



**The Status of Entrepreneurship Education at Institutions of  
Higher Learning in Southeast Wisconsin**

**BizStarts Milwaukee, Inc. College Consortium Survey**

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## Executive Summary

Innovation and entrepreneurship are key drivers in growth and competitive advantage. According to the Kauffman Foundation, higher education plays a critical role in fostering innovation and entrepreneurship in regional economies.

BizStarts Milwaukee established the college consortium in 2009 to leverage and expand innovation and entrepreneurship at the region's 20 colleges. To measure the future success of the college consortium, BizStarts established a survey to use as a baseline profile of post-secondary entrepreneurship programs. All 20 institutions completed our survey.

The results of the survey show that while a handful of colleges offer excellent entrepreneur programs, entrepreneurship education does not stand out as a strong, central focus at most of the colleges. Entrepreneurship courses are available on many campuses, but on many of those campuses, relatively few students take them. Business-related competitions and student organizations exist on many campuses, but only a few of these focus clearly on entrepreneurship. Only a handful of institutions offer more specialized programs related to technology transfer and commercialization.

Overall, much remains to be done in order to make entrepreneurship education a priority in many of the post-secondary institutions of the Milwaukee 7 region.

**We make the following recommendations:**

- 1. Consortium institutions in the region should develop incentives which encourage school administrators and faculty members to participate in local, regional, and national forums focused on entrepreneurship. One goal would be to strengthen participants' understanding of entrepreneurship as a driver for a strong SE WI regional economy and a second goal would be to foster entrepreneurial offerings across disciplines in academic programs, bringing new excitement and energy to campus life.**
- 2. All institutions should establish or expand student business plan competitions and student organizations that feature entrepreneurship education as a key goal. Activities of this sort provide low-cost means to increase the number of students and faculty involved in entrepreneurship education and experiences.**
- 3. Colleges in the region should identify funding sources that enable them to build upon their programming. A goal would be for all 20 institutions to not only offer undergraduate courses in entrepreneurship education, but to develop means by which students may specialize in entrepreneurship through an area of concentration, a certificate program, or an academic minor or major.**
- 4. Entrepreneurship education is enhanced by strong connections and partnerships with the business community. All 20 institutions should develop and expand internships, adjunct faculty and other entrepreneur focused programs which engage the business community with their institutions.**

## Survey Report Overview

### **Rationale**

Research points to the importance of innovation and entrepreneurship as drivers of regional economic growth and competitive advantage. Southeast Wisconsin must become more innovative and entrepreneurial. According to a report prepared by Advanced Research Technologies LLC for the Small Business Administration and the Edward Lowe Foundation, entrepreneurial activity confers important benefits.<sup>1</sup> Compared to regions marked by lower levels of entrepreneurial activity, the most entrepreneurial regions in the United States enjoyed the following:

- 58 percent more wage growth;
- 109 percent higher productivity growth;
- 67 percent more patents per labor force participant;
- 63 percent higher percentage of high-tech establishments;
- 54 percent more spending on research and development.
- 125 percent employment growth;

Economic growth and competitive advantage today depend increasingly on innovation, and entrepreneurship has become, accordingly, central to the success of regional economies. Given Wisconsin's limited ability to prosper by attracting businesses from out of state, southeastern Wisconsin must look to its own capacity for creating new opportunities. Entrepreneurship is a key element of the Milwaukee 7 regional strategy. BizStarts Milwaukee serves as the official organization and strategic partner of the Milwaukee 7 to foster startups and innovation. One particular advantage of emphasizing entrepreneurship is that entrepreneurship tends to be "sticky." Entrepreneurs typically establish and develop their firms in the states where they live.

### **Why Entrepreneurship Belongs in Colleges**

Four reasons justify a significant role for entrepreneurship in contemporary American higher education.<sup>2</sup>

- First, entrepreneurship is critical to success in the contemporary global economy.
- Second, entrepreneurship is already an expanding area of American college learning.
- Third, through innovation and commercialization, entrepreneurship is becoming a basic part of what universities themselves do.
- Fourth, entrepreneurship achieves key goals of a quality American undergraduate education. To neglect entrepreneurship distances university learning from the world it is supposed to help students learn to understand.

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<sup>1</sup> Camp, S. Michael. (2005) *The Innovation-Entrepreneurship NEXUS: A National Assessment of Entrepreneurship and Regional Economic Growth and Development*. Washington D.C.: Small Business Administration.

<sup>2</sup> Green, William S. (2009) *Kauffman Thoughtbook: Entrepreneurship In U.S. Higher Education* Ewing Kansas City, MO: Marion Kauffman Foundation.

## Who We Are

BizStarts Milwaukee, Inc. is a not-for-profit organization dedicated to creating a strong, innovative, entrepreneurial climate in southeastern Wisconsin (Milwaukee 7 region). It seeks to coalesce and leverage public and private resources to promote entrepreneurship and increase the quantity, quality, and pace of business formation and growth in the Milwaukee 7 region.

The College Consortium is the higher education initiative of BizStarts Milwaukee. Its main objective is to heighten interest, share best practices and advocate for an increase in entrepreneurial courses, programs and experiences offered by the 20 colleges and universities in the Milwaukee 7 region. It works with all 20 colleges and universities to provide outreach, organizational structure, and support. BizStarts facilitates meetings that bring local participants together with local, regional and national experts.

- To learn more about BizStarts and the college consortium, please visit our website at: [www.bizstartsmilwaukee.com](http://www.bizstartsmilwaukee.com).

## Purpose

BizStarts Milwaukee contracted with Dr. Mark Schug to develop and conduct a survey to obtain baseline information about the status of entrepreneurship programs in colleges and universities in southeastern Wisconsin. We gathered data about existing entrepreneurship courses, programs, and experiences offered on all 20 campuses in the Milwaukee 7 region. The results of the survey will be used by BizStarts Milwaukee, Inc., along with other leaders in education, government and business, to foster economic growth in southeastern Wisconsin. (This survey was conducted on behalf of BizStarts Milwaukee under the auspices of a federal grant obtained from the U.S. Department of Labor: Workforce Innovation in Regional Economic Development initiative [WIRED]).

- To learn more about the WIRED initiative, please visit its website at: <http://www.doleta.gov/>

## Existing Research

We began by searching for similar surveys of entrepreneurship in higher education conducted elsewhere. Commentary about entrepreneurship in higher education consists typically of policy or advocacy statements explaining why entrepreneurship education is important. Such commentary often includes descriptions of best practices for entrepreneurship programs. An example is *Entrepreneurship in American Higher Education*, published by the Kauffman Foundation.<sup>3</sup>

Comprehensive studies focused on the status of entrepreneurship education have been conducted in the United States and Europe. One study conducted by faculty members at George Washington University showed that the number of courses, concentrations and degrees in the fields of small business management and entrepreneurship

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<sup>3</sup> Kauffman Panel on Entrepreneurship Curriculum in Higher Education, *Entrepreneurship in American Higher Education* (Kansas City, MO: Ewing Marion Kauffman Foundation, 2007).

in the United States grew at a fast pace from 1997 to 2001.<sup>4</sup> A more recent report suggests that most of the new growth in entrepreneurship education is now occurring outside of schools of business.<sup>5</sup>

Comprehensive studies have also been conducted in Europe. A survey conducted by the European Union, for example, provided data for 600 higher education institutions.<sup>6</sup> This study stressed that much work remains to be done. It found that more than half of Europe's students at the higher educational level do not have access to entrepreneurial education.

Several U.S. colleges and universities (Northern Michigan University, for example) offer inventories of their entrepreneurship programs, but we are unaware of comprehensive studies focused on a specific region within a state or province.

## **Method**

For our study, we developed a 16-part survey instrument. The instrument was reviewed by three professors of economics (from Virginia, Michigan, and Wisconsin), one professor of entrepreneurship (from Wisconsin), and by the staff of BizStarts Milwaukee. (See Appendix 1 for a copy of the survey instrument.)

Staff members at BizStarts Milwaukee identified representatives from all 20 of the colleges and universities in southeastern Wisconsin who were knowledgeable about entrepreneurship programs at their institutions. We approached these representatives via an e-mail invitation, asking them to participate in the survey, with the survey attached. We made follow up phone calls and sent follow-up reminders as necessary, and eventually representatives from all 20 colleges completed the survey. (See Appendix 2 for a list of all 20 institutions.)

## **Survey Results**

The results of the survey show that while a handful of colleges offer excellent entrepreneur programs, entrepreneurship education does not stand out as a strong, central focus at most of the colleges. Entrepreneurship courses are available on many campuses, but on many of those campuses they are not offered very frequently, and relatively few students take them. Seven institutions offer internships related to entrepreneurship, but here, too, enrollments tend to be low. Business-related competitions and student organizations exist on many campuses, but only a few of these focus clearly on entrepreneurship. Only a handful of institutions offer more specialized programs related to technology transfer and commercialization.

