Appendix A: Promising Practices

The following section contains a series of case studies of strategies and tactics that were selected by the site visit teams for their potential applicability as best-practice models. The team members made their selection based on direct observation of the regional activities during three rounds of site visits, and on the following criteria:

- The extent to which the activity appeared to represent an innovation or a new modification of an existing practice
- The apparent success of the activity in achieving its goals during the grant period
- The potential of the activity for replication, in whole or in part, by other regional initiatives

The case studies are ordered by theme—five for regional economic development, eight for workforce development system transformation, and one for social networking. The full list of case studies is shown below.

Regional Economic Development

- *Southeastern Virginia:* Creating an Environment for Technology-Based Entrepreneurship
- *Rio South Texas Region:* Rapid Response Advanced Manufacturing
- *Greater Albuquerque (NM):* Promoting New Mexico's Green Economy
- *Central-Eastern Puerto Rico:* Creating an Entrepreneurial Ecosystem
- *South-Central Kansas:* Catalyst to Successful Product Development and Commercialization

Workforce Development System Transformation

- *Arkansas Delta:* Relocation of One-Stop onto a Community College Campus
- *Central New Jersey:* Transforming Graduate Education
- *South-Central Kansas:* Developing, Funding, and Sustaining a Summer STEM Program
- *North Oregon:* BizConnect
- *South Central & South West Wisconsin:* Collaboration, Innovation, and Outreach in Health Care Worker Training
- *North Oregon:* Community College Liaison Structure
- *South-Central Kansas:* Collaboration of Local Workforce Investment Boards
- *Southeast Michigan:* Second-Tier Business Training, Product Realization and Technology Commercialization Program

Social Networking

- *Rio South Texas Region:* Development of Sustainable Partnerships

Generation III: Southeastern Virginia
Promising Practice: Creating an Environment for Technology-Based Entrepreneurship

- **Problem Statement:** The Southeastern Virginia Partnership for Regional Transformation (SEVA-PORT) initiative was dedicated to the promotion of modeling and simulation (M&S) technology; the transportation, warehousing, and distribution (TWD) sector, and the intersection of these two industries within the broader supply-chain logistics industry.[1] Unfortunately, regional stakeholders indicated that their area was a difficult environment for entrepreneurs, despite having a lot of engineers, most of whom are in the military. According to several key leaders, the region lacked a widespread awareness of the application potential of M&S for TWD and had limited supports for small businesses.

Business Workshops/Seminars for M&S and TWD Businesses

- Business fundamentals workshops targeted specifically towards M&S entrepreneurs and managers were conducted by the College of William & Mary faculty, with Virginia Modeling, Analysis, and Simulation Center in (VMASC) Old Dominion University sponsorship.
- This project was designed to raise the visibility of M&S applications for the TWD industry through research, workshops, seminars, and conferences specifically targeting logistics, TWD, and other supply-chain businesses in the region.

Over 630 local entrepreneurs participated in M&S and TWD-related seminars, and 52 local entrepreneurs engaged in regional peer networking efforts.

Online SBDC Launch in Petersburg

- The partners collaborated to establish within the Small Business Development Center, no-cost online access to more than 100 small business-focused courses purchased from Element K, a business training corporation.

Key Words: Entrepreneurship, collaboration, curriculum development; small business supports, TWD, M&S technology
Goal Categories: Regional economic development

The Crater Planning District Commission (CPDC) leaders report that this will reach eventually reach 10,000 people, at no cost to the end user.

Establishment of a Virginia Logistics Research Center in Petersburg

- A key partner in SEVA-PORT, CPDC sponsored a feasibility study regarding the establishment of a Virginia Logistics Research Center (VLRC) in the Crater/Fort Lee area.
- This study was conducted by Virginia Modeling, Analysis, and Simulation Center (VMASC) at Old Dominion University (ODU) which recommended development of "a high-technology logistics research and development center with modeling and simulation as a core technological capability. . . for the purposes of R&D, economic growth, business

[1] M&S is generally perceived of as "The use of models, including emulators, prototypes, simulators, and stimulators, either statically or over time, to develop data as a basis for making managerial or technical decisions." (http://www.dod-msiac.org/pdfs/Glossary/DoD5000.59M.pdf).

development, workforce development, and technical services as needed by the region for the foreseeable future into the mid 21st century."[2]

As of three months after the close of the grant, the 35 member advisory committee had approved a recommendation to move forward with creating the VLRC as a 501(c)3 and establishing a board of directors. The group hired a full-time staff person to move this forward.

