The Center for Community Partnerships (CCP).
- **SEG** serves as a channel for *Project Based Learning* to improve and enhance business education and the capability of the future workforce.
- **SEG** is poised to improve and stimulate regional economic growth by providing solutions to area businesses using the intellectual capacities of University faculty, students and experts in the respective fields.

DESCRIPTION: Increased funding will allow the center to remodel and develop a 2,438 sq ft facility to better accommodate the needs of the program. In addition to the renovation of the physical space, the monies will be used to install an Internet 2 (I2) facility that will allow the Center to use modern video conferencing to bring in world-experts to consult and aid local businesses.

TIMETABLE: July, 2004

CONTACT:

Marwan Wafa, Ph.D.
Dean, School of Business & Technology
University of Wisconsin-Parkside
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PAST FUNDING: Small Business Development Center \$25,000
University of Wisconsin-Parkside \$22,994

COSTS: Federal Funding Requested in FY 2005: \$200,000

SIGNIFICANCE:

What is the national or state significance of the project, and what specific federal responsibility does the funding of this project or activity further?

In addition to directly benefiting the local business community, the indirect benefit is to retain the intellectual brainpower in the area and to diminish the so-called “brain drain” that occurs in Wisconsin.

What measurable improvements in health status, educational achievement, environmental quality or similar outcomes will result from this project?

UW-Parkside designed the **SEG Center** to capitalize on the valuable intellectual assets of its knowledgeable business faculty and eager students to meet the needs of small local businesses in the area. The *Project Based Learning* model practiced by the students melds practical business experience with classroom knowledge.

CONTACTS WITH

CONGRESS: Initial contact made with the offices of Senator Kohl, Senator Feingold, and Congressman Ryan

UNIVERSITY OF WISCONSIN-PARKSIDE
900 Wood Road – Box 2000
Kenosha, WI 53141-2000

REQUEST FOR FUNDS:
Office of Educational Innovation

ORGANIZATION: The following is a brief summary of the Office of Educational Innovation (OEI):

- The OEI will create model programming designed to fast-track current teaching paraprofessionals allowing them to meet the new Wisconsin State Department of Public Instruction's (DPI) certification requirements within two years.
- The OEI will work cooperatively with Gateway Technical College, the University of Wisconsin-Parkside's (UW-Parkside) Regional Staff Development Center and the UW-Parkside Center for Community Partnerships. This fast track initiative will focus on non-traditional teacher and certification programs through experiential learning credits, on-the job teaching experiences, on- and off-campus courses, as well as distance education.

DESCRIPTION: These additional funds will allow us to:

- Insure that at least 120 paraprofessionals complete at least 15 credits in the program.
- Initiate a second 15-credit program directly addressing DPI licensure requirements.

TIMETABLE: Fall 2004

CONTACT: Gerald Greenfield, Ph.D.
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900 Wood Road – Box 2000
Kenosha, Wisconsin 53141-2000
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PAST FUNDING: University of Wisconsin-Parkside: \$132,080
S.C. Johnson Wax Fund: \$25,042

COSTS: Federal Funding Requested in FY 2005: \$300,000

SIGNIFICANCE:

What is the national or state significance of the project, and what specific federal responsibility does the funding of this project or activity further?

The OEI will provide a highly accessible opportunity for educational aides and teaching paraprofessionals to obtain both a Bachelor's degree and teaching certification. Shortages of ethnic minority teachers in the Southeast Wisconsin area as well as urban areas nationwide attest to the need for this program as the state and nation continue to strive to meet the needs of a diverse and increasingly global society.

What measurable improvements in health status, educational achievement, environmental quality or similar outcomes will result from this project?

This program has great potential for alleviating the shortage of qualified minority teachers since ethnic minorities currently represent most of this target group.

CONTACTS WITH

CONGRESS: Initial contact made with the offices of Senator Kohl, Senator Feingold, and Congressman Ryan

UNIVERSITY OF WISCONSIN-PARKSIDE
900 Wood Road – Box 2000
Kenosha, WI 53141-2000

REQUEST FOR FUNDS:

Expansion of the University of Wisconsin-Parkside and University of Wisconsin-Milwaukee Master of Science in Nursing Consortial Program

ORGANIZATION: In the current Bachelor of Science Nursing Program, pre-nursing students take all of their basic science humanity and social science courses at the UWP campus. At the end of two years, students apply to the University of Wisconsin-Milwaukee (UWM) Nursing program; those accepted complete their clinical courses under the supervision of UWM faculty. A major ongoing problem, becoming increasingly worse over the past five years, is the scarcity of qualified clinical faculty with Master's of Science Nursing (MSN) degrees.

DESCRIPTION: The requested monies will be used to develop an Internet 2 (I2) virtual classroom that will interface between UWM and UWP. Development of this link will allow us to dramatically decrease the time required to train qualified clinical nursing faculty from years to months.

- Installation of an I2 network between campuses will allow us to develop virtual classrooms between UWM and UWP and allow our students to take classes at the same time as their UWM cohorts. Under the current arrangement, a faculty member from UWM must physically travel to UWP to deliver a graduate course; the net result is only one or two courses are presented each year.
- In the current consortial arrangement, twice as many students successfully finish the educational portion of their training, but because there are too few clinical slots, most are not admitted to the program. The net result of this situation is that southeastern Wisconsin is currently facing a critical shortage of qualified nurses.

One effect of this nursing shortage has resulted in a bidding war among health care institutions to secure qualified personnel, which has caused southeastern Wisconsin to have the highest health care costs in the state and in parts of the nation.

TIMETABLE: Fall 2004

CONTACT: Rebecca Martin, Ph.D.
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Phone: (262) 595-2261
E-mail: rebecca.martin@uwp.edu

PAST FUNDING: None at this point

COSTS: Federal Funding Requested in FY 2005: \$675,000

These funds will allow UWM and UWP to remodel current facilities into I2 studios and to purchase additional computer and television equipment required for the virtual classrooms.

SIGNIFICANCE:

What is the national or state significance of the project, and what specific federal responsibility does the funding of this project or activity further?

The development of an I2 teaching network has been designed to capitalize on the valuable intellectual assets of the University faculty and students to meet the nursing needs of the southeastern Wisconsin region.

What measurable improvements in health status, educational achievement, environmental quality or similar outcomes will result from this project?

By providing a more cost-efficient method for training clinical nursing faculty, we can dramatically increase the number of practicing nurses in our area.

CONTACTS WITH

CONGRESS: Initial contact made with the offices of Senator Kohl, Senator Feingold, and Congressman Ryan

UNIVERSITY OF WISCONSIN-PARKSIDE
900 Wood Road – Box 2000
Kenosha, WI 53141-2000

**REQUEST FOR FUNDS:
Environmental Resource Center**

ORGANIZATION: The Environmental Resource Center focuses on fundamental scientific research, community services, student learning that enhances environmental quality, and quality of life issues in the surrounding communities. The certified Center will provide lead risk assessment and clearance testing to county housing offices participating in EPA and HUD programs.

The **Environmental Resource Center** will also:

- Make its analytical and service programs available to the communities of southeastern Wisconsin to address a wide range of environmental problems that affect human health and the quality of life in the region.
- Provide a spectrum of services for the analysis and detection of contaminants such as pesticides, metals, radionuclides, and volatile organic compounds in soil, water and plant matrices.
- Promote scientific literacy on the campus and in the community particularly with respect to principles and issues involving environmental quality.
- Provide an important resource to assist in preparation of K-12 teachers in the area of earth and environmental sciences.
- Prepare students for certification and employment in the environmental earth sciences.

DESCRIPTION: Funding for this request will allow the center to remodel current facilities, to purchase additional equipment required for accreditation to better accommodate the needs of the Center.

TIMETABLE: Summer of fiscal year 2005

CONTACT: Christine Evans, Ph.D.
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PAST FUNDING: University of Wisconsin System Groundwater: \$56,640
Root-Pike Watershed Initiative Network: \$12,380
University of Wisconsin-Parkside \$18,184

COSTS: Federal Funding Requested in FY 2005: \$175,000

SIGNIFICANCE:

What is the national or state significance of the project, and what specific federal responsibility does the funding of this project or activity further?

The **Environmental Resource Center** has been designed to capitalize on the valuable intellectual assets of the knowledgeable University faculty and eager students to meet the environmental quality needs of the southeastern Wisconsin region.

What measurable improvements in health status, educational achievement, environmental quality or similar outcomes will result from this project?

By providing in-house laboratory facilities, on-going research remediation of contaminated water and soil resources will be enhanced. The Center will also serve as a clearinghouse for state and regional agencies to initiate investigations and receive recommendations regarding local and regional environmental issues.

CONTACTS WITH

CONGRESS: Initial contact made with the offices of Senator Kohl, Senator Feingold, and Congressman Ryan

UNIVERSITY OF WISCONSIN-PARKSIDE
900 Wood Road – Box 2000
Kenosha, WI 53141-2000

REQUEST FOR FUNDS:
The University of Wisconsin's Cyber-Security Consortium

ORGANIZATION: The following is a brief summary University of Wisconsin's Cyber-Security Consortium, consisting of the following six UW campuses: UW-Superior, UW-Stevens Point, UW-La Crosse, UW-Madison, UW-Milwaukee and UW-Parkside.

DESCRIPTION: The consortium is currently involved in developing a common program aimed at enhancing the participating campus's ability to offer courses and programs in cyber security. At present, no campus in the UW system has the expertise to offer complete programs directed to this problem. The following comprise the goals of the program:

- Continue to build capacity and strength among the cooperating campuses in cyber-security expertise (Phase I).
- Develop a common inter-campus curriculum in cyber-security (Phase II)
- Develop a distributed delivery infrastructure that builds on the strengths of the Consortium campuses and that meets student needs statewide (Phase III)

TIMETABLE: The first phase of the program directed to capacity building is in process; funds are requested for the Fall 2004 to develop the infrastructure for Phases II and III of the program.

CONTACT: Tim Fossum, Ph.D.
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Kenosha, Wisconsin 53141-2000
Phone: (262) 595-2261
E-mail: timothy.fossum@uwp.edu

PAST FUNDING: A two-year, \$1,000,000 NSF Scholarship for Service grant (SFS) was secured in 2003, directed toward faculty development in cyber security, with varying dollars apportioned to the participating campuses.

COSTS: \$650,000--the requested monies will allow the consortium to develop and deliver a new degree program in cyber security. Because the participating members are distributed throughout the state, we envision using Internet 2 (I2) and the Access Grid to connect each campus to establish six virtual classrooms.

1. Access grid and associated equipment: \$80,000/campus
2. Development of campus infrastructure: \$28,300/campus

SIGNIFICANCE:

What is the national or state significance of the project, and what specific federal responsibility does the funding of this project or activity further?

This program will allow the state to capitalize on the collective expertise of the University system to address a problem of both state and national significance. The major benefit that accrues from this program is statewide cooperation to solve an immediate problem rather than the usual campus competition.

Securing cyberspace is a difficult strategic challenge that requires coordinated and focused effort from our entire society, the federal government, state and local governments, the private sector, and the American people.

What measurable improvements in health status, educational achievement, environmental quality or similar outcomes will result from this project?

In view of the events of the past few years, it has become increasingly evident that the fundamental infrastructure of this country's cyber network is extremely vulnerable. To address this problem, a workforce trained in issues related to the myriad computer and network weaknesses is essential. Unfortunately, there is a scarcity of these individuals in the technical workforce. This program was designed to bring University faculty expertise up to speed in this critical area, and the next phase, which is the intent of this request, is directed to transmitting the information to students.

For the national economy, particularly its information technology industry component, the dearth of trusted, reliable, secure information systems presents a barrier to future growth. Much of the potential for economic growth made possible by the information technology revolution has yet to be realized, deterred in part by cyberspace security risks. Developing new and enhancing existing cyberspace security measures adds much-needed stability to the vulnerabilities that place transactions at risk; jeopardize intellectual property, business operations, infrastructure services, and consumer trust. Conversely, cyberspace security investments result in more than costly overhead expenditures.

Contacts with

CONGRESS: Initial contact made with the offices of Senator Kohl, Senator Feingold, and Congressman Ryan

UNIVERSITY OF WISCONSIN-PARKSIDE
900 Wood Road – Box 2000
Kenosha, WI 53141-2000

REQUEST FOR FUNDS:
Bioinformatics, Genomics, and Proteomics
Research Laboratory Technology

ORGANIZATION: The Department of Biological Sciences at the University of Wisconsin-Parkside is one of a very few institutions with an established Bioinformatics and Molecular Biology curriculum. As it relates to cutting edge research and an obvious necessity for economic growth in our current, technology-driven society, there is a need to provide opportunities for continuing education of our workforce in this scientific arena. The emergence of new high-throughput technologies and disciplines, such as Genomics and Proteomics, has dramatically enhanced the need for additional training in both the biological and pharmaceutical industry. To meet the need for this continuing education, the Biological Sciences Department in collaboration with the Department of Business at the University of Wisconsin-Parkside have developed the following two initiatives and projects:

- Workshops offered to professionals, primarily within the pharmaceutical industry, on topics ranging from Bioinformatics to Molecular Biology to immunology.
- Courses to meet new Department of Public Instruction (DPI) standards for continuing education of elementary and secondary school educators, which integrate innovative approaches towards understanding the disciplines of Genomics and Proteomics.

DESCRIPTION: To meet the professional preparation and continuing education needs of workforce development in this specialized high-tech discipline, the following inclusions are paramount:

1. Ettan system for high-throughput proteomics including two dimensional gel apparatus, Imagescanner, Ettan spot picker, Ettan MALDI-ToF Pro, plus requisite software.
2. Real-time PCR equipment to facilitate training in current techniques employed in diagnostics and pathogen identification.
3. Sun Fire 6800 Server and Sun StorEdge 6120 Array for information technology.

TIMETABLE: This request funding is for fiscal year 2005 with laboratory familiarization/training beginning occurring in the spring semester (January 2005) and implementation into curriculum initially in the summer sessions and in full-force in the fall 2005 semester.

CONTACT: Robert Barber, Ph.D., Assistant Professor Molecular Biology
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PAST FUNDING: Current Program funded by:

- \$165,000 grant from the National Science Foundation to enhance the infrastructure of the Molecular Biology Program.
- \$80,000 from Sun Microsystems Matching Grant Program for improving teaching in Bioinformatics. This funding was a matching grant for the purchase of equipment. Further pursuit of matching funds from Sun requires further investment from initiatives.
- \$13,000 grant from the University of Wisconsin System Undergraduate Teaching and Learning Innovations to facilitate team-teaching in the Bioinformatics curriculum. The program has been discontinued, so no additional funds can be sought.