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<sup>4</sup> Solomon, George T., Duffy, Susan and Tarabishy, Ayman (2002) The State of Entrepreneurship Education in the United States: A Nationwide Survey and Analysis. *International Journal of Entrepreneurship Education* 1 (1), 1-21.

<sup>5</sup> Katz, Jerome, A. (2008) Fully Mature But Now Fully Legitimate: An Different Perspective on the State of Entrepreneurship Education. *Journal of Small Business Management* 46 (4) 550-566.

<sup>6</sup> European Commission, Directorate General for Enterprise and Industry (2008) *Survey of Entrepreneurship in Higher Education in Europe: Main Report*. NIRAS Consultants.

Faculty champions for entrepreneurship can be found on many campuses, and representatives from several institutions expressed interest in developing academic concentrations in entrepreneurship and in increasing students' participation in relevant organizations, competitions, and internships. However, among most college faculty members, support for entrepreneurship programs appears to be weak, as evidenced by survey responses stating that such programs are only somewhat important or unimportant. Administrators appeared more supportive with about half of them ranking entrepreneurship as very important or important.

Overall, much remains to be done in order to make entrepreneurship education a priority in the post-secondary institutions of the Milwaukee 7 region.

***Curriculum. – Table I***

Information summarized in Table 1 suggests that the dominant form of entrepreneurship education in southeastern Wisconsin is the offering of undergraduate courses. Sixteen institutions reported offering undergraduate courses in entrepreneurship. By far, most of these courses are offered in a School of Business or a Department of Business. Six institutions reported offering the courses three or more times a year. Course enrollments, however, are relatively small. In most institutions, the enrollment for a primary entrepreneurship course ranged from 1 to 20 students. Seven institutions reported undergraduate course enrollments of 20 or more.

Graduate-level courses in entrepreneurship are offered less often. This is to be expected, since most institutions in the region are technical colleges or four-year colleges which do not offer graduate programs. Only five institutions currently offer graduate courses in entrepreneurship. These include Concordia University, Marquette University, Milwaukee School of Engineering, UW-Milwaukee, and UW-Whitewater. These graduate courses are usually offered once a year in a School of Business or Department of Business. Enrollments never exceed 30 students.

**Table 1**  
**Undergraduate Courses, Institutions of Higher Education in Southeastern Wisconsin**

Institution	UG Courses	Number of Courses	Department
1. Alverno College	Yes	1	Business
2. Cardinal Stritch University	Yes	3	Business
3. Carthage College	Yes	16	Entrepreneurial Studies in Natural Science
4. Carroll University	Yes	4	Business
5. Concordia University Wisconsin	Yes	2	Business
6. Gateway Technical College	Yes	8 or more	Business
7. Marquette University	Yes	8 or more	Business
8. Medical College of Wisconsin	No	NA	Business
9. Milwaukee Area Technical College	Yes	1	Business
10. Milwaukee Institute of Art & Design	Yes	1	Fine Arts
11. Milwaukee School of Engineering	Yes	5	Business
12. Moraine Park Technical College	No	NA	Business
13. Mount Mary College	Yes	1	Business
14. UW-Milwaukee	Yes	8 or more	Business
15. UW-Parkside	Yes	4	Business
16. UW- Washington County	No	NA	NA
17. UW-Waukesha	No	0	NA
18. UW-Whitewater	Yes	8	Business
19. Waukesha County Technical College	Yes	2	Business
20. Wisconsin Lutheran College	Yes	1	Business
Totals	Yes = 16 No = 4		

### *Concentrations – Table 2*

Information summarized in Table 2 reveals that twelve institutions offer students an opportunity to study entrepreneurship in some depth. Most often, these concentrations take the form of “areas of emphasis” or “certificate” programs. Eleven of the institutions offered either an area of emphasis and/or a certificate resulting (for a total of 16 offerings). The number of courses required for earning an area of emphasis or a certificate most often ranged from three to more than eight.

Three institutions (Carthage College, Carroll University, the Milwaukee School of Engineering) offer undergraduate minors in entrepreneurship. Only Marquette University offers an undergraduate major. Enrollment is less than 20 students. UW-Whitewater will begin offering an undergraduate major in spring, 2010. UW-Milwaukee is the only institution that offers a graduate-level minor in entrepreneurship; this program enrolls only a handful of students. No institution reported offering a graduate-level major.

**Table 2**  
**Concentrations of Courses, Institutions of Higher Education in Southeastern Wisconsin**

<b>Institution</b>	<b>Areas of Emphasis</b>	<b>Certificate</b>	<b>UG Minor</b>	<b>UG Major</b>
1. Alverno College	No	No	No	No
2. Cardinal Stritch University	No	No	No	No
3. Carthage College	Yes	No	Yes	No
4. Carroll University	Yes	No	Yes	No
5. Concordia University Wisconsin	No	No	No	No
6. Gateway Technical College	Yes	Yes	No	No
7. Marquette University	No	Yes	No	Yes
8. Medical College of Wisconsin	No	No	No	No
9. Milwaukee Area Technical College	Yes	Yes	No	No
10. Milwaukee Institute of Art & Design	No	No	No	No
11. Milwaukee School of Engineering	Yes (2)	Yes	Yes	No
12. Moraine Park Technical College	Yes	No	No	No
13. Mount Mary College	No	No	No	No
14. UW-Milwaukee	No	Yes	No	No
15. UW-Parkside	No	Yes	No	No
16. UW- Washington County	No	Yes	No	No
17. UW-Waukesha	No	No	NR	No
18. UW-Whitewater	No	No	No	Yes
19. Waukesha County Technical College	Yes	Yes (2)	No	No
20. Wisconsin Lutheran College	No	No	No	No
<b>Totals</b>	Yes = 8 No = 13	Yes = 9 No = 12	Yes = 3 No = 17	Yes = 2 No = 18

***Entrepreneurship Internships - Table 3***

Practical experience in business is an important factor in efforts to develop successful entrepreneurs. However, relatively few entrepreneurship programs in southeastern Wisconsin include internships in business. Information summarized in Table 3 shows that seven institutions offer such programs. Enrollments tend to be limited to 1 to 10 students. Alverno College is an exception. It reports internship enrollments of 31 or more students.

**Table 3**  
**Internships in Institutions of Higher Education in Southeastern Wisconsin**

<b>Institution</b>	<b>Internships</b>
1. Alverno College	Yes
2. Cardinal Stritch University	No
3. Carthage College	Yes
4. Carroll University	Yes
5. Concordia University Wisconsin	No
6. Gateway Technical College	No
7. Marquette University	Yes
8. Medical College of Wisconsin	No
9. Milwaukee Area Technical College	No
10. Milwaukee Institute of Art & Design	No
11. Milwaukee School of Engineering	Yes
12. Moraine Park Technical College	No
13. Mount Mary College	No
14. UW-Milwaukee	Yes
15. UW-Parkside	No
16. UW- Washington County	No
17. UW-Waukesha	No
18. UW-Whitewater	Yes
19. Waukesha County Technical College	No
20. Wisconsin Lutheran College	Yes
Totals	Yes = 8 No = 12

### ***Student Competitions – Table 4***

Focused on One low-cost means by which colleges and universities may engage relatively large numbers of students in entrepreneurship education is to offer business competitions. These competitions can take different forms, depending in part on the sponsoring organization. For example, students might be involved in completing examinations (Future Business Leaders of America) or performing a variety of community service projects (Students in Free Enterprise).

Information summarized in Table 4 reveals that half of the colleges and universities in southeastern Wisconsin involve students in competitions that emphasize entrepreneurship. Fewer still offer student competitions solely entrepreneurship. Business-plan competitions are the most common example. Excellent performers in the area of business-plan competitions are Marquette University, the Milwaukee School of Engineering, UW-Milwaukee and UW-Whitewater.

**Table 4**  
**Student Competitions in Institutions of Higher Education in Southeastern Wisconsin**

Institution	Student Competition	Name	No. of students
1. Alverno College	Yes	Students in Free Enterprise	1-10
2. Cardinal Stritch University	Yes	Students in Free Enterprise	1-10
3. Carthage College	No	NA	NA
4. Carroll University	Yes	Students in Free Enterprise	1-10
5. Concordia University Wisconsin	No	NA	NA
6. Gateway Technical College	Yes	Bus Professionals of America DECA	11-20 50-75
7. Marquette University	Yes	Kohler Center for Entrepreneurship: Business- Plan Competition	31 or more
8. Medical College of Wisconsin	No	NA	NA
9. Milwaukee Area Technical College	No	NA	NA
10. Milwaukee Institute of Art & Design	No	NA	NA
11. Milwaukee School of Engineering	Yes	MSOE Business-Plan Competition Future Business Leaders of America/Phi Beta Lambda	11-20 1-10
12. Moraine Park Technical College	No	NA	NA
13. Mount Mary College	No	NA	NA
14. UW-Milwaukee	Yes	New Venture Business-Plan Competition	31 or more
15. UW-Parkside	No	NA	NA
16. UW Washington County	No	NA	NA
17. UW-Waukesha	No	NA	NA
18. UW-Whitewater	Yes	Warhawk Business-Plan Contest Warhawk Elevator Pitch Comp	50 or more 21-30
19. Waukesha County Technical College	Yes	Wisconsin Marketing and Management Association	21-30
20. Wisconsin Lutheran College	Yes	Students in Free Enterprise	1-10
Totals	Yes = 10 No = 10		

### ***Student Organizations – Table 5***

Another low-cost way approach to engaging students in entrepreneurship education is to establish student organizations. Information summarized in Table 5 reveals that half of the colleges and universities in southeastern Wisconsin offer business-oriented student organizations. Here, too, few of these organizations focus on entrepreneurship as an explicit goal. Students in Free Enterprise (SIFE) and Business Professionals of America (BPA), for example, are supportive of entrepreneurship, but it is not a main focus.