Completion of Key Studies of the TWD Industry in the Hampton Roads Area

- One study offered a definitive report on the supply chain industry of Hampton Roads including an analysis of the skilled workforce training and curriculum needs and the growing application of the M&S for this industry. [3]
- Another study provided a performance gap analysis and educational requirements assessment of Hampton Roads TWD companies with an analysis of the business technologies employed and needed in the TWD industry in the region.[4]

During the site visits, it was indicated that these reports were well received in the region and were influential in expanding the local understanding of how this industry is tied to national and global economies.

- **Challenges:** The leadership recognized that there is still significant work to be done to support small business start ups and to develop "communities of practice," and indeed, the evaluators agree and note that other SEVA-PORT efforts not highlighted here provided more immediate impact for the region. However, the work to date is notable in that it offers considerable movement towards achieving these goals, and begins the critical work of addressing significant gaps in the region's capacity to foster innovation and entrepreneurship.

  One of the difficulties encountered in the first year was identifying and engaging regional leaders involved in entrepreneurship and small business development. This was attributed primarily to the system being somewhat fragmented. Aggressive efforts were made to connect with relevant associations that could help identify innovative approaches to small business development. Critical to successfully engaging would-be entrepreneurs and crafting appropriate supports was engaging the right partners like the Crater Small Business Development Center (which had worked with rural communities, and suggested launching an online training), the Hampton Roads Partnership, and engaging faculty from the College of William & Mary and VMASC.

[2] *Virginia Logistics Research Center Feasibility Study*. (Norfolk, Va.: Virginia Modeling, Analysis and Simulation Center, 2009), 18.

[3] James Bradley and Hector Guerro. *Transportation, Warehousing, and Distribution: An In-depth Study of the Supply Chains of Hampton Roads*. (Norkfolk, Va.: Mason School of Business, College of William & Mary, 2009).

[4] James Bradley and Hector Guerro. *Transportation, Warehousing, and Distribution: A Performance Gap Analysis and Educational Requirements Assessment of Hampton Roads TWD Companies*. (Norkfolk, Va.: SEVA Port [Opportunity, Inc.], 2009).

Generation II: Rio South Texas Region
Promising Practice: Rapid Response Advanced Manufacturing

- **Problem Statement:** The current success of Mexico, China, and other low-cost producers of manufactured goods depends upon long production runs of labor-intensive, easy-to-assemble commodities coupled with low transportation costs. As long as the customers' demand for standardized products (e.g., standard household appliances and electronics) stays strong, low-cost producers will retain control of these product markets. The major weakness of the low-cost production strategy, however, is that it cannot compete in a consumer-driven, customized-product environment. Moreover, a manufacturer in a low-cost commodity production environment may find it difficult to pursue innovation and product development. Marginal improvements can be made, but commodity producers may find it extremely difficult to acquire the necessary resources to generate new design products.

Key Words: Advanced manufacturing, rapid response, lean, entrepreneurs, innovation
Goal Categories: Regional economic development