COSTS:

Federal Funding Requested in FY 2005:	<u>\$600,000</u>
Ettan System & peripherals	\$400,000
Real-time PCR	\$ 60,000
Sun Fire 6800 Server and Sun StorEdge 6120 Array	\$100,000
Associated Laboratory Remodeling Costs	\$ 40,000

SIGNIFICANCE:

What is the national or state significance of the project, and what specific federal responsibility does the funding of this project or activity further?

Economic stimulus and growth in biotechnology requires increased emphasis on training in technologies involved in high throughput data generation and management. Implementation of this training in education and outreach meets the federal responsibility for maintaining employment within the biotechnology sector and facilitating discovery in the biomedical field.

What measurable improvements in health status, educational achievement, environmental quality or similar outcomes will result from this project?

A well-trained workforce will enhance productivity and innovation among the biotechnology and pharmaceutical industries. In addition, education in new biological disciplines, such as genomics and proteomics, promotes a better understanding within the general population regarding new aspects of health care and treatment derived from these pioneering fields.

CONTACTS WITH

CONGRESS: Initial contact made with the offices of Senator Kohl, Senator Feingold, and Congressman Ryan

UNIVERSITY OF WISCONSIN-PLATTEVILLE
Duane Merlin Ford, Dean
College of Business, Industry, Life Science and Agriculture
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REQUEST FOR FUNDS:
UW-PLATTEVILLE SWINE CENTER

ORGANIZATION: The University of Wisconsin-Platteville (UWP) is a public, non-profit university. Its mission is (1) to provide undergraduate, select graduate, and continuing/professional education opportunities, (2) to engage in research and other scholarly activity, and (3) to serve as a regional educational, cultural, and economic development resource. Current enrollment on-campus is approximately 5800 students. Additionally, UWP serves about 1000 distance learners via distance learning technology.

DESCRIPTION: UWP requests a Congressional Award for \$765,000 for two purposes. First, this Award will pay for just under one-half of the construction costs for the new Swine Center on UWP's Pioneer Farm. Second, the award will be used to stimulate matching private donations to pay the other half of these costs.

UWP has been educating students and providing research and service in support of the agricultural industry for over 100 years. For most of those years it has operated a university farm. The purpose of UWP's Pioneer Farm is to provide experiential learning opportunities for students, relevant outreach programs for working farmers and agribusiness professionals, and applied research to address policy, management, and production issues in agriculture. Since 1999, Pioneer Farm has added to these activities by assuming a key role in the *Wisconsin Agricultural Stewardship Initiative*. This research and education initiative is dedicated to measuring the environmental and economic impacts of different farming systems and to designing and disseminating policies and management practices that better protect the environment while sustaining or enhancing farm profitability. Pioneer Farm is the applied systems research farm supporting the Wisconsin Agricultural Stewardship Initiative.

To enhance Pioneer Farm's educational, outreach, and applied research capabilities, UWP has engaged in an ambitious building program. This has included the following construction projects:

- The Agriculture Technology Center, completed fall 2003, includes a distance education classroom, offices, and meeting rooms. It was funded with \$609,000 from State of Wisconsin bonded capital funds plus a \$1 million dollar grant from the Wisconsin Department of Natural Resources. It provides the capability to send and receive educational and outreach programming worldwide via the most modern internet based telecommunications technologies. To our knowledge no other university farm in the USA has this capability.
- The Living and Learning Center, to be completed spring 2004, features lodging space for visiting scientists, technicians, scholars, students, and others requiring overnight accommodations on Pioneer Farm. It is funded with \$1.2 million of UWP's own internally generated funds. To our knowledge no other university farm in the USA includes a lodging facility.
- The Swine Center, to be completed February 2004, will support UWP's 60 sow, 1500 pigs per year, farrow-to-finish swine operation. It features a unique high-rise

design and manure composting system. When no other funding sources were available, the UWP Foundation [a 501(c)(3) organization whose sole mission is to support UW-Platteville] obtained a loan for its construction. UWP requests funding to pay of just under half this loan, the UWP Foundation is seeking matching private donations to pay off the rest.

To the best of our knowledge our new Swine Center is the only "hog high rise" in the upper Midwest and the only one nationally associated with a university. The high-rise concept, patented by EnviroLogic, calls for a dry pit with forced aeration holes in the pit floor. Animals are housed upstairs in pens and crates with slatted floors. The manure falls into the pit and is mixed with chopped corn stalks, wood chips, or other carbonaceous materials. This mixture dries and begins the composting process in the pit. The process is completed on an external composting floor.

- The Dairy Center, still in the design stage, will include space for up to 200 lactating cows and feature robotic and conventional milk harvesting. The State of Wisconsin will pay for this project through \$1.76 million in capital bonding.
- UWP is also a) constructing an interpretive and recreational trail around and throughout the farm, b) renovating and expanding an existing farmhouse to provide housing for up to eight students who will live and work on the farm, c) through a partnership with the Platteville Public Schools, completely wiring the farm with fiber optic cable to provide high speed, broadband capability to every building, indeed such cable already connects the Agriculture Technology Center and the UWP campus, d) moving and improving our grain storage and feed mixing facilities, and e) upgrading our farm equipment and utilities.

The funding herein requested is to pay for the construction of the Swine Center. The Center has already been constructed, but the UWP Foundation holds the mortgage. Annual debt service amounts to over \$109,000. The original plan was for the UWP Foundation to borrow the money while interest rates were low and then to raise funds through private donations, grants, or other means to pay off the loan. This approach was taken because:

- a) UW-Platteville's old swine center was deteriorated, undersized, inadequate, and rapidly becoming unsafe for students, faculty, staff, and our hogs. It needed to be replaced so UWP could continue its service to students and the pork industry.
- b) All State of Wisconsin and UWP funding sources had been fully tapped. The State of Wisconsin faced significant shortfalls in its recent budgets (e.g., a shortfall of \$3.2 billion for the 2003-2005 biennium), yet has invested over \$2.4 million in Pioneer Farm construction. UW-Platteville has invested over \$1.2 million in the Living and Learning Center and is investing more in trails, farmhouse renovation, and other projects. The Wisconsin Department of Natural Resources gave a grant of \$1.0 million for the Agriculture Technology Center.
- c) Interest rates have been low and four local banks were willing to partner with each other to provide the loan at a very good rate.

The UWP Foundation has worked diligently to seek private donations. A local banker donated 30 acres of land where the Swine Center is located. The Wisconsin Pork Association donated \$30,000. However, other donations have been slow in coming due

to the general downturn of the economy and to specific difficulties in the agricultural economy.

TIMETABLE: The loan has been made. The construction will be complete February 2004. As soon as the money is available in FY 2005 we would use it to pay off an equal amount of the principle on the loan for the new Swine Center.

CONTACTS:	Duane Merlin Ford, Dean College of BILSA 1 University Plaza Platteville, WI 53818 Phone: 608.342.1547 Fax: 608.342.1254 E-mail: fordd@uwplatt.edu	Barb Daus, Special Assistant Chancellor's Office 1 University Plaza Platteville, WI 53818 Phone: 608.342.1282 FAX: 608-342-1270 E-mail daus@uwplatt.edu
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PAST FUNDING: This construction project has not previously received Federal funding. If our request is fully funded, we will not ask for additional funding in future years. Pioneer Farm has received Federal funding for other projects twice since the inception of the current building and research initiative (in 2000). We estimate that from 2000 through 2004 Federal funding will contribute less than 8.6% of total new expenditures at Pioneer Farm, which in total will be well over \$5.6 million.

<i>Years</i>	<i>Federal Agency and Program</i>	<i>Amount of funds</i>
2002	Department of Education - FIPSE	\$380,000/year
2004	Department of Agriculture, part of Conservation Technology Transfer	approx. \$100,000/year

COSTS:	Total Costs in FY 2005:	\$1,560,000
	Funds from other Sources in FY 2005:	\$30,000
	Wisconsin Pork Producers:	\$30,000
	Total additional private donations:	\$735,000
	Federal Funding Requested in FY 2005:	\$765,000

SIGNIFICANCE: UWP's new Swine Center will address four national concerns. 1) Non-point source water pollution from the runoff and/or leaching of nitrogen (N) and phosphorus (P) from agricultural sources and 2) odors from swine production facilities are national water quality, air quality, and land use concerns. The Swine Center's unique design and manure composting system will allow research and demonstration of an innovative approach to reducing or eliminating both non-point source N and P pollution and odors from swine production facilities. The Swine Center will result in swine production systems more compatible with the environment and neighbors than current systems. It will contribute to the work of the Wisconsin Agricultural Stewardship Initiative. 3) Farm profitability and 4) the development of a well-trained agricultural workforce are continuing national concerns. The Swine Center will be used to research and demonstrate more economically efficient swine production systems. It will support UWP's undergraduate and outreach activities in agriculture and environmental studies.

CONTACTS WITH CONGRESS: Submitted to Senator Herb Kohl with Congressman Ron Kind's full knowledge.

UNIVERSITY OF WISCONSIN-PLATTEVILLE
Robert Schatz, Corporate Relations
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REQUEST FOR FUNDS:
RURAL BUSINESS DEVELOPMENT CENTER
AT THE UNIVERSITY OF WISCONSIN-PLATTEVILLE

ORGANIZATION: The principals in this initiative represent Corporate Relations at the University of Wisconsin-Platteville; the University of Wisconsin-Extension Small Business Development Center; Business Development and Agricultural Services; and the Southwestern Wisconsin Regional Planning Commission. This group includes leaders of a regional economic development coalition among six counties in Southwestern Wisconsin. Hundreds of stakeholders from industry; agriculture; financial institutions; local, county and state governments; labor groups; economic development corporations; education; trade associations; and the media organize and participate in the programs of the regional coalition. The Rural Business Development Center's program leaders, Dr. Robert Schatz and Professor Timothy Baye, are experienced business development professionals.

Dr. Robert Schatz, Corporate Relations, UW-Platteville, was formerly a research scientist and senior business development professional in the biotechnology and pharmaceutical industries. He is experienced with marketing, technology, private and public equity financing, strategic partnering, and pharmaceuticals production from an agricultural base. Dr. Schatz serves as the co-chair of the Finance, Agricultural and Technology Team of the regional economic development coalition.

Timothy Baye, UW-Extension Professor of Business Development and Director of the Southwest Wisconsin Management Education Program (SWWMEP), is commissioned by industries in the region to provide analysis, strategic planning, and/or project management of mergers, acquisitions, turnarounds, expansions, corporate partnering, financing and new ventures. The demand for Mr. Baye's services is great and does indicate an impetus for new business development in the region.

DESCRIPTION: **The requested funding is for support and further development of the Rural Business Development Center at UW-Platteville.** The Center's mission is to identify strategic, high-growth industry clusters for and within the Southwest Wisconsin region and to develop an action plan that utilizes the region's assets to further the region's comparative advantages within the clusters. Agribusiness is the initial focus for the Center, specifically food and fiber conversion operations and related business services.

Wisconsin enjoys a very strong competitive position in diverse categories of specialty foods. The state's cheesemakers, for instance, have won 35% of the international medals for cheese in recent years. Many of Wisconsin's master cheesemakers work in Southwestern Wisconsin. Specialty cheeses are rapidly gaining market share in the cheese industry, which by some estimates is now 20%.

The Center is currently exploring strategies of creating direct channels of distribution. One model, under discussion, is the creation of a national restaurant franchise that features Wisconsin specialty foods. The potential advantages include:

- Bundling of products to promote a "Wisconsin Brand" recognition;
- Capturing the favorable returns on investment at the retail end of the industry;

- Presentation of Wisconsin products by a dedicated and knowledgeable culinary and service staff to educate consumers;
- Introduction of new products or product applications prior to negotiating slotting in other distribution channels;
- Total quality management from the farm, through processing, logistics, and marketing;
- Access to large amounts of capital from franchisees;
- The opportunity for agricultural producers to participate in the enterprise through ownership.

Funds will be directed to support ongoing projects including the following examples in which assistance is provided to regional firms to:

1. Purchase engineering services for research and design of an integrated nutrient management and energy production system for a state-of-the-art beef production and ethanol manufacturing system;
2. Purchase engineering, scientific and legal services for the development of intellectual property related to the development of a materials processing system that utilizes ultra-sonic technology;
3. Develop an integrated market analysis and logistic system that enables a cheese reseller and distributor to identify secondary markets, ship product to various geographic destinations (full-truck loads) and to decrease costs of distribution;
4. Develop a relational database that both enables clients to better track sales contacts, sales conversions, tracking point-of-origin of sales, tracking advertisement effectiveness and development of an artificial intelligence system for customer queries and sales staff training (simulations).

Funds will also be directed to recruiting, screening and selecting a business development team to address future client projects and needs and to developing a web-based information and application system for participation in the programs.

The Rural Business Development Center intends to, and does, work with the other Wisconsin public sector and trade groups developing this industry.

TIMETABLE: The Rural Business Development Center will request funding for Fiscal Year 2005.

CONTACTS:	Robert Schatz, Corporate Relations College of BILSA 1 University Plaza Platteville, WI 53818 Phone: 608.342.1985 Fax: 608.342.1254 E-mail: schatzr@uwplatt.edu	Barb Daus, Special Assistant Chancellor's Office 1 University Plaza Platteville, WI 53818 Phone: 608.342.1282 FAX: 608-342-1270 E-mail daus@uwplatt.edu
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PAST FUNDING: **The Rural Business Development Center at UW-Platteville was allocated \$180,000 for start up in the FY2004 Agricultural, Rural Development and Related Agencies Appropriations Bill.** The request for funding was submitted to the Office of U.S. Senator Herb Kohl, ranking member of the Agricultural Appropriations Subcommittee. Funds will be disbursed by the United States Department of Agriculture.

<i>Years</i>	<i>Federal Agency and Program</i>	<i>Amount of funds</i>
2004	United States Department of Agriculture	\$171,000

COSTS:	Total Costs in FY 2005:	<u>\$199,603</u>
	Professional staff support:	\$50,940
	Paraprofessional/clerical support:	14,300
	SWWMEP Program Fees:	35,000
	Industry Consultants and Legal Counsel:	50,000
	Travel:	10,000
	Supplies:	10,000
	Indirect Costs:	29,363

The Rural Business Development Center has not applied for funding from any other agency. The program will generate additional revenues by requiring industry partners to share costs. Funds will be allocated on a competitive basis requiring a 25%-75% match from the client. As activities with industry intensify, total program costs will increase. The funding request is required to sustain a base level of operations.

