

THE FINGER LAKES WIRED STORY

**A Chronology of the
Finger Lakes Partnership's Workforce Innovation in Regional
Economic Development Initiative**

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Note: contains metrics updates from End of WIRED reports

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THE FINGER LAKES WIRED STORY

In November 2005 the United States Department of Labor (US DOL) Employment and Training Administration (ETA) released the Solicitation for Grant Applications for the Workforce Innovation in Regional Economic Development (WIRED) initiative.

The WIRED initiative sought the development of a regional, integrated approach to workforce and economic development and education. The ultimate goal of WIRED was to expand opportunities for American workers, catalyze the creation of high-skill and high-wage jobs and achieve a more globally competitive workforce. Regions designated as WIRED Generation I regions would receive \$15 million over three years to revitalize their local economies.

The solicitation was routed through the Governor's office of each state by US DOL/ETA. In New York it was then broadcast to agencies and institutions in the state as opposed to being an invitational request from the Governor's office. Each state's Governor's office drove the process, and in New York, New York State Department of Labor (NYS DOL) was designated by the Governor to manage the process for New York State.

Notice and Submission

The WIRED grant solicitation timeline was short; being received from US DOL/ETA in the Governor's offices in November, 2005; with a return date to US DOL/ETA by January 5, 2006.

In the Finger Lakes region a handful of recipients of the notice of solicitation began to discuss the intent of the initiative and its applicability to the region. Representatives from interested organizations decided to invest the time and effort to craft a proposal for the region. From this group the Finger Lakes Partnership was formed.

As stated in "The Finger Lakes Partnership: An Abstract", the twenty-one members of the Partnership, *"represented critical leadership throughout the Finger Lakes region; strategic leaders of all sectors have endorsed this proposal and are poised to be agents of change in the region. RochesterWorks Inc., the non-profit arm of the Monroe County/Rochester Workforce Investment Board (WIB), will lead the project, employing the project management team, facilitating partner projects and maintaining communication among regional, state, and federal stakeholders. In cooperation, the Genesee, Livingston, Orleans, and Wyoming WIB and the Finger Lakes WIB (comprised of Ontario, Seneca, Wayne, and Yates counties) will connect the initiatives to job seekers, employers and education systems. Government partners include the City of Rochester, the County of Monroe, Empire State Development and Genesee/Finger Lakes Regional Planning Council, which represents all nine counties and is the planning entity for the New York State-designated Economic Development District. Public / private entrepreneurial leaders for this project are Greater Rochester Enterprise, High Tech Rochester, Infotonics Technology Center, Rochester Business Alliance, and the Cornell Agriculture and Food Tech Park. The academic community is represented the Rochester Area Colleges and specifically by the University of Rochester, Rochester Institute of Technology, as well as Finger Lakes, Genesee and Monroe Community Colleges.*

The organizations invested in the Partnership have joined together to increase the region's talent to drive real economic growth, placing an emphasis on the talents of its entrepreneurial community and the sharing of infrastructure, leveraging each other's strengths, all of which will amplify the region's capacity for innovation and build a stronger economy. In addition to the region's business leaders, the investment community is an important partner, represented by the Rochester Angel Network and Trillium Group, a local venture capital firm. Philanthropic support for regional job creation and entrepreneurship is given by Rochester Area Community Foundation." Again, the Partnership Profile was one of Workforce, Civic, Public/Private, Academic, Investor and Businesses across nine counties.

Teams were formed to focus on writing of the proposal and an accompanying implementation plan. Duncan Moore, from the University of Rochester, headed up an Entrepreneurship team; James Winston, from Monroe Community College, and David Bond, from RIT, headed up a Workforce Development team; Jim Senall, from Greater Rochester Enterprise, along with representatives from the IDA's led the Economic Development effort; and, Paul Wetenhall, then of High Technology Rochester, led the Innovation team. Supporting them were Marjorie Zack from Rochester Institute of Technology and Jack Kinnicut, New York State Empire State Development. Meetings of the full group occurred weekly and emails of draft versions and feedback on content were shared constantly across all teams.

Contributing to the challenge of writing the Region's proposal was the requirement that specific projects and programs and/or highly defined project and program concepts had to be included in the submissions as an indication of cohesiveness and early capacity to collaborate on the part of submitting regions and partnering groups. The fleshing-out of programs and projects would occur after notice of award; but within the project ideas proposed with significant detail. For example, approximations of funding support were spelled out for projects as well as project concept areas.

In all, over 20 people, representing multiple agencies and institutions contributed to crafting the Finger Lakes Partnership proposal.

On December 29, 2005, RochesterWorks, on behalf of the Finger Lakes Partnership, submitted an application in response to the WIRED Initiative solicitation.

In February 2006, the USDOL ETA announced the selection of the Finger Lakes region as a Generation I WIRED grantee.

Governance

The **Governing Board** was established to develop and guide strategy for the Partnership to ensure that actions continually addressed the mission of regional transformation. The original Governing Board Membership list is included in Attachment A.

Peter Robinson, Chief Operating Officer of the University of Rochester Medical Center was selected as Chairman of Finger Lakes WIRED. Matthew Hurlbutt, then Executive Director of RochesterWorks, was selected to be the Managing Director of the Finger Lakes WIRED

initiative. Both individuals were selected by the Partnership for their leadership abilities, contributions to the creation of Finger Lakes proposal, and interest in the proposal's potential for positive impact on the workforce development and economic growth of the Finger Lakes region.

The first Governing Board meeting / Kickoff meeting was held May 10, 2006. In attendance was the Assistant Secretary for Employment and Training, Emily DeRocco, U. S. Department of Labor and Dennis Ryan, NYS DOL representing the NYS Governor's office.

With the formal notice of selection as a WIRED designated region the involvement of the partners shifted from writing to implementing. Energy now had to go into assessing concept proposals and guesstimates of content and cost into detailed WIRED Project and Budget Description format to be reviewed by Implementation and Operations Teams. Based upon their recommendations, proposals moved forward to final consideration by the Governing Board.

An **Operations Team** was also formed to guide project implementation and communication on region-wide initiatives. The original Operations Team consisted of managers from founding partner organizations listed in Attachment A.

Next, four (4) **Implementation Teams** were created with membership from relevant disciplines. These teams were charged with ensuring that project goals were achieved. The four Teams were: Entrepreneurship, Innovation, Workforce Development and Economic Development.

The Operations and Implementation Teams worked with the Managing Director to facilitate implementation of the Finger Lakes proposal. The Managing Director was responsible to see that objectives were aligned to the original proposal intent and that objectives were ultimately met.

In late 2007, the Operations and Implementation Teams had recognized duplicity of membership and redundancy of effort. In early 2008, the two groups decided to merge their two entities into what became known as the Steering Committee responsible for the combined objectives of the previously stated separate committees.

In April 2008 Matt Hurlbutt vacated the position of Managing Director of Finger Lakes WIRED joining Greater Rochester Enterprise in the capacity of Managing Director. From April, 2008 through the close of Finger Lakes WIRED the remaining WIRED Staff in the form of Program Manager, Pat Piles and Project Administrator, Laura Seelman, worked with Peter Pecor, Executive Director of Rochester Works (the fiscal administrator) and Peter Robinson, Chairman of Finger Lakes WIRED to continue the implementation of the Finger Lakes WIRED mission. In March, 2009 David Zorn, Executive Director of the Genesee/Finger Lakes Regional Planning Council, was appointed to fill the Managing Director position. In the final year of WIRED the Managing Director was primarily responsible for documenting the successes of the Finger Lakes region to share with partners and the community. The Managing Director was also tasked with addressing the issue of sustainability, and charged to convene WIRED partners and identify whether projects and/or the Finger Lakes WIRED Partnership will continue. Final recommendations on sustainability were presented for review by the Governing Board.

Projects & Implementation

In the proposal submission 26 possible initiatives were profiled. Beginning with notification in February 2006 that the Finger Lakes region was selected; the vetting process of these possible projects and related budgets began.

Conceptual project areas were included in workforce development, youth and emerging worker education, entrepreneurship and connecting businesses across the region. It was proposed by the Partnership that the Request for Proposal (RFP) process might be the best vehicle to attract multiple projects from across the region that would not only serve targeted geographic area needs and further leverage regional partnerships; but the process might also produce region-wide projects that the initial group of writers and thinkers did not have time to think of before submitting the Finger Lakes WIRED proposal.

By October 2006, the Masters of Science Technology Innovation, The Entrepreneurs Network (TEN), Knowledge Clearinghouse, Predictive Analysis & Retention, Predictive Analysis for Attraction, Scholarship Program, Educator Internship, and the Apprenticeship program were approved by the Governing Board, as were the Small Business Innovation Research (SBIR) / Small Business Technology Transfer (STTR), Technology Commercialization, Pre-Seed Workshop, and Golden Horseshoe Business Plan Contest.

Among other projects referenced in the original submission was an apprenticeship program. This effort was to be delayed as NYS ironed out issues with apprenticeship programs at large. In the Fall of 2006 a Request for Proposal (RFP) was released to attract potential projects that might cut across Innovation and Entrepreneurship arenas. And by year's end, the Entrepreneurship & Strategic Immersion Sequence Program at RIT was approved. (See project benchmarks for details.)

