

A REGIONAL PARTNERSHIP IN WISCONSIN'S TECHNOLOGY VALLEY

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Summary Statement

The Chippewa Valley has seen tremendous growth over the past five years and UW-Eau Claire, UW-Stout and Chippewa Valley Technical College understand that providing access for traditional and non-traditional students is a key ingredient for the Chippewa Valley to prosper in the new economy. The presence of three very distinct institutions of higher education, located within 25 miles of each other, with a history of working together to meet the needs of the business and industry in the region, is a competitive advantage for the Chippewa Valley.

The University of Wisconsin-Eau Claire, the University of Wisconsin-Stout and Chippewa Valley Technical College form the base, to provide cooperative programming regionally to meet the needs of the businesses in the region. In March of 2000, the leaders of the three schools formalized a regional partnership agreement. The partnership is designed to enhance collaboration, and approach the design and promotion of relevant educational programs and services together, which will provide greater benefits to the citizens and employers of the Chippewa Valley.

Given the importance of higher education in the new economy, the schools are also positioning themselves to provide regional leadership among businesses, local government, and community leaders in addressing the region's needs. A case in point is the UW sponsored Economic Summit. UW-Stout and UW-Eau Claire's Chancellors are co-chairing the summit's regional activity in the Chippewa Valley.

The Chippewa Valley's institutions of public higher education plan to continue to play a key role in the region's development. Working together in a seamless partnership they will connect with businesses and citizens to better meet the needs for higher education in the new economy. And working together, they will strive to provide the leadership for thinking about and planning for the future among business, government and education leaders in their region.

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Peter Drucker, noted management scholar, captures the relationship between higher education and economic development when he says, "knowledge is now the critical capital, the cost center, and crucial resource of our economy." Others make reference to "human capital" as the essential piece of today's information- and knowledge-based global economy. Whether we call it knowledge or human capital, the University of Wisconsin-Eau Claire, the University of Wisconsin-Stout and Chippewa Valley Technical College produce it for the Chippewa Valley. The higher education partners located in the heart of the Chippewa Valley provide the foundation for this special region of Wisconsin to become a competitive participant in the new economy.

An argument can be made that the State of Wisconsin's prospects for the future are connected directly to the performance of its public institutions of higher education. Human capital is now the key ingredient in the knowledge/information economy and higher education institutions produce this key resource just as assuredly as the country's steel mills and oil fields produced the resources necessary to drive the predominant industrial economy of years ago.

Economic Development – A Historical Look at the Chippewa Valley

Historically, the Chippewa Valley has been characterized by a strong tradition of manufacturing in the computer component, materials (rubber and plastics), wood products and the food product sectors. With the general economic downturn of the 1980's in the U.S., the Chippewa Valley experienced major economic losses with the closure of numerous manufacturing plants and the resulting loss of a significant number of jobs. During this economic downturn, Chippewa Valley community, business and educational leaders pulled together and formed a regional economic development organization called Momentum Chippewa Valley.

Momentum Chippewa Valley was created in 1989 by regional business representatives, economic development professionals and community leaders in an effort to work together to promote the collective attributes of the Chippewa Valley. Today Momentum Chippewa Valley is a regional economic development organization serving Chippewa, Dunn and Eau Claire counties focusing its efforts in five areas: economic development, legislative affairs/relations, international trade, workforce and education development and tourism. This organization is a solid example of a public-private partnership in action. Momentum Chippewa Valley hired its first full-time employee in 1999 but remains largely a volunteer organization focusing on addressing the needs of the Chippewa Valley.

By the mid – 1990's the Chippewa Valley experienced an economic recovery, catalyzed in part by the entrepreneurial initiatives of many who lost jobs in the previous downturn. Today, the Chippewa Valley has become a diversified economy, and technology-based enterprises have become a mainstay. The presence of Cray Research in the area led to the growth of more computer-related industry. Companies such as Allied Signal, Celestica, Silicon Graphics and many other spin-

off companies now have a significant presence in the Chippewa Valley because of the initial presence of Cray Research.

In recent years, business expansion such as Hutchinson Technology, Wal-Mart Distribution Center, Cardinal Glass, W.L. Gore, Phillips Plastics, Nestle Carnation, Andersen Corporation and other important manufacturing companies have had a significant economic impact on the region. The development of high technology and high-end business parks in the Chippewa Valley also provided the opportunity for high technology growth. The Stout Technology Park created in 1990 now employs more than 600 people with 20 different businesses located in the park. The development of the Gateway West Industrial Park in Eau Claire in 1993 has provided substantial high technology growth for the Chippewa Valley with more than 2,500 people working for companies in that industrial park alone.