Federal Funding Requested in FY 2005: \$199,603

SIGNIFICANCE: Agriculture is a \$30-\$40 billion industry in Wisconsin and is the state's largest industry. Southwestern Wisconsin is more reliant on agriculture than any other region of the state. The industry employs 20% of the region's workforce. Although the region has world-class skills in agricultural production and food processing, the profitability of our industry suffers from intensifying global competition, increasing consolidation in the distribution chain, an aging infrastructure, and perhaps less than optimal marketing. According to the USDA's Economic Research Service, the farm value of food in the United States market increased by 50.9% from \$81.7 billion to \$123.3 billion. During the same period, total consumer spending on food increased by \$396.7 billion (250%), from \$264.4 billion to \$661.1 billion. Southwestern Wisconsin is working hard to modernize and improve its productivity and capacity. However, it is imperative that Southwest Wisconsin develops forward integration, new marketing strategies and vertical alliances within our regional industry.

CONTACTS WITH
CONGRESS: Submitted to Senator Herb Kohl with Congressman Ron Kind's full knowledge.

UNIVERSITY OF WISCONSIN-PLATTEVILLE
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REQUEST FOR FUNDS:
SUPPORT FOR ON-LINE ALTERNATIVE CERTIFICATION PROGRAM FOR TEACHERS
SCHOOL OF EDUCATION, UW-PLATTEVILLE

ORGANIZATION: The University of Wisconsin-Platteville (UWP) is a public, non-profit university. Its mission is (1) to provide undergraduate, select graduate, and continuing/professional education opportunities, (2) to engage in research and other scholarly activity, and (3) to serve as a regional educational, cultural, and economic development resource. Currently, UWP serves about 1000 distance learners via distance learning technology.

DESCRIPTION: The University of Wisconsin-Platteville School of Education requests a Congressional Award of \$200,000 to support the development and delivery of an on-line teacher preparation curricula which will provide licensure for persons either employed with emergency licenses in schools or seeking an alternative method for obtaining licensure because they are time and place bound.

Platteville and UW-Platteville have a prominent place in both the history and the future of educating teachers in the State of Wisconsin and our region. Indeed our University descended from the State's first Normal School – founded in 1866 – and has awarded 4-year bachelor of education degrees since 1927. Today some 1100 (approximately 20%) of UW-Platteville's 5850 students are completing coursework applicable to certification as teachers

The University takes pride in its education heritage and is committed to the continuation of quality in its teacher preparation programs, offering comprehensive licensure alternatives for students pursuing careers in teaching. The School of Education has long been known as a leader in middle level education. Acknowledging UWP's leadership in middle level education, the Wisconsin Department of Public Instruction (DPI) granted a unique licensure level to UW-Platteville that focuses on the development and education of early adolescents (ages 10-14) specifically in middle level schools.

Since 1983 and the release of the report, *A Nation at Risk*, both the state and federal governments have focused more attention on raising educational standards and improving academic achievement in the public schools. In 2001, the US Congress reauthorized the *Elementary and Secondary Education Act*, known to most as the *No Child Left Behind Act of 2001*. It is designed to improve student achievement – regardless of a child's ethnicity, income or background – and to change the culture of America's schools. *No Child Left Behind* puts the focus on instruction.

UWP's School of Education has consistently taken a leadership role in advancing the art and science of teaching. In the early-1980s UWP established a special preparatory program for middle level educators and a resource center for middle school teachers, the Center of the Education for the Young Adolescent (CEYA). In 2000, School of Education faculty and area school administrators worked closely with Wisconsin DPI in crafting an educational administration certification program. During the last year and a half, School of Education personnel have been working with students to create

portfolio presentations designed to demonstrate the individual's knowledge and ability when applied to Wisconsin's Standards for Teacher Development and Licensure.

UW-Platteville is a leader in distance education. For the past 25 years the University has offered an undergraduate degree through its print-based business administration program. In 1999 UW-Platteville developed on-line graduate programs in criminal justice, project management, and engineering. Today the University serves some 450 students through its on-line offerings. *US News & World Report* lists UW-Platteville as having one of the "Best Online Graduate Programs." *GetEducated.com*, which screens all degree-granting universities and publishes The Best Distance Learning Graduate Schools, has awarded UW-Platteville with the *Consumer Seal of Approval*.

UW-Platteville has the knowledge and expertise in both teacher education and distance learning technology to create and deliver an outstanding online teacher preparation curricula.

TIMETABLE: The online teacher preparation courses and related materials will be developed during 2004 with implementation and enrollment expected in 2005.

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	Fax: 608.342.1409	FAX: 608-342-1270
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PAST FUNDING: The UW-Platteville School of Education has not previously received Federal funding through the appropriation process.

COSTS:	<u>Federal Funding Requested in FY 2005:</u>	\$200,000
	Professional & paraprofessional staff:	\$100,000
	Marketing & recruitment:	\$30,000
	Supplies, materials & equipment:	\$70,000

SIGNIFICANCE: Nothing is more important to a child's success in school than a well-prepared teacher. A prepared teacher knows how to teach, what to teach, and has command of the subject matter being taught. **There are currently 1100 teachers in the State of Wisconsin who are employed on emergency licenses.** *No Child Left Behind* encourages the development of innovative programs to improve teacher quality including finding alternative methods of becoming a teacher so that experienced professionals can become teachers faster. *No Child Left Behind* requires that school districts hire highly qualified staff – defined as having full certification, a bachelor's degree, and demonstrated competence in subject knowledge and teaching. The implementation of this project would enable UW-Platteville to prepare persons, from Wisconsin and beyond, for positions in our schools.

CONTACTS WITH CONGRESS: Submitted to Senator Herb Kohl with Congressman Ron Kind's full knowledge.

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REQUEST FOR FUNDS:
UW-PLATTEVILLE MICRO-ELECTRO-MECHANICAL SYSTEMS
ENGINEERING LABORATORY DEVELOPMENT PROJECT

ORGANIZATION: The University of Wisconsin-Platteville (UWP) is a public, non-profit university. Its mission is (1) to provide undergraduate, select graduate, and continuing/professional education opportunities, (2) to engage in research and other scholarly activity, and (3) to serve as a regional educational, cultural, and economic development resource. Current enrollment on-campus is approximately 5800 students; nearly one-third of those students are enrolled in the College of Engineering, Mathematics & Science.

DESCRIPTION: The University of Wisconsin-Platteville College of Engineering, Mathematics, and Science requests a Congressional Award of \$400,000 to support the development of engineering laboratory facilities required to deliver the Micro-Electro-Mechanical Systems engineering curriculum.

Wisconsin, and indeed our service region, is seeking to spur economic development and job growth. The most critical component of an economic development plan is a quality professional workforce. A growing pool of university graduates in professional fields desiring to fill positions in need areas fuels economic growth. UW-Platteville has a significant number of technical degrees in fields generally related to economic growth. In particular, preparing individuals to enter the workforce in a variety of engineering disciplines has been a successful responsibility of UW-Platteville. These engineering graduates are especially effective in helping boost the economic development of the region.

UW-Platteville is proposing to significantly increase the number of students earning undergraduate engineering degrees. This goal will be accomplished by (1) embarking on a new enrollment initiative, (2) expanding existing facilities, and (3) *introducing two new areas of emphasis within the engineering curriculum*. One of the new emphasis areas will be Micro-Electro-Mechanical Systems (MEMS). This rapidly growing area of manufacturing is in need of specially trained engineers.

The State of Wisconsin and the Board of Regents of the University are in full support and are financially backing this workforce development initiative. All of UWP's present engineering programs will be increased in size and facilities will be modified and complemented to meet the increased demand.

The creation of the Micro-Electro-Mechanical Systems (MEMS) emphasis will require the development of a new laboratory. While the physical structure is being created through State of Wisconsin funding, needs remain in equipping the laboratory. While the silicon substrate work will be contracted out to avoid the expense of a clean room, all design, testing, and re-engineering will take place in the new laboratory. A variety of test and diagnostic equipment will be needed to accomplish these tasks. These will include an atomic force microscope, a scanning tunneling microscope, and a variety of chemical process stations. In total, the needed equipment will cost \$400,000.

TIMETABLE: Curriculum for the MEMS emphasis in engineering is in development by faculty in the electrical and mechanical engineering, engineering physics, and industrial technology

departments. It is expected that laboratory construction, in support of the MEMS emphasis, will commence in the summer of 2005.

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PAST FUNDING: The UWP College of Engineering, Mathematics, and Science has not previously received federal funding through the appropriation process. The State of Wisconsin has recognized the high costs associated with developing and maintaining engineering laboratories and has awarded approximately \$350,000 annually for engineering and technology laboratory upgrades.

COSTS:	Federal Funding Requested in FY 2005:	\$400,000
	PROPOSED MEMS LABORATORY EQUIPMENT LIST	
	Microforce test system:	\$93,500
	Atomic force microscope:	\$100,000
	Thermal evaporation system:	\$50,000
	Mask aligner:	\$65,000
	Low pressure CVD/furnace:	\$75,000
	Chemical process stations:	\$16,500

SIGNIFICANCE: Micro-Electro-Mechanical Systems (MEMS) is an enabling technology allowing the development of smart products. MEMS is the integration of mechanical elements, sensors, actuators, and electronics on a common silicon substrate through microfabrication technology. MEMS promises to revolutionize nearly every product category by bringing together silicon-based microelectronics with micromachining technology.

Microelectronic integrated circuits can be thought of as the "brains" of a system. MEMS augments this decision-making capability with "eyes" and "arms", to allow microsystems to sense and control the environment. Sensors gather information from the environment – measuring mechanical, thermal, biological, chemical, optical, and magnetic phenomena. The electronics then process the information derived from the sensors and through some decision making capability direct the actuators to respond by moving, positioning, regulating, pumping, and filtering, thereby controlling the environment for some desired outcome or purpose. MEMS applications are anticipated in the fields of biotechnology, communications, and microelectronics.

The impact of this project on the tri-state region will be significant. The goal of the program is to graduate a highly skilled workforce, ready to contribute to a spectrum of high-tech industries ranging from microelectronics to pharmaceuticals. With a quality, professional workforce to drive economic development, growth in jobs and business in Wisconsin and the region will be a reality. The funding for equipment in the MEMS laboratory is critical.

CONTACTS WITH CONGRESS: Submitted to Senator Herb Kohl with Congressman Ron Kind's full knowledge.

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REQUEST FOR FUNDS:
WISCONSIN CHEESE IN WESTERN CHINA

ORGANIZATION: UW-River Falls alumnus Wong How Man, class of 1976, used his journalism degree to become a photographer for Asian magazines and *Architectural Digest*, an explorer and photojournalist for the National Geographic Society—he discovered the true headwaters of the Yangtze in Tibet—and a conservationist/ preservationist. *Time* named him “China's most accomplished living explorer” and he won the Lowell Thomas Travel Journalism Gold Award in 1999 for his book, *From Manchuria to Tibet*.

Today, Wong How Man serves as President of the China Exploration and Research Society (CERS), a non-profit organization with headquarters in Hong Kong. He devotes most of his energies to assisting the indigenous populations of Western China. CERS is currently supporting anthropological research into the hanging coffins of Yunnan Province, the preservation of a mountain monastery, and economic development of the entire region. He has asked UW-River Falls to help yak farmers develop a Wisconsin-style cheese and other dairy products for the Chinese and international markets.

The indigenous peoples of Western China have raised yaks for food and fiber for centuries. Traditionally, family-owned yaks have provided meat, milk, leather, and hair for food and clothing for the immediate needs of the family and trade with neighbors. Cheese is not a significant part of the Chinese diet; consequently, yak cheese has always been for home consumption only. Today, Western China is experiencing explosive growth and urbanization. The winter and summer grazing lands are being developed and the previously semi-nomadic farmers are settling into towns and cities. Economic opportunities are scarce, however. Wong How Man and UW-River Falls are convinced that cheese made from yak milk is a viable food product in the greater China market, and that it has potential as an internationally-marketed specialty food.

We request funds to develop a recipe for yak cheese that will consistently produce stable, high quality product using the equipment, labor, and supplies available in Western China.

The UW-River Falls College of Agriculture, Food, and Environmental Sciences (CAFES) is one of the nation's leading undergraduate agriculture colleges; our Dairy Science program enrolls more undergraduates than any other dairy program in the country. Our lab farm milks 60 head of Holsteins and our pilot dairy plant produces milk, butter, specialty cheeses, ice cream, and yogurt. Rane May, UWRF cheesemaker, has helped dairy producers in Africa and Central Asia under the auspices of USAID and USDA. In short, we are well-equipped and prepared to assist the yak farmers of Western China develop marketable products, both for consumption in China and internationally.

Wong How Man will test-market a gourmet yak cheese in hotels in Hong Kong, Vancouver, and other cities. CERS is supported by contributions from well-placed individuals and companies around the world and can place the cheese product in hotels, tourist shops, and upscale food markets in the US, Britain, Europe, and Asia.

DESCRIPTION: Ranee May and three dairy science students have already scheduled a two-week visit to Yunnan Province in May, 2004, to sample local production of yak milk; measure milk quality, butterfat content, and quantity; survey cheeses made today; and investigate local production facilities. In order to develop a stable, marketable product, Ms May will refine recipes during 2004-05 and return to Yunnan (with three dairy science students) for a three-month stay during summer, 2005. At that time she will create a pilot production facility and field-test recipes. She must spend another three months in China during summer, 2006, to help local producers establish production facilities, sanitation procedures, and quality control.

TIMETABLE: Summer, 2004: preliminary investigations.
Summer, 2005: set up pilot production facilities, test recipes.
Summer, 2006: establish pilot production facility.

CONTACT: Ann Lydecker, Chancellor, 715/425-3201, ann.m.lydecker@uwrf.edu.

PAST FUNDING: This is a new program. UWRF will fund the spring, 2004, trip to Yunnan Province.

COSTS: Total Costs in FY 2005 for staff salary, plus travel and per diem for Ms. May and three students: \$30,000

Total Costs in FY 2006 for staff salary, travel and per diem for Ms. May and three students, plus cheese-making equipment for pilot plant in China: \$40,000
Grand total: \$70,000

SIGNIFICANCE: This project has the potential to turn the Chinese into cheese consumers as well as producers and thereby open another market for Wisconsin cheese. It will also create opportunities for Wisconsin-China trade in dairy expertise and equipment. In addition:

- UWRF agriculture faculty, staff, and students will be enriched by the project. Dairy Science students will participate in the development of a new product from raw material they have never worked with; the experience will prepare them well for employment in agriculture. Dairy Science faculty will use the project as a case study. All participants will gain broader horizons as a result of their experiences in China.
- The residents of Yunnan Province and Western China will reap the benefits of this project as well. By creating a gourmet yak cheese that can be marketed around the world, we will help local residents gain self-sufficiency without completing destroying their traditional ways of living.