Beginning in December 2006, and running through September, 2007, the Job Placement and Advancement RFP; the first Science, Technology, Engineering & Mathematics (STEM) RFP; the Innovation & Entrepreneurship RFP and the Connecting Business RFPs were released. In response to these RFP invitations five STEM Camps were funded in 2007 serving most of the Finger Lakes WIRED Region and the Friendly Home was awarded funding to pilot a program for nursing home and assisted-living workforce development, respectively. Convening business and fostering collaboration across industries projects were funded in the form of funding the Rural Opportunities Winery (Owners) education project, supporting Cornell Agriculture & Food Technology Essentials project, supporting the expansion of the Finger Lakes Advanced Manufacturing Enterprise and a broad-based Regional Clusters & Competency initiative mounted by Greater Rochester Enterprise. (See project benchmarks for details. The University of Rochester and Kaufmann Foundation sponsored Young Entrepreneurs Academy was also approved for funding by Finger Lakes WIRED.

A number of foundational (annually renewable based on performance) projects were approved for funding in 2006 and 2007. For many of the eleven (11) that were funded in 2006 the start up was slow. It takes time for complex projects to go from paper to real-time, implemented project.

Add to that the frequency of changes in interpretation of what was, wasn't, might be, or *under certain conditions* could be allowable expenditures within H1-B guidelines, and it is easy to see why progress was at times frustrating and painful. By way of specific example, the idea of fostering Entrepreneurism and Technology Commercialization in the early days of the award included providing funding support for 3-4 early stage ventures. At first, this was thought to be allowable. Later, it was determined to be un-allowable. The first part of 2007 could also be characterized as the ramping-up stage of Finger Lakes WIRED. The experiences of the Finger Lakes WIRED region were not that different from the other twelve (12) Generation I regions. In fact, US DOL and ETA ultimately announced a no-cost, additional year extension of Generation I WIRED in acknowledgement of this universal startup experience.

The original proposal identified programs that they were considered sufficient in priority that they would be renewed based on meeting deliverables outlined in their annual scopes of work. Projects in the original plan proposal that were designed to receive funding through the full WIRED grant funding period were:

- **Community College Apprenticeship Program**
- **Community College Entrepreneurship Fast Track (Emerging Entrepreneurs**
- **Entrepreneurship and Strategic Immersion Sequence course**
- **Educator Internship program**
- **Golden Horseshoe Business Plan Contest**
- **Knowledge Clearinghouse**
- **Masters of Science in Science and Technology Commercialization**
- **The Entrepreneurs Network (TEN)**
- **Predictive Analysis for Business Attraction**
- **Predictive Analysis for Business Retention**
- **Scholarship Program**
- **Pre-Seed Workshop**
- **Regional Clusters and Competencies/ Convening Businesses**
- **SBIR/STTR Workshops**
- **Technology Commercialization**
- **Young Entrepreneurs Academy**

Data Analysis

Shortly after notice of selection as a WIRED region, Finger Lakes WIRED began working with New Economy Strategies (NES). As an ETA identified resource to the WIRED regions, NES brought access to their chief economists, data strategists, and economic development experts. NES provided the capability to perform an analysis of the region's industry clusters, or employment concentrations.

The early thinking was that the region would identify "dominant" industry clusters that would become the "key" clusters, or predominant initiatives of the region. These prioritized targets of opportunity would be the promising "opportunity space" of the Finger Lakes. However, the quantitative and qualitative information, added to the local expertise, showed that instead of having "big D" dominant industry clusters, the region more significantly had a broad base of relatively strong industries present; with overlapping competencies. This resulted in a significant

shift in thinking across the Finger Lakes Partnership. The realization that the region was blessed with a diverse and solid presence in advanced manufacturing, alternative energy, bio/life sciences, business services, engineering, food & agriculture, health care (including not-for-profit health care organizations), information technology, and optics/imaging resulted in a move away from industry cluster thinking to competencies-awareness. It is this breadth of competencies across multiple industries that many have attributed the region's ability to weather the downsizings that have taken place in such large employers as Kodak and Xerox in recent years. To have focused on driving industry clusters may have been traditional wisdom; but did not fit the data being evaluated with NES assistance.

Finger Lakes WIRED engaged the Center for Governmental Research (CGR) to identify the key competencies of the Finger Lakes region and make recommendations to the Finger Lakes Partnership on strategies to capitalize on those competencies. In their report, "Growing the Economy in the Greater Rochester Region: Drawing on the Competencies of the Finger Lakes," CGR found no unique competency or competitive advantage that would distinguish the Finger Lakes region from the rest of the global economic community, reinforcing the findings of New Economy Strategies, and underscoring the relative stability of the regional economy.

Requests for Proposals

The original Plan document also reflected the big-picture and forward thinking of the Partnership by including a provision for youth education and workforce development in the form of provisions for the STEM camps and youth (16 and up ages) workforce development efforts. Projects to be funded in these two programs would be solicited via the RFP process with the expectation of annual renewability. These targeted RFPs were: (See Project Benchmarks for details.)

- STEM Camps
- Increasing Emerging Worker Skills

There were also some one-year duration programs and projects. Some RFPs were not re-released on purpose. (See Project Benchmarks for details.)

- Job Placement
- New Entrepreneurship & Innovation
- Convening Business
- Transforming the Region (Regional Skills Alliance (RSA)/ Career Readiness Credentialing (CRC) and Center for Regional Excellence/Workforce Excellence Regional Center (WERC))

The Job Placement RFP was not re-released because of the disappointing quality of response to the first release. One of two approved projects got off the ground (Friendly Home) and had very satisfactory results. The other approved effort (with a staffing company) never materialized. The Increasing Emerging Worker Skills RFP was already taking shape conceptually and that RFP's objective overlapped a good portion of the Job Placement objective, so the decision to not re-release this RFP was made.

Responses to the new Entrepreneurship & Innovation RFP included new proposals for technology commercialization. After discussion with High Tech Rochester and the new proposal leads, it was agreed that the opportunity to collaborate in a regional way had arisen and it became the impetus for what is now a highly effective collaboration between High Tech Rochester, University of Rochester Medical Center, RIT, Infotonics and Cornell Agriculture and Food Technology Park. This collaboration has evolved into an acceptance of a technology commercialization model and related common vocabulary and the leveraging of talent resources between these five institutions serving the nine counties.

A funded project under the 2007 New Entrepreneurship & Innovation RFP was the Finger Lakes Winery Business Training & Support program. When the 2007 New Entrepreneurship & Innovation RFP was written, it was presumed that successful performance to contract deliverables would mean eligibility for renewal the following year, 2008. Unfortunately that was not the case. This was learned too late in the fiscal year for the Project Lead organization (Rural Opportunities) to allow for Finger Lakes WIRED staff to seek approval from the Steering Committee and Governing Board to re-release a 2008 New Entrepreneurship & Innovation RFP and comply with notice timelines, review of submissions and approval through both WIRED authorities

Convening Businesses RFP

In September 2007, the Convening Businesses RFP was released and two proposals were selected for funding.

The Essential Links project, lead by the Cornell Agriculture and Food Technology Park, facilitated greater collaboration among businesses in the food and agriculture industry through a needs assessment, regionalization of the International Photonics, Food and Agriculture Conference, and the development of a website. The Conference convened business, academic institutions, and government in its inaugural event in 2007 and has become an annual event that encourages collaboration between the food, agricultural and technology sectors in the region.

A second project funded under the Convening Business RFP was a request to support a four county initiative in the Finger Lakes Workforce Investment Board region of Wayne, Ontario, Seneca and Yates counties. Members of the business community formed the Finger Lakes Advanced Manufacturing Enterprise (FAME) to improve collaboration between advanced manufacturing businesses and educators, create greater awareness of careers in the industry, and influence workforce development and economic growth. WIRED funding was used to further expand and develop the FAME infrastructure.

Transforming the Region RFP

During the early years of Finger Lakes WIRED, some projects found it difficult to meet their original implementation timelines. Others were unable to meet enrollment goals or were canceled by their lead organization. The result was that funds originally allocated for these projects were unspent and de-obligated. In 2008 Finger Lakes WIRED determined that sufficient de-obligated funds were available to support the creation of one or two new projects. An RFP

Committee was formed to draft the final Request for Proposals and determine its scope and requirements. Respondents to the “Transforming the Region” RFP were challenged to present proposals that would transform the region by creating programs or facilitating partnership that met the following criteria: *Regional, Sustainable, Inclusive, Innovative, Transformative, and Collaborative*. The Governing Board approved two proposals for funding.

The Regional Skills Alliance (RSA) project, led by the three Workforce Investment Boards, was designed to create a regional approach to address industry and workforce development issues through the implementation of two Regional Skills Alliances (RSA) and the use of the Career Readiness Credential (CRC). The project goals were to expand and create two Regional Skills Alliances (RSAs) to address common issues in the Advanced Manufacturing and Health Care/Human Services industries by expanding membership in the existing Finger Lakes Advanced Manufacturing Enterprise (FAME) project from four to nine counties, and providing infrastructure to create a Health Care /Human Services RSA modeled after FAME.

The second component of the project included implementation and roll out of the WorkKeys© Career Readiness Credential (CRC) and skills assessment tool at One Stop Career Centers in all three Workforce Investment Board areas. The assessment system would enable the One Stops to work with businesses and industry association representatives to assess and remediate the skills of current and potential employee skills, with an initial focus on serving the Advanced Manufacturing and Health Care/Human Services industries.