If organizations such as SIFE and BPA are not counted, then five campuses appear to have active student organizations. Four of the campuses report affiliations with the Collegiate Entrepreneur Organization. The fifth is the Entrepreneurial Studies in Natural Science at Carthage College.

The campuses reporting active student entrepreneurship organizations are Carthage College, Marquette University, the Milwaukee School of Engineering, UW-Milwaukee, and UW-Whitewater.

**Table 5**  
**Student Organizations in Institutions of Higher Education in Southeastern Wisconsin**

<b>Institution</b>	<b>Student Organization</b>	<b>Name</b>	<b>No. of students</b>
1. Alverno College	Yes	Students in Free Enterprise	1-10
2. Cardinal Stritch University	Yes	Students in Free Enterprise	1-10
3. Carthage College	Yes	Entrepreneurial Studies in Natural Science	1-10
4. Carroll University	Yes	Students in Free Enterprise	1-10
5. Concordia University	No	NA	NA
6. Gateway Technical College	Yes	Business Professionals of America DECA	11-20 50-75
7. Marquette University	Yes	Collegiate Entrepreneurs at Marquette CEM	31 or more
8. Medical College of Wisconsin	No	NA	NA
9. Milwaukee Area Technical College	No	NA	NA
10. Milwaukee Institute of Art & Design	No	NA	NA
11. Milwaukee School of Engineering	Yes	MSOE Entrepreneurs Club Future Business Leaders of America/Phi Beta Lambda	11-20 1-10
12. Moraine Park Technical College	No	NA	NA
13. Mount Mary College	No	NA	NA
14. UW-Milwaukee	Yes	Collegiate Entrepreneur Organization	31 or more
15. UW-Parkside	No	Reported that it is beginning a Collegiate Entrepreneur Organization	NA
16. UW Washington County	No	NA.	NA
17. UW-Waukesha	No	NA	NA
18. UW-Whitewater	Yes	Collegiate Entrepreneur Organization	31 or more
19. Waukesha County Technical College	No	NA	NA
20. Wisconsin Lutheran	Yes	Students in Free Enterprise	1-10
<b>Totals</b>	Yes = 10 No = 10		

***Technology Transfers and Commercialization – Table 6***

Information summarized in Table 6 reveals that few colleges and universities reported involvement in technology transfer efforts to help start new businesses. Technology transfer programs often require large commitments of resources and high levels of expertise. Yet some schools, large and small, report taking steps in this direction. The schools reporting technology transfer programs are Concordia University, the Medical College of Wisconsin, the Milwaukee School of Engineering, UW-Milwaukee, and UW-Whitewater.

The Medical College of Wisconsin reported having an Office of Technology Development. The Milwaukee School of Engineering reported having a Center for Applied Technology. UW-Milwaukee reported having the UWM Research Foundation. UW-Whitewater reported working with the UW-Wisconsin System Office of Research and Sponsored Programs.

Four institutions reported having commercialization programs. These included Carthage College, Gateway Technical College, the Milwaukee School of Engineering, and UW-Milwaukee. Here it appears that two institutions—the Milwaukee School of Engineering and UW-Milwaukee—are the dominant programs

**Table 6**  
**Technology Transfers and Commercialization**

Institution	Technology Transfers	Commercialization
1. Alverno College	No	No
2. Cardinal Stritch University	No	No
3. Carthage College	No	Yes
4. Carroll University	No	No
5. Concordia University Wisconsin	Yes	No
6. Gateway Technical College	No	Yes
7. Marquette University	No	No
8. Medical College of Wisconsin	Yes	No
9. Milwaukee Area Technical College	No	No
10. Milwaukee Institute of Art & Design	No	No
11. Milwaukee School of Engineering	Yes	Yes
12. Moraine Park Technical College	Yes	No
13. Mount Mary College	No	No
14. UW-Milwaukee	Yes	Yes
15. UW-Parkside	No	No
16. UW- Washington County	No	No
17. UW-Waukesha	No	No
18. UW-Whitewater	Yes	No
19. Waukesha County Technical College	No	No
20. Wisconsin Lutheran College	No	No
Totals	Yes = 6 No = 14	Yes = 4 No = 16

### *Institutional Support*

Do the administrators and faculty members in colleges and universities in southeastern Wisconsin rank entrepreneurship education highly, as a central institutional goal? The survey invited respondents to rate the importance of entrepreneurship education as a goal for the school and the faculty as a whole, according to this scale: Very important, important, somewhat important, not important.

Respondents from two institutions ranked entrepreneurship as a very important institutional goal for administration, and one respondent ranked it as a very important goal for faculty. Overall, administrators seemed to be more supportive; about half of them ranked entrepreneurship as very important or important. Faculty members were less supportive; most of them ranked entrepreneurship education as somewhat important or unimportant.

Entrepreneurship champions do exist, however. Respondents from ten institutions reported having faculty members who were dedicated entrepreneurship teachers. Respondents from four campuses reported having faculty members with some research expertise in entrepreneurship.

Cross-disciplinary entrepreneurship programs are often regarded as the state-of-the-art in the entrepreneurship education research literature. Of the reporting institutions, six indicated that their efforts were concentrated in one academic unit. Seven institutions reported that their entrepreneurship programs included two or more units. However, we should recall that most undergraduate courses—the dominant type of entrepreneurship education appearing in this study—were offered in one unit.

Institutions identified strengths which they believed they possessed in entrepreneurship education. Many reported that key faculty members, including ad hoc instructors, were an important advantage. One respondent commented that its “core of passionate faculty” was a key strength. Others stressed their experiential focus and their efforts to integrate entrepreneurship across the curriculum.

Institutions also identified weaknesses. These were, typically, short lists. Most comments stressed the small size of the campus as a factor making it difficult to employ faculty members in sufficient numbers to offer strong, comprehensive programs and attract many students. One respondent commented, for example, that entrepreneurship education had “no champion.” Others stressed insufficient funding and the lack of a formal curriculum.

When asked about what steps that might be taken next in the development of entrepreneurship programs, nearly half of the respondents stated that they would like to expand student participation in existing courses. After that, several respondents gave approximately equal emphasis to these needs:

- increase participation in student organizations;
- increase participation in student competitions;
- develop concentrations such as an area of emphasis, minor, or major;
- increase the number of internships.

Finally, a few respondents expressed interest in cross-campus programs and joint ventures.

## Exemplary Practices

In the process of compiling the data for this report, we identified several exemplary practices in the area of entrepreneurship education. It is clear that positive work is underway on campuses in southeast Wisconsin. The next section features examples that we regard as best practices - - ideas that other institutions might wish to emulate. Five campuses are featured: Carthage College, Marquette University, Milwaukee School of Engineering, University of Wisconsin-Milwaukee and the University of Wisconsin-Whitewater.

### **Carthage College: Entrepreneurial Studies in the Natural Sciences Program<sup>7</sup>**

The Entrepreneurial Studies in the Natural Sciences Program (ESNS) demonstrates how entrepreneurship education can bring new levels of excitement, energy and community involvement to a private liberal arts college.

The ESNS Program is offered as a minor consisting of 20 credits of coursework. The ESNS Program provides students with the opportunities to business develop skills that are highly complementary to their liberal arts studies. It involves a mixture of project work, direct business experience and preparatory course work which helps prepare students for entering a career in the private sector.

ESNS involves a one-year course sequence ordinarily taken during the junior year. During this year, students study several of the aspects of technology business. The summer following the junior year is devoted to an internship experience. The senior year includes a detailed technology business project.

The course work emphasizes integration of important skills, such as written and oral communication, graphics and artwork, business accounting, management, and marketing, with the important aspects of legal issues, regulation, and intellectual property. In addition, the students examine the characteristics of all types of technology businesses. The courses are taught by many different Carthage faculty members, and include outside speakers from many specialty areas, including local and national business leaders.

The ESNS program encourages students from the College's Natural Science Division to participate in the program.