The Rapid Response Advanced Manufacturing Strategy

- The Rapid Response Advanced Manufacturing (RRAM) strategy of the North American Advanced Manufacturing Research and Education Initiative (NAAMREI) was designed to assist the WIRED region's manufacturers in making customized manufactured products for both consumers and businesses that face small but growing markets. Also, the RRAM strategy helps existing manufacturers and entrepreneurs in the region to incorporate lean engineering systems, customer-focused design, and real time information technology into their manufacturing product cycle.
- Rapid-response advanced manufacturers strive to shorten their production cycles and compete on value and design instead of on cost. They produce customized products instead of standardized commodities.
- Rapid response manufacturing focuses on both new product development and the usage of highly efficient production methods. While new product development can open new markets, these markets can still demand efficient manufacturing processes that generate quality products at low costs.
- For the Texas Rio Grande valley, it is a strategy that could enable U.S. manufacturers to compete in separate and higher value markets than foreign manufacturers who excel in producing quality, low-cost commodity products. "RRAM is based on the basic concept of reducing the cycle time of the components of the manufacturing cycle, from ideas to retirement, through the use of enablers of speed. . . improvements in information technology/communication, flexible and agile manufacturing processes, lean sigma systems, product life cycle, integrated logistics support and emerging technologies."[5]

Supported by and located on the main campus of the University of Texas -Pan American (UTPA), NAAMREI's Rapid Response Manufacturing Center (RRMC) is a focal activity of the North American Technology and Innovation Alliance, which is one of three major collaboratives

[5] Allen M. Beck, John R. Lloyd, and Miguel A. Gonzales, *Rapid Response Advanced Manufacturing: A Strategy for Global Economic Competitiveness*. (Edinburgh, TX: University of Texas Pan-American, 2010), 5.

under the NAAMREI umbrella. The RRMC, being part of the University's College of Engineering and Computer Science, links the University's engineering faculty and students to businesses and entrepreneurs striving to develop new products. It also provides an avenue for the University's research scientists to take their discoveries to market. RRMC clients have access to planning and rapid prototyping systems, software resources for simulation and design, and other resources.

The RRMC provides guidance and training for manufacturers and their employees in the following manufacturing areas: flexible production processes, lean manufacturing methods, emerging technologies, and information technology. Services offered at the RRMC include research and development, incubation, education, and education modules addressing innovation and entrepreneurship. This approach is designed to improve the speed to market of new and refreshed products, increase the responsiveness to client needs, and rapidly address the demand for customized products at mass produced prices and with quick delivery time.

To ensure a steady flow of ideas and projects for the RRMC to launch, UTPA partnered with manufacturers in the WIRED Region to assist in their research, development, and design efforts. Most of these companies still have strong working relationships with the Center and use the Center's research and development facilities when needed.

In addition, the Center offers an outlet for the researchers and staff at the UTPA engineering department to develop their ideas and products. In fact, one of the most impressive companies that received assistance from the RRMC is FibeRio. This company makes the Forcespinning™ Technology, which produces nanofibers for both research and industrial applications. The company was created from the work of two UTPA engineer faculty members, Dr. Karen Lozano and Dr. Kamal Sarker.

Moreover, RRMC has successfully worked with entrepreneurs in the region on the development of their products. Still, RRMC must constantly strive to attract a steady flow of ideas and products into their research center or it will become underutilized.

- **Challenges:** The RRMC's most significant challenge is to not allow the Center to become too focused on providing research opportunities and internships for UTPA engineering students. One of the strengths of the Center is UTPA engineering program: its students and faculty members can be called in to examine and assist in the development of new products. At the same time, the Center works to set up intern programs for their engineering students at regional manufacturers. While these internships are valuable, they are not directly aligned with the overall mission of the Center and could cause the Center to lose its focus on the development of products and processes.

Generation III: Greater Albuquerque (NM)
Promising Practice: Promoting New Mexico's Green Economy

- **Problem Statement:** The Greater Albuquerque (NM) fostered a number of green technology training and educational programs that were built around New Mexico's statewide effort to become identified closely with alternative energy and energy conservation. While these were relatively small programs individually, collectively they represented a concerted effort to promote the state's green economy through solar energy, biofuels, and green construction.

UNM-CE's Energy Efficient Retrofit Curriculum

- In cooperation with the University of New Mexico (UNM) School of Engineering, the University of New Mexico, Continuing Education (UNM-CE) designed a course entitled "Fundamentals of Energy Efficient Retrofits."
- This course is part of a curriculum to retrofit older commercial facilities to be more energy efficient. The curriculum provided training to building owners, contractors, architects, and others, regarding green construction techniques and energy efficiency.
- As construction has been one of the hardest hit New Mexico industries during the recession, this curriculum has the potential to contribute to additional construction work, while it allows those already in the construction business to upgrade their skills.