The second proposal selected for funding under the Transforming the Region RFP was the Workforce Excellence Regional Center project, developed in partnership by Genesee, Finger Lakes and Monroe Community Colleges. The goal of this project was to create an online, virtual “center” providing innovative access to training and education services available at all three colleges, thereby extending existing college resources across all nine counties in the region. The development of the online Center would serve the needs of non-credit and credit students, regional employers, and job seekers.

The proposals were selected due to their regional scope, targeted industry overlap and the promotion of business engagement to address workforce development issues. The Governing Board encouraged both projects to collaborate and leverage the objectives of both proposals to exceed their stated outcomes.

Interrupted Programs

As with any planning process that is done with short notice and limited time to develop each and every idea through varied scenario outcomes, Finger Lakes WIRED experienced project start-up delays and even cancellations.

As mentioned previously, despite early approval of the Regional Apprenticeship Program that was to be operated by the three regional community colleges, project activities were initially delayed as a result of a New York State moratorium on apprenticeship programs. By late 2007, Finger Lakes Community College was officially calling their program “internships” as a way to move forward. Monroe Community College had completed the program structure development

phase for Optics of their program, conducting a Boot Camp for the Printing industry sector and the process of enrolling incumbent workers from optical companies for the 2008 year. Genesee Community College put their apprenticeship initiative on hold in Fall 2007. GCC is still working through obstacles from the health care industry to their Clinical Patient Care Technician apprenticeship program.

The Knowledge Clearinghouse project, also referred to as the Finger Lakes Resource Network, was included in the original Finger Lakes WIRED application and approved for funding in 2006. The project began activities in late 2006 to create a comprehensive website to identify and connect regional workforce, economic development and industry resources, and provide information including regional asset inventories and demographic data. While project activities began, the project was discontinued following internal resource interruptions which hindered progress against outcomes.

The University of Rochester's Master of Science in Science and Technology Commercialization (MSSTC) project was designed to provide individuals with an education in both the commercial evaluation of early-stage technologies and the core business skills required to start a company or product line within an existing business. This project included the acquisition of curriculum from the University of Texas at Austin by the University of Rochester, with students primarily attending class sessions via teleconference. The MSSTC project was not renewed for funding in 2008 due to recruitment challenges, including a high course cost per participant. Based on lessons learned through Finger Lakes WIRED Partnership activities and MSSTC implementation, in 2009 the University of Rochester introduced a new Master of Science in Technical Entrepreneurship and Management degree program. This new degree program, offered independent of WIRED funding, will integrate an entrepreneurial management core with an engineering concentration of the student's choice and within any technical cluster. Ultimately, the Finger Lakes WIRED Partnership activities resulted in an experiential learning opportunity that was leveraged to enhance the entrepreneurial culture of the Finger Lakes region.

Course Corrections

The Finger Lakes WIRED initiative experienced multiple changes and modifications over the course of the four-year grant period:

- The Finger Lakes Partnership's WIRED application included a proposed plan to invest in 12 high growth business start-ups to support the goals of entrepreneurship and technology commercialization. Following USDOL approval of the Finger Lakes as a Generation I WIRED region, it was determined that funding to support start-up business ventures was not an allowable use of H-1B funding. As a result, the proposed project plan and its outcomes were quickly reworked to focus on training entrepreneurs in the process of technology commercialization.
- The Partnership took advantage of several opportunities to redirect de-obligated funds to support other projects over the four year WIRED funding period. For example, the modification of the project to fund new business creation provided an opportunity to redirect those funds to support a workforce development project; the Finger Lakes WIRED Scholarship Program, to award funds to regional businesses for incumbent worker

training. The Scholarship Program concept was included in the original application, and as the number of incumbent workers and businesses impacted through the Program began to increase, the Governing Board approved the shift of all de-obligated funds from other projects to continue funding for the Scholarship Program.

- The Technology Commercialization project was lead by High Technology of Rochester (HTR), and over the course of the WIRED initiative the project expanded to include five regional technology commercialization partners including: HTR, the University of Rochester Medical Center, the Rochester Institute of Technology, Infotonics Technology Center and the Cornell Agriculture & Food Technology Park. These five organizations, with HTR as the lead organization, collaborated to adopt a common model and training process to identify how and when a potential technology may enter the path to commercialization, including sharing of resources and entrepreneurial experts/coaches (also known as entrepreneurs in residence).
- The Finger Lakes WIRED Partnership's efforts to engage and convene businesses as active participants in addressing regional economic development workforce issues were a protracted process and, in recent years, projects have used different implementation models. In late 2008 the Regional Skills Alliance project was approved to utilize the model created by the Finger Lakes Advanced Manufacturing Enterprise (FAME) to expand and create regional industry cluster organizations, known as regional skills alliances, in the advanced manufacturing and health care/human service industries. Greater Rochester Enterprise's Regional Cluster and Competency Network project shifted focus away from creating new cluster organizations to concentrate on convening multiple, existing cluster organizations and associations to create one large association devoted to addressing common issues and stimulating new business opportunities. This "association of associations," known as the Technology Council of Upstate New York (TCUNY), directly engages the leadership of 18 existing organizations, thereby engaging an audience of the 1,000+ businesses represented by those organizations. if there is common ground on select topics or issues.
- The Golden Horseshoe Business Plan Contest was launched by Greater Rochester Enterprise to increase entrepreneurial awareness and business formation in the region, and to further develop the skills of existing and prospective entrepreneurs. In its inaugural event in 2007, participation in the Business Plan Contest and the corresponding regional competitions encompassed the nine-county Finger Lakes region, as well as participation from cities across the "Lake Ontario" region including Ithaca, Buffalo, and Waterloo in Ontario, Canada. Despite the increase in regional partnerships, the number participating in the project did not grow as anticipated during its second year of operation and the project was not renewed in 2009. The pre-existing regional event, the Rochester Regional Business Plan Competition, began in 2005 and continued in 2009 independent of WIRED funding.
- The eligibility age for youth participation in WIRED activities was raised to ages 16 and up in 2007 following clarification of program guidelines from US DOL. As a result, during their second year of operation, the Science, Technology, Engineering and Mathematics (STEM) Camps and the Young Entrepreneurs Academy projects increased their age requirements from youth ages 14 and up to youth ages 16 and older. Some of the participating STEM camps experienced recruitment challenges in 2008 and 2009, despite significant interest from younger youth, as a result of the eligibility change.

Youth in the 16-18 year old age range were typically engaged in summer employment opportunities to earn income and unable to participate in enrichment activities like STEM camp experiences. Project staff at several STEM camps also noted that restricting the age range to youth ages 16 and up provided less time to influence the academic choices of youth and increase their participation and interest in attending STEM courses during high school.

- Since 2004 youth participation in the Young Entrepreneurs Academy (YEA!) occurred onsite at the University of Rochester campus, and in 2007 WIRED funding was used to expand the project to include a YEA! class on campus at the State University of New York at Geneseo. Original project plans included further expansion to other college and university sites, however in 2008 and 2009 the YEA! project model was modified to include course delivery onsite at regional high schools. The change occurred as a result of feedback from participating students and their parents, who indicated conflicts with extracurricular high school activities and challenges transporting youth to college campuses. The additional staff support and resources at high school sites allowed for a major project expansion in 2009 and a significant increase in numbers served.

Examples of Innovation in Finger Lakes WIRED

Entrepreneurship Efforts

One of the primary goals of the Finger Lakes Partnership and WIRED activities was to re-ignite the entrepreneurial spirit and culture of the Finger Lakes region, and multiple programs were funded to further entrepreneurship activities in the region.

Counting the number potential entrepreneurs that attended an SBIR training session can be done in a very straightforward way. The Finger Lakes WIRED staff can track the participant numbers in the TEN programs conducted between 2006 and the 2009 project funded period. And, the numbers of C-level and senior level Executives who attend the Entrepreneurship and Strategic Immersion Sequence course is easily captured. Technology commercialization training in the region through the combined efforts of HTR, URMC, RIT, Cornell Agriculture and Food Tech, and Infotonics Technology Center partnering and leveraging resources to benefit the region has been recognized locally and well outside of the region. Encouraging the entrepreneurial spirit is to be found in the common curriculum offering of Monroe Community College and Geneseo Community College through the Entrepreneurship Fast Track courses now available. And, the youth in the Finger Lakes WIRED region have benefited from the Young Entrepreneurs Academy, Increasing Emerging Worker Skills programs and from the Educator Internship program that exposed educators (teachers and counselors) to the contemporary world of business (including entrepreneurial ownership examples).

Not all entrepreneurial startups are high tech. Not all are ventures that come from academic ideators, orphaned corporate ideas or inventors desiring to test the commercial possibilities of their ideas. Finger Lakes WIRED Partners recognized that economic growth and job creation due to small business startups across the board was also critical for the future good health of the Finger Lakes. The community college Entrepreneurship Fast Track was funded to promote entrepreneurship while enhancing successful small business startups.

The teachers and school counselors who took advantage of the Educator Internship program were exposed to varied businesses across the region. They learned from their individual exposures and from the shared information of the other participants. They were able to compare and contrast industries and careers within industries. Business exposure also included privately owned businesses and insights into entrepreneurship. This new knowledge will become part of their delivery to peers back in their school districts and to their classroom students. The number of people (adult and youth) to be exposed to the new knowledge of these Educator Interns is projected to be in the many hundreds in this school year alone.