CONTACTS WITH
CONGRESS: None.

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REQUEST FOR FUNDS:
CENTER FOR THE STUDY OF THE RURAL-URBAN INTERFACE

ORGANIZATION: River Falls is a town of 12,000 located among the rolling hills and dairy farms of the St. Croix Valley. The Kinnickinnic River, a Class I trout stream, runs through downtown, and residents enjoy the slower pace and bucolic lifestyle of rural Wisconsin. Nonetheless, River Falls is only 23 miles from downtown St. Paul and has been counted as part of the Twin Cities' Standard Metropolitan Area since the 1990 census. In recent years, development in and around River Falls has turned it into a bedroom community for the Twin Cities; indeed, the largest employer of River Falls residents is 3M in St. Paul.

In short, we live at the interface between rural and urban and are experiencing many of the problems that result when cities sprawl into the countryside:

- Land prices are escalating, driven by developers; home prices have increased by 10% per year for more than ten years; farmers cannot buy more acreage and are under increasing pressure to sell their land for development.
- Many residents resent many aspects of growth—degradation of the landscape, increased pollution in trout streams, morning and evening rush hours, growing school taxes, and so on—yet other residents espouse economic development. Therefore, growth vs. no-growth has become a defining political issue in local elections.
- Environmental problems emerge with increased development. Storm water, for example, which used to soak into and be filtered by the soil and slowly replenish groundwater, now runs off buildings, streets, and parking lots into storm water sewers and directly into streams and rivers. Our streams and rivers therefore suffer from rising water temperatures and increasing pollution; at the same time, groundwater is depleted.

The University of Wisconsin-River Falls is uniquely equipped to address these issues. We are the only four-year university in the St. Croix Valley, a five-county region in Wisconsin and Minnesota that is the interface between the Twin Cities, population 5 million and growing eastwards, and rural Western Wisconsin. UWRF is a regional leader in raising, examining, and helping to solve regional rural-urban and other problems. UWRF has led economic development initiatives in the valley in recent years; at the same time, we have grappled with growth issues as they affect our laboratory farms and other properties. In 2004, UWRF launched a series of community forums to examine how regional development interfaces with education, community/rural interaction, and the arts. These forums have drawn large numbers of individuals from all walks of life throughout the valley; they have expressed great interest in participating in further conversations facilitated by UWRF, which is perceived as a neutral party.

DESCRIPTION: The Center for the Study of the Rural-Urban Interface will examine the many ways the urbanization of rural areas affects the local economy, culture, schools, taxes, land use, agriculture, lifestyle, and politics; and how local politics and culture affect urban growth. In effect, the River Falls area will serve as the laboratory for our endeavors.

For instance, a few miles to our west lies Woodbury, Minnesota, an eastern suburb of St. Paul that has developed virtually all of its open land over the past 20 years and is today an unbroken sea of houses and strip malls. A few miles to the east of River Falls, family dairy farms support small communities like Spring Valley, Martell, and El Paso, just as they have since this territory was first settled 150 year ago. Within this area, various factions fight over highway construction, zoning, land preservation, big-box retailers, taxes, economic development, environmental impacts, and every other issue that arises when cities spread.

The Center for the Study of the Rural-Urban Interface will address these issues. The Center will consist of a full-time director and support staff located in an office in the UWRF Regional Development Institute. UWRF faculty and staff will provide services to the Center on an ad-hoc, as-needed basis.

The Center requires start-up funds to hire a director, establish procedures, and operate for two years. Thereafter, it will support itself through

- Contracts with interested parties (e.g. governments, regional planning authorities, business, economic development councils, preservation groups, agricultural organizations and cooperatives) to research issues, propose solutions, or negotiate agreements.
- Grants from state and federal government agencies (e.g. USDA, HHS, DATCP, Applied Research Program) and foundations interested in local and regional social and economic problems (e.g. Otto Bremer Foundation, Anderson Foundation).

TIMETABLE: UWRF requests FY 2005 funding to launch the Center, and FY 2006 and 2007 funds to continue its operation until it can become self-supporting.

CONTACT: Ann Lydecker, Chancellor

PAST FUNDING: The Center is a new endeavor for UWRF; it has not received any funding in the past.

COSTS:	Costs in FY 2005:	
	Director and Pgm Assistant, fringes	\$130,000
	Funds for ad-hoc faculty and consultants:	50,000
	Supplies and expenses:	10,000
	Total:	\$190,000
	Costs in FY 2006:	
	Director and Pgm Assistant, fringes:	\$140,000
	Funds for ad-hoc faculty and consultants:	10,000
	Supplies and expenses:	5,000
	Total:	\$155,000
	Costs in FY 2007:	
	Director and Pgm Assistant, fringes:	\$75,000
	Funds for ad-hoc faculty and consultants:	5,000
	Supplies and expenses:	5,000
	Total:	\$85,000
	Total costs:	\$430,000

Note: the Center will charge governmental units, businesses, and other clients for services. These revenues will gradually replace external funds; in year 4 the Center will be self-supporting.

SIGNIFICANCE: Cities are expanding into rural areas throughout the US. Even though local situations create problems specific to those situations, many problems are common to all areas where city sprawl encroaches on the rural countryside. By studying these problems in the River Falls area, proposing solutions, and helping the various factions come to agreement, the Center can provide model processes and outcomes for the rest of the country.

Locally, the Center will provide enormous benefit. Today, rural-urban interface issues are settled through economic brute force, political demagoguery, or subversion. By examining these issues in a dispassionate, objective, and open way, the Center will bring the light of reason to these murky issues and help combatants reach agreement.

The university will benefit as well. The Center will provide UWRP with:

- Case studies for courses in agriculture, business, economics, political science, and other disciplines.
- Applied research projects that will allow faculty to use their research and scholarly skills.
- Opportunities for undergraduates to engage in research projects and pursue internships.

CONTACTS WITH
CONGRESS: None

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REQUEST FOR FUNDS:
FOOD SAFETY 3/2 PROGRAM

ORGANIZATION: Food safety is an area of growing concern throughout the US and around the world. Weekly, it seems, we read about illnesses and death caused by mad cow disease, salmonella, or toxic E. coli. The growing threat of terrorism increases our fears relative to food production, preservation, and preparation. The need for well-trained professionals in food safety is growing exponentially.

In order to help meet that need, we propose a joint Food Safety program with the University of Minnesota. Students will complete the first three years of the Food Science major at UWRF and two years of the Public Health program at the University of Minnesota. The result: a UWRF Bachelor of Science degree and a University of Minnesota Masters in Public Health (MPH).

DESCRIPTION: The University of Wisconsin-River Falls Food Science program requires knowledge in basic sciences such as physics, mathematics, inorganic chemistry, organic chemistry, biochemistry, biology, and microbiology. Within their major, UWRF Food Science students complete courses such as food chemistry, food microbiology, food processing, food rheology, food engineering, and quality control in the food industry. At the University of Minnesota, students will add courses in public health administration, public health law, healthcare financial management, principles of public health research, and long-term care policies. Participating students will also complete a field experience designed to help them develop practical skills and competencies in food safety, e.g. at a state or federal governmental health-related agency, health center, or bio-security enterprise.

This dual-degree program was first discussed by faculty and administrators from the University of Wisconsin-River Falls and the University of Minnesota's School of Public Health during the 23rd Annual Food Microbiology Symposium hosted by the Food Science faculty on the UW-River Falls campus this year. Both campuses are eager to proceed with the collaborative program.

TIMETABLE: 2004-05 academic year: Design joint program; seek curricular approval at both institutions; establishing marketing program.

2005-06 : Gain approvals; write policies and procedures; market program to UWRF undergraduates and to high school seniors; admit first class.

2006-07: Implement program.

CONTACT: Stephen Ridley, Dean, College of Agriculture, Food, and Environmental Sciences; 715/425-3841, stephen.c.ridley@uwrf.edu.

PAST FUNDING: This is a new program.

COSTS: Total Costs in FY 2005 for staff salary, supplies, and expenses: \$25,000
Total Costs in FY 2006 for staff salary, supplies, and expenses: \$25,000
Grand total: \$50,000

SIGNIFICANCE: This program will:

- Increase the flow of well-qualified individuals with public health credentials into the food safety profession.
- Add a career track to those already available at UWRF.
- Build curricular ties with the University of Minnesota.
- Provide additional research opportunities for UWRF faculty and students.

CONTACTS WITH
CONGRESS: None.

UNIVERSITY OF WISCONSIN – STEVENS POINT
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REQUEST FOR FUNDS:

ARMY ROTC/MILITARY SCIENCE DEPARTMENT RELOCATION

ORGANIZATION: Since 1967, the Army Reserve Officers Training Corps (ROTC) and the Department of Military Science have maintained a long and solid association with the University of Wisconsin-Stevens Point (UWSP). Through the years, the program has received numerous awards and recognition for the caliber of training and level of proficiency obtained by its students. Many of these students have moved on to positions of leadership within the nation's armed forces and allied support industries. In fact, several recent UWSP ROTC commanders and Military Science department heads have been UWSP graduates. A testament to the quality of the UWSP program in Military Science and in leadership is that although a number of ROTC programs were discontinued in the 1990's across the country, support for the UWSP program remained strong.

DESCRIPTION: The ROTC and Military Science programs seek to achieve integration within the broader campus learning community. Because of space constraints, however, the Department of Military Science—an academic program—is currently located in a non-academic, administrative building, the Student Services Center (SSC).

The space dedicated to ROTC and Military Science is not adequate for the programs' needs: In SSC, Military Science has a ten-seat classroom and 20-station dry lab comprising approximately a total of 1,200 assignable square feet (ASF). An additional 2,000 ASF are dedicated to secure storage with the remaining space dedicated to offices, office support, and circulation. An April 1995 campus program review of Military Science found as a weakness that "while the classroom, office and supply area are adequate, they are minimal and of lesser quantity and quality when compared to other programs on campus." New or remodeled space would address this review deficiency.

UWSP is seeking funding for relocation of its ROTC and Military Science programs to an academic building elsewhere on campus, which will include renovation of existing facilities as well as new construction. A site on the north side of the Health Enhancement Center (HEC) facility is available for an appropriate two story addition.

The project would create approximately 6,000 square feet of office, training and secure storage space. An existing 810 ASF racquetball court within the HEC would be reconfigured into a classroom. To make optimum use of the high overhead court space, a deck would be added to meet general building needs. To release the racquetball court for this use, it would be relocated as part of a planned four-court retrofit of a 3,000 square-foot dance studio. The dance studio will be vacated by the dance department in 2005 with the completion of a major addition to the UWSP Fine Arts Center. A free-standing metal storage building also needs to be removed for the addition and would be replaced with a 2,400 square foot space attachment to the Multi-Activity Center.

SIGNIFICANCE: Relocating ROTC and Military Science will allow better integration of these programs with the academic community at UWSP. This will have a number of impacts. Most importantly, enlarged, modern instructional areas will enhance the education of the cadets and military-science students enrolled in the programs. This enhanced education will result in better-trained leaders for our armed forces thus helping to ensure our nation's security. Military Science will benefit from closer association with the physical conditioning facilities and from joint use of the large-space options available within UWSP's HEC (gymnasiums, strength center, swimming pool, indoor running track). Also of significance will be the improved office, classroom, and secure storage space, which will allow for a more efficient use of resources.

TIMETABLE: See below.

1. Building Commission Authorization to Construct, January 2005
2. Architect Selection, April 2005
3. Concept Report (10%), August 2005
4. Design Report (35%), November 2005
5. Final Design, January 2006
6. Bid Opening, March 2006
7. Start Construction, June 2006
8. Substantial Completion Date, May 2007

CONTACT: Carl Rasmussen, 715-346-2781

PAST FUNDING: None

COSTS:	Total Costs in FY 2005:	<u>\$1,832,000</u>
	Office, training and secure storage space: 1,104,000	
	Racquetball court reconfiguration for classroom space:	188,000
	Relocation of racquetball court:	315,000
	2,400 sq. ft. attachment to the Multi-Activity Center:	225,000
	<u>Federal Funding Requested in FY 2005:</u>	<u>\$1,832,000</u>

CONTACTS WITH CONGRESS: None.

UNIVERSITY OF WISCONSIN – STEVENS POINT
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REQUEST FOR FUNDS:

UNIVERSITY OF WISCONSIN-STEVENS POINT
ECONOMIC DEVELOPMENT INSTITUTE

ORGANIZATION: The University of Wisconsin-Stevens Point (UWSP) is establishing a new Economic Development Institute (EDI) for which UWSP requests \$1,566,500 in federal funding during FY2005.

DESCRIPTION: The mission of the EDI is to provide faculty expertise and student assistance to the domestic and international business community. This will be done through faculty consultation, student internships, and continuing-education curricula.

1. The EDI will also serve as the campus interface for the Wisconsin Learning Center, a facility in the Portage County Business Park with distance learning capabilities, which has grown as a result of a partnership among UWSP, Mid-State Technical College, and the Portage County Business Council. As a direct result, the EDI and the Learning Center will allow UWSP to expand teacher-education, paper science and forestry outreach programs to reach a wider array of teachers and paper and forestry industry clients. The campus can provide training as needed to industrial clients throughout the area.

2. The Economic Development Institute will serve as the central, on-campus, clearinghouse to identify opportunities for placing advanced students into business-related internships. As a matter of policy, student interns will work with faculty on these business-enhancement projects. The program will serve as a laboratory for students, providing solid exposure to the business climate in central Wisconsin. On average, this initiative will generate an additional 20-30 student internships related to economic development projects per academic year. UW-Stevens Point expects that the internships will not only provide valuable educational and real-world experience, but also the potential to keep students in the area, providing the possibility of permanent employment and prevent the ongoing local brain drain.

SIGNIFICANCE: The EDI will serve as “one front door” in central and northern Wisconsin, as well as abroad, for businesses and public agencies looking for specific expertise among our faculty and students. The proposed initiative allows for the expansion of the capabilities and potential of the partnerships described above, particularly those with business concerns. For many years, UWSP and area businesses in the central region of the state have cooperated by means of student internships and assistance from faculty. Therefore, the concept underpinning the EDI—collaboration with and service to business—is not new at UWSP. What will be innovative is the ease of and extent of access made possible through this initiative.