Wisconsin's Technology Valley

The total number of high technology jobs in the State of Wisconsin in 1999 was approximately 60,500 according to the executive summary of Working Together to Build Wisconsin's Economic Future, while the total number of high technology jobs in the Chippewa Valley, based on industry estimates, is approximately 9,300. What this means is that the Chippewa Valley has about 15.5% of the technology jobs in the State. The current population estimates, based on the 1995 census, shows the population of the Chippewa Valley at 170,000 representing 3 percent of the total state population of 5,500,000. What this demonstrates is the Chippewa Valley has approximately 5.5% of its population working in technology jobs, while the State of Wisconsin has just over 1% of the population working in technology jobs. This simple calculation demonstrates the importance the Chippewa Valley has in ensuring future economic growth within the State of Wisconsin.

According to a 1999 study, "America's High-Tech Economy," by the California-based Milken Institute, "Research centers and educational institutions are indisputably the most important factor in incubating high-tech industries."

Higher Education Steps Up to Lead

The Chippewa Valley has seen tremendous growth and UW-Eau Claire, UW-Stout and Chippewa Valley Technical College understand that providing access for traditional and non-traditional students is a key ingredient for the Chippewa Valley to prosper in the new economy. In a knowledge-based economy reaching, retaining and educating more and more of our citizens must be a priority. The best solution to the workforce shortage rests with increasing the skill levels and productivity of the existing workforce, according to the Wisconsin Taxpayer, April 2000 edition. Increasing productivity allows firms to produce more without adding more labor. Wisconsin has a well-educated and highly skilled workforce base upon which to build. It also has a strong secondary and post-secondary education system.

The University of Wisconsin-Eau Claire, the University of Wisconsin-Stout and Chippewa Valley Technical College form the base, to provide cooperative programming regionally to meet the needs of the businesses in the region. The Chippewa Valley provides its citizens with an enormous educational advantage that

many regions in the United States do not offer. The presence of three very distinct institutions of higher education, located within 25 minutes of each other, with a history of working together to meet the needs of the business and industry in the region, is a competitive advantage for the Chippewa Valley.

While UW-Eau Claire, UW-Stout and Chippewa Valley Technical College have a history of working together on educational issues and have strong articulation agreements; the leaders of the three schools formalized a regional partnership agreement in March of 2000. This partnership is designed to enhance collaboration, and approach the design and promotion of relevant educational programs and services together, which will provide greater benefits to the employers of the Chippewa Valley. The issue of empowering public higher education to better fuel Wisconsin's economic development for the future is crucial as we work together to meet the challenges of regional development in the Chippewa Valley.

UW-Stout, UW-Eau Claire and Chippewa Valley Technical College have very different missions. Those unique missions, when blended together, provide unlimited potential and opportunities for the citizens and businesses in the Chippewa Valley.

UW-Stout – A Unique UW School in Our Region

UW-Stout, a special mission university, offers highly focused programs designed to meet societal needs in the areas of education, human services, technology and management. Since its founding in 1891, UW-Stout has gained a position of national and international leadership working with businesses throughout the world. UW-Stout's approach to learning involves the integration of theory, practice and experimentation.

One example of UW-Stout's external focus was the development of the Stout Technology Transfer Institute, with seven outreach centers designed to provide assistance to small to medium sized companies in Western Wisconsin. Since its inception, the Stout Technology Transfer Institute has become an award-winning institute in technology transfer. STTI is comprised of several specialized centers to help carry out its mission. The centers include the Center for Innovation and Development; the EDA University Center; the Packaging Center; the Risk Control Center; the Center for Training and Technical Education; the Advance Design and Manufacturing Simulation Center and the Northwest Wisconsin Manufacturing Outreach Center (NWMOC). The NWMOC is funded in part by the National Institute of Standards and Technology (NIST.) Over the past five years the NWMOC and STTI have provided technical assistance to more than 700 companies involving more than 2000 improvement projects for those companies. Chancellor Charles Sorensen estimates that STTI has helped retain and/or add between 5,000 and 7,000 jobs to the region from 1990 to present. In addition, UW-Stout has also created a new outreach entity called Stout Solutions, to work with businesses, school districts and students looking for customized educational opportunities.

