



Center for Industrial Effectiveness
University at Buffalo *The State University of New York*



Annual Report 2009-2010

Improving the Economy



To our many stakeholders and partners,

In these challenging economic times of 2010 and heading into 2011, it is more critical than ever that we support businesses and communities, enabling them to survive and thrive. At the University of Buffalo (UB) State University of New York (SUNY), we are committed to help cultivate a strong regional and state economy through extension services to hundreds of individual businesses annually, and thousands over our history, which all add up to positive economic impacts for the many communities we serve.

Our team of professionals at UB's Center for Industrial Effectiveness (TCIE) has the skills and experience to provide results-oriented consulting, training, technical

services, and innovation through applied research for a broad range of needs. From the basics of strategic planning for small and mid-size businesses, to strategy, leadership development and operations excellence for high-growth and mature companies, helping improve performance is our goal. Likewise, for community leaders and organizations and with the onset of UB's Office of Economic Engagement, TCIE's economic outreach, consulting and research can provide the necessary tools for success.

UB is growing into a premier university, providing access to excellence for the region and state, now with 27,000 students and more than \$348 million in research. Being a center whose primary mission is outreach, TCIE works with students to provide them service-learning experience on business cases, and collaborates with faculty on community projects and research.

TCIE stakeholders include business and community clients, funding partners, elected officials, university leaders, and many economic development allies, who all share our mission in building the economy. We thank you for all you do to build the economy, one business at a time.

Fiscal Year 2009/10 Summary

SERVICE RESULTS

Number of Businesses Served	176
Professional Development – Number of People Trained/Certified	1,576
Business Process Reengineering Projects	60
Undergraduate/Graduate Students Placed	40
Number of Markets Served	17
Total Revenue	\$1,400,000

STRATEGIC PARTNERSHIP INDUSTRIAL RESURGENCE IMPACT (SPIR)

Number of SPIR Projects	30
Client Jobs Created	191
Client Jobs Retained	214
Value of SPIR Pipeline	\$400,000
Client Increased Revenue	\$26,100,000



UB's **Center for Industrial Effectiveness (TCIE)** was founded in 1987 and is the primary university center providing extension services to businesses. TCIE facilitates business growth, economic development and operational excellence for client organizations of all types and sizes, including private businesses, governments, hospitals, educational institutions and non-profit agencies. Services include continuous improvement in infrastructure performance, leadership and change management, training and human resource development, and implementation services. Under the aegis of UB's School of Engineering and Applied Sciences, TCIE delivers engineering solutions via research and development ventures, and access to testing labs and a highly trained and educated student talent pool.

While TCIE primarily serves New York State, offerings are provided to businesses across North America and the world. In 2009-2010, TCIE's programs increased net sales in excess of \$26 million and created or retained more than 400 jobs. Additionally, TCIE's professional development team trained more than 1,500 working professionals, strengthening businesses and the community through excellence in service. Our business development and resource teams include highly knowledgeable and engaging individuals who utilize their industry experience to achieve excellent results.

In addition to the Amherst-based office, TCIE is the regional administrator for **New York State's Strategic Partnership for Industrial Resurgence (SPIR)** grant, with SPIR offices located at SUNY Binghamton, New Paltz, Albany and Stony Brook. The SPIR program offers an engineering resource that is unparalleled in New York State.

TCIE is located at the Baird Research Park campus at 1576 Sweet Home Rd. The building is UB's Technology Incubator, encompassing TCIE and the Office of Science, Technology Transfer, and Economic Outreach. The 40,000-square foot business incubator is a multi-tenant facility with wet/dry labs, conference rooms and offices for convening activities. The building was made possible by a gift from the Baird family and the University at Buffalo Foundation.

Our Mission and Values

The mission of UB's **Center for Industrial Effectiveness** is to be a leader in building the economy, by strengthening businesses and communities through excellence in service.

Our vision is to be a leading university extension service organization recognized for collaborating with diverse partners and providing a broad array of services to our stakeholders.

Integrity

Building our reputation by being ...

- Accountable
- Credible
- Ethical
- Respectful

Excellence

Exceeding stakeholder expectations by ...

- Achieving results
- Demonstrating leadership
- Leveraging our resources and expertise

Service

Delivering results and fostering diversity by being ...

- Responsive
- Adding value
- Providing solutions
- Collaborating

Innovation

Fostering a culture of creativity by embracing ...

- Change
- Lifelong learning
- Risk-taking

Strategic Partnership for Industrial Resurgence



Subsidizes technically advanced multi-disciplinary projects for New York State companies.

TCIE works with approximately 30 companies each year to attain Strategic Partnership for Industrial Resurgence (SPIR) grant monies to assist with project costs. Companies with fewer than 500 employees have benefited by upgrading or introducing new technology, addressing challenges of product development and testing, enhancing a continuous improvement program, and making their business more competitive through other initiatives.

Specifically, SPIR projects include:

- UB Engineering and R&D projects
- Re-engineering business processes and improved/enhanced business systems
- Accessing university equipment and resources
- Employing graduate student interns

Client projects contracted during the 2009-10 fiscal year receiving SPIR awards resulted in an estimated:

- 191 jobs created
- 214 jobs retained
- \$26,100,000 revenue increase



Sectors Served & Client List

TCIE's client engagements include professional development, consultation, and mentoring in the areas of Lean, Six Sigma, ISO, and Soft Skills, as well as individual research projects that call on the expertise of faculty. The client base covers the following sectors: Manufacturing and Advanced Manufacturing, Life Sciences, Healthcare and Social Services, Food Processing and Food Services, Government and Education, Finance and Insurance, Specialty Metals, Recycling, Printing, Metal Forming, Automotive, Packaging, Agricultural, Distribution and Warehousing, Service, Aerospace and Defense, Electronics and Chemical.