At least one of the Increasing Emerging Worker Skill programs offered across the region included exposure to different businesses and industries in the Finger Lakes region. Program participants then performed in different job roles as part of case studies as a way to gain a better appreciation of skill requirements of career paths; and to also understand the workplace competencies required for success.

The Young Entrepreneurs Academy (YEA!) introduced the prospect and principles of entrepreneurship to over 150 youth in the nine county Finger Lakes region. Participating youth developed product or social enterprise concepts, developed business plans, consulted with real world business mentors, and pitched their ideas to a panel of investors. The expansion of the YEA! program across multiple high school and college sites was made possible, in part, by Finger Lakes WIRED funding.

Finger Lakes WIRED created an Entrepreneurship continuum:

- Youth – YEA!, Increasing Emerging Worker Skills, Educator Internship programs
- General Population – Entrepreneurship Fast Track programs community colleges
- Small and medium-sized businesses - Entrepreneurship and Strategic Immersion Sequence courses
- Emerging technology & serial entrepreneurs – Technology Commercialization, SBIR, Pre-Seed Workshop, Ten Entrepreneurship Network

Competency Model

Finger Lakes WIRED also promoted the principles of the US DOL Competency Model, making inclusion of competency principles a requirement of programs or training funded through certain Request for Proposals (RFPs) and programs. The Competency Model stresses the importance of fostering personal, workplace, academic competencies, as well as technical skills, to create a globally competitive workforce. The re-release of the Increasing Emerging Worker Skills RFP in 2009 included the requirement that project participants be exposed to concepts within the Competency Model, particularly personal and workplace competencies, in conjunction with learning the technical skills necessary for success in high tech, in-demand careers in the Finger Lakes region.

In 2006 the Finger Lakes WIRED Scholarship Program began awarding funds to businesses providing training, primarily for technical and occupational competency skill upgrades, for their incumbent workforce. In late 2008 the types of training eligible for Scholarship Program funds

expanded training activities to improve “soft skills” included in the Competency Model, including teamwork, problem solving, decision making and leadership. The expansion of these eligibility requirements was made in response to feedback from the business community, and their demand for workforce training in both soft and technical skill areas.

Performance Measures

As a part of the solicitation for grant submission, eleven measures were identified that would be tracked as indicators of whether the Finger Lakes Partnership accomplished its mission.

Strategic Outcomes & Measures Sought by the Finger Lakes Partnership

To be supported by Finger Lakes WIRED initiatives and reviewed after completion

1. Increase in employment, employment retention and earnings change for participants

- *Entered Employment Rate: 95.9%*
1255/1308 – includes exiters between 10/2007 and 9/2008
- *Employment Retention Rate: 98%*
846/862 – includes exiters between 4/2007 and 3/2008
- *Information on Average Earnings is not currently available.*

Note: These figures reflect statistics provided through the WIA 4th Quarter PY08; updated results are expected when information from the 1st Quarter of PY09 is available. And, as previously stated, these numbers may not accurately reflect the current employment status of Scholarship trainees due to the time lag between the available data and the current quarter. For instance, the Entered Employment Rate data includes trainees who exited the One Stop Operating System (OSOS) in September 2008, prior to the economic recession and subsequent layoffs at businesses nationally and locally. Future results are expected to decline given the state of the economy.

2. 200 companies accessing training with 1,200 individuals trained

305 unique companies have trained or are in the process of training 8400+ incumbent workers.

3. Involve 225 high school students in entrepreneurial activities

Since 2007 167 participants have received scholarships to attend entrepreneurial training through the YEA! program at both regional high schools and college and university sites.

4. Involve 165 high school teachers in internship and entrepreneurial training

A total of 69 educators from regional school districts have benefited from direct exposure to targeted industries, and have shared information on careers and skill requirements with their students and colleagues.

5. Train 450 Entrepreneurs and Innovators in high-growth sectors

By end of Finger Lakes WIRED, approximately 1,400 entrepreneurs and innovators have benefited from WIRED funded programs by taking advantage of a broad spectrum of training initiatives across the region: 1,100+ entrepreneurs and innovators have been trained to date through Technology Commercialization workshops and seminars; SBIR Outreach programs have provided training for 335 entrepreneurs 132 entrepreneurs have received training in the RIT Strategic Growth through Innovation Program); and The Entrepreneurs Network (TEN) has assisted 148 first time and serial entrepreneurs..

6. Develop specialized cadre of 10 Technology “Business Starters”.

One hundred sixty entrepreneurs have been identified to become part of the community’s entrepreneurial infrastructure through the Finger Lakes WIRED supported Technology Commercialization initiative. As previously reported, six technology business starters completed the Masters of Science program in Science and Tech Commercialization in 2007 and 2008.

7. Double business plan participation from 2005 contests.

This project was discontinued in 2008 having served 187 contestants. In 2008, the contest had 100 applicants in 4 pre-events in Rochester, Buffalo, Ithaca and Ontario, Canada. There were 37 applicants in 2007 and 50 applicants in 2005.

8. Support the development of 18 technology innovations leading to financing or infusions into existing regional firms

Market opportunity assessment was completed for 117 innovations during Finger Lakes WIRED.

9. Support the development of four industry-led cluster associations that stimulate growth

The Technology Council of Upstate New York (TCUNY) spanning Rochester, Buffalo, Syracuse and the Geneva/Ithaca geographic region as an association of associations representing 1000+ companies. Regional Skills Alliances have been formed and expanded in the form of Finger Lakes Advanced Manufacturing Enterprise (FAME) and the Health Care/Human Services Alliance. Finger Lakes WIRED has supported the Essential Links and FACTNY convening of businesses in the food, agriculture and food packing sectors.

10. Identify, assess and align region resources to support 30 high-risk companies

The Predictive Analysis for Business Retention and Expansion program connected with this measure was not renewed in 2008.

11. Measure improvement of business satisfaction with regional efforts from benchmark of 2004 Council on Competitiveness study

The results from the Council on Competitiveness survey commissioned in 2009 showed tangible positive progress in a number of tracked areas when compared to the original 2004 study. The survey results and report are available at the Finger Lakes WIRED website www.fingerlakesWIRED.com.

Finger Lakes WIRED Successes

An attached PowerPoint report captures key accomplishments of the Finger Lakes WIRED initiative.

Summary

A combination of civic, business, investor, academic, entrepreneurial and workforce system leaders proved their willingness and ability to collaborate toward the achievement of specific goals. Finger Lakes WIRED funded over 30 projects in its 4 year existence. New networks have been formed. Old networks have been strengthened. Significant and meaningful goals were achieved. The workforce and the business community benefited tangibly.

Benchmarking one WIRED region against another is difficult to do. From one region to the next the partnering organizations differ. The number of major metropolitan areas in a region can run from one to three. The selection of the lead organization could be an economic development agency, university or Workforce Investment Board. The number of states in a WIRED region wasn't always one. Some regions funded a few initiatives while others funded many. And, when it comes to the issue of sustainability, what impact does the amount of the grant award have on what, if anything, is sustained? Did the money in the grant hurt or foster sustainability?

The Finger Lakes Partnership represents a model of professional level, results oriented leaders coming together in response to a specific opportunity to impact the Finger Lakes Region workforce and economy.

A cross section of leaders in the Region responded to an extraordinary opportunity. They identified specific goals and objectives in a short amount of time that would be creditable and beneficial to the health of the Finger Lakes region. Utilizing a businesslike approach, they crafted a proposition and they have been successful in collaborating for the purposes of jumpstarting the entrepreneurial culture of a region. Through collaborative effort they have helped would be low-tech and high-tech entrepreneurs move closer to their dreams of starting their business. They have made it possible for hundreds of young people in the Finger Lakes to

explore and reinforce their interest in Science, Technology, Engineering and Math. They have supported the investment in incumbent worker training by employers in ways that benefit both the employer and the worker. And, they have educated an emerging workforce to the reality of the competencies employers are seeking in their employees.

Without consensus around a defined objective the Partnership may not see a need to sustain anything in a formal way. These professional leaders have had full time demanding responsibilities in addition to their involvement in WIRED. The networks that have formed or been strengthened are such that these resources can convene in the future to solve or respond to specific problems. In a different take on WIRED funding through US DOL; “It’s not about the money; it is about what specifically the money and local resources might accomplish in a specified timeframe.” It was the money that originally brought Generation I proposal submissions.

Sustainability in the Finger Lakes

The challenge facing David Zorn, Managing Director, is one of being able to find the common stakeholder issues that will bring the same, or at least representative, partnership participation to the table absent the grant money that will guarantee continued collaboration.

Sustainability could mean continued collaboration. It could mean twenty plus partners meeting regularly. Sustainability could mean continued collaboration by representatives of partnering organizations; with active participation resulting in larger and smaller alliances based on identified topic of common interest.

With only weeks left in WIRED at the time of this report; the unifying factor is yet to be identified.

What is clear is that the Finger Lakes Partnership has proven to be an effective collaboration of diverse resources. In the challenging economic situation that currently faces the nation, it would seem to be a potentially sound place to continue to support and fund in the pursuit of regional economic recovery.

