

Chippewa Valley Regional Report

Introduction

The Chippewa Valley's institutions of public higher education continue to play a key role in the region's development. Working together in a seamless partnership they connect with businesses and citizens to better meet the Valley's needs for higher education and training. By continuing to work together, they provide the leadership and assistance needed to sustain and continue to achieve economic success in the Chippewa Valley.

Regional Activities Leading Up To the Summit

Over the past year there have been a number of forums with business leaders, as well as opportunities for the citizens and business leaders to provide input on how to continue working toward economic success in the Chippewa Valley. As this paper points out, there are number of success stories which have been a direct outcome of the regional collaboration between the University of Wisconsin-Eau Claire, University of Wisconsin-Stout and Chippewa Valley Technical College.

The three institutions 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 enhances collaboration on the design and promotion of relevant educational programs, providing direct benefits to the citizens and employers of the Chippewa Valley. UW-Stout, UW-Eau Claire and Chippewa Valley Technical College have very different missions. Those unique missions, when blended together comprehensively provide unlimited potential and opportunities for the citizens and businesses in the Chippewa Valley.

UW-Eau Claire, UW-Stout and CVTC 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 working together to meet the needs of the business and industry in the region is a unique competitive advantage for the Chippewa Valley.

Region's Assets and Barriers to Success for the Future

According to a recent survey completed by area business leaders and educators the regions greatest attributes include:

1. The universities and technical college campuses in the region are closely attuned to the needs of the public and private sector
2. A well-educated and dedicated workforce
3. A supportive network of economic development agencies and local governments within the region
4. Excellent Quality of Life - the Chippewa Valley is a great place to live and work

According to the same survey the respondents indicated the following are barriers to continued economic success in our region:

1. Insufficient venture capital funds
2. Conservative attitudes toward taking risks associated with business start-ups
3. Overall current economic conditions across the U.S. and uncertainty about the national economy and recession.
4. The Per-Capita Income Gap

Recommendations from the Chippewa Valley for Wisconsin's "To Do List"

- The Chippewa Valley has successfully established a brand image, "Wisconsin's Technology Valley," the respondents to the survey indicated that enhancing Wisconsin's Brand Image is critical to the future economic success of the State of Wisconsin.
- The State of Wisconsin needs to continue to provide consistent support for public higher education, as this continued support provides ongoing benefits for the economy.
- To work on providing venture capital resources across the State of Wisconsin. Currently the bulk of the entrepreneurial activity is centered around venture capital sources in Madison and Milwaukee. Allocating resources – i.e.: venture funds, angel capital, training resources, and etc. need to equalize throughout the State of Wisconsin.

- Educational Institutions throughout the State of Wisconsin need to continue to develop partnerships patterned after UW-Eau Claire, UW-Stout, Chippewa Valley Technical College and the K-12 system in the region.

Conclusion

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, they will continue to provide better access for traditional and non-traditional students, and work more closely with employers to meet their ever-changing workforce needs.

Success Stories

I. The Chippewa Valley Initiative Receives Funding

A direct result of the regional educational partnership and the Chippewa Valley's interest in continuing to achieve economic success is the creation of a special budget initiative submitted by UW-Eau Claire and UW-Stout as part of the '01-'03 state biennial budget process. This initiative, the Chippewa Valley Initiative, is designed to better serve the technology industries of Wisconsin's Technology Valley delivering easy access to education for employees and employers in the Chippewa Valley.

The Chippewa Valley Initiative received funding in the 2001-03 Wisconsin State Budget and was cited as a model of cooperation by the University of Wisconsin System.

Two Major Components to the Chippewa Valley Initiative

A. The UW-Eau Claire Component – Developing Wisconsin's Technology Workforce

- In Wisconsin, five of six fastest-growing occupations are in technology industries. Currently, 100 percent of UW-Eau Claire's graduates of technology-related programs are placed and the demand for additional employees is great. Most students receive job offers during their internship experiences prior to graduation.
- Technology employers seek new employees who have computational competencies and sophisticated systems control and design experiences.
- Expansion of our strong computer science, software engineering and management information systems programs will allow us to play an even bigger role in driving economic development and creating high-end jobs in the Chippewa Valley.

Outcomes of the UW-Eau Claire Component:

- Provide more graduates in computer science, software engineering and management information systems by adding faculty and staff to those departments. More graduates will better serve technology firms in our Technology Valley and throughout the state, helping stem the brain drain and giving our alumni the opportunity to begin their careers in Wisconsin.
- Provide more educational opportunities for current employees of technology companies who seek to upgrade and enhance their skills.
- Create a computational laboratory, which will enhance learning opportunities for team-oriented group software design projects, which emphasize industrial applications.
- Provide start-up funds for a systems control and design laboratory, which will provide practical experience in information systems and design.
- Provide use of laboratories as incubators for high-technology firms in Wisconsin's Technology Valley.