UW-Eau Claire – Liberal Arts – based professional programs

UW-Eau Claire has been distinguishing itself in the Chippewa Valley for more than 80 years. With nearly 10,500 students, UW-Eau Claire is organized into three undergraduate and graduate Colleges in the liberal arts and sciences as well as in professional programs such as business, education, human sciences and services and nursing. UW-Eau Claire offers a MBA program, a broad array of business-related seminars and a strong academic curriculum in such areas as computer science/software engineering, management information systems and the natural sciences.

UW-Eau Claire also acts as the local administrator for the National Technological University, which provides a wide range of graduate level professional development courses from other top universities from around the country. Through this partnership, working professionals have available to them via satellite and Internet, the opportunity to complete 14 master's degree programs from 52 universities and more than 350 non-credit courses.

In an effort to provide instant access and unlimited opportunities for continuing education, UW-Eau Claire will soon be opening an Outreach Continuing Education Center on Water Street. This center will provide easy access for part-time enrollment and campus resources. The Continuing Education Center is a result of pooling the outreach resources of UW-Eau Claire in one convenient location.

The Chippewa Valley Higher Education Partnership Formalized

The Educational Partnership for Regional Development was in part founded to continue to collectively address the needs of business and industry in the Chippewa Valley. Employers in the Greater Chippewa Valley are faced with two educational access problems.

- Greater Chippewa Valley employers need ready access to just-in-time training to quickly build the skills of their growing number and percentage of new workers.
- Greater Chippewa Valley employers need assistance to create an environment that will encourage skilled workers to stay employed in their workplaces.

Ready Access.... To address just-in-time training needs, employers need daily access to higher education provider partnerships that can match on-site training teams with higher education professionals using customized instructional delivery vehicles. Their difficulty to date has been the barriers imposed by traditional course delivery strategies that require employees to be absent from their jobs and require adherence to an academic calendar. Employers need fast, competent and seamless access to educators who can remove these entry and delivery barriers.

Customized Delivery.... To address skilled employee retention needs, employers need to address worker satisfaction needs that go beyond wages. Several factors are known to improve retention. First, employees are more likely to remain with employers who provide opportunities to be part of an enterprise whose mission is larger than their job. A seamless 2+2+2 system coupled with state-of-the-art distance education delivery alternative will help employers provide these opportunities without sacrificing employees. Second, employees are more likely to

remain with employers who encourage and enable participation in meaningful professional development, especially professional development provided in an any time, any place manner that respects the realities of work and family. Third, employees are more likely to remain with employers who help them integrate their work with community enhancing opportunities, such as serving as ad hoc instructors with partner institutions.

Other outcomes of the partnership:

- Develop collaborative, state-of-the-art curricula to meet the education and training needs of the Chippewa Valley workforce.
- Pursue enhanced transfer of credit among the three institutions
- Address and refine cooperative, complementary partnerships and procedures in order to advance workforce development.

It is important to point out that the Chippewa Valley has seen tremendous economic success over the past 5 years; however, the area is still losing in the incomes war.

Continued Challenges

- Per capita Income Gap
- Low national rank in first degree attainment
- Need to service technology jobs in the Chippewa Valley
- Addressing the labor shortage
- Attracting workers to the region

Over the past five years, the Chippewa Valley has seen continued growth in employment opportunities in all sectors of the economy. Still the area ranks last compared to other MSA's in Wisconsin in salary/wage/annual income figures and lower than the statewide per-capita income. Further, Wisconsin's per-capita income is below the national average of \$27,203. The gap is still significant and the need for higher paying quality jobs with benefits continues to be a priority in the Chippewa Valley. Underemployment continues to be a problem throughout the area.

In a knowledge-based economy, many analysts argue, there's a simple equation: Brainpower equals earnings power. If they are right, Wisconsin is behind the curve. Despite top ACT College entrance test scores the past seven years, Wisconsin is below the national average in the number of residents 25 years or older who have college degrees. Wisconsin ranks 29th, compared with Minnesota (fifth) and Illinois (18th).

Already struggling to find enough workers, Wisconsin faces a major labor shortage in coming years, according to a new study, "Wisconsin's Economy in the Year 2010," by the UW-Madison School of Business. The authors of the study argue that tomorrow's economy will strain the supply of jobs – especially positions that require college education. Wisconsin is below the national average in the number of people who moved into the state with a college degree. Wisconsin's 76 ranking on a scale

of 100 - in which there is a no net movement - compares with 122 for Illinois, according to the UW-Madison 2010 study.