Project Descriptions

1. Regional Skills Alliances (RSA) and Career Readiness Credential (CRC)

The Regional Skills Alliance and CRC program was an initiative of the three regional Workforce Investment Boards. It utilized the model created by Finger Lakes Advanced Manufacturing Enterprise (FAME) to expand and establish regional skills alliances, groups of public and private sector partners dedicated to addressing business needs and workforce development, in the advanced manufacturing and health care/human services industries. The expansion of the RSAs will also include the implementation of the WorkKeys CRC assessment program across the nine-county region to assess the performance level of job applicants. These programs address regional business needs while also providing workforce solutions. This initiative is a regional partnership between the Finger Lakes, GLOW and Rochester/Monroe County WIBs.

The Regional Skills Alliance staff further worked to complete rollout of the Health Care/Human Services and Advanced Manufacturing Regional Skills Alliances (RSAs) to the other two WIBs in the region. As a result of the rollout sessions, both the Rochester/Monroe and the GLOW Workforce Investment Areas decided to join the existing RSAs rather than create their own.

Twenty two organizations are involved in the Health Care/Human Services RSA. Since the inception of FAME a total of 127 members have joined the organization. The Advanced Manufacturing RSA, the Finger Lakes Advanced Manufacturing Enterprise (FAME), began the transition from free membership to a fee structure for sustainability purposes. FAME hosted its first membership event in November 2009. Efforts to promote Health Care RSA sustainability are in the beginning stages.

FAME staff members reported continued outreach to educational partners, colleges and universities, schools, BOCES and government and economic development agencies to promote the needs of the advanced manufacturing industry. FAME participated in the opening of a new Student Innovation Center at the Rochester Institute of Technology, and attended the “Finger Lakes Works with Its Hands” event, which had participation from over 500 educators and students. FAME is also involved in the Monroe County Business Partnership Advisory Board. Plans are underway to co-host tours of advanced manufacturing businesses in the region in November 2009.

In addition to RSA activities, CRC continued offering and marketing of the Career Readiness Credential assessment tool to businesses and job seekers. By the end of November, 2009, a total of 1241 CRC credentials have been awarded regionally. A Memorandum of Understanding was issued between the three Workforce Investment Boards to continue utilizing the Rochester/Monroe County WorkKeys license among all areas and share the licensing fees. The MOU ensures that the CRC regionalization will continue beyond the end of WIRED funding.

2. Workforce Excellence Regional Center (WERC) – previously referred to as the Regional Center for Workforce Excellence

The WERC initiative, a collaborative project between the three community colleges, was created to provide regional job seekers, employers and students with increased, (potentially) virtual access to credit and non-credit training services available at Monroe, Genesee and Finger Lakes Community Colleges. The project will transition to an operation embedded in the three college workforce offices when funding ends. As a result, the issue of colleges co-developing and delivering courses for or with one another, and launching existing courses online, shifted to become a long-term goal.

In 2009 WERC staff began providing scholarship funds for regional courses at the three colleges to unemployed and underemployed workers. Thirty two (32) (previously reported as 31) individuals received scholarship funds in the 2nd Quarter of 2009. In the third quarter of 2009, 99 applicants were approved to receive WERC scholarship funding, including 23 students attending an FLCC course, 52 attending a GCC course and 24 students attending a course at MCC. One hundred fifty nine individuals have received WERC scholarships, representing eight of the nine counties in the Finger Lakes region as of November 30, 2009..

Project leads also reported that nine individuals receiving WERC scholarship funds achieved employment as a result of their training; seven as Certified Nursing Assistants and two as Direct Support Professionals.

3. Educator Internship

The Educator Internship program, lead by Finger Lakes WIB exposes educators to emerging careers, skills and education requirements in the Advanced Manufacturing, Food and Agriculture, Health Care, Life Sciences, Information Technology and Optics industries. Participants attend two days of tours and discussion sessions with employers, and then develop PowerPoint presentations and materials to share information with their students and colleagues.

Since 2007, 66 educators from 32 educational institutions have been directly impacted by participation in the Educator Internship program.

The PowerPoint presentations created by the educators were used to present industry and career information to students and colleagues and can be accessed at <http://www.monroe.edu/racec>. Project staff surveyed participants at a later date to learn how the information was delivered and determine the number of students and faculty impacted by the information. Survey results indicate that approximately 1,200 students and teachers received information on in-demand careers and skills required by employers in the Finger Lakes region.

4. Golden Horseshoe Business Challenge

The intent of the business plan contest, lead by Greater Rochester Enterprise (GRE), was to stimulate the formation of new companies in the region, and to raise the profile of the entire “Lake Ontario” region.

The Golden Horseshoe Business Challenge was launched in 2007 with business plan competitors from Ithaca, Rochester, Buffalo, Waterloo, Ontario areas participating. New collaborations have been forged as a result of the business plan contest. The winner of the inaugural Golden Horseshoe Business Plan contest, Wakonda Technologies, was from the Finger Lakes region.

In 2008, SimPore, a Henrietta based business, won Year 2 of the Golden Horseshoe Business Challenge contest. The contest drew 100 participants from more than 4 regional “preliminary” contests. The Rochester Area Business Plan Contest had 29 registered companies alone, and High Technology Rochester (HTR) provided business plan workshops to 72 participants. The preliminary contestants were narrowed to 8 participants for final judging at the Golden Horseshoe Business Challenge.

WIRED funding for the Golden Horseshoe Business Challenge ended in 2008. The Rochester Regional Business Plan Contest, which was a stand-alone piece of the effort that existed prior to WIRED, was held again in 2009 independent of WIRED funding.

5. Pre-Seed Workshops

HTR was the lead organization for Pre-Seed Workshops (PSW) as two day, hands-on learning sessions in which participants learn the process for investigating and evaluating the market potential of a new technology. Participants work with a collaboration of technologists/inventors knowledgeable about business creation realities and are connected with a business network for future assistance. The project addresses the gaps in the commercialization continuum at the “pre-seed” stage and improves the identification and qualify technologies for transfer.

Workshops were held in Geneva in 2006 with 50 participants, with another held in Rochester in 2007 with 52 participants investigating commercialization options. A multi-regional conference combining the Geneva and Rochester region PSWs was held in November 2008, with the aim of increasing the visibility and profile of the entrepreneurial training and support provided by PSWs, as well as enhancing multi-regional collaboration and extending support to underserved areas. This conference, the largest PSW ever held, had participation from 70 researchers, entrepreneurs and students, who received hands-on training regarding business opportunity assessment of new technologies, dealing with medical devices, therapeutics, software, alternative energy, optics and consumer electronics. A November 2009 workshop hosted 8 teams of 52 community entrepreneurs; bringing the total participant level to 224.

6. Strategic Growth through Innovation Program

The Strategic Growth program, lead by Rochester Institute of Technology offered through Rochester Institute of Technology as Project Lead, targets high-growth potential small enterprise managers wishing to join or lead commercialization teams, as well as potential and existing entrepreneurs. Focus groups were held with more than 12 company executives to tailor the course curriculum to meet regional business needs. Participants work individually and in teams to internalize a curriculum that includes:

- Understanding the Growth imperative
- Utilizing a Strategic growth planning template
- Inventorying internal capabilities and resources
- Better leveraging existing capabilities
- Understanding SWOT analysis
- Creating competitive advantage
- Recognizing growth traps
- Recognizing Active Inertia
- Locating sources of funding
- Creating a Product/Market matrix
- Implementation strategy and measurement
- Change management

Participants then meet with mentors and develop their strategic plans for review.

The program launched in fall 2007 and provided three offerings of the Phase I Strategic Growth course. Program response spurred the creation of a “next level,” Phase II program aimed at Product Idea to Commercialization which launched a pilot class in January of 2009. Approximately 132 executives from small and medium sized regional businesses have participated in the four course offerings since 2007.

Project staff videotaped each course to promote sustainability and for potential online launch in the future.

7. Predictive Analysis for Business Attraction

The goal of the GRE’s Business Attraction project was to identify high growth opportunities, perform in-depth research on each identified company, and set up mission trips of leaders to visit target companies in order to match regional assets with industry leaders and create more opportunities for growth. The project also includes efforts to connect with workforce development and educational organizations to relay critical information received through site selection efforts.

In 2007, the project saw 34 new business attraction projects and 25 executive level meetings. In 2008 the project resulted in the identification of 50 new business attraction projects and 34 meetings with corporate executives. Between January 1, 2009 and September 30, 2009, a total of 25 new attraction projects were identified and worked on, 26 meetings have been held with executives, and 9 site visits were held.

Through the project a new GIS-based mapping tool, ZoomProspector, was introduced to map regional assets including real-time information about a specific site location, including demographics, workforce data, and industry information. Businesses now access this information on-line. Regional site locations available through ZoomProspector received 103,991 page views as of December 31, 2008. As of September 30, 2009, the site had received a total of 24,890 hits.

GRE continued efforts to promote regional business knowledge of the green technology industry. GRE co-sponsored the first Great Lakes Wind Network supply chain event with the American Wind Energy Association (AWEA) in November 2009. The event provided an opportunity for local companies to learn about new business opportunities through this emerging industry and the skills their current workforce may possess or need to acquire to be successful in the wind energy market. Over 150 people from 60+ companies across the region attended.

8. Developing a Regional Apprenticeship System

Finger Lakes, Genesee, and Monroe Community Colleges established an apprenticeship system to support the biotechnology, health care and optics industries in the region and provide businesses with a pipeline of skilled workers. The program provides structured career pathways that combine on-the-job training and related classroom and lab instruction, using a model can be replicated for other industries that require high-skilled workers. Two of the three programs were launched in 2007, with the third beginning in 2008.