After extensive partner collaboration in developing the curriculum, this course was offered on a pilot basis in January 2010, and a revised curriculum was offered in the fall 2010 semester. This course is likely to be offered each semester in the UNM-CE catalogue, which reaches approximately 60,000 individuals. PNM (an Albuquerque-area electric utility company) has offered to subsidize the cost of taking this course in the future. This course also qualifies for Workforce Investment Act (WIA) funding to upgrade worker skills.

Key Words: Green technology, green energy, curriculum development, career pathways
Goal Categories: Regional economic development, employment, and wages

UNM-LA's Green Technology Program

- The University of New Mexico-Los Alamos (UNM-LA) received funding for multiple projects under WIRED, all focused on green technology and solar energy. A key part of their work was focused on curriculum and staff development necessary to reinvigorate and expand UNM-LA's science and technology offerings, especially in the area of applied environmental technology.
- The major academic focus of the campus had drifted over time from computer technology and related fields to liberal arts, and the region wanted to shift the focus to science and technology, thus making UNM-LA a center for STEM (science, technology, engineering, and mathematics) education. To accomplish this, UNM-LA revived a dormant applied technology advisory board that was staffed mostly with National Laboratory staff who teach part time at the university. In addition, at the time of the second site visit, UNM-LA was in the process of reviewing all of its degree programs in order to determine what should be emphasized and what should be minimized or eliminated.
- The traditional program consisted of a four-year degree in environmental science that was designed mainly for those planning to continue their education at the post-graduate level. To

accelerate the development of talent in green jobs, and to offer a relevant career pathway for multiple levels of employment, the program was restructured to allow students to gain marketable technical skills through a two-year environmental remediation program. Environmental remediation includes topics such as dealing with hazardous materials, site clean up, dealing with nuclear hazards, air and water monitoring, data collection, and data monitoring. In addition, a course in photovoltaics was developed for a new program in solar energy technology. Moreover, there is an entrepreneurial focus to the solar energy program as students are being taught business-critical skills such as cost analysis and site analysis in addition to the application of solar energy technology.

By mid-2010, some courses were in the developmental stage and three new courses had been established in photovoltaics and environmental science, and UNM-LA was pursuing the possibility of making its technician training program into a transferable program. In addition, UNM-LA was in discussion with Los Alamos National Laboratory administrators about other locally needed positions such as "flex-techs," where laboratory technicians are trained in skills that are broad enough to work in a variety of technical settings, and thus be more responsive to changing National Laboratory needs. The school also applied for National Science Foundation grant for its solar program.

A separately funded but related effort was the provision of scholarships; at the time of the second site visit, 20 scholarships had been provided through WIRED funding to science and technology students on the UNM-LA campus.

- **Challenges:** The initiative did face a slow start in pursuing these goals, due to several challenges early on. The challenges were in the realms of administration and communication, rather than directly related to project substance. Changes in leadership and operation of the initiative, along with some intermediary assistance, eventually were key in resolving these issues.

Generation II: Central-Eastern Puerto Rico
Promising Practice: Creating an Entrepreneurial Ecosystem

- **Problem Statement:** Central-Eastern Puerto Rico is the home of several important pharmaceutical manufacturing companies and, until recently, also had a significant medical device manufacturing presence.[6] Despite the efforts by area colleges and universities to support the continued presence and growth of these companies, the economy of the island has faced numerous challenges that have taken their toll on the region. Changes in tax incentives and occasional difficulties with product quality have led some companies to discontinue their Puerto Rico operations. In addition to putting skilled employees out of work (many of whom have had to leave the island for work), these closures have had a broader impact on other businesses in the region. In response to this challenge, island and municipal leaders have put an increased emphasis on implementing a regional economic and workforce development strategy that is more collaborative and more responsive to employer needs.