The featured sectors include a partial list of clients.

Advanced Manufacturing:



Life Science:



Healthcare and Social Services:



Food Processing & Food Services:



Government & Education:



Finance & Insurance:



UB and the School of Engineering



The University at Buffalo (UB) is a premier research-intensive public university and the flagship institution in the 64-campus State University of New York (SUNY) system. UB is SUNY's largest and most comprehensive campus, with a Fall 2009 enrollment of 27,000 students and 10,066 employees. UB offers more than 100 undergraduate degrees, 190 master's degrees, 83 doctoral degrees and four professional degrees.

UB's School of Engineering and Applied Sciences is the largest and most comprehensive public school of engineering in New York. Annual research expenditures are around \$50 million and the school's per faculty research expenditure places it in the top 10 percent of U.S. engineering schools. The engineering departments are: Biomedical; Chemical and Biological; Civil, Structural and Environmental; Computer Science; Electrical; Industrial and Systems; and Mechanical and Aerospace.



The University at Buffalo Office of Economic Engagement (OEE) plays a key role in UB achieving its full impact as an economic engine for Buffalo Niagara and New York State, as envisioned in UB's strategic plan. The mission also aligns with SUNY Chancellor Nancy Zimpher's strategic plan for all institutions to cultivate entrepreneurial thinking by helping new and existing businesses innovate, prosper and grow. The OEE facilitates access to programs, services and faculty expertise.

NYSCEDI The mission of the **New York State Center for Engineering Design and Industrial**

Innovation (NYSCEDI) is to develop next-generation design, manufacturing, product and process development tools that best exploit new information, visualization and simulation technologies for the benefit of the industrial base of New York State and the UB academic community. The center emphasizes visualization, interactive environments, cyberinfrastructure, and advanced design theory and methodology to address complex analysis and design problems, and promote innovation in product design and manufacturing.

University Partner Organizations



The Calspan-University at Buffalo Research Center (CUBRC) executes research, development, testing and

systems integration programs in information exploitation, medical biotechnology, chemical and biological defense, public health and safety, hypersonics and professional services. CUBRC professionals apply innovative research, rigorous testing and robust engineering to deliver cutting-edge science and technology solutions allied to best-in-class business practices.



The Center of Excellence for Document Analysis & Recognition (CEDAR) is a UB research center. While

analysis of paper documents and handwriting recognition continues to be its strength, it also conducts research and software development projects involving diverse digital document types.



The University at Buffalo Office of Science, Technology Transfer, and Economic Outreach (STOR) is UB's interface between the inventive work

of laboratory research and the applied commercial development that brings the benefits of that work to market. STOR is building a 21st-century economy for the Buffalo-Niagara region based on bioscience and information technology. STOR's three divisions—Intellectual Property, Funding, and Commercialization—provide easy access to UB's extensive resources and expertise.



Directed Energy
The right products now

Directed Energy seeks to facilitate the emergence and growth of an alternative energy technology and business cluster in Western New

York. This NYSERDA-funded program is managed by the University at Buffalo Office of Science, Technology Transfer and Economic Outreach (STOR) and is a partnership of many technology and business assets in the western end of New York State.

Economic Development Partner Organizations



Empire State Development (ESD) is committed to being recognized as the

economic development engine driving job growth, strategic investment and prosperity in New York State. The ESD offers a number of services for businesses, including loans and grants, tax credits, and other financing and technical assistance.



The **Buffalo Niagara Enterprise (BNE)** provides comprehensive economic development assistance to new and existing

companies doing business in Western New York. Services include business attraction, professional consultation on business locations, regional collaboration, and marketing and public relations.



The mission of the **Erie County Industrial Development Agency (ECIDA)** is to provide the resources that encourage investment,

innovation, growth and global competitiveness. The ECIDA is a public benefit corporation created to promote and assist private sector industrial/business development, thereby advancing job opportunities and economic well being to the people of Erie County.



The primary purpose of the **Amherst IDA** is to promote regional employment growth through the attraction, expansion and

retention of companies within the Town of Amherst. The Amherst IDA's approach to economic development is a community-wide effort focused on people, knowledge, networks and linking community assets.

TCIE's Reach



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Like most elite state university extension programs we help our clients solve a wide range of business challenges and measure our success directly on the results we deliver. Our team of professionals has the skills and experience to provide innovative solutions for a broad range of needs, regardless of location.

www.tcie.buffalo.edu



The **Buffalo Niagara Partnership (the Partnership)** includes nearly 2,500 employer members working for improved business competitiveness and expanded

economic activity in the region. The Partnership advocates at local, state and national levels for policies and resources to increase private sector investment and jobs, and offers programs and services to increase chances for business success.



The mission of the **Niagara County Department of Economic Development** is to provide high quality

professional planning services to the municipalities, citizens and organizations of Niagara County, as well as promote orderly growth and development through the dissemination of information; preparation of plans, projects and programs; and provision of technical services.



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