Monroe Community College (MCC)

The optical fabricator apprentice program started with 20 workers from 4 optics companies and credit bearing coursework began in January 2008. Approximately sixteen (16) students from four businesses completed six courses in MCC's Optics Technician program, such as Measurement and Analysis and Machine Shop Concepts. Fifteen (15) workers began the "Optics Manufacturing Processes" course in September 2009 to continue on the Optics Manufacturing Technician program career pathway.

MCC's Optics section of the Apprenticeship program was presented at the 2008 Optical Society of America Conference in Rochester, NY, and was well received. Project staff also attended the HI-TEC (High Impact Technology Exchange) Conference to discuss the Optics Manufacturing Technician training program with other college representatives involved in optics and photonics training, and to learn more about forming industry partnerships and developing career pathways.

MCC's project staff participated in the development of the National Center for Optics and Photonics Education's (OP-TEC) efforts to develop a set of skill standards for Optics technicians. The recently released National Skills Standards for Precision Optics Technicians correspond with the learning tasks and goals of the Optics Manufacturing Technician Apprenticeship program.

Genesee Community College (GCC)

Genesee Community College launched its health careers program in summer 2008, with six CNAs working to become Clinical Patient Care Technicians. This certification means they can take on more Licensed Practical Nursing (LPN) duties on the job, which will qualify them for wage increases as well as job advancement opportunities with their current employer or elsewhere in the health care industry. In 2009 GCC staff continued efforts to recruit business participation for its second cohort, including discussions with Finger Lakes Community College to expand program availability; however, project leads reported that the state of the economy hindered business involvement in the program. The 2009 Clinical Patient Care Technician

program training cohort was postponed and project staff are now focused on post-WIRED recruitment for the spring of 2010.

Finger Lakes Community College (FLCC)

FLCC operates two Biotechnology/Bio-Manufacturing apprenticeship programs. The program currently contains 29 students in the degree program (all of whom are taking the classroom instruction component). Of the 29 students, 12 are in their second year and 8 have declared an interest in an apprenticeship for this next year (6 in QC micro and 2 in QC chem.). Recruitment for the next cohort of apprentices will not begin until students begin attending an Intro to Bio-Manufacturing class in October 2009.

FLCC also received approval for both its QC Chemistry and QC Microbiology programs from both NYS DOL and at the federal level, which will allow the program outcomes to be disseminated and replicated outside of the region.

9. Small Business Innovation Research (SBIR) Outreach

Through this program, High Tech Rochester (HTR) trains regional businesses in the process and best practices for writing Small Business Innovation Research (SBIR) federal grant applications. The project intent is to move the region's SBIR/STTR participation to a much higher level through grant assistance and connection with other available resources.

Project activities include:

- 2006: Assisted 5 first time applicants with strategies and proposals leveraging other regional efforts such as the assistance found through NYSTAR and Insyte Consulting.
- 2007: Seminar trained 60 participants in the SBIR grant writing process. Assisted 74 applicants with strategies and proposals leveraging other efforts such as NYSTAR and Insyte Consulting. 12 proposals were submitted with funding decisions expected in late 2007.
- 2008:
 - 2nd Quarter: Hands-on training provided to 33 companies in the region, reaching 41 researchers and entrepreneurs. Ten specific company proposals were submitted for SBIR/STTR with HTR's assistance and training services involvement, including drafting, editing, budget review of proposals submitted for scoring and review.
 - 3rd Quarter: Eight specific company proposals were submitted for SBIR/STTR funding consideration with HTR's assistance and training services. Additionally, 2 training seminars were conducted this quarter. One focused on the National Institute of Health (NIH) and life-science grant applications attracting 17 entrepreneurs and researchers from 15 different businesses. The other focused on the SBIR/STTR changes overall and with the recent changes and collaborations across local universities that attracted 58 entrepreneurs and researchers at 43 different businesses.
 - 4th Quarter: Specific, hands-on training was provided to 28 companies and businesses in the 4th quarter. In addition HTR's services were utilized to develop three Phase II-SBIR/STTR grant applications. As more firms have begun to apply for SBIR grants,

future efforts will be focused on Phase-II grants, which represent significantly higher awards and have a more direct impact on job and wealth creation.

- 2009:
 - 1st Quarter: This quarter hands-on training was provided to 29 businesses. In addition, HTR awarded four (4) Phase-0 grants, which reimburse businesses for expenses incurred while writing their grant applications. Federal grant applications were submitted by all four businesses. Project leads continue to shift the focus towards Phase II grants, which represent significantly higher awards. A full day training seminar focusing on Phase II applications, and an additional half day seminar focusing on Phase I applications, attracted over 60 participants.
 - 2nd Quarter: Provided company specific, hands-on training to 26 businesses. Efforts included targeted assistance to draft better grants for three local ventures. HTR has also played a key role in providing on-the-job training for four specific Phase I and Phase II grant applications.
 - 3rd Quarter: Hands-on training was provided to 46 company representatives who received assistance in developing a grant strategy and training in the grant writing process. Two training seminars were also hosted this quarter. One seminar drew 41 attendees and focused on updating company representatives on legislative changes in the SBIR program. The second event was a cross-training seminar hosted by HTR and WIRED partner's University of Rochester and Excell Partners. The event focused on best practices for writing National Institute of Health grants, and attracted participation from 16 individuals representing 13 regional businesses.

In 2008 SBIR training services were directly involved in 5 SBIR/STTR awards to regional firms leading to almost \$1.3 million in federal dollars reaching the region.

In 2009 HTR reported that four SBIR/STTR grants were awarded to regional businesses that received SBIR training services, resulting in over \$2.9 million in funds entering the region. In addition a woman-owned business, was awarded a Phase I National Institute of Health (NIH) grant totaling over \$110,000.

10. Scholarship Program

The Scholarship program awards funds to businesses to provide technical and/or competency skills training for their incumbent workforce. The program used all of its allocated funding on August 26, 2009, and to date no new applications are currently being accepted. Staff are now waiting to close out existing previously awarded contracts whose training end-date has passed to determine if and where funds were under spent. As those existing contracts are reconciled, funds will be reallocated into the Scholarship program. Pending the availability of funding, the Scholarship is one of two WIRED programs that received a no-cost extension through June 30, 2010.

Since the program launch in September 2006, the Scholarship program has allocated over \$5.5 million for 305 unique businesses to increase the skills of over 8,400 workers.

A breakdown of incumbent worker training by industry category through November 30, 2009:

- Advanced Manufacturing – 4,524
- Alternative Energy – 163
- Biotech/Life Sciences/Health Care – 713
- Business Services – 1,136
- IT/Engineering – 819
- Food/Agriculture – 371
- Optics/Imaging - 678

To enhance the Scholarship data collection conducted in previous quarters, in August 2009 a survey request was e-mailed to Scholarship recipients to assess their experience with the program and the success of their training. The survey was sent to 364 active contacts and 78 individuals responded, representing a response rate of nearly 20%. Over 85% of respondents received training from organizations other than community colleges and universities. In response to a question asking how businesses selected their training provider, over 50% cited prior experience with the training provider as their top reason for choosing that provider. An additional 10% cited an internet search as their tool for identifying their training provider.

Over 40% of respondents identified scheduling and flexibility as a very important criteria in choosing their training provider, which is consistent with anecdotal feedback from employers. In-house training was cited as important by 30% of respondents, but an additional 20-30% indicated that this criterion was not important in their selection process. Over 50% indicated that the ability to provide specialized/customized training was very important.

Nearly 99% of businesses indicated they were satisfied or very satisfied with the training funded by the Scholarship program. When asked about tangible benefits seen as a result of the training, 95% identified increased productivity or efficiency as an outcome. An additional 23% attributed increased business to the skill upgrades their workforce received. These results continue to suggest that the business community views training as an investment in their business and their workforce.

11. Technology & Innovation Commercialization

High Tech Rochester (HTR) provides training for entrepreneurs to expand their knowledge of technology commercialization principles and processes. HTR continues to partner with the Rochester Institute of Technology, University of Rochester, Cornell Agriculture and Technology Farm and Infotonics to utilize a common model and process for technology commercialization.

This quarter HTR offered one seminar that provided 14 entrepreneurs with key information to increase their entrepreneurial knowledge. No training classes or seminars were offered in July 2009 and August 2009 to coincide with the university/academic calendar year.

Outcomes for the Tech Commercialization project 2006 thru 2009 are:

Technology Commercialization Metrics

Training Task	2006	2007	2008	2009	Total
Seminars (participant)		420	461	226	1107
Entrepreneur identification	20	98	90	102	290
Technology Review		not started	68	38	106
Tech Dev		no started	34	30	64
Business Assessment		35	34	53	122
Tech/Market Opp. Analysis		13	39	65	117
Tech Dev. Mentoring		11	7	12	30
Bus. Dev. Mentoring			38	25	63
Marketing Plan		3	6	6	15
Business Plan		11	8	12	31
Capital Raising		11	8	6	25

12. The Entrepreneurs Network (TEN)

The Entrepreneurs Network provides entrepreneurial training and education to high tech and/or growing businesses. TEN is a four month program including a boot camp, workshops and panel events that are designed to optimize exposure to and interaction with leading entrepreneurial experts to introduce local entrepreneurs to new ideas and attract needed capital investments. Since 2006 TEN has trained 148 executives from 124 regional businesses.