The key faculty member for the ESNS program is Dr. Douglas Arion, the Donald D. Hedberg Distinguished Professor of Entrepreneurial Studies in the Natural Sciences and Professor of Physics. E-mail contact: [darion@carthage.edu](mailto:darion@carthage.edu)

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<sup>7</sup> Source: <http://www.carthage.edu/dept/esns/visitor/requirements.html>

## Marquette University

Marquette University has a long tradition of entrepreneurship in several of its schools and colleges. It has pioneered a wide range of programs which stress entrepreneurship education. Included are:

- Undergraduate Major in Entrepreneurship in the College of Business Administration
- Business Leader's Forum in the College of Business Administration
- Business Plan Competition
- Certificate in Entrepreneurship offered by the Graduate School of Management
- Coleman Chair in Entrepreneurship in the College of Business Administration
- Collegiate Entrepreneurs of Marquette
- Entrepreneurial Alumni Awards in the Colleges of Engineering, Arts and Sciences and Business Administration
- Faculty Commercialization Seminars
- Golden Angels Network in Milwaukee and Chicago
- Greenheck Chair in the College of Engineering (includes an entrepreneurship emphasis)
- Kohler Center for Entrepreneurship in the College of Business Administration.
- Social Entrepreneurship Program in the Institute of the Transformation of Learning dedicated to enhancing the quality charter schools.

Marquette University has recently developed of a Certificate in Entrepreneurship, which is being offered through the Graduate School of Management starting in fall 2009. One goal of this program is to enhance entrepreneurial thinking in a variety of disciplines across the campus. Certificate students will be required to take 15-16 hours of coursework including three core entrepreneurship courses and two elective courses in a professional area such as business or engineering. Students must also complete a business plan; it is expected that most students will participate in the Kohler Center for Entrepreneurship's annual Business Plan Competition.

A key driver of entrepreneurship education at Marquette University is the Kohler Center for Entrepreneurship.<sup>8</sup> It was founded in 2000 with a grant from the Kohler Company. The Center believes that entrepreneurial wealth creation serves the community through not only economic benefits but also growth in community and service.

- The Center conducts a respected business plan competition. The goal of the competition is to provide a learning environment in which entrepreneurs hone their business ideas and receive high quality business planning assistance. Undergraduate and graduate students, faculty, staff and alumni from all colleges are invited to submit proposals. Winners this year were faculty and staff in Health Sciences and Athletics.

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<sup>8</sup> Source: <http://www.mukohlercenter.org/>

- The Center offers executive education in entrepreneurship, serving both independent high potential ventures and high potential corporate ventures, and sponsored central city entrepreneurs. It hosts the Master's Forum and Executive in Residence Programs.
- The Center for Entrepreneurship offers a multi-course sequence in entrepreneurship for owner-managers. This non-degree executive development course is held one day a week in the evenings, both Fall and Spring semesters.
- The Collegiate Entrepreneurs of Marquette (CEM) is an affiliate of the national association, Collegiate Entrepreneurs Organization (CEO). In alliance with Delta Sigma Pi, CEM sponsors entrepreneurship speakers for Marquette students. CEM students also participate in the annual CEO meeting and (for the CEM leaders) the regional meeting.
- The Center has promoted the introduction of entrepreneurship content into several undergraduate courses. For example, entrepreneurship content was recently included in the Introduction to Biomedical Engineering course.

The Center manages the Marquette Golden Angels Network. The mission of the Golden Angels Network is to provide a forum in which its members can exchange information about investment opportunities in early-stage technology and emerging growth companies in Wisconsin and Illinois. The Marquette Golden Angels Network began as an effort to connect alumni and friends of the University to entrepreneurs seeking assistance in growing their businesses. Today the network considers business opportunities primarily from Illinois and Wisconsin, as well as from the Midwest. It has grown from several dozen members in 2003 to over 60 members today. About half of the members are alumni of Marquette University.

The key faculty member for the Kohler Center is Tim Keane, Entrepreneur in Residence and Director of the Golden Angels Network Entrepreneur-in-Residence Director, Golden Angels Network. Contact e-mail: [tim.keane@marquette.edu](mailto:tim.keane@marquette.edu)

### **Milwaukee School of Engineering: Radar School of Business**

The Milwaukee School of Engineering (MSOE) is clearly among the regional leaders when it comes to entrepreneurship education. Its entrepreneurship programs include:

- Undergraduate concentration for business majors: Marketing & Entrepreneurship
- Undergraduate minor for all majors: Marketing & Entrepreneurship
- Master Certificate in Innovation & Entrepreneurship
- Practicum in Entrepreneurship course offers student business internships
- Business Plan Competition
- Entrepreneurs' Club
- Technology transfer and commercialization efforts

A driving force for entrepreneurship at MSOE is the Uihlein/Spitzer Center for Entrepreneurship.<sup>9</sup> The goal of the Center is to provide resources to enhance entrepreneurial thinking among MSOE faculty and students and to prepare students as business leaders able to improve profitability and productivity. The Center provide

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<sup>9</sup> Source: [http://www.msoe.edu/academics/academic\\_departments/school\\_of\\_business/entrepreneurship/](http://www.msoe.edu/academics/academic_departments/school_of_business/entrepreneurship/)

a range of services including business concept refinement, financial resource identification, market identification and feasibility, business plan development and so forth.

The Center has made a commitment to attracting key faculty members. This now includes:

- G. Woodrow Adkins, Uihlein/Spitzer Endowed Chair for Entrepreneurship
- Dr. Steven C. Bialek, Associate Professor and Chairman, Rader School of Business
- Dr. Jeffrey Blessing; Associate Professor, Program Director MIS, and Kern Foundation Fellow
- Larry Schmedeman, Professor and Program Director International Business
- Dr. Charles Tritt, Associate Professor, Electrical Engineering & Computer Science, and Kern

An important commitment of the Center has involved developing and teaching three, one-credit courses in entrepreneurship. Originally offered as electives, the courses are now required in several programs including Biomedical Engineering, Management Information Systems, International Business and Business Management.

The Center has worked to integrate entrepreneurial skills into engineering, technology and business education by working in close cooperation with community partners. For example, it has developed strong ties with the Kern Entrepreneurial Education Network (KEEN) and the National Collegiate Inventors and Innovators Alliance (NCIIA).

MSOE is a leader in southeast Wisconsin in commercialization and technology transfer programs. It has developed an extensive set of relationships for conducting research with business and industry. Much of this activity takes place through MSOE's Applied Technology Center™ (ATC) which includes several centers featuring state-of-the-art research. These centers are the Fluid Power Institute, Rapid Prototyping Center, Center for BioMolecular Modeling, Engineering Research Center for Compact and Efficient Fluid Power, Construction Science and Engineering Center, Photonics and Applied Optics Center, NanoEngineering Laboratory

The MSOE offers one of the few programs in the southeast Wisconsin that encourages entrepreneurship among high school students. Each year it offers the Entrepreneur and Business Strategy Competition. In this program high school students create their own simulated businesses as a way to develop their entrepreneurial skills. Consisting of three simulations, the competition challenges high school students of all levels.

The key faculty member contact for the Center for Entrepreneurship is Dr. Steven C. Bialek, Associate Professor and Chairman, Rader School of Business. E-mail contact: [bialek@msoe.edu](mailto:bialek@msoe.edu)

## University of Wisconsin Milwaukee Sheldon B. Lubar School of Business<sup>10</sup>

UW-Milwaukee is an established leader in the area of entrepreneurship education. The UW-Milwaukee Sheldon B. Lubar School of Business offers a wide range of programs which stress entrepreneurship education. The following programs are included:

- Undergraduate Certificate Program in Entrepreneurship
- MBA Elective Track in Entrepreneurship
- La Macchia Enterprises Entrepreneur Internship Program
- New Venture Business Plan Competition
- Collegiate Entrepreneurs Organization
- Entrepreneurship Studies Scholarships
- Bostrom Entrepreneurs-in-Residence Program
- James D. Scheinfeld Student Venture Fund
- George A. Goetz Distinguished Entrepreneur Lecture Series
- MillerCoors Urban Entrepreneur Series
- Online Business Strategies Workshops for Minority and Women Entrepreneurs

Practical experience is vital to being a successful entrepreneur. In 2002, funding from the Ewing Marion Kauffman Foundation was used to help launch a new internship focus for students interested in entrepreneurship. The La Macchia Enterprises Entrepreneur Internship Program places 12 students each year in entrepreneurial firms. Seventy four interns have been placed with over 40 companies, including internet, manufacturing, service, and high-tech ventures. The program is now funded with support from the La Macchia Enterprises.

The New Venture Business Competition is a program designed to foster entrepreneurial spirit among UWM students and alumni, promote practical business skills, and encourage the creation of new, for-profit ventures. It offers \$12,000 in cash prizes. The competition includes a series of workshops on business plan writing, practice presentation sessions and one-on-one mentoring with competition advisors. Also

UW-Milwaukee has a chapter of Collegiate Entrepreneurs Organization (CEO) which meets regularly and has a membership of over 30 students with about two-thirds coming from the business school, and others primarily from the engineering and architecture majors. The chapter also travels to the annual CEO National Conference. CEO also runs an Elevator Pitch Competition, where it awarded \$1,000 in prize money.