While most of these collaborations are domestic, we have a number of international collaborative efforts, including internships, as well. With consolidations, mergers and the global economy affecting businesses in central and northern Wisconsin, internships and collaborations of this nature could have a positive impact on future Wisconsin economic development. These include inter-institutional agreements with the Otto-von-Guericke Universitat Magdeburg and Chapingo University in Mexico, as well as a business internship program in the People’s Republic of China. Students taking part in

these international internships will learn how to work with foreign business models and cultures, which will have a positive impact on our region's ability to interact with the global economy.

In keeping with the Wisconsin Idea, which emphasizes accessibility to the University of Wisconsin, this proposal focuses on service to the surrounding communities through programs that emphasize economic development and civic engagement by the faculty, staff, and students. With student-centered excellence as a key theme in its Long-Range Goal and Plan, the UWSP's initiative will broaden the emphasis in this area through student involvement with regional business concerns. The campus already has a strong tradition of partnership through collaboration with area educational institutions and businesses, especially through student teaching and internships. The proposed institute will expand this partnership concept while at the same time emphasizing teaching and learning through practical experience.

Background/Justification

This request builds on the work in which UW-Stevens Point (UWSP) is currently involved as part of the Central Wisconsin Idea (CWI) budget initiative, which received funding in the University of Wisconsin System's 2001-03 biennial budget (\$731,152). Moreover, the request falls within the campus' Long-Range Plan as approved in 2001, which combines three themes: partnerships, student-centered excellence, and technology-enhanced learning.

The CWI helps bring baccalaureate education to time- and place-bound students in central Wisconsin. In addition, partnerships have been established with business concerns to establish the Wisconsin Learning Center, for which funding has been obtained from the Portage County Business Council (\$200,000), Mid-State Technical College (\$295,000).

Operation

The Director (1 Full-time Equivalent [FTE] position) will have a staff of five (5 FTE) Outreach Program Managers. Each program manager will specialize within a college of the university. There will be two for the College of Letters and Sciences—the University's largest—and one each for the College of Fine Arts and Communication, the College of Natural Resources and the College of Professional Studies, respectively. Each program manager will be familiar with available faculty expertise and with the area business community in order to serve as a conduit to that wider community. When representatives of area businesses contact the EDI, the program managers will be able to connect area businesses with appropriate faculty and students to engage in cooperative projects to benefit both the campus and the community. Program assistants (2.5 FTE) and technical IT staff (1 FTE) will provide support to the director and program managers, as well as to the faculty consultants working with area businesses.

The EDI staff will identify UWSP faculty who can work with businesses for a given portion (e.g., .25 FTE, .50 FTE, etc.) of their full-time faculty appointment on projects that businesses identify as important to their future. The duration of this work may range from only a few weeks in some instances to multiple semesters in others. We estimate that, at any given time, these percentages would equal 10 faculty FTE over the entire campus.

The EDI will generate revenue through billable, faculty-consultation hours, increased internship and employment opportunities for students, and the potential for technology transfer. The revenue generated through this program will not be sufficient to fund the program entirely—though it will serve as a supplement (see budget below)—as most of the businesses in the university's service area are small-scale.

In addition to the outside funding noted above, the campus has been able to reallocate \$100,000 of faculty release time to permit faculty to provide student internship supervision (see below under Past and Current Funding).

TIMETABLE: The EDI will request funding for Fiscal Year 2005. Start-up Phase: January-May.
Operation Phase: May– continuing. Outcomes: May-continuing.

CONTACT: Vice Chancellor for Business Affairs Greg Diemer
715.346.2641

PAST AND CURRENT FUNDING: Total:	\$1,326,152
UW System (CWI initiative) (ongoing, base funding):	731,152
Mid-State Technical College:	295,000
Portage County (WI) Business Council:	200,000
UWSP through reallocated faculty time (ongoing):	100,000

COSTS: Total Costs in FY 2005:	\$1,653,300
Unclassified Salaries (17 FTE positions):	972,700
Classified Salaries (2.5 FTE positions):	63,500
Student Help:	35,000
Fringe Benefits:	366,000
Supplies & Services:	216,100
Funds from Other Sources in FY 2005:	\$86,800
UW-Stevens Point, program revenue:	86,800*

Federal Funding Requested in FY 2005: \$1,566,500

* There will be an average of 20 billable hours per week generated by each full faculty FTE involved in this initiative. This will consist of increments based on the portion of an FTE that is devoted to the project at any given time.

CONTACTS WITH CONGRESS: Congressman Obey

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REQUEST FOR FUNDS:

RAYMOND E. MUNDT CENTER FOR ETHICAL STUDIES

(The final name of the center is subject to review
and approval of the campus naming committee and the chancellor of UWSP.)

ORGANIZATION: The Raymond E. Mundt Center for Ethical Studies (hereafter, the Center) will have as its mission to study ethics in Business, in the Environment, and in everyday life, through participation in courses in Business Ethics, Environmental Ethics, and related fields of study.

DESCRIPTION: The Center will be housed in the UWSP College of Letters and Science. The funding requested will be used to staff the center and conduct programming. The Center staffing will initially consist of a full-time-equivalent (1 FTE) director and a .5 FTE program assistant who will also serve as Center manager.

The Center will coordinate courses in the participating disciplines as soon as possible; in some cases, curriculum is already in place. For example, courses in Environmental Ethics are already being offered, and courses in Business Ethics are planned. Others will follow fairly quickly upon establishment of the Center. At least at the beginning, it is anticipated that participants and courses will remain directly affiliated with their current academic units. UWSP anticipates that we will add courses/programs in Ethics in Politics, Scientific Ethics, Ethics in Fundraising, and possibly others, as the center's scope develops.

In addition, the Center will be the main sponsor of visiting speakers who will come to UWSP to speak on issues related to ethics. These speakers will provide guest lectures to courses as well as to the general public in scheduled presentations.

Supporting the mission, purpose, and direction of the Center will be an advisory board, which shall consist of the Chair of the Division of Business and Economics, the faculty participants from each of the disciplines involved (one from Philosophy, one scientist, etc.), and two or three community members chosen from or by the members of the Academy of Letters and Science. Members will originally be appointed to three-year terms, but the Advisory Board will be given the charge to develop its own future bylaws and rules of operation.

SIGNIFICANCE: The Center will assure that *all* students who participate in this program graduate with a clear sense of appropriate ethical behavior regardless of future career choice. Driven by the vision of its namesake, the Mundt Center will emphasize honesty, integrity, and civic responsibility of leaders as each makes decisions that shape the nature of American business, of the American economy, and of American society. The Center will inculcate in students habit of asking first whether an action that is being planned is good for employees, for the people the business serves, and for the environment and community in which the business operates. Through such education students will learn that what is right for those who

work for the concern and for those who are affected by the actions of the concern is ultimately right and good for the company and its shareholders.

TIMETABLE: The Center requests funding over three fiscal-year cycles. This funding will provide salary, benefits, and supplies to the Center for a period during which the Dean of UWSP Letters & Science will work with Mr. Mundt to raise on-going funding.

The timeline is as follows: January 2005 through May 2005 will be the start-up phase; June 2005-continuing

CONTACT: Professor Gary Mullins, Chair, Division of Business & Economics, 715-346-3906

PAST AND FUTURE FUNDING:	\$2,500,000
Past Funding:	0
Future Funding (Charitable Remainder Trust, R. Mundt)	2,500,000

COSTS: Total Costs in FY 2005, FY 2006, FY 2007:	<u>\$417,673</u>
Director's yearly salary (assumes 4% increase in FY06 & FY07):	218,512
Program Assistant's salary (assumes 4% increase in FY06 & FY07):	47,522
Fringe benefits	111,734
Service and supplies:	39,905

Federal Funding Requested in FY 2004 (for FY05, FY06, & FY07): \$417,673

CONTACTS WITH CONGRESS: none.

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REQUEST FOR FUNDS:
NELSON HALL

ORGANIZATION: The University of Wisconsin-Stevens Point is seeking funding to restore a historic building at the entrance of campus. The estimated cost of rehabilitating Nelson Hall would be between \$5.3 - \$6.2 million.

DESCRIPTION: Designed by the Milwaukee-based architectural team of Henry Van Ryn and Gerrit de Gellecke and built in 1915, Nelson Hall is a fine and rare example of Prairie Style architecture in a public building.

BACKGROUND/JUSTIFICATION: The University of Wisconsin-Stevens Point's Nelson Hall, built in 1915, is the oldest existing dormitory of the former State Normal School System. UWSP's Board of Visitors has unanimously approved a resolution in support of making every possible effort to preserve it. A proposal is currently being completed to request to have Nelson Hall placed on the National Register of Historic Places and it is listed among the Wisconsin Trust for Historic Preservation's 10 most endangered historic properties.

Sadly, over the past 14 years, the future of this historic structure has become uncertain. Its feasibility for renovation has been reviewed by the state Division of Facilities Development and UW System administration. Both agencies decreed it is not cost effective to use state tax money to save the building. The worst scenario would see it torn down and replaced with an asphalt parking lot. A more constructive plan would be to refurbish it, for example, as a campus welcome center, alumni/foundation house, guest house, office space, archive for the papers of a famous personage, or a combination of several uses.

However, interest seems to be growing in the edifice bearing the name of George B. Nelson, a Stevens Point attorney who served on the Wisconsin Supreme Court. Nelson, a regent of the State Normal School System at the time, fought valiantly with legislators opposed to spending the \$100,000 to build the hall.

Since that time, the residence has housed women students, the Student Army Training Corps organizing for World War I, trainees for World War II and the ROTC. It has provided a home for the Child Learning and Care Center, the Foreign Student Office, Administrative Computing, the Women's Resource Center, Environmental Education, a School of Education junior high tutoring program and many other auxiliary programs and services. Today it houses the music department and other fine arts areas displaced by construction at the Fine Arts Center. It is currently filled to capacity. *The building is structurally sound, but needs updated heating/cooling and electrical systems plus improved access.*

OPERATION:

UWSP needs a suitable venue to welcome people to campus, to house information about UWSP and to greet alumni and donors. There also is a space shortage on campus with a scarcity of office space in general. The offices in Nelson Hall have been filled since it was taken offline as a residence hall. UWSP also would like to be able to provide space for archival holdings. There is an imperative for maintaining historically significant buildings and enhancing the aesthetics of the campus.

OUTCOMES/SIGNIFICANCE:

This project will rehabilitate approximately 25,000 square feet of attractive, multi-use space for an over-crowded campus. It will save a historically significant building, one of few left on campus or in the community.

TIMETABLE: Planning Fiscal Year 2004-2005, Start-Up Phase: 2006-2007, Completion: 2007-2008

CONTACT: Sarah Clanton and Mark Seiler, co-chairs, Historic Preservation Subcommittee

PAST AND CURRENT FUNDING: No funding other than ongoing maintenance costs

COSTS: An estimate of \$125 to \$150 per square foot would total \$4.8 to \$5.7 million. Construction of two exit stair towers and an elevator/restroom core might add another \$.5 million. The total would be between \$5.3 - \$6.2 million.

FEDERAL FUNDING REQUESTED IN FISCAL YEAR 2005: Seeking a combination of federal/state and private resources from programs such as Save America's Treasures, Historic Preservation Fund, State Funding for Historic Preservation and private donations.

UNIVERSITY OF WISCONSIN – STOUT
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REQUEST FOR FUNDS:
TARGETING IMPROVEMENTS IN THE ECONOMIC STATUS OF
INDIVIDUALS WITH DISABILITIES IN AMERICA'S WORKFORCE:
CROSS-VALIDATION OF EVIDENCE-BASED PRACTICES

ORGANIZATION: The Research and Training Center (TRTC), Stout Vocational Rehabilitation Institute, College of Human Development, University of Wisconsin-Stout was established in 1970 to conduct research, development, training, and dissemination with focus improve the employment possibilities and economic status of individuals with disabilities served through public sector and private sector organizations. In the past 30 years, TRTC has accrued a significant base of scientific and empirical knowledge about needs, barriers, possibilities, and processes used by individuals with disabilities and those of public and community organizations to improve employment and economic status of people with disabilities. In the past 5 years, TRTC has defined national benchmarks, obtained consensus on outcomes, and estimated the capacity of the community rehabilitation industry to address goals we aspire to for all people with disabilities (Botterbusch, Menz, Hagen-Foley, & Johnson, 2003; Menz & Surdick, 2004). This body of research proposes processes that organizations can implement with individuals who are initially not positioned to achieve quality employment and economic self-sufficiency (e.g., severely disabled Social Security beneficiaries).

TRTC works with a transdisciplinary team of colleagues at academic research institutions across the United States: SUNY-Buffalo, Georgia State University, University of Texas, San Diego State University, Western Washington University, National Results Council, and the Wisconsin Department of Health and Family Services. We request 3 year funding to cross-validate and implement practices that TRTC research suggests can (a) increase the employment status of people with disabilities and (b) increase the number of people who attain economic status to replace their reliance upon public funds they may current need to be healthy and gainfully active in their communities within and outside Wisconsin.

A national, representative sample of community organizations and individuals and full multi-stage design will demonstrate increases in the employment and economic prospects of at least 7,500 individuals. The cross-validated practices derived with these federal funds will provide evidence-based practices that additional hundreds of CBROs may apply to increase the economic participation of individuals within communities across the United States.

DESCRIPTION: Funding for this request will support demonstration research among a nationally representative sample of community-based rehabilitation organizations (CBROs) to improve the employment and economic status of people with disabilities in the selected communities. Over a three year period TRTC will:

- Develop a training curriculum based upon service, outcomes, and capacity research and provide training to 1,500 practitioners and advocates using our Continuing Education Center's distance learning capability.

- Recruit and involve 200 CBROs and/or document variations of practices that promise quality employment.
- Implement a full clinical research design for evaluating the differential impacts of these community strategies.
- Establish a web-based system that documents practice and effects on employment, earnings, health, satisfaction, and need for public subsidies.
- Establish tracking of changes in employment, benefits reliance, and economic participation over a multi-year period.
- Estimate the aggregate changes in economic status of employed individuals in comparison to their unemployed and unsuccessful counterparts.
- Formulate public policy recommendations to selected federal: Rehabilitation Services Administration; the Social Security Administration; U.S. Department of Labor; Centers for Medicaid Services, U.S. Department of Health and Human Services; and corollary state agencies.
- Annually disseminate reports that describe practices and provide policy recommendations for Congressional purposes.