Project leads report that TEN members have created more than 70 jobs, increased revenue by more than \$5.7 million and secured more than \$7.2 million in angel and venture capital investments. Four regional businesses have received financing as a result of contacts made through their TEN involvement and participation.

13. Young Entrepreneurs Academy (YEA!)

Utilizing an existing curriculum and structure from the University of Rochester, and Kauffman Foundation support, the YEA! students are taught to write a business or social action plan, make a pitch to potential investors, obtain funding, register with governmental agencies and actually

launch a company or social movement. All YEA! students file for a DBA and create their own business, and prepare to pitch their businesses to local investors.

YEA! had three year of WIRED-supported operation and held classes on campus at SUNY Geneseo. In its third year YEA! programs began formally operating in high schools. The YEA! program delivery model was shifted from college and university sites to high schools in January 2009 after feedback from participants indicated that the college sites presented transportation challenges and conflicts with after school activities. This enabled project expansion and 114 students began YEA! program activities in 2009.

A total of 163 students in the region participated in YEA! activities through WIRED scholarships.

14. The Entrepreneurship Fast Track (also referred to as Emerging Entrepreneurs)

The Emerging Entrepreneurs program, operated at Monroe and Genesee Community Colleges, includes two credit courses that allow individuals to explore potential business opportunities and learn the process for developing a strategic business and marketing plan. Combined program enrollment and completion for both GCC and MCC was reported to be 205 students.

Monroe Community College (MCC) met their goals by enrolling 30 students in the fall 2008 program. MCC then enrolled 45 students in its Spring 2009 cohort, with 40 students continuing their coursework through May. Twenty-three students enrolled and completed the summer 2009 program cohort. Originally the Entrepreneurial Studies Level II course was not on the summer schedule; however, several students in the Level I course expressed a desire to continue their learning and the class was added. MCC then successfully enrolled 40 students in the fall 2009 program cohort. MCC served 133 students total.

It was reported that a total of seven (7) new businesses established since the program launch in 2008.

Project leads organized the Pathways to Entrepreneurial Success 2009 event, designed as the first community resource forum serving entrepreneurs and small business owners and drew hundreds of attendees. MCC also continues to work with RochesterWorks! to enhance the National Business Information Clearinghouse (BIC) website and provide a central location for businesses resources available in the nine county region.

Genesee Community College (GCC) had 28 participants enrolled in their first Entrepreneurship course in fall 2008. GCC then had 34 students apply and 31 students attend their Spring 2009 entrepreneurial courses. Of the 31 participants, eight students projected that they would start a business after the completion of the course. GCC reported that 16 students applied and 13 students attended the fall 2009 program cohort, and using technology support students were able to attend the program at both the main Batavia campus and one satellite campus center in Albion. Projected course enrollment was 60 individuals but project leads reported that despite increased marketing efforts the program experienced recruitment shortfall at satellite campus centers (which require a minimum of 10 students to run the class). GCC served 72 students total.

15. Regional Cluster and Competency Networks

Greater Rochester Enterprise (GRE) through the High Tech Business Council (HTBC) and the International Business Council (IBC) convened and established relationships among existing industry associations and groups across the region through this project.

In 2008 the project saw a shift in focus in its efforts to convene businesses across industries. The project embarked on a strategy of convening businesses in collaboration with existing industry associations, tech networks, and academic institutions, rather than attempting to build yet another organization that was vying for businesses' precious time and financial resources. The new rationale recognized that various associations already have an established membership base, and there is strong desire among businesses in these organizations to create opportunities for greater cross-industry and cross-organization interaction. As a result, the Technology Council of Upstate New York (TCUNY) was created to leverage pre-existing industry associations and foster a collaborative learning, networking, and business development environment that provides access to more associations and their members.

Eighteen associations and/or technology networks joined TCUNY to explore the potential of working together to deliver greater connectivity and value-added services to their network members. In 2009 project leads reported that the TCUNY focused its efforts on positioning Upstate New York as one of the top technology corridors in the country.

Additionally, the International Business Council (IBC) is an organization whose mission has been to promote and expand international trade opportunities for manufacturing and service businesses in the Greater Rochester region by providing a full-range of services to its members, including conducting meetings where members share information, form consortia (for shipping purposes), resolve issues and obtain market intelligence; organizing larger-scale seminars and conferences featuring high-level speakers, in-depth information and follow-up assistance; arranging company visits and field trips; and facilitating visitations by VIP delegations. Other member services include direct counseling, business referrals and networking events. The IBC educated regional business representatives on international trade opportunities through workshops and seminars on topics such as the Fundamentals of Foreign Trade Zones, EU Regulations and NAFTA.

16. Start Here for a High Tech Career - Increasing Emerging Worker Skills

Finger Lakes WIRED funded six programs targeted at exposing youth (ages 16 and up) to high tech careers, providing them in-demand skills and an understanding of the competencies required in key industry sectors, and encouraging them to complete high school and to pursue technical training. Unique to this WIRED program was the requirement that projects address the Competencies Building Blocks model as it relates to employer/employee workplace success. Programs were specifically challenged to include components of Tiers I, II, and III into the learning experience of participants. Tier I includes Personal Effectiveness Competencies: interpersonal skills, integrity, professionalism, initiative, dependability & reliability and willingness to learn. Tier II addresses the Academic Competencies of a successful workplace

profile including the importance of competencies in: reading, writing, mathematics, science & technology, communication-listening & speaking, critical & analytical thinking, active learning and basic computer skills. And Tier III is referred to as Workplace Competencies: teamwork, adaptability & flexibility, customer focus, planning and organization, creative thinking, problem solving & decision making, working with tools & technology, workplace computer applications, scheduling and coordinating, checking, examining & recording, and business fundamentals. Project funding began in 2008.

Finger Lakes Workforce Investment Board

The “Start Here for a High Tech Career” program provides students ages 16-18 with career exploration and on-the-job training experience in the Advanced Manufacturing, Health Care and Food and Agriculture industries.

Students completed two weeks of classroom instruction focusing on work readiness and leadership training, followed by five weeks working onsite with an employer in one of the targeted industries. Participants worked Monday through Thursday, then engaged in industry tours and career awareness activities on Fridays. The seven week program served 23 participants in 2008 and 28 students in 2009, for a total of 51 youth served.

Rochester Educational Opportunity Center (REOC) at SUNY Brockport

Participants in the REOC’s Introduction to Health Careers program provides youth with classroom instruction in workforce development activities and preparation for the NYS Certified Nursing Assistant (CNA) examination.

In 2008, twenty seven of the thirty proposed students completed the program and twenty one successfully passed the examination. In 2009, twenty seven students are projected to complete the program, and as of September 30, 2009, fourteen students successfully passed the NYS CNA examination. Nine students in the 2009 program are employed as CNAs at local health care organizations, and three are enrolled in college or university nursing programs. All students had little or no work experience and met the NYS low income eligibility guidelines.

Urban League of Rochester

Students in the Summer Technical Institutes and Technology Clubs participated in competency training during the first week of activities to learn personal effectiveness competencies including communication, team work and leadership skills. Participants then attended technology labs on Monday through Thursday for six weeks, with Fridays dedicated to additional personal and professional competency training. Students participated in each technology lab for two weeks and were able to choose to attend three of the four technology labs offered this session, including Engineering, Information Technology, Printing and the Green industry. Students also continued to benefit from their work creating simulated businesses, electing chief business officials from among their peers, and earning “revenue” through weekly blog discussion posts.

The Urban League has operated two Summer Technical Institutes and four Technology Clubs in 2008 and 2009 to serve 156 youth.

The Academy for Career Development

The Academy provides a combination of On-the-Job Training and classroom instruction in the Information Technology industry to at-risk, incarcerated and post-incarcerated youth. A total of 42 students enrolled in the 14-week Start Here for a High Tech Career program, with 37 completing program activities.

In response to these challenges, project leads are re-tooling the project model. The proposed program will remain 14 weeks and take place after participants are released from incarceration. Participants will attend two days of academics and three days of work experience; when participants demonstrate academic competency they will be eligible to attend the work site full-time for the remainder of the program. Project leads believe this will incentivize participants to achieve academic success while also fostering a learning environment where they can receive individualized attention.

To date the re-incarceration rate for the 37 participants is 42.5%, which remain significantly lower than the projected 75-80%.

Genesee Community College (GCC)

Genesee Community College operates the GLOW Pathways to Careers in Bio-tech, Life Sciences and Health Care program. The program provides three college credit courses in biotechnology and human biology to students in regional high schools.

The summer boot camp portion of the GLOW Pathways to Careers in Bio-tech, Life Science and Health Care operates for six weeks and successfully enrolled 40 students in 2008 and 47 students in 2009. Students successfully completed the program and received seven (7) transferable college credits, and also attended five field trips to local businesses. Twenty five percent (25%) of the attendees stated their interest in pursuing a career in the sciences based on their participation in the program. One student's evaluation comments noted that "after learning about many applications of biotechnology through this amazing program, I know that biotechnology is a field that I am definitely interested in pursuing in college."

In 2008 the in-school portion of the program provided bio-technology courses to 118 students. In 2009 the program will be offered for 70 students throughout the region. Eight schools will continue participation using materials from the 2008-2009 program year, and four schools will begin activities this year in Alexander, Avon, Leroy, and Lyndonville. Approximately seventeen students from the "new" schools registered to participate in the fall 2009 program along with forty five students from the eight schools that participated last year.