The UWM Research Foundation and Office of Technology Transfer support entrepreneurial activity and seek to further facilitate partnerships and business growth through campus expansion plans that include locations throughout Milwaukee County. The UWM Research Foundation was established in 2006, and was designated the following year by the UW System Board of Regents to manage intellectual property created at UWM. In addition to managing intellectual property through patenting and licensing, the Research Foundation also works to foster promising research through the Catalyst Grant Program as well as help strengthen corporate partnerships, according to foundation president Brian Thompson. The Catalyst Grant program is supported by the Rockwell Automation Charitable Corporation and the Lynde and Harry Bradley Foundation. The program was recently awarded \$840,000 in grants to support promising early stage research.

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<sup>10</sup> Source: <http://www4.uwm.edu/business/alumni/upload/OutlookSpr09.pdf>

In January 2009, the UWM Research Foundation in conjunction with Marquette University announced the completion of a license agreement with Promentis Pharmaceuticals, Inc., a start-up company that seeks to develop and commercialize chemical compounds that have shown promise as a novel treatment for schizophrenia and other central nervous system conditions. It was the third licensing agreement brokered by the Research Foundation and the fifth licensing of a UWM patent.

The UWM Office of Technology Transfer is designed to help develop corporate sponsored research programs at UWM and to facilitate the protection and marketing of university intellectual property. The Office of Technology Transfer negotiates research contracts with the private sector and, working in collaboration with the UWM Research Foundation, helps move UWM's intellectual property into the marketplace.

The key faculty member contact for the Sheldon B. Lubar School of Business is Dr. V. Kanti Prasad, Bostrom Professor of Entrepreneurship & Innovation. E-mail contact: [vkp@uwm.edu](mailto:vkp@uwm.edu).

## **University of Wisconsin-Whitewater**

UW-Whitewater has emerged as a key regional leader in the area of entrepreneurship education. The following programs are included:

- Undergraduate area of emphasis in entrepreneurship
- Undergraduate major in entrepreneurship to be launched in spring, 2010
- Collegiate Entrepreneur's Organization (CEO)
- Wisconsin Innovation Service Center
- Warhawk Business Plan Contest
- Small Business Development Center (SBDC)

UW-Whitewater is one of two institutions of higher education in southeast Wisconsin to offer an undergraduate major in entrepreneurship. Education insiders know that establishing a new major requires a strong commitment. The new major includes such courses as:

- Introduction to Entrepreneurship
- Entrepreneurial Marketing
- Entrepreneurial Financial Management
- Growing Entrepreneurial and Family Businesses
- Innovation and Technology Marketing
- Consulting for Entrepreneurial Companies
- Entrepreneurship: New Ventures
- Experiments in Entrepreneurship

The faculty is especially excited about its new Experiments in Entrepreneurship course. This independent study course will allow a select group of students the opportunity to develop their own business projects and possibly test launch their businesses leveraging a \$1,000 grant. A lead faculty advisor will help coordinate an expert support network focused on the student or student team project.

A key best practice at UW-Whitewater is the University's Collegiate Entrepreneurs' Organization (CEO). CEO's most visible program is its Warhawk Business Plan Competition. Ordinarily, over 50 UW-Whitewater students compete for cash prizes for their business ideas. Finalists present their ideas to a panel of distinguished entrepreneurs and have the opportunity to earn nearly \$10,000 in cash prizes. Also, several members of

the CEO chapter spoke at the national meetings and they have held numerous innovative fund-raisers.

The Small Business Development Center (SBDC) is part of a nationwide network. It offers expertise and resources to small business owners and entrepreneurs. Through targeted training, clients learn how to launch businesses, stabilize established ventures and expand their companies.

The key faculty member contact is Debra Malewicki, assistant professor of management at the University of Wisconsin -Whitewater. E-mail contact: malewicd@uww.edu

## **Conclusions about Exemplary Programs in Southeast Wisconsin**

**An examination of these exemplary efforts on selected campuses in southeast Wisconsin suggests that there are certain ingredients that help pave the way for successful entrepreneurship programs. Three factors emerge:**

- 1. *A core of dedicated faculty.* Not much happens on college and university campuses unless there is a strong core of faculty members who buy deeply into the mission. Building a core of champions is critical to success.**
- 2. *Close ties to the community.* Each of the programs we have featured is marked by strong connections to the business community. These efforts take the form of named chairs, centers, advisory committees, and entrepreneurs in residence as well as close connections for research and development in the areas of commercialization and technology transfers.**
- 3. *Depth and breadth.* Each of the five programs we have highlighted offer menu of programs featuring differing levels of depth and breadth. This emphasizes that there needs to be some specialization or depth in the programs. Specializations may take many different forms such as undergraduate majors and minors, specialized centers for entrepreneurship and named or endowed professorships. But, these programs also include opportunities for widespread participation to engage students and faculty across the campus. These efforts often include popular student competitions business plan competitions. These efforts appear to a source of the most recent growth in entrepreneurship education.**

## Conclusion and Recommendations

There is a core of entrepreneurship courses currently in place in colleges and universities in southeastern Wisconsin. Most institutions offer undergraduate courses in entrepreneurship. Moreover, several institutions offer academic concentrations in the study of entrepreneurship; a total of 16 concentrations were labeled as areas of emphasis, certificates, or (in a few cases) minors and majors in entrepreneurship. Three institutions offer undergraduate minors, and one offers an undergraduate major soon to be joined by a second.

While a core of entrepreneurship courses exists, entrepreneurship education is rarely a main focus for the 20 institutions. The undergraduate courses offered on many campuses are not offered very frequently, and most of these courses have low enrollments. Internships are offered on eight campuses, but here, too, enrollments tend to be low. Business competitions and student organizations can be found on many campuses, but only a few of these focus clearly on entrepreneurship.

More specialized program offerings—in technology transfers and commercialization, for example—are limited. About one quarter of the institutions reported offering such programs. Only two—the Milwaukee School of Engineering and UW-Milwaukee—appear to have well developed programs.

Institutional support for entrepreneurship education appears to be weak among college faculty members. Many of them rank entrepreneurship programs as only somewhat important or unimportant. Administrators appeared more supportive with about half of them ranking entrepreneurship as very important or important.

Faculty champions for entrepreneurship education are crucial in efforts to establish and expand entrepreneurship programs. Half of the respondents reported that faculty members at their institutions were dedicated entrepreneurship teachers. While many respondents saw impediments in the small size of their institutions, and in inadequate resources, several nonetheless expressed interest in increasing students' participation in internship programs, organizations, and competitions.

## Recommendations

These conclusions suggest that much must be done in order to make entrepreneurship education a priority in the post-secondary institutions of the Milwaukee 7 region.

- 1. Consortium institutions in the region should develop incentives which encourage school administrators and faculty members to participate in local, regional, and national forums focused on entrepreneurship. One goal would be to strengthen participants' understanding of entrepreneurship as a driver for a strong SE WI regional economy and a second goal would be to foster entrepreneurial offerings across disciplines in academic programs, bringing new excitement and energy to campus life.**
- 2. All institutions should establish or expand student business plan competitions and student organizations that feature entrepreneurship education as a key goal. Activities of this sort provide low-cost means to increase the number of students and faculty involved in entrepreneurship education and experiences.**

3. Colleges in the region should identify funding sources that enable them to build upon their programming. A goal would be for all 20 institutions to not only offer undergraduate courses in entrepreneurship education, but to develop means by which students may specialize in entrepreneurship through an area of concentration, a certificate program, or an academic minor or major.

4. Entrepreneurship education is enhanced by strong connections and partnerships with the business community. All 20 institutions should develop and expand internships, adjunct faculty and other entrepreneur focused programs which engage the business community with their institutions.

## Appendix 1

### BIZSTARTS Milwaukee Entrepreneurship Survey of Post-Secondary Institutions in Southeast Wisconsin April 2009

#### Invitation to Participate

We are inviting representatives from all of the colleges and universities in southeast Wisconsin to participate in a survey regarding their involvement in entrepreneurship education. The purpose of this survey is to develop a baseline understanding regarding the status of post-secondary entrepreneurship programs in southeast Wisconsin. Specifically, we are compiling data regarding existing entrepreneurship courses, programs and other experiences offered on all 20 campuses. (See Appendix 1 for a list of the institutions that are being invited to participate.) The results of the survey will be used by the leadership of BizStarts Milwaukee, Inc., along with leaders in education, government and business to foster economic growth in southeast Wisconsin. All participants will be provided with a copy of the survey results to assist them with their own planning.