TIMETABLE: TRTC requests funding for Fiscal Year 2005:

July	Start-up and recruit personnel and collaborating institutions
August-September	Develop and market distance learning training curriculum
September-October	Recruit demonstration sites
October-January	Train practitioners and advocates at selected sites
January-February	Implement and begin to monitor practice implementation
March-June	Implement tracking with successful and not individuals
April-May	Document and disseminate demonstration practices
June	Present recommendations to agencies and the Congress on impacts and savings achieved for communities and the U.S.

CONTACT: FREDRICK E. MENZ, PH.D., DIRECTOR
 THE RESEARCH AND TRAINING CENTER
 STOUT VOCATIONAL REHABILITATION INSTITUTE
 UNIVERSITY OF WISCONSIN-STOUT
 MENOMONIE, WI 54751-0790
 715-232-1389

PAST FUNDING:	<i>Years</i>	<i>Federal Agency and Program</i>	<i>Amount of funds</i>
		U.S. DEPARTMENT OF EDUCATION	
	1984-1995	SPECIAL EDUCATION	\$889,766
	1972-2003	NIDRR	\$19,532,337
	1983-2003	RSA	\$3,910,429
		SOCIAL SECURITY ADMINISTRATION	
	2001-2003	OFFICE FOR POLICY RESEARCH	\$295,301
		STATE OF ILLINOIS	
	1998-2003	STATE REHABILITATION PROGRAM	\$172,648
		<u>TOTAL PRIOR FEDERAL FUNDING</u>	<u>\$ 24,800,481</u>

COSTS:	Total Costs in FY 2005:	<u>\$ 1,465,000</u>
	Personnel Committed to Project (12 months @ 65,000)	780,000
	Subcontracts:	
	Collaborating Research Entities (6 @25,000)	150,000

Demonstration Sites (200 @1,000)	200,000
Curriculum development and distance learning	85,000
Training Stipends Advocates and Practitioners (1,500 @50)	75,000
Practice and Policy Reporting and Dissemination	35,000
Website development and maintenance	25,000
Other (supplies, travel, data collection)	115,000
Anticipated Funds from Other Sources in FY 2005:	<u>\$ 513,500</u>
UW-Stout Investment Supplement:	44,000
Disability Research Institute, University of Illinois:	79,500
National Institute on Disability and Rehabilitation Research, U.S. Department of Educations	150,000
Social Security Administration, Policy and Program Research	225,000
Sale of Products and Services (e.g., training systems, publications)	15,000
<u>Federal Funding Requested in FY 2005:</u>	<u>\$ 951,500</u>

SIGNIFICANCE: Nearly 2/3s of people with disabilities are unemployed (Paul, Hunt & Browdin, 2003). This rate appears intractable (DeLeire, 2000; Ussif, 2004). With contraction in the employment market due to outsourcing and exportation of many entry-level is creating greater competition among target populations most apt to experience high rates of under- or unemployment: Minorities, school-exiting youth, those already in poverty, people with disabilities. Implementation of the Americans with Disabilities Act, reduction of public assistance rolls through welfare reform, skyrocketing costs of medical insurance as Americans age, and massive efforts to reduce all federal training and benefits programs further contribute to the urgency of this issue. More than ever there is need for demonstrated practices that increases employment and earnings that result in economic self-sufficiency for people with disabilities.

Only recently is there evidence as to how the 8,100 CBROs achieve success with individuals with significant disabilities at a national and regional level (Botterbush et al., 2003; Menz et al., 2004). Wisconsin leads the nation in social-economic development programs and in research that is widely transferable to real-life issues of it's citizens. Nationally, we expect that at least 10,000 people with disabilities will be affected over the 3-year project period and the economic status of 7,500 people will be enhanced. Further, hundreds of communities in Wisconsin and across the U.S. will have implemented community-level service programs that will continue to yield improvements for people with disabilities beyond the federal investment. With nearly 10% of CBROs in Wisconsin, at least 750 Wisconsinites will become taxpaying, self-sufficient participants in adding jobs and revenue to Wisconsin's economy as a result of related improvements in their psychosocial and health status that will come with their gains in employment and economic status.

CONTACTS WITH

CONGRESS: Congressmen Kind, Obey, and Senators Kohl and Feingold have been contacted regarding this project.

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REQUEST FOR FUNDS:
MANUFACTURING TECHNOLOGY TRANSFER

AGENCY: Department of Defense
Department of Commerce
Homeland Security
Department of Agriculture
NASA

DESCRIPTION: During a time of significant need expand the level of activity of the Federal/State Partnership that extends Technology Transfer and competitive manufacturing processes developed at UW-Stout and its partnering regional Technical Colleges to Wisconsin small and medium manufacturers.

CONTACT: Bob Meyer, Dean, College of Technology, Engineering & Management
Joe Benkowski, Executive Director, Stout Technology Transfer Institute

NOTES: In the past two years Wisconsin's strong manufacturing base has been shaken by the loss of over 50,000 jobs. This program is intended to keep and grow Wisconsin's vital manufacturing base.

IMPACT ON WISCONSIN: Since inception of Stout's Technology Transfer Program in 1994, clients have reported impacts totaling over \$110 million. The program has also created and retained 1,800 jobs as reported by the manufacturers it has served over the past decade.

Extended funding will allow us to expand the number of manufacturers served with services related to strengthening their global competitiveness.

COSTS: \$1,200,000

CONTACTS WITH CONGRESS: None

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REQUEST FOR FUNDS:
NANOTECHNOLOGY

AGENCY: Department of Defense
Department of Commerce
Department of Agriculture
Small Business Development
Homeland Security
National Science Foundation
NASA

DESCRIPTION: Using an existing partnership between UW-Stout and its Technical College partners, emerging nanotechnology applications will be transferred to business start ups and existing manufacturers in Wisconsin.

CONTACT: Bob Meyer, Dean, College of Technology, Engineering & Management
Joe Benkowski, Executive Director, Stout Technology Transfer Institute

NOTES: UW-Stout works with over 200 start ups and existing businesses annually through the Stout Technology Transfer Institute (STTI). STTI's services supporting product development and innovation have a long track record of success. Eighty percent of the graduate companies of STTI's incubator thrive as contributing members of the Wisconsin's economy. Since its inception, STTI has generated client reported impacts exceeding \$110 million and has created over 1,800 jobs.

IMPACT ON
WISCONSIN: Inventors and existing manufacturers in rural Wisconsin have difficulty accessing new and emerging technologies. With the loss of over 50,000 manufacturing jobs in Wisconsin in the last two years, services expanding product development and business innovation are a vital strategy for Wisconsin's recovering economy. This project will expand access to technologies under development at UW-Stout.

COSTS: \$1,500,000

CONTACTS
WITH CONGRESS: None

UNIVERSITY OF WISCONSIN – SUPERIOR
Julius Erlenbach, Chancellor
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Phone: 715.394.8101 • www.uwsuper.edu

REQUEST FOR FUNDS

A prospectus for a proposed academic building project will be forwarded under separate cover.

UNIVERSITY OF WISCONSIN - WHITEWATER
Christine Clements, Dean, College of Business & Economics
800 West Main Street • Whitewater, WI 53190
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REQUEST FOR FUNDS:
TECHNOLOGY, WORKFORCE AND ECONOMIC DEVELOPMENT CENTER

ORGANIZATION: The University of Wisconsin–Whitewater has historically provided assistance to businesses and not-for-profits through its outreach agencies - Small Business Development Center, Wisconsin Innovation Service Center, Global Business Resource Center and MCS Business Partnership Consortium. These independent agencies offer feasibility studies, patent and trademark protection services, international distribution support services and information technology solutions to businesses.

In 2003, with the assistance of a Congressionally mandated FIPSE grant, the first phase of the new Technology, Workforce and Economic Development Center at the University of Wisconsin-Whitewater became operational. The new center coordinates activities across the College's Business Outreach Services and provides one point of contact for those in need of assistance with workforce, business and not-for-profit issues.

The Technology, Workforce and Economic Development Center desires to continue to meet the economic development needs of southeastern Wisconsin and to do so the center requires support for student interns, faculty and technology.

DESCRIPTION: The Technology, Workforce and Economic Development Center will provide student teams, working under faculty supervision, to assist businesses and not-for-profits to resolve issues specific to the organization and community. In 2003-2004 such efforts included:

- Business, strategic and marketing plans
- Intellectual property searches and protection
- Minority business programs
- Training for employees, business managers and entrepreneurs
- Entrepreneurship program for At-Risk high school students
- Design and installation of management information systems (MIS) for businesses and not-for-profits

TIMETABLE: The Technology, Workforce and Economic Development Center is requesting funding for the 2004-2005 academic year.

- August-September 2004: Planning
- September-December 2004: Short-term implementations, e.g. marketing plans, feasibility studies for businesses and not-for-profits
- January-June 2005: Long-term implementations, e.g. design and install MIS for businesses and not-for-profits
- July 2005: Outcome assessment

CONTACT: Christine Clements, Dean
College of Business and Economics, University of Wisconsin-Whitewater
Phone: (262) 472-1349

E-mail: clementc@uww.edu

PAST FUNDING: 2003-2004 Department of Education \$496,000.00
Funds to Improve Post Secondary Education (FIPSI) (one year)

COSTS: Total cost for 2004-2005 \$650,000.00
Center Director 110,000.00
Student interns salaries (50) 125,000.00
Faculty stipends (15) 150,000.00
At-Risk Program 50,000.00
Technology & technology upgrades 190,000.00

Funds from other sources in 2004-2005 \$25,000.00

Federal Funding Requested in FY 2005: \$625,000.00

SIGNIFICANCE: The loss of manufacturing jobs to a global economy has had a severe impact on the state of Wisconsin and southeastern Wisconsin has been particularly hard hit. The Technology, Workforce and Economic Development Center has been successful at promoting and fostering economic development within the region and around the state. With continued support from Federal Funding, the Center will continue to assist individuals, businesses and not-for-profits with training, planning and technical assistance designed to build and strengthen the regions economy.

CONTACTS WITH

CONGRESS: Senator Kohl's Office provided assistance with the initial Department of Education grant.

UNIVERSITY OF WISCONSIN – WHITEWATER
Richard Telfer, Vice Chancellor
800 West Main Street • Whitewater, WI 53190
Phone: 262-472-1672 • E-mail: telferr@uww.edu

REQUEST FOR FUNDS:
BRINGING OPEN MARKET INNOVATION TO MANUFACTURING

ORGANIZATION: The Wisconsin Innovation Service Center (WISC) at UW-Whitewater helps existing and aspiring entrepreneurs make more profitable product and market development decisions. WISC research services have provided insight on products and services from a wide variety of industries primarily through projects assessing new product feasibility. In its 22 years of existence, WISC has provided services to over 6,000 companies, continuing a very high rate of client satisfaction. About half of WISC's clients are existing businesses, primarily manufacturing firms.

Using the “convening power” of the university setting and the tremendous brand power of the “University of Wisconsin,” WISC has recruited an expert network that has cultivated ties to industry, professional and technical experts from universities, technical colleges, federal labs, and private companies from across the nation.

In addition, WISC provides outstanding experiential learning opportunities for students. With close guidance from professional staff, students do much of the legwork to help clients with product and market development decisions. WISC recently did a survey of “alums” from the last 21 years--highlights are that WISC experience is exceptional in terms of contributing to problem solving, critical reasoning, and ability to take the initiative.

DESCRIPTION: The Open Market Innovation Project will create a facilitated and moderated network to bring at least 40 traditional manufacturing businesses together with students, faculty and other resources to help provide innovative product ideas and solutions to companies. Individualized student teams will support development of commercialization plans and acquisition of needed resources.

Project activities will include:

- On-line peer learning exchange groups involving related cluster, but non-competitive, companies
- A facilitated and moderated web site that acts as an innovation exchange mechanism
- Development of an experiential student curriculum for business students that focuses on manufacturing, innovation and new product commercialization
- An expanded industry and technical expert network utilizing students and faculty who are recruited on an as-needed basis from throughout the UW-System and other organizations

TIMETABLE: This project requests funding for Fiscal Year 2005. Recruitment of companies and university participants: October -December. Implementation/Outcomes Phase: January - September. Evaluation will be conducted post-grant period by WISC.

CONTACT: Dr. Debra Malewicki, 262-472-1365

PAST FUNDING: This is a new program, but it is based on established WISC relationships and competencies. WISC receives \$64,880 from the U.S. Small Business Administration; the remainder of its \$250,000 budget is funded by client fees and UWW support.

COSTS:	Total Costs in FY 2005:	<u>\$195,000</u>
	Student stipends:	\$50,000
	Faculty/staff salaries:	50,000
	Consulting services	20,000
	Services/Supplies:	25,000
	Funds from Other Sources in FY 2005:	<u>\$50,000</u>
	Client Fees and Private Sponsors	\$50,000
	<u>Federal Funding Requested in FY 2005:</u>	<u>\$145,000</u>

SIGNIFICANCE: Traditional manufacturing companies in Wisconsin have suffered disproportionately in terms of job losses and sales declines. Although part of these losses is attributed to increased global competition, another reason is a lack of attention to innovation. Innovative thinking is facilitated by exposure to diverse ideas and interdisciplinary resources. Innovative thinking is a critical ingredient in effective new product development. Several studies have documented that manufacturers that invest in product development are among the most consistently high-performing companies.

Successful new product development, however, requires a balance of both marketing and technical expertise. Initiatives in this project clearly address that balance.

In addition, manufacturers are increasingly concerned about the lack of interest among college graduates in pursuing careers in manufacturing. Students who have experiential learning opportunities with companies while in college often take positions with those companies after graduation. Thus, this project both exposes students to manufacturing as a career option and helps combat Wisconsin's "brain drain," created by students seeking job opportunities out-of-state.

From a sustainability standpoint, WISC has demonstrated its ability to maintain an effective program with relatively little reliance on continual grant funding.

CONTACTS WITH
CONGRESS: None.