Wisconsin ranked 50th in attracting workers, according to a 1997 study by the UW-Madison Applied Population Research Lab. Only Iowa ranked worse in a survey of 50 states and the District of Columbia. While Wisconsin is not losing population, it is losing many of its best-educated people.

Addressing the Issues and Focusing on the Future

The Chippewa Valley Initiative

- serve technology industries
- deliver easy access to education for employees and employers

The University of Wisconsin-Eau Claire and the University of Wisconsin-Stout have developed a cooperative and comprehensive initiative to address the workforce issues currently facing the Chippewa Valley. The key components to UW-Eau Claire's and UW-Stout's, "The Chippewa Valley" UW budget initiative are outlined below:

UW-Eau Claire – Brain Gain in High Technology

UW-Eau Claire will expand the number of graduates in the areas of computer science, software engineering, and management information systems. This can be accomplished by adding more faculty and laboratories in already existing programs. The additional graduates will enable high technology companies in the Chippewa Valley to grow their businesses and will provide the opportunity to attract new technology companies to the region.

In addition, UW-Eau Claire would increase the number of internship opportunities for students in the software engineering, computer science and management information systems degree programs. UW-Eau Claire would have the opportunity to work closer with businesses in the Chippewa Valley and the faculty would conduct research with the business community. UW-Eau Claire would add courses and programs for working professionals who study part-time. This would provide UW-Eau Claire and the consortium the opportunity to work with individuals that need to expand their skills to advance their careers, thus building quality jobs and educating the workforce.

UW-Eau Claire would provide hands-on training through specialized laboratories on campus that would serve as incubators for regional technology firms. Such labs could include a Software Design Laboratory which would focus on a team learning approach emphasizing industrial applications and a Systems Control Laboratory which would provide practical experience for students in information systems and design. These labs would provide a critical link from the business community to the university, providing the chance for students to work on current projects for companies located within the Chippewa Valley and providing the companies with research assistance and access to university resources.

UW-Stout – Delivering Customized Training and One Stop Shopping to the Employers in the Region

As part of the Educational Partnership for Regional Development, UW-Stout's Work-based University Consortium initiative was created to leverage business and educational institutional strengths to deliver fast, competent and seamless access to education, training and research for employers of companies in the greater Chippewa Valley. This budget initiative will provide staff to match partner instructional skills with regional employer needs. This initiative breaks down the barriers of the post secondary educational institutions competing with each other to deliver training and customized programs, and focuses on the strengths of each post-secondary educational institution to come together to deliver the training and or programs that are needed by area employers.

There are three major components to the Work-based University Consortium strategy:

- A physical presence within the four major economic hubs (existing technology parks in Menomonie, Eau Claire, Chippewa Falls and Rice Lake) to obtain the close interpersonal interactions required to match the seamless delivery of training and education to meet Chippewa Valley employer needs using a variety of delivery options.
- Utilization of experts from partner educational institutions and ad hoc instructors selected from Chippewa Valley businesses to meet training and educational needs.
- The use of UW System marketing expertise to match partner instructional delivery skills with real Chippewa Valley employer needs.

The outcomes include:

- In collaboration with the West Central Wisconsin Workforce Resource, the Work-based University Consortium will facilitate the full implementation of the "one-stop-shopping" concept for all (employers, employees, and job seekers) higher education customers. (This will have the added benefit of providing a point of contact for on-campus programs.)
- The Work-based University Consortium will build on existing partner strengths to increase their employee base, which in turn leverages the resources of Chippewa Valley employers to meet the needs of Wisconsin's economy.
- The Consortium will build a training and education entity that brings together the multi-faceted expertise of the following educational institutions and organizations:
 - UW-Stout
 - UW-Eau Claire
 - UW- Barron County
 - CVTC
 - WITC
 - CESA 10

CESA 11
UW System Marketing Research Group
Momentum Chippewa Valley
West Central Wisconsin Workforce Development Board