#### Who Are We?

This survey is being conducted on behalf of BIZSTARTS Milwaukee under the auspices of a federal grant obtained from the U.S. Department of Labor: Workforce Innovation in Regional Economic Development initiative (WIRED). A primary goal of BIZSTARTS Milwaukee is to heighten interest in entrepreneurship courses, programs and experiences on college campuses. The top outcome for BizStarts Learn will be an eventual increase in the number of entrepreneurial courses, programs and experiences offered by consortium members. As a direct result of the increased offerings, we expect a growing interest in entrepreneurship as a career path with more students electing to start their own companies after graduating. As an indirect result, we expect to see more entrepreneurial thinking on campuses in southeast Wisconsin among faculty, staff and students.

- To learn more about BIZSTARTS Milwaukee, please visit our website at: [www.bizstartsmilwaukee.com](http://www.bizstartsmilwaukee.com).
- To learn more about the WIRED initiative, please visit its website at: <http://www.doleta.gov/>

#### Why You?

You have been selected as the individual at your institution that is best prepared to complete this survey. The data collected from this report will be summarized into a report that will be shared with the members of the BIZSTARTS Milwaukee Board, Governing Council and representatives serving on the BIZLEARN College Consortium from the 20 campuses in southeast Wisconsin.

#### Future Collaboration?

BIZSTARTS Milwaukee is very interested in helping colleges and universities in southeast Wisconsin to develop entrepreneurship programs of all sorts. There are ways we can work together to identify ideas and resources. Be sure to complete Section 16 of the survey to let us know of your program interests and opportunities for future collaboration.

#### Questions?

We recognize that this “one size fits all” survey may not adequately reflect all the efforts on your campus or may present you with other questions or challenges. Please feel free to contact us with any concerns. Please send your questions to Mark C. Schug, Ph.D., a consultant working on this project. You can best reach Mark at [mschug@uwm.edu](mailto:mschug@uwm.edu) or (414) 630-6585.

#### Deadline:

We would like to have the completed survey return via an e-mail attachment no later than **April 24, 2009**. While the length of the survey appears somewhat daunting, you may be surprised. The amount of time involved in completing the survey will vary depending on your existing level of activity.

**Section 1: Who is completing the survey?**

- Please provide us with your contact information.

<b>Name</b>	
<b>Title</b>	
<b>Name of your Institution</b>	
<b>Your Contact Information</b>	Telephone:
	E-mail address:

**Section 2: Undergraduate Courses**

1. Does your institution offer one or more *undergraduate* courses in which entrepreneurship is an explicit goal?  
 Yes     No

• **If you answered “No” to Question 1 please skip to Section 3.**  
 • **If your institution offers an area of emphasis, certificate, a minor or a major in entrepreneurship, you may wish to skip to Section 4, 5, 6, 7, 8, or 9 depending on your institution’s programs.**

2. How many *undergraduate* entrepreneurship courses does your institution offer?

- Please check next to one:  
 One                       Five  
 Two                       Six  
 Three                     Seven  
 Four                       Eight or more

3. Which academic unit offers *undergraduate* entrepreneurship courses? [Mark: Format OK here?]

- Please check all that apply:  
 Arts                       Engineering                       Social Work  
 Business                       Health                       Other \_\_\_\_\_  
 Education                       Law                       Other \_\_\_\_\_  
 Economics                       Nursing                       Other \_\_\_\_\_

4. What is the title of the course that enrolls the most *undergraduate* students?

- Please enter the name of Course One here: \_\_\_\_\_
- Please enter the name of the academic unit here: \_\_\_\_\_
- Or, provide the URL so we can find the course title on your institution’s website: \_\_\_\_\_

5. How often is Course One offered? (The course that enrolls the most students)

- Once per academic year
- Twice per academic year
- Three times per academic year
- More than three times per academic year

6. About how many students were enrolled in Course One the last time the course was offered?

- 1-10     11-19     20-29     30 or more

7. What is the title of the course that enrolls the second most *undergraduate* students?

- Please enter the name of Course Two here: \_\_\_\_\_
- Please enter the name of the academic unit here: \_\_\_\_\_
- Or, provide the URL so we can find the course title on your institution’s website: \_\_\_\_\_

• **If there is no Second Course please skip to Section 3.**

8. How often is Course Two offered? (The course that enrolls the second most students)
- Once per academic year  
 Twice per academic year  
 Three times per academic year  
 More than three times per academic year

9. About how many students were enrolled the last time the course was offered?
- 1-10  11-19  20-29  30 or more

**Section 3: Graduate Courses**

1. Does your institution offer one or more *graduate* courses in which entrepreneurship is an explicit goal?
- Yes  No

• **If you answered “No” to Question 1 please skip to Section 4.**  
 • **If your institution offers an area of emphasis certificate, a minor or a major in entrepreneurship, you may wish to skip to Section 4, 5, 6, 7, 8 or 9 depending on your institution’s programs.**

2. How many *graduate* entrepreneurship courses does your institution offer?
- One  Five  
 Two  Six  
 Three  Seven  
 Four  Eight or more

3. Which academic unit offers *graduate* entrepreneurship courses?

- Please place a check next to all that apply:
- |                                    |                                      |                                      |
|------------------------------------|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> Arts      | <input type="checkbox"/> Engineering | <input type="checkbox"/> Social Work |
| <input type="checkbox"/> Business  | <input type="checkbox"/> Health      | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Education | <input type="checkbox"/> Law         | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Economics | <input type="checkbox"/> Nursing     | <input type="checkbox"/> Other _____ |

4. What is the title of the course that enrolls the most *graduate* students?

- Please enter the name of Course One here: \_\_\_\_\_  
 • Please enter the name of the academic unit here: \_\_\_\_\_  
 • Or, provide the URL so we can find the course title on your institution’s website: \_\_\_\_\_

5. How often is Course One offered? (The course that enrolls the most students)

- Once per academic year  
 Twice per academic year  
 Three times academic per year  
 More than three times per academic year

6. About how many students were enrolled in Course One the last time it was offered?

- 1-10  11-19  20-29  30 or more

7. What is the title of the course that enrolls the second most *graduate* students?

- Please enter the name of Course Two here : \_\_\_\_\_  
 • Please enter the name of the academic unit here: \_\_\_\_\_  
 • Or, provide the URL so we can find the course title on your institution’s website: \_\_\_\_\_

• **If there is no Second Course please skip to Section 4.**

8. How often is Course Two offered? (The course that enrolls the second most students)
- Once per year  
 Twice per year  
 Three times per year  
 More than three times per year

9. How many students were enrolled the last time Course Two was offered?
- 1-10  11-19  20-29  30 or more

**Section 4: Area of Emphasis in Entrepreneurship**

1. Does your institution offer an area of emphasis in which entrepreneurship is an explicit goal?
- Yes  No

**• If you answered “No” to Question 1 please skip to Section 5.**

2. How many areas of emphasis in entrepreneurship does your institution offer?
- 1  2  3  4  5 or more

3. What academic unit offers a certificate in entrepreneurship?

- Please place a check next to all that apply:
- |                                    |                                      |                                      |
|------------------------------------|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> Arts      | <input type="checkbox"/> Engineering | <input type="checkbox"/> Social Work |
| <input type="checkbox"/> Business  | <input type="checkbox"/> Health      | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Education | <input type="checkbox"/> Law         | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Economics | <input type="checkbox"/> Nursing     | <input type="checkbox"/> Other _____ |

4. What is the name of the area of emphasis with the largest enrollment?

- Please enter the name here: \_\_\_\_\_
- Please enter the name of the academic unit here: \_\_\_\_\_
- Or, provide the URL so we can find the name on your institution’s website \_\_\_\_\_

5. How many courses are required to complete an area of emphasis? (The area of emphasis with the largest enrollment)

- |                                |  |
|--------------------------------|--|
| <input type="checkbox"/> One   | <input type="checkbox"/> Five          |
| <input type="checkbox"/> Two   | <input type="checkbox"/> Six           |
| <input type="checkbox"/> Three | <input type="checkbox"/> Seven         |
| <input type="checkbox"/> Four  | <input type="checkbox"/> Eight or more |

- Or, provide the URL so we can find the courses on your institution’s website: \_\_\_\_\_

6. How many students completed the area of emphasis in the last academic year?
- 1-10  11-19  20-29  30 or more

7. Please describe any success factors which might suggest that students who complete this area of emphasis are successful entrepreneurs.

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8. Please describe any challenges or barriers that impede the success of this area of emphasis.