UNIVERSITY OF WISCONSIN – WHITEWATER
Mark Skidmore, Chair
Department of Economics, Carlson Hall 4003
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REQUEST FOR FUNDS:
FISCAL AND ECONOMIC RESEARCH CENTER

ORGANIZATION: The *University of Wisconsin-Whitewater* is well positioned to provide assistance to further development in the region. The campus has been named an economic center of excellence by the University of Wisconsin Board of Regents. Within the College of Business and Economics, the largest college of business in the system, there are several nationally recognized programs and educational services.¹ Recently the College was awarded a one-year \$496,000 grant from the United States Department of Education (Fund for the Improvement of Postsecondary Education) to begin the new Technology, Workforce, and Economic Development Center. The following units already exist within the College: Small Business Development Center; Global Business Resource Center; Management Computer Systems Consortium; Entrepreneurship Program; and the Wisconsin Innovation Center. These units are well positioned to provide technical assistance to local businesses and thereby enhance further development in the region. Thus the infrastructure and development oriented mindset that is required to begin the proposed Fiscal and Economic Research Center is already in place.

In previous years members of the Economics Department have provided expertise via the avenue of professional consulting to local governments in the region. However, with the Smart Growth Initiative and other economic development challenges, the needs in the region are substantial. Start-up appropriations to fund a fiscal and economic research center would enable the department to more fully use its expertise to provide assistance to local governments in the region.

DESCRIPTION: The primary objectives of the proposed center are to provide expertise to communities in Southeastern Wisconsin in the areas of economic development and planning. Communities in Wisconsin are required by state law to develop and maintain long range plans in accordance with the “Smart Growth” initiative. Wisconsin’s 1999-2001 State Budget included several important changes to Wisconsin’s planning laws. This legislation, now known as “Smart Growth”, requires communities to develop a comprehensive plan that is consistent with the initiatives set forth in the legislation by the year 2010.² The purpose of Smart Growth is to encourage communities to develop long-range plans that serve the economy, the community and the environment. A key component is to encourage communities to engage in proactive activities to guide “how and where new development should be accommodated” and thus encourage communities to design long-range plans that result in: 1) healthy communities; 2) economic development and jobs; and 3) strong neighborhoods.

¹ Management Computer Systems is consistently ranked in the top ten programs in the nation by the Association of Information Professionals. Similarly, the CPA pass rate for UW-Whitewater accounting majors is consistently the highest in the nation. UW-Whitewater is also ranked in the top twenty-five business schools in the nation for entrepreneurs by *Success* magazine. Finally, the Wisconsin Innovation Service Center is a recipient of a number of state and national awards.

² The following information was taken from the State of Wisconsin Department of Natural Resources website (http://www2.dnr.state.wi.us/org/es/science/landuse/smart_growth/index.htm).

Larger cities such as Milwaukee and Madison have sizable planning staffs and a broad range of expertise at their disposal. They are in a good position to develop long-range plans that are consistent with Smart Growth initiatives. However, smaller communities have only limited staff and expertise. Over the past several years, small communities have been forced to seek professional assistance from external sources. Often the outside experts are consultants who may charge exceptionally high fees, and in light of budget crises this imposes a significant burden on smaller communities. There is, however, a source of expertise in Southeast Wisconsin that has been underutilized—faculty at the *University of Wisconsin-Whitewater*.

A primary objective of the Research Center will be to provide communities with affordable professional assistance in developing and maintaining long-range plans that meet the requirements of the Smart Growth legislation. A community has an improved likelihood of success if it properly assesses the long-run implications of its plan. *UW-Whitewater* faculty members also have extensive experience in areas including:

- education finance
- economic impact analysis
- environmental management
- farmland preservation
- government fiscal analysis
- public transportation planning
- tax increment financing
- tourism development

TIMETABLE: Upon receipt of funding the Department of Economics will immediately begin laying out a map to begin a Research Center. The plan includes engaging in the following activities immediately:

- A partial teaching release to enable one faculty member to become the Director of the Fiscal and Economic Research Center. The Director will build relationships with community leaders in the region, oversee daily operations of the Center, take responsibility for supporting and monitoring client needs, program capability and capacity, project executions, incentives (financial and non-financial) for participation, communication of successes, information dissemination, consistent performance and service delivery.
- Bringing into the Center faculty experts/project managers who will work with community stakeholders to complete projects and provide services.
- Marketing, publicity and information dissemination from the Center to communities in the region.
- Identifying undergraduate and graduate research assistants who will provide research support to project managers.
- Recruitment of a program assistant to provide general administrative support in pursuit of the Center's goals and objectives.

Additionally, Center funds will be expensed to support:

- General development, operating and assessment materials, supplies, and services.
- Travel, which will largely be in the Southeastern Wisconsin region to be on site with community stakeholders and to promote the center in various venues.

CONTACT: Mark Skidmore, 262.472.1354

PAST FUNDING: In previous years, individual members of the department provided expertise to communities in the region via the avenue of consulting. However, the mission of the university and the needs of the region would be better served with a formal Research Center. We have not yet received any funding to formally start an economic Research Center, but we are exploring potential sources of cost-sharing with the State government of Wisconsin

COSTS:	Total Costs in FY 2005:	<u>\$600,000</u>
	Administrative Expenses	\$200,000
	Labor Costs	200,000
	Outreach/Marketing Expenses	200,000

The proposed appropriation request is designed to help cover expenses of the center for a two-year period, after which the center is projected to generate revenues sufficient to cover costs.

Funds from Other Sources in FY 2005: None

Federal Funding Requested in FY 2005: \$600,000

SIGNIFICANCE: Communities face a number of challenges in the development process. For example, as a community develops, its revenue and expenditure paths are altered. This introduces new challenges in areas such as forecasting, planning, infrastructure development, environmental protection, and the maintenance of that community's quality of life. The Research Center can provide expertise to local communities in such areas. Similarly, community stakeholders sometimes find that it is useful to estimate the full economic impact of new business activity. For example, a community may be recruiting a new business that is projected to bring, say, 300 new jobs to the region. It is clear that there are also secondary (or multiplier) effects to the local economy. As workers in the newly relocated business spend their income in the region, new jobs are created in other sectors. Economists use input/output analysis to estimate the direct and indirect effects of new business activity. We have recently conducted work along these lines for selected communities in Southeastern Wisconsin. The proposed Research Center also has capabilities to advise communities on tax policy and reform, urban policy, business park formation and other economic development strategies, and other issues.

The purpose of the proposed Research Center is two-fold:

- provide research and technical assistance in the design of local fiscal and economic policy and assist in economic development issues.
- provide skills and expertise to the communities of Southeastern Wisconsin that may need assistance in meeting the requirements of the Smart Growth legislation.

We envision a Center that serves as a conduit for collaborative work across departments and colleges within the university. The Center will also provide opportunities for students to gain important practical experience and connect students to community stakeholders in the region. Lastly, the center will provide an important link between the university and the Southeastern Wisconsin region.

CONTACTS WITH

CONGRESS: No Congressmen have been contacted to date.

UNIVERSITY OF WISCONSIN COLLEGES
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LAST MILE CONNECTIVITY

ORGANIZATION: The purpose of the project is to upgrade network connectivity for the 13 freshman-sophomore campuses of the UW Colleges. The UW Colleges is uniquely disadvantaged in providing the necessary bandwidth to our students, faculty and staff because of our unique governmental status. While we are staffed and equipped by the University of Wisconsin, our buildings and basic infrastructure are provided and owned by our local county and city governments. Therefore, we are not able to fund our needed network infrastructure with the capital improvement funds available to UW baccalaureate campuses, nor with the public e-rate funds available to K12s and the Wisconsin Technical College System Technical Colleges. Our counties and cities are unwilling to fund this special educational need for a 'state' institution.

DESCRIPTION: Each UW Colleges' campus currently has two T1 lines as the 'last mile' linking the campus to the Wiscnet statewide educational network and the internet. One T1 is dedicated to data and the other to 'compressed video' (our mode for offering selected courses cost-effectively across our campuses). Our data T1 lines are usually heavily congested between 9am and 4pm on each of our campuses, resulting in very poor performance. Our compressed video T1 lines are also at maximum capacity (two simultaneous courses) most hours of the day and evening at many campuses.

We want to increase the capacity of the 'last mile' connection between each campus and Wiscnet. With an enlarged connection we can migrate our compressed video traffic to a modern data mode (H.323) allowing us to offer more courses throughout the state, reduce congestion, increase our ability to control traffic, and even connect to Internet2. The funding would pay one-time acquisition and start-up costs for high-speed fiber and similar replacements of our 'last mile' connections to the net. Ongoing and traffic costs would be borne by internal reallocation.

TIMETABLE: The initiative would begin in summer, 2004. We have already identified the existence of 'dark fiber' (unused) near our UW Fox Valley, UW Fond du Lac, and UW-Waukesha campuses. We have already begun negotiations with the current owners of that dark fiber, K12s and cities, to establish the cost of lighting up and sharing that fiber. We have yet to identify nearby dark fiber at our other 10 campuses (Baraboo, Rice Lake, Janesville, Richland, Marinette, Wausau, Marshfield, Manitowoc, Sheboygan, West Bend). In those cases we have begun the search for the cheapest solution for expanding the connection those campuses have to the net. In some cases it will likely be laying new fiber and in worst cases where there is no nearby fiber, contracting with telcos for high-speed service.

CONTACT: Dick Cleek, CIO, UW Colleges, 608.265.8609

PAST FUNDING: The program is a new initiative and has not yet been funded.

- COSTS:** Total Costs in FY 2005: These start-up costs will depend on the specific fiber situation at each of our 13 campuses. We know approximate initial costs at the three campuses where nearby dark fiber has already been identified:
- UW Fox Valley - equipment to link existing onsite but unconnected fiber to Fox Valley Tech College and City of Appleton - \$7000
 - UW Fond du Lac - fiber run to K12 adjacent property \$15,000, equipment \$8500 – total \$23,500
 - UW Waukesha - equipment and fiber run to City of Waukesha ~ \$27,000

Given our work so far, a reasonable estimate for each of the remaining campuses would be about \$34,000. The project total to upgrade ‘last mile’ connectivity for 13 UW Colleges’ campuses would be \$ 397,500.

SIGNIFICANCE: High-speed internet connectivity is taken for granted at most state universities. The UW Colleges is caught in an unfortunate situation where the state of Wisconsin is unwilling to upgrade our connectivity because of our city and county ownership, the cities and counties are unwilling to fund an upgrade because we are a state university, and federal e-rate funding is not available to us as a state institution. It is ironic because our freshman-sophomore transfer campuses make more use of network bandwidth than most baccalaureate institutions and technical colleges. Our Associate of Arts and Science degree is fully online, we offer many low enrollment courses via compressed video to our campuses in a very cost-effective way and all of that requires bandwidth.

CONTACTS WITH CONGRESS: None.

UNIVERSITY OF WISCONSIN COLLEGES
Margaret Cleek, Provost and Vice Chancellor
780 Regent Street, Madison, Wisconsin
Phone: 608.263.1794 • Fax: 608.262/7872 • E-mail: mcleek@uwc.edu

ENGAGING STUDENTS IN THE FIRST YEAR OF COLLEGE

ORGANIZATION: The University of Wisconsin Colleges consists of 13 locally owned campuses throughout Wisconsin that, collectively, are the freshman-sophomore, liberal arts transfer institution of the University of Wisconsin System, entitled to offer a general education associate degree. The institution enrolls approximately 12,500 students, including the second largest number of freshmen in any one institution of the UW System. The UW Colleges' mission is to provide qualified students of all ages and backgrounds with the proficiencies and breadth of knowledge that prepare them for baccalaureate and professional programs, for life-long learning, and for leadership, service, and responsible citizenship.

To carry out its mission, the University of Wisconsin Colleges commits itself to planning and delivering the freshman-sophomore years of baccalaureate programs and professional studies. Equally important, the UW Colleges places a major emphasis on serving returning adult students, minority students, first generation college students, and economically disadvantaged students. The UW Colleges is the institution of access to the University of Wisconsin System's baccalaureate institutions. We consider ourselves the best start to a college education in the state of Wisconsin.

DESCRIPTION: We have developed and have begun implementation of an Engaging Students in the First Year (ESFY) program. This intentional, comprehensive curricular and co-curricular initiative will promote an understanding and appreciation of liberal education, and will assist students with developing strategies and attitudes that will maximize academic success. Academic success is the keystone to student retention at the UW Colleges and during the completion of baccalaureate degrees. The ESFY initiative will focus on first year students as they make the transition from their high school or post high school experiences to the college experience. It will prepare them for transfer to baccalaureate institutions and further success at those institutions.

Through internal reallocation and help from several, small, UW System grants, we are now offering 1 credit Freshman Seminars to approximately 31% of our new freshmen. We need additional funding to:

- Support reaching at least 50% of the UW Colleges new first year students;
- Implement additional learning community activities on campuses;
- Improve and expand orientation programs on all campuses;
- Include service learning as part of student experiences where appropriate.

Ultimately, we are planning to engage 100% of new first year students in the ESFY initiative at the UW Colleges by 2007.

TIMETABLE: Funding for Fiscal Year 2005: January-May : implementation of additional sections of freshmen seminars and learning communities June-August: Implementation of restructured and expanded orientation programs for new freshmen. September-December: Planning for inclusion of service learning components to the curriculum to begin in January, 2006 and continued evaluation of the results of freshmen seminars and learning communities on student academic success and retention.

CONTACT: Greg Lampe, Associate Vice Chancellor
608.263.1794

PAST FUNDING:	<i>Years</i>		<i>Amount of funds</i>
	2000-2001	UW System grants	22,000
	2001-2002	UW System grant	1,000
	2002-2003	UW Colleges Grants to campuses	8,000
	2003-2004	UW Colleges internal reallocation	106,000
	2004-2005	UW Colleges (proposed)	150,000

COSTS:	Total Costs in FY 2005:	\$325,000	
	Major item: continued course and program development and oversight		149,000
	Major item: course delivery		94,000
	Major item: orientation and co-curricular program development and delivery		52,000
	Major item: professional development and assessment		30,000
	Funds from Other Sources in FY 2005:		
	UW Colleges:		150,000

The total project cost for 2005 will be \$325,000, \$150,000 of which will be reallocated by the UW Colleges.

Federal Funding Requested in FY 2005: none for this specific project

SIGNIFICANCE: Education is the key to accessing and sustaining careers in the dynamic 21st century marketplace. In 2001, Wisconsin ranked 30th among the states in terms of the percentage (24.7%) of the workforce that has a 4-year degree. This compares with Minnesota at 8th (30.5%) and Illinois at 16th (27.3%). In addition, the statistics on net migration of college graduates indicates that between 1989 and 1999, Minnesota experienced a gain of 141,055 persons with a 4-year degree, whereas Wisconsin experienced a net loss of 50,772. In short, not only did Wisconsin rank low in the percent of the population with a 4-year degree, it is continuing to fall further behind as more degree-holders move into neighboring states such as Minnesota.¹ The inevitable conclusion is that “Wisconsin has a shortage of knowledge workers.”²

The UW Colleges is well positioned to deal with this challenge because of its general education expertise, fast growing student (especially adult) population, and history of collaborations with UW four-year institutions. If the UW Colleges can provide an exceptional transitional experience to higher education for traditionally and non-traditionally aged students, the institution will be able to generate an increased flow of educated individuals better prepared to aid in the economic development of the state.