In addition to collectively marketing the services of the educational institutions to business and industry, UW-Stout, UW-Eau Claire, UW-River Falls and Chippewa Valley Technical College are working together to continue to serve the collective needs of students. The partnership is pursuing enhanced transfer of credit among the partner institutions. The partnership is analyzing and updating the existing articulation agreements to include: number of credits which will transfer from institution to institution and the number of credits required to complete a baccalaureate degree. In addition, the partnership is developing collaborative, state-of-the-art curricula to meet the education and training needs of the west central Wisconsin workforce. The partnership is exploring the feasibility of offering, on a collaborative basis, one or more credit or non-credit certificates or programs. Topics for exploration include:

- Electrical Engineering
- Computer Information Systems
- Assistive Technology
- Robotics/Robotics Control/Automation
- ISO 9000/0 defect/Quality Management including Service Management
- Programming for the New Economy – e-commerce, e-marketing, and international business in an electronic environment

The partnership is also investigating alternative programming structures (concentrated courses, linked courses, etc...) and alternative delivery mechanisms (video, on-line courses, etc.). As part of this discussion, the group is researching and summarizing potential funding sources for collaborative programming.

The Educational Partnership for Regional Development is addressing the area's labor shortage and the brain drain strategy and turning the region forward to a brain gain philosophy by increasing the number of graduates in high-technology, high-paying fields of importance in the New Wisconsin Economy. The initiative also provides more seamless baccalaureate degree completion opportunities for associate degree holders from the technical college system. This initiative breaks down the barriers of the post secondary educational institutions competing with each other to deliver training and customized programs and focuses on the strengths of each post-secondary educational institution to come together to deliver the training and/or programs that are needed by area employers.

Conclusion

- Consistent support for higher education is critical
- Such support provides ongoing benefits for the economy

The Chippewa Valley has learned the importance of regional partnerships; it is a critical component to successful economic development. As the educational institutions continue to work together, the goals are to provide better access for

traditional and non-traditional students, and work more closely with employers to meet their workforce needs.

As stated earlier, UW-Eau Claire, UW-Stout and Chippewa Valley Technical College work together to reach and serve the businesses and citizens of the region. Through the development of the Stout Technology Transfer Institute, National Technological University, the Small Business Development Center, the Stout Technology Park, the development of specialized labs and facilities, UW-Eau Claire, UW-Stout and Chippewa Valley Technical College play a critical leadership role in fostering economic development for the region.

The business, community and educational leaders agree that the solution to the workforce shortage rests with increasing the skill levels and productivity of the existing workforce. Increasing productivity allows firms to produce more without adding more labor. Providing access and more opportunities for citizens is the answer to competing in the new economy. The initiatives outlined in this paper provide a plan of action for the educational institutions to rise to next level and to continue to sustain and grow the special high end economic base present in “Wisconsin’s Technology Valley.”

BIOGRAPHICAL INFORMATION ON CHANCELLOR DONALD J. MASH

Donald J. Mash has been the Chancellor at the University of Wisconsin-Eau Claire since August 1, 1998. Prior to his arrival here he served as President of Wayne State College in Wayne, Nebraska for ten years and for 13 years as the Vice President for Student Affairs and Executive Vice President for Administration at George Mason University in Fairfax, Virginia.

He began his career in higher education as an instructor of geography at the University of Pittsburgh—Bradford and also served as the Dean of Students at Ohio Dominican College in Columbus.

Dr. Mash has called upon his academic preparation as a geographer in his leadership roles at regional public universities for the past 25 years. He believes that the social and economic utility of higher education's work must be an integral part of a public university's role and mission positioning the university to serve and to lead regional and state-wide development.

BIOGRAPHICAL INFORMATION ON CHARLES W. SORENSEN

Since coming to Wisconsin in 1988, Sorensen has actively promoted economic development in the state through partnerships between UW-Stout and the private sector. Under his leadership, UW-Stout has received national recognition for its work in "technology transfer," the application of university research and technology to help solve industry problems that will increase business productivity and market competitiveness. Dr. Sorensen served as a public member of the Special Committee on the University and State Economic Development. This committee studied the role and function of the University of Wisconsin System in statewide economic development. He also served on the Governor's Blue Ribbon Commission on 21st Century Jobs, which studied and proposed private and public sector initiatives to strengthen Wisconsin's long-term economic future.

Dr. Sorensen promotes program development, distance education efforts, the use of technology in the classroom, private fund raising, and a strong quality program at UW-Stout. UW-Stout is known for its close collaboration with the Wisconsin Technical Colleges and, with Sorensen's leadership, received significant funding for a creative 2+2+2 initiative with the Sussex School System and the Waukesha Technical College in the area of Graphic Communications Management.