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**Section 5: Certificates in Entrepreneurship**

1. Does your institution offer one or more certificate programs in which entrepreneurship as an explicit goal? \_\_\_  
Yes \_\_\_ No

**• If you answered "No" to Question 1 please skip to Section 6.**

2. How many certificates in entrepreneurship does your institution offer?  
\_\_\_ 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 or more

3. What academic unit offers a certificate in entrepreneurship?  
\_\_\_ Arts                      \_\_\_ Engineering                      \_\_\_ Social Work  
\_\_\_ Business                      \_\_\_ Health                      \_\_\_ Other \_\_\_\_\_  
\_\_\_ Education                      \_\_\_ Law                      \_\_\_ Other \_\_\_\_\_  
\_\_\_ Economics                      \_\_\_ Nursing                      \_\_\_ Other \_\_\_\_\_

4. What is the name of the certificate program with the largest enrollment?  
• Please enter the name here: \_\_\_\_\_  
• Please enter the name of the academic unit here: \_\_\_\_\_  
• Or, provide the URL so we can find the name on your institution's website: \_\_\_\_\_

5. How many courses are required to earn Certificate One? (The certificate with the largest enrollment)  
• Please place a check next to one:  
\_\_\_ One                      \_\_\_ Five  
\_\_\_ Two                      \_\_\_ Six  
\_\_\_ Three                      \_\_\_ Seven  
\_\_\_ Four                      \_\_\_ Eight or more  
  
• Or, provide the URL so we can find the courses on your institution's website: \_\_\_\_\_

6. How many students received Certificate One in the last academic year?  
• Please place a check next to one:  
\_\_\_ 1-10 \_\_\_ 11-19 \_\_\_ 20-29 \_\_\_ 30 or more

7. Please describe any success factors which might suggest that students who complete Certificate One are successful entrepreneurs.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

8. Please describe any challenges or barriers that impede the success of Certificate One.

\_\_\_\_\_  
\_\_\_\_\_

**Section 6: Undergraduate Minor in Entrepreneurship**

1. Does your institution offer an *undergraduate* minor in entrepreneurship? \_\_\_ Yes \_\_\_ No

**• If you answered "No" to Question 1 please skip to Section 7.**

2. How many *undergraduate* minors in entrepreneurship does your institution offer?  
• Please place a check next to one:  
\_\_\_ 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 or more

3. What academic unit offers a minor in entrepreneurship?

- Please place a check next to all that apply:  
 Arts                                       Engineering                                       Social Work  
 Business                                       Health                                       Other \_\_\_\_\_  
 Education                                       Law                                       Other \_\_\_\_\_  
 Economics                                       Nursing                                       Other \_\_\_\_\_

4. What is the name of the minor with the largest enrollment?

- Please enter the name of the academic unit here: \_\_\_\_\_
- Please enter the name here: \_\_\_\_\_
- Or, provide the URL so we can find the name on your institution's website: \_\_\_\_\_

5. How many courses are required in the minor with the largest enrollment?

- Please a check next to one:  
 One                                       Five  
 Two                                       Six  
 Three                                       Seven  
 Four                                       Eight or more

6. How many students received minors in the last academic year? (Minor with the largest enrollment)

- Please place a check next to one:  
 1-10     11-19     20-29     30 or more

7. Please list the names of three or four courses that you regard as the core of this minor? (minor with the largest enrollment)

- Title of Course One: \_\_\_\_\_
- Title of Course Two: \_\_\_\_\_
- Title of Course Three: \_\_\_\_\_
- Title of Course Four: \_\_\_\_\_
- Or, provide the URL so we can find the courses on your institution's website: \_\_\_\_\_
- Please attach a description of the program in the form of a Word document if available.

8. Please describe any success factors which might suggest that students who complete this minor are successful entrepreneurs.

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9. Please describe any challenges or barriers that impede the success of this minor.

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**Section 7: Undergraduate Major in Entrepreneurship**

1. Does your institution offer an *undergraduate* major in entrepreneurship?  Yes  No

**• If you answered “No” to Question 1 please skip to Section 8.**

2. How many *undergraduate* majors in entrepreneurship does your institution offer?

- Please place a check next to one:  
 1  2  3  4  5 or more

3. What academic unit offers an *undergraduate* major in entrepreneurship?

- Please check all that apply:  
 Arts  Engineering  Social Work  
 Business  Health  Other \_\_\_\_\_  
 Education  Law  Other \_\_\_\_\_  
 Economics  Nursing  Other \_\_\_\_\_

4. What is the name of the *undergraduate* major with the largest enrollment?

- Please enter the name here: \_\_\_\_\_
- Please enter the name of the academic unit here: \_\_\_\_\_
- Or, provide the URL so we can find the name on your institution’s website: \_\_\_\_\_

5. How many courses are required in the *undergraduate* major with the largest enrollment?

- Please a check next to one:  
 One  Five  Nine  
 Two  Six  Ten  
 Three  Seven  Eleven  
 Four  Eight  Twelve or more

6. How many students received majors in the last academic year? (Major with the largest enrollment)

- Please place a check next to one:  
 1-10  11-19  20-29  30 or more

7. Please list the names of seven or eight courses that you regard as the core of this major. (Major with the largest enrollment)

- Title of Course One: \_\_\_\_\_
- Title of Course Two: \_\_\_\_\_
- Title of Course Three: \_\_\_\_\_
- Title of Course Four: \_\_\_\_\_
- Title of Course Five: \_\_\_\_\_
- Title of Course Six: \_\_\_\_\_
- Title of Course Seven: \_\_\_\_\_
- Title of Course Eight: \_\_\_\_\_
- Or, provide the URL so we can find the courses on your institution’s website: \_\_\_\_\_
- Please attach a description of the program in the form of a Word document if available.

8. Please describe any success factors which might suggest that students who complete this major are successful entrepreneurs.

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9. Please describe any challenges or barriers that impede the success of this major.

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**Section 8: Graduate Minor in Entrepreneurship**

1. Does your institution offer a *graduate* minor in entrepreneurship? \_\_\_ Yes \_\_\_ No

**• If you answered “No” to Question 1 please skip to Section 9.**

2. How many *graduate* minors in entrepreneurship does your institution offer?

- Please place a check next to one:  
\_\_\_ 1 \_\_\_ 2 \_\_\_ 3 \_\_\_ 4 \_\_\_ 5 or more

3. What academic unit offers a *graduate* minor in entrepreneurship?

- Please check all that apply:  
\_\_\_ Arts                                      \_\_\_ Engineering                                      \_\_\_ Social Work  
\_\_\_ Business                                      \_\_\_ Health                                      \_\_\_ Other \_\_\_\_\_  
\_\_\_ Education                                      \_\_\_ Law                                      \_\_\_ Other \_\_\_\_\_  
\_\_\_ Economics                                      \_\_\_ Nursing                                      \_\_\_ Other \_\_\_\_\_

4. What is the name of the *graduate* minor with the largest enrollment?

- Please enter the name here: \_\_\_\_\_
- Please enter the name of the academic unit here: \_\_\_\_\_
- Or, provide the URL so we can find the name on your institution’s website: \_\_\_\_\_

5. How many courses are required in the *graduate* minor with the largest enrollment?

- Please place a check next to one:  
\_\_\_ One                                      \_\_\_ Five  
\_\_\_ Two                                      \_\_\_ Six  
\_\_\_ Three                                      \_\_\_ Seven  
\_\_\_ Four                                      \_\_\_ Eight or more

6. How many students received minors in the last academic year? (Minor with the largest enrollment)

- \_\_\_ 1-10 \_\_\_ 11-19 \_\_\_ 20-29 \_\_\_ 30 or more

7. Please list the names of three or four courses that you regard as the core of this minor? (Minor with the largest enrollment)

- Title of Course One: \_\_\_\_\_
- Title of Course Two: \_\_\_\_\_
- Title of Course Three: \_\_\_\_\_
- Title of Course Four: \_\_\_\_\_
- Or, provide the URL so we can find the courses on your institution’s website: \_\_\_\_\_
- Please attach a description of the program in the form of a Word document if available.

8. Please describe any success factors which might suggest that students who complete this minor are successful entrepreneurs.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. Please describe any challenges or barriers that impede the success of Certificate Two.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Section 10: Internships**

1. Does your institution offer student internships in which entrepreneurship is an explicit goal?

Yes  No

**• If you answered “No” to Question 1 please skip to Section 11.**

2. How many student internships are offered on your campus?

One  Two  Three  Four  More than four

3. Which academic unit has student internships?

• Please check all that apply:

<input type="checkbox"/> Arts	<input type="checkbox"/> Engineering	<input type="checkbox"/> Social Work
<input type="checkbox"/> Business	<input type="checkbox"/> Health	<input type="checkbox"/> Other _____
<input type="checkbox"/> Education	<input type="checkbox"/> Law	<input type="checkbox"/> Other _____
<input type="checkbox"/> Economics	<input type="checkbox"/> Nursing	<input type="checkbox"/> Other _____

4. What is the name of Internship One: (The internship with the most students involved)

- Please enter the name of the internship here: \_\_\_\_\_
- Or, provide the URL so we can find the name on your institution’s website: \_\_\_\_\_

5. How many students currently are involved in the Internship One?

1-10  11-20  21-30  31 or more

6. Please describe any success factors which might suggest that students who complete this internship are successful entrepreneurs.

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7. Please describe any challenges or barriers that impede the success of this internship.