The national research has shown that student engagement in the first year of college is key to student retention, academic success and persistence through the baccalaureate degree.

CONTACTS WITH
CONGRESS: Office of Senator Kohl (for 2004-2005)

¹ David J. Ward Presentation, “Vision 2020: An Agenda for Change in Wisconsin,” NorthStar Economics, Inc., August 4, 2003.

² “Building the New Wisconsin Economy, Context Paper.” September 16, 2003, p. 12, Complete document @ www.bnwe.info

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UW COLLEGES INSTITUTE FOR 21ST CENTURY INSTRUCTION
IN MATHEMATICS AND SCIENCE

ORGANIZATION: The UW Colleges is well positioned to deal with math and science instruction. As the general education institution of the UW System, the Colleges offers as a core part of its curriculum the mathematics and science courses that are the bedrock of New Economy careers and specializes in the instruction of college freshmen and sophomores. Further, as an institution with the fastest growing student population and second largest freshmen class in the UW System, the Colleges is positioned to impact a sizeable number of students who have the potential to comprise the workforce of the 21st century. Additionally the Colleges has a large and growing adult population of students now entering or returning to higher education to acquire quantitative, analytic, and scientific knowledge and skills for career advancement. And finally, because of collaborations forged with various other UW System institutions, the Colleges has a unique capacity to channel students to various high demand fields such as engineering and nursing which rely upon a mastery of math and science.

DESCRIPTION: Federal funds are sought by the UW Colleges to aid in the establishment of an Institute for 21st Century Instruction in Math and Science. Such an institute would aid faculty in developing instructional techniques and designing materials and curricula to better serve students studying core math and science courses as part of the UW Colleges liberal arts based general education curriculum. The ultimate goals of this effort are to increase enrollment in UW Colleges mathematics and science courses, reduce attrition in math and science courses, and prepare students better for future work in math and science based disciplines.

Funds gained for this initiative would be used for the following purposes:

1. Establishment of a physical structure for the institute on one of our 13 campuses.
2. Staffing of the institute.
3. Technology for the delivery of course materials.
4. Updated science equipment.
5. Released time and professional development for UW Colleges faculty involved in the program.

TIMETABLE: Funding will be requested for 2005. Detailed planning phase: January-April. Implementation Phase: May – December. Evaluation: January, 2006.

CONTACT: Margaret Cleek, Provost and Vice Chancellor
608-263-1794

PAST FUNDING: This program was submitted to the State of Wisconsin as part of the UW System budget proposal for 2003-2005. The State was unable to consider this proposal due to a revenue shortfall. We are now seeking funds from other sources.

COSTS:	Total Costs in 2005		Fringe
	Physical Structure		
	space, wiring, computers	\$100,000	
	staff office space, furniture, computer	40,000	
	Institute Staff		
	institute administrator	50,000	17,000
	3 instructional designers	120,000	40,000
	web/Blackboard designer	40,000	13,000
	IT support	40,000	13,000
	Technology for course delivery		
	software purchase/licensing	150,000	
	compressed video use		20,000
	Updated science equipment		
	\$47,000 x 13 campuses	611,000	
	Released time for faculty		
	100 faculty x one course released	650,000	
	faculty professional development	96,000	
	 TOTAL		
		\$2,000,000	

SIGNIFICANCE: Education is the key to accessing and sustaining careers in the dynamic 21st century marketplace. Within the constellation of skills and knowledge which New Economy participants will be expected to have mastered, the disciplines of mathematics and science occupy a central place. It is the rare career field that does not place a priority upon the acquisition of a modicum of mathematical skills and at least a general awareness of the biological and physical sciences. And in many of the emerging fields that mark the New Economy, a knowledge of higher order mathematics and familiarity with the specifics of one or more of the sciences is an absolute requirement.

The challenge faced by higher education institutions is that large numbers of students arrive at college lacking sufficient knowledge of these disciplines. As a result, attrition in mathematics and mathematics-based science courses is high, and the numbers of students who are successful in accessing New Economy careers accordingly limited. The UW Colleges is well positioned to deal with this challenge because of its general education expertise, fast growing student (especially adult) population, and history of collaborations with UW four-year institutions. As a result, the institution will be able to generate an increased flow of educated individuals better prepared to aid in the economic development of the state.

CONTACTS WITH
CONGRESS: None.



University of Wisconsin-Extension
432 North Lake Street
Madison, WI 53706

Title: Expanding Youth Courts in Wisconsin

Grant Recipient: 4-H Youth Development/Cooperative Extension
University of Wisconsin-Extension

Contact: Gregory K. Hutchins
Assistant Dean & State Program Leader
4-H Youth Development
637 Extension Bldg., 432 N. Lake Street
Madison, WI 53706
Phone: 608-263-1095
E-Mail: greg.hutchins@uwex.edu

Organizational Description: 4-H Youth Development is an outreach program of UW-Extension that partners with community volunteers to engage youth in learning experiences that build leadership, citizenship, and life skills.

Project Description:

Youth Courts provide an alternative to traditional judicial proceedings involving first-time juvenile offenders. In the Youth Court model, high school-aged young people serve as panels of judges who have the authority to determine appropriate penalties for youthful offenders. Sentences may include performing community service, writing letters of apologies, or taking classes relevant to their offense. Combined with these sentences is the added pressure that comes from being judged by a panel of peers, and the expectation that offenders will serve a future term on a youth court panel. A four-state evaluation found that youth courts are an effective and cost saving alternative that merits additional attention, with an average of 8% recidivism among youth court defendants after six months vs. an average of 18% among a comparison group.

Youth Courts are relatively new to Wisconsin. Between 1996 and 2000, ten youth courts were established and processed 2,300 defendants, with a 13% recidivism rate during that period. Currently there are about 25 – 30 youth courts in operation or under development in Wisconsin. While the model has proven successful, its growth and sustainability has been limited by a lack of awareness and understanding of the model, and funding.

This project proposes to build support for youth courts throughout Wisconsin through a statewide planning process. Judges, County Supervisors, and other community stakeholders would be convened in a series of meetings around the state to learn about

successful Wisconsin youth courts and explore how best to support the expansion of the model to more locations.

Federal funds would be used to support technical assistance from the University of Wisconsin-Extension and to support a series of planning events that would bring together interested stakeholders. UW-Extension would partner with the Wisconsin Council on Children and Families to identify and engage stakeholders in order to build greater community awareness and support for Youth Courts.

Budget:

\$250,000 requested

Technical Assistance	
One Academic Staff position (salary, benefits)	82,000
Travel	3,000
Capacity Building/Public Awareness Expenses	95,000
Indirect costs	<u>70,000</u>
Total	250,000

Goals for Project:

1. Increase the number of youth served by youth courts in Wisconsin
2. Increase the number of local youth courts in Wisconsin
3. Increase the financial aid to youth courts through local, state, and federal sources

Previous Federal Support:

Initial work on establishing youth courts in Wisconsin was supported by grants to UW-Extension from the Wisconsin Department of Transportation, which included OJJDP dollars. Those funds are no longer available.

Other Members of Congress:

Senator Feingold's staffs are aware of current Wisconsin Youth Court activities and our interest in expanding the model. No formal request has been submitted.



Family Living Programs
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**APPROPRIATIONS REQUEST
OFFICE OF SENATOR KOHL
FY05**

Project Name: Parent Education to Prevent Childhood Obesity

Organization: University of Wisconsin-Extension (UWEX) conducts applied research and community based education programs using the research base of the university campuses. UWEX is publicly supported and conducts programs through partnerships with other state and local agencies, the private and not-for-profit sectors.

Description: UW-Extension programs have a unique and valuable role to play in assisting individuals, families and communities to improve the nutritional quality of their dietary choices, increase their physical activity levels, and maximize the safety of the food they eat. UW-Extension is best positioned to coordinate and provide leadership for community collaborators and state agency partners.

Parent Education to Prevent Childhood Obesity will seek to:

- Educate individuals, families and community leaders about healthy dietary patterns and regular physical activity based on the Dietary Guidelines for Americans.
- Empower families to manage weight and health through skill building in parenting, meal planning and behavioral management.
- Educate parents about the need to serve as good role models by practicing healthy eating habits and engaging in regular physical activity to instill lifelong healthy habits in their children.
- Expand efforts educating nutrition assistance recipients about adopting healthy eating pattern within their financial constraints.
- Assess factors contributing to the disproportionate burden of over-weight and obesity on low-income women and minority youth.

The comprehensive, collaborative, educational program, led by UW-Extension faculty and staff, will focus on 12-15 counties in each year, for two years.

Timetable: University of Wisconsin-Extension requests funding for Fiscal Year 2005, for two years of staff and educational programming.

Contact: Laurie Boyce, Ph.D.
State Program Leader and Assistant Dean/Director
Phone: 608-263-1095; Fax: 608-265-4600
Email: lboyce@facstaff.wisc.edu

Funding Request: Two Year Total Costs in FY 2005: \$295,000

Staff (2) and Fringe Benefits	230,000
Training and Material Development	20,000
Supplies, Expenses, Travel	12,000
Community Supports (24-30 counties)	33,000

Other funding contributions:

State of Wisconsin is contributing over \$125,000 of in-kind salary and support to program staff. This program will build on FSNEP and WNEP efforts and reach targeted populations not served by other funding.

Significance: Overweight and at-risk children – Racial and ethnic disparities in rates of overweight are apparent among Wisconsin low-income 2- to 4-year olds enrolled in WIC. Considerably more low-income Hispanic/Latino, American Indian, and Asian 2- to 4-year-olds are overweight than are low-income African American or white 2- to 4-year-olds.

While 15 percent of children ages 6 to 19 years old are overweight, rates are much higher for certain groups of children. Among Mexican American and non-Hispanic black adolescents ages 12 to 19, 23 percent are overweight – almost 1 in 4.

Current comprehensive data about obesity in American Indians are lacking. Data published 10 years ago revealed that a higher percent of American Indian children and adults were overweight and obese than among the general population.

CDC Youth Risk Behavior Surveillance System data reveal that 10 percent of Wisconsin high school youth are overweight, with another 14 percent at risk of becoming overweight.

The trend of increasing overweight and obesity rates among children, adolescents and adults poses an unprecedented burden in terms of present and future health care costs. As weight increases, so do serious health problems.

About 60 percent of overweight children ages 5 to 10 years already have elevated blood pressure, cholesterol or insulin levels – conditions that increase their risk of developing chronic diseases as they get older.

An overweight adolescent has a greater chance of becoming an obese adult than a younger overweight child does. For example, an overweight 4-year-old has about a 20 percent chance of becoming an obese adult, whereas an overweight teenager has about an 80 percent chance.

Contacts with Congress: No other contacts with members of Congress have been made regarding *Parent Education to Prevent Childhood Obesity*.

UNIVERSITY OF WISCONSIN – EXTENSION

REQUEST FOR FUNDS:

TEACHERS’ PET: PROFESSIONAL EDUCATION & TECHNOLOGY
BUILDING INTERACTIVE PROFESSIONAL DEVELOPMENT PLANS FOR EDUCATORS

ORGANIZATION: The Division of Outreach and E-Learning Extension works in conjunction with the Continuing Education, Extension, and Outreach units at the 26 University of Wisconsin campuses to support lifelong learning through credit and noncredit outreach programs serving more than 212,000 people each year. In addition to these programs, we have developed services to support specific professions and their unique lifelong learning needs. Project IDEAS (Interactive Dialogue with Educators from Across the State)—an award-winning interactive web site providing access to high quality, teacher-reviewed resources—was developed with funding from partner institutions and is maintained through UW-Extension and grant resources. The changing certification requirements for PK-12 educators provide an opportunity to build upon the database architecture and conceptual thinking that went into IDEAS and apply the lessons we have learned toward a statewide demonstration project and a national priority—enhancing teacher quality.

DESCRIPTION: Teachers’ PET will use innovative technological solutions to connect teachers and resources for professional development, enhancing teacher quality through career-spanning professional development. In collaboration with the Wisconsin Education Association Council (WEAC), Teachers’ PET will:

- Provide a model for effective collaboration on teacher quality and student learning.
- Use innovative technology to connect teachers and resources for professional development.
- Simplify the complex record-keeping required for licensure renewal and progression through certification levels, such as the National Board for Professional Teaching Standards’ (NBPTS) Master Teacher designation.
- Develop technologically-sophisticated and user-friendly interactive databases.
- Provide a model for national teacher quality initiatives.

TIMETABLE: Teachers’ PET will request funding for Fiscal Year 2005 and will be self-supporting following the initial development and implementation. Start-up Phase: July 2004-October 2004; Implementation Phase: November 2004-March 2005; Outcomes Phase: April 2005-June 2005.

CONTACT: Associate Dean Mary Grant, 608-262-1034

PAST FUNDING: This is a new project.

COSTS:	Total Costs in FY 2005:	\$995,000
	Project Staff (Salary & 32% Fringe)	\$433,000
	Supply & Expense/Hardware/Software	90,000
	UW Faculty/K-12 District/Teacher Compensation	254,344
	Indirect Costs (28%)	217,656

Funds from Other Sources in FY 2005:	\$121,280
UW-System:	\$50,000
UW-Extension:	71,280
<u>Federal Funding Requested in FY 2005:</u>	<u>\$995,000</u>

SIGNIFICANCE: Traditional licensure and renewal provisions for educators emphasized credit coursework as the standards for quality in the classroom. Once certified, educators obtained a specified number of credits within a designated timeframe for licensure renewal, relying upon transcripts as evidence of meeting expectations. Wisconsin is expanding the framework for professional development of teachers and reinforcing individual responsibility. This will assure a thoughtful commitment to acquiring knowledge and skills to enhance student learning throughout one's career. This will ensure generations of students who will interact with a teacher during a 30-year career will experience active and engaged learning in their classrooms. In order to realize the potential of this new approach to enhancing teacher quality, the process must be simplified to enable teachers to manage and document their own professional growth. As a statewide demonstration project, Teachers' PET will provide a national model.

Contacts with Congress: Senator Kohl was contacted regarding Teachers' PET funds.