B. Work-based University Consortium – The UW-Stout Component

- UW-Stout will increase its enrollment by 100 FTE in the multimedia design, applied mathematics and computer science, and telecommunications degree programs, and also in industry-based certification involving Cisco and Microsoft.
- A physical presence within the four major economic hubs, 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 employers' 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 employers' needs.

Outcomes of the UW-Stout Component:

- Produce graduates in telecommunications, multimedia design, and applied mathematics and computer science.
- 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.
- Produce industry certified specialists in Microsoft and Cisco Systems.
- 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, and the West Central Wisconsin Workforce Development Board.

II. Other Educational Partnerships

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. Below are two examples of how educational institutions are working together to provide solutions to businesses in the region.

A. UW-Eau Claire/the Chippewa Valley Technical College/Technology Businesses Design Verification Engineering

The Chippewa Valley is home to many high technology companies with specific interest in the design and verification of ASIC chips. But the demand for a well-educated and technically proficient high-tech engineering workforce is far exceeded by the supply. In light of this workforce shortage, in the fall of 1999 four such local companies (**Cray, Silicon Graphics Inc., Silicon Logic Engineering, and Tonbu**) approached the University of Wisconsin – Eau Claire (UWEC) and the Chippewa Valley Technical College (CVTC) about providing a special educational program targeted toward educating individuals with specific skills in “design verification engineering.”

Over the course of the next twelve months, the four industry partners and the two educational institutions developed a program tailored to meet the needs of the local industry. The result is a certificate program entitled Design Verification

Engineer that combines a six-course sequence offered jointly by the technical college and the university. Two courses are offered exclusively by CVTC, three are offered exclusively by UWEC, and one is offered by both institutions. Students enrolled in the certificate program move seamlessly between the two institutions as they progress thru the curriculum, and the first five “graduates” are expected in May 2002.

Initiating a new engineering type educational program in only a twelve-month period is not without its obstacles. Key to overcoming these was the strong support provided by the local industry partners. Chip design verification requires the use of expensive and complex software tools running on the fastest and most powerful computer hardware, and SLE and SGI spearheaded the effort to bring these tools, valued in the tens of thousands of dollars, to both the CVTC and UWEC campuses at no cost to either institution. In addition SGI donated two of their latest high-end computer servers (each a dual processor SGI 1200), one to each campus, in support of the program.

The Design Verification Engineer certificate program is still in its infancy, and the economic impact of the program cannot yet be measured. But, as a consequence of the collaborative process used to design and develop this joint program, new strong partnerships have emerged between UWEC, CVTC and local businesses.

B. UW-Stout Success Story

UW-Stout and the Northwest Wisconsin Manufacturing Outreach Center (NWMOC) have been providing hands-on business solutions to companies across the United States for many years. So when a local company, Phillips Origen Medical Molding and Assembly, located in the Stout Technology Park, needed some assistance with product flow, the company called on UW-Stout and the NWMOC for assistance. The NWMOC is a partnership of institutions, including five technical colleges in Western Wisconsin and UW-Stout, working with small and medium size manufacturers primarily in northwest Wisconsin to modernize and streamline their operations.

The Northwest Wisconsin Manufacturing Outreach Center staff conducted a customized training program for Phillips Origen Medical Molding and Assembly and provided implementation plan suggestions for three product lines of Phillips Origen Medical Molding and Assembly at the end of the 2-day training session.

Value Stream Mapping is a tool used to create a material and information flow map of a product or processes. Value Streaming allows companies to map the flow of products in the back door as raw materials, through all manufacturing process steps, and off the loading dock as a finished product. This is the value stream. You begin the journey with a future state map – its shows you where you are going and how you are going to get there. Value Stream Mapping helps

companies to streamline work processes while cutting lead times and reducing operating costs.

The benefits Value Stream Mapping provided Phillips Origen included “seeing the flow” of its value stream and the waste in the flow, the opportunity to view all products from a system perspective, the ability to draw a blueprint for lean transformation and to prioritize activities needed to achieve the lean transformation. Phillips Origen Medical Molding and Assembly is currently implementing the suggestions from the customized Value Stream Mapping training program and are better able to identify and eliminate the “waste” within the system.

UW-Stout and the NWMOC have a proven track record providing applied solutions for business and industry. This success story is one of hundreds that UW-Stout and the NWMOC are currently working on with business and industry.