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8. What is the name of Internship Two: (the one with the second most students involved)

- Please enter the name of the internship here: \_\_\_\_\_
- Or, provide the URL so we can find the name on your institution’s website: \_\_\_\_\_

**• If there is no Second Student internship please skip to Section 11.**

9. How many students currently are involved in Internship Two?

1-10  11-20  21-30  31 or more

10. Please describe any success factors which might suggest that students who complete this internship are successful entrepreneurs.

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11. Please describe any challenges or barriers that impede the success of this internship.

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### Section 11: Student Competitions

1. Does your institution sponsor students in one or more competitions in which entrepreneurship is an explicit goal? (e.g., developing a business plan and submitting it to a competition) \_\_\_ Yes \_\_\_ No

• **If you answered "No" to Question 1 please skip to Section 12.**

2. How many student entrepreneurship competitions are offered on your campus?

\_\_\_ One \_\_\_ Two \_\_\_ Three \_\_\_ Four \_\_\_ More than four

3. Which academic unit sponsors student competitions?

• Please check all that apply:

___ Arts	___ Engineering	___ Social Work
___ Business	___ Health	___ Other _____
___ Education	___ Law	___ Other _____
___ Economics	___ Nursing	___ Other _____

4. What is the name of Student Competition One: (The competition with the most students involved)

- Please enter the name of the competition here: \_\_\_\_\_
- Or, provide the URL so we can find the name on your institution's website: \_\_\_\_\_

5. How many students currently are involved in Competition One?

\_\_\_ 1-10 \_\_\_ 11-20 \_\_\_ 21-30 \_\_\_ 31 or more

6. At what level did students in Competition One compete 2008-2009?

\_\_\_ Campus wide \_\_\_ State \_\_\_ Regional \_\_\_ National \_\_\_ International

7. What is the name of Student Competition Two: (the one with the second most students involved)

- Please enter the name of the competition here: \_\_\_\_\_
- Or, provide the URL so we can find the name on your institution's website: \_\_\_\_\_

• **If there is no Second Student Competition please skip to Section 12.**

8. How many students currently are involved in Competition Two?

\_\_\_ 1-10 \_\_\_ 11-20 \_\_\_ 21-30 \_\_\_ 31 or more

9. At what level did students in Competition Two compete this year?

\_\_\_ Campus wide \_\_\_ State \_\_\_ Regional \_\_\_ National \_\_\_ International

### Section 12: Student Organizations

1. Does your institution have one or more student organizations which have entrepreneurship education as an explicit goal? \_\_\_ Yes \_\_\_ No

• **If you answered "No" to Question 1 please skip to Section 13.**

2. How many student entrepreneurship organizations are on your campus?

\_\_\_ One \_\_\_ Two \_\_\_ Three \_\_\_ Four \_\_\_ More than four

3. Which academic unit sponsors student organizations?

• Please check all that apply:

___ Arts	___ Engineering	___ Social Work
___ Business	___ Health	___ Other _____
___ Education	___ Law	___ Other _____
___ Economics	___ Nursing	___ Other _____

4. What is the name of Student Organization One: (The organization with the most students involved)

- Please enter the name of the organization here: \_\_\_\_\_
- Or, provide the URL so we can find the name on your institution's website: \_\_\_\_\_

5. How many students currently belong to Organization One?

\_\_\_ 1-10 \_\_\_ 11-20 \_\_\_ 21-30 \_\_\_ 31 or more

6. In what activities do students in Organization One participate?

- Please place a check next to all that apply:

\_\_\_ Participate in competitions (e.g., developing a business plan)

\_\_\_ Attend regional meetings

\_\_\_ Attend state meetings

\_\_\_ Attend national meetings

\_\_\_ Participate in volunteer activities

\_\_\_ Other: Please describe: \_\_\_\_\_

\_\_\_ Other: Please describe: \_\_\_\_\_

7. What is the name of Student Organization Two? (The organization with the second most students involved)

- Please enter the name of the organization here: \_\_\_\_\_

- Or, provide the URL so we can find the name on your institution's website: \_\_\_\_\_

• **If there is no Second Organization please skip to Section 13.**

8. How many students currently belong to Organization Two?

\_\_\_ 1-10 \_\_\_ 11-20 \_\_\_ 21-30 \_\_\_ 31 or more

9. In what activities do students in Organization Two participate?

- Please place a check next to all that apply:

\_\_\_ Participate in competitions (e.g., developing a business plan)

\_\_\_ Attend regional meetings

\_\_\_ Attend state meetings

\_\_\_ Attend national meetings

\_\_\_ Attend international meetings

\_\_\_ Participate in volunteer activities

\_\_\_ Other: Please describe: \_\_\_\_\_

\_\_\_ Other: Please describe: \_\_\_\_\_

**Section 13: Technology Transfer**

1. Does your institution have a formal office that manages matters pertaining to intellectual property, patenting, licensing, copyright protection and so forth? \_\_\_ Yes \_\_\_ No

• **If you answered "No" to Question 1 please skip to Section 14.**

2. Please enter the information requested below regarding your institution's Technology Transfer programs.

- Or, provide the URL so we can find this information on your institution's website: \_\_\_\_\_

Name of Program	Number of licensing agreements in the past year	Number of patent applications in the past year	Number of copyright applications in the past year	Other	Other

**Section 14: Commercialization Programs**

1. Does your college or university have any formal commercialization programs such as college or university and industry joint ventures?  Yes  No

**• If you answered “No” to Question 1 please skip to Section 15.**

2. Please enter the information requested below regarding your institution’s Technology Transfer programs.

- Or, provide the URL so we can find this information on your institution’s website: \_\_\_\_\_

Name of the Program	Name of Industry Partner

**Section 15: Overall Institutional Assessment and Faculty**

1. How would you rate entrepreneurship education as a goal at your institution among the school administration as a whole?

Very important  Important  Somewhat important  Unimportant

2. How would you rate entrepreneurship education as a goal at your institution among the faculty as a whole?

Very important  Important  Somewhat important  Unimportant

3. How would you characterize your institution’s current approach to entrepreneurship education across academic units? Please place a check next to one:

- Little or no effort concentrated in any academic unit
- Effort concentrated in one academic unit
- Efforts concentrated in two academic units
- Efforts spread across three or four academic units
- Widespread efforts across numerous academic units

4. Overall, what do you regard as your institution’s greatest strengths or best practices regarding entrepreneurship education?

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5. Overall, what do you regard as your institution’s greatest weaknesses or challenges regarding entrepreneurship education?

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6. Does your institution have any key faculty members who you regard as being highly dedicated teachers of entrepreneurship?  Yes  No

**• If you answered “No” to Question 6 please skip to Section 16.**

7. Please provide us with some contact information for these faculty members.

Faculty Member Name	Department	Permanent or ad hoc?	E-mail address

8. Does your institution have any key faculty members who you regard as being highly dedicated researchers in the area of entrepreneurship? \_\_\_ Yes \_\_\_ No

**• If you answered “No” to Question 8 please skip to Section 16.**

9. Please provide us with some contact information for these faculty members.

Faculty Member Name	Department	Permanent or ad hoc?	E-mail address

**Section 16: Interest in Collaboration**

1. Are you currently working in collaboration with other campuses in the area of entrepreneurship education? Please explain.

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2. All institutions of higher learning have finite resources. However, imagine for a moment that BIZSTARTS Milwaukee could assist your institution (in combination with others) in overcoming a specific resource challenge. What might be the *next step* that your institution would like to take in order to strengthen or expand its current practices in entrepreneurship education?

- Please check all that apply:
  - Increase student participation in entrepreneurship courses
  - Develop new undergraduate courses
  - Develop new graduate courses
  - Develop a new area of emphasis
  - Develop a new certificate program
  - Develop a new minor
  - Develop a new major
  - Establish student entrepreneurship competitions
  - Increase student participation in competitions
  - Establish student entrepreneurship organizations
  - Increase student participation in student organizations
  - Develop student internships
  - Develop cross-campus initiatives
  - Develop technology transfer programs
  - Develop joint ventures with business
  - Other \_\_\_\_\_
  - Other \_\_\_\_\_
  - Other \_\_\_\_\_

2. Do you know of any local, regional or national individuals, corporations or foundations that you think would have an interest in receiving a proposal from a consortium of institutions (including your own) and perhaps prepared with the assistance from BIZSTARTS Milwaukee?  Yes  No

3. If you answered “Yes” to question 3, please list some possible supporters that you would like help in approaching.

Name of the Organization	Location

## **Appendix 2 Participating Institutions in Southeast Wisconsin**

Alverno College

Cardinal Stritch

Carthage College

Carroll College

Concordia University

Gateway Technical College

Marquette University

Medical College of Wisconsin

Milwaukee Area Technical College

Milwaukee Institute of Art & Design

Milwaukee School of Engineering

Moraine Park Technical College

Mount Mary College

UW-Milwaukee

UW-Parkside

UW-Washington County

UW-Waukesha

UW-Whitewater

Waukesha County Technical College

Wisconsin Lutheran College

Disclaimer to be added to Final Product or Report

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