Monroe Community College

The Engineering and Advanced Manufacturing Academy was a six-week program for youth ages 16-21 designed to emulate a real-world manufacturing work site. Students worked to design and build engineering projects including robots and electronics. The Information Technology (IT) Academy was a six-week program for youth ages 16-21 and provided hands-on IT-based project learning opportunities.

In 2008 Monroe Community College served 18 students through the Engineering program and 20 students through the IT Academy. The program experienced shortfall in recruitment (short 68 to plan) and chose to cancel the phase two portion of the program in 2008.

Finger Lakes WIRED has supported 509 youth in the development in-demand workplace skills.

17. Science, Technology, Engineering and Mathematics (STEM) Camps

STEM Camps are part of the Finger Lakes WIRED effort to expand the offerings of Science and Technology camp-like programs that attract the region's youth to explore STEM offerings, inspire parents and educators to encourage STEM educational opportunities for youth and enhance awareness of STEM opportunities in the Finger Lakes Region. Camps were funded in 2007, 2008 and 2009 for operation in July and August.. The lead organizations, camp name, actual number of youth served were:

Organization	Camp Name	2007	2008	2009
Cornell Cooperative Extension of Ontario County	4-H Camp Bristol Hills Get S.E.T. for a Career	51	13	11
Cornell Cooperative Extension of Wyoming County*	4-H Camp Wyomoco Dairy Institute*	N/A	N/A	31
Finger Lakes Council - Boy Scouts of America	SciTek Quest	N/A	11	20
Finger Lakes Institute - Hobart & William Smith Colleges	Environmental Studies Summer Youth Institute	22	7	8
Infotonics Technology Center	SEMI High Tech U	25	28	36
Monroe Community College	Pre-Collegiate Summer Program STEM Careers Track	N/A	13	14
National Technical Institute for the Deaf - Rochester Institute of Technology	Explore Your Future	N/A	25	25
Rochester Institute of Technology	Kids on Campus	30	4	N/A
University of Rochester	Rochester Scholars Jr	22	N/A	N/A
Total # Youth Served	(Corrected totals)	150	101	145

A total of 396 youth were provided STEM camp scholarships in the summers of 2007, 2008 and 2009.

Project leads from camps indicated that the age restriction to serve youth 16-18 was a significant factor in their recruitment shortfall, noting that they had significant interest from younger youth to attend their program but were limited to the WIRED funded 16-18 year old age range. This was also an issue for STEM camps funded in 2008, as youth in the 16-18 age range are often

engaged in summer employment opportunities and unable to participate in summer enrichment activities.

Some of the STEM camps surveyed participating youth at the conclusion of activities to assess the impact on students. Results from these camps were:

- Dairy Institute - Nearly 40% of youth indicated that they gained knowledge of new career possibilities by attending the camp. Three campers summed up their Dairy Institute as time spent “learning the science of things in the Dairy industry and how they work.”
- Get S.E.T. for a Career - 100% of students stated that they increased their awareness of S.E.T. activities, and 54% stated that their interest in exploring S.E.T. studies and/or career increased.
- SciTek Quest - Of the total 28 camp attendees (20 received WIRED scholarships), 26 were surveyed and 25 responded that they would be more likely to pursue STEM academic subjects as a result of their camp experience.

18. Career Navigator

The Career Navigator is an intensive job search and career management training program for the professional Dislocated Worker population, targeting individuals who previously held long term employment positions and may need to apply their skills across different industries or explore alternative career paths. Each class provides up to 30 individuals with five days of interactive job search and career management training. Following the initial five day session, participants break into two search teams that meet weekly to continue networking and enhancing their job search skills until they find employment.

The first Career Navigator class was offered in late August 2009 in the Rochester/Monroe County WIB. The project expanded to the Finger Lakes and GLOW WIBs in November 2009. 329 individuals have been served to date. Based on attendance at the first four classes, the average participant income was \$60,000, and the average age was 52. Over 60% of participants possess a Bachelor’s degree and/or Master’s degree.

Pending the availability of funding, the Career Navigator is one of two WIRED programs that received a no-cost extension through June 30, 2010.

19. Finger Lakes Winery Business Training & Support Program

An identified need for the food and agriculture industry, specifically, wineries, was the lack of proper business and financial training on the part of the owners and key staff. This program was designed to develop the skill sets of those key stakeholders. Training was delivered to the participants during their slow work periods to ensure better participation. The training topics and format were developed in conjunction with the NYS Wine and Grape Foundation, winery industry consultants, winery owners and the consultant who taught teaching the classes, and was offered in small group and one-on-one counseling to ensure that participants benefitted from the classroom experience and utilizing it in their day to day activities. In addition to the technical

assistance, business loans were also offered to the wineries and vineyards to support their growth.

Forty three business owners and business principles participated in workshops and other business and production improvement efforts in 2007. Funding for the project ended in 2008.

20. Finger Lakes Resource Network (formerly Knowledge Clearinghouse) – RIT

Rochester Institute of Technology's Knowledge Clearinghouse project was designed to develop a readily accessible web portal designed to more easily and effectively connect Finger Lakes region economic and workforce development stakeholders, companies and cluster organizations with economic and demographic data, regional asset inventories and company directories

Project staff worked to assess user needs and requirements for the proposed portal in addition to benchmarking similar websites and economic development efforts. Work was begun to assemble content for the website directory in addition to benchmarking other regional sites. Further site development and content was planned to be launched. The project was cancelled in 2007.

21. The Friendly Home Long Term Care Facility Career Pathway

The Friendly Home program established a career path for unemployed individuals interested in training in the long-term health care industry. The project is replicable by all members of the Senior Health Alliance of Greater Rochester (SHAGR), nursing homes, hospitals and other healthcare facilities in the region.

Fifteen formerly unemployed individuals completed the 90 hour training program and were immediately employed by the Friendly Home or other partners. The project ended in 2008.

22. The Essential Links

The goal of the effort was to connect business leaders in the region by creating a collaborative network for the food, beverage and agricultural industries. This initiative supported the growth of entrepreneurial efforts and well as assisting existing businesses with their growth. The Essential Links was supported by the Cornell Agriculture and Food Technology Park in Geneva.

More than 100 leaders from academic, scientific, imaging, agricultural and government organizations met for the first Photonics, Food and Agriculture conference in November 2007. Several collaborative initiatives arose to leverage agricultural and imaging technologies as a result.

Forty four business owners attended a workforce needs assessment workshop for the Food and Agriculture industry in January, 2008 as part of a formal network of food and agricultural

business leaders to increase innovation and leverage assets throughout the region. This project ended in 2008.

23. Masters of Science Degree in Science and Tech Commercialization

The MS-STC project through the University of Rochester was an executive Program founded for the study of entrepreneurship to address the shortage of people who can look at a technology and determine whether it can be commercialized. The project utilized a curriculum from University of Texas at Austin and classes were taught via distance learning to allow students to access to this innovative program. Scholarships were provided at \$10K to impact student diversity, minority participation and the needs of the students. The scholarships were provided with the caveat that the student will work in the region after completion.

Six students have assessed over twenty two technologies, with one selected for full commercialization plan development from the University of Rochester. The project was discontinued in 2008.

24. Predictive Analysis for Business Retention and Expansion

Greater Rochester Enterprise's Business Retention and Expansion project was designed to help economic development agencies in the region become more efficient with scarce resources. The project identified local companies that were likely to expand or to contract so that the economic developers could intercede for a positive outcome. The initial BR&E model was tested in the 8 counties outside of Monroe and was revised due to the outcomes of that test.

More than 1,100 companies were identified that may have experienced a significant change in their business (either expansion or contraction) and lists were generated and distributed to the 10 economic development agencies in the region. The project was also discontinued in 2008.

Attachment A

LISTS

Original Governing Board Partner Organizations

Empire Sate Development
Five Star Bank
County of Monroe
Info Directions
Trillium Group, LLC
City of Rochester
Ontario County Board of Supervisors
Monroe Community College
Genesee Valley BOCES
Genesee County Legislature
Finger Lakes Community College
Eastman Kodak Co./Infotonics Technology Center
GLOW Workforce Investment Board
Genesee/Finger Lakes Regional Planning Council
Rochester Area Community Foundation
Greater Rochester Enterprise
Rochester Business Alliance
University of Rochester Medical Center
Cornell Agriculture & Food Technology Park
University of Rochester
Rochester Institute of Technology
Genesee Community College
United Auto Workers

Original Operation Team Organizations

Rochester Institute of Technology
Rochester Area Community Foundation
Cornell Agriculture & Food Technology Park
Finger Lakes Community College
Finger Lakes Partnership
Genesee/Finger Lakes Regional Planning Council
Infotonics, Inc.
Rochester Business Alliance
GLOW Workforce Investment Board
Infotonics, Inc.
Empire State Development
Genesee Community College
University of Rochester
NYS Department of Labor
City of Rochester
Monroe County
Greater Rochester Enterprise
High Tech Rochester
Monroe Community College

Original Implementation Teams

Entrepreneurship Team– Duncan Moore, University of Rochester, with 46 team members.

Innovation Team – Paul Wetenhall, High Technology Rochester, with 29 members.

Workforce Development Team – James Winston, Monroe Community College, with 27 members.

Economic Development Team – Jim Senall, Greater Rochester Enterprise, with 24 members.