Key Words: Entrepreneurship, small business, startups, business incubation, collaboration
Goal Categories: Regional economic development

INTECO's Technology Entrepreneurship Cluster

- One component of the region's response to the loss of skilled jobs in pharmaceutical and medical device manufacturing was the development of an "entrepreneurial ecosystem" to facilitates the development of small and medium-sized businesses. This strategy was designed to help the region's economy grow from within rather than trying to convince external companies to locate in the region.
- Under the WIRED grant, the region funded an entrepreneurship training program at the Inova business incubators, which are located in Caguas and Humacao. The training was offered in three modules based on participating entrepreneurs' level of advancement in building their business.
  - The first module offered business-planning assistance to individuals who either had just started their businesses or were planning to do so.
  - The second module was the business incubator, which helped small businesses reach the next level.
  - The third module offered instruction on imports and exports to businesses that were well established but wanted to export their products or services beyond the island.

At the conclusion of the grant period in June 2010, INTECO sought to expand on this small business development strategy. They conducted focus groups with participants in the three WIRED training modules to learn what changes were recommended by their target audience; the result was the INTECO Technology Entrepreneurship Cluster (iTEc). This initiative took a holistic approach to entrepreneurial development, providing "modules" of training and resources to support small businesses at several different stages of development. The industry focus of iTEc includes information system services, software applications (e.g., for the iPhone and iPad),

[6] *Central-Eastern Puerto Rico Workforce Skills Assessment and Gap Analysis*, 17-21.

communications infrastructure, mechatronics products, and innovative products derived from recent research or scientific findings.[7]

Under iTEc, the three business development modules funded by the WIRED grant are expanded to six, each with its own set of support services: [8]

Business Development Modules

Modules	Support Strategy	Target Users
Innovation	Innovation training, industrial design methods	Potential entrepreneurs, startups, small businesses considering new products
Prototyping	Prototyping methods training, product and package design training	Small businesses interested in creating or enhancing products
Market Intelligence	Market research, feasibility studies, business and marketing plan support	Startups, small businesses developing new products
Commercialization	Counseling on supply chain resources, distribution channels, application deployment, and customer support development; fast-track SBDC training.	Startups, small businesses developing new products
Sales	Training in tech-product sales and "guerrilla" marketing, counseling on business intelligence for decision making, business and marketing plan support	Startups, small businesses developing new products
Exportation	International market research and planning; SBA exportation training; talks on international economics, monetary policy, and trends	Mature small business interested in growth; small businesses with mature products

In Central-Eastern Puerto Rico, entrepreneurial development is much needed in a time when outsourcing is common, unemployment remains high, and the attraction of companies from abroad is becoming more and more difficult.

- **Challenges:** The most important challenge to iTEc was funding. Fortunately, the INOVA incubators were in place and the INTECO office itself offered small business resources as well; however, additional funding to develop and administer the training modules had not yet been secured as of August 2010. INTECO planned to continue working with the iTEc concept using existing resources and developing materials further as additional funding became available.

[7] INTECO.. "iTEc: Inteco's Technology Entrepreneurship Cluster," (updated PowerPoint presentation).
[8] Ibid.

Generation III: South-Central Kansas
Promising Practice: Catalyst to Successful Product Development and Commercialization

- **Problem Statement:** Wichita is home to about half a dozen original equipment manufacturers (OEMs) in the private aviation industry plus dozens of first-, second-, and third-tier suppliers. However, this industry is extremely cyclical. The organizers of this region's WIRED initiative were working to facilitate the development of the composites sector, which has become increasingly important in aircraft manufacturing but has other uses as well. One of the most promising applications is in the medical field. Wichita State University and Via Christi Health System, a local hospital, had teamed to bring a renowned scientist to the Wichita area to develop biomedical products (prosthetic joint and bone replacements) using composite materials. The development of these products required considerable investment, and the initiative was stalling because research grants had been unsuccessful or delayed.

National Center of Innovation and Biomaterials in Orthopaedic Research

- The advisory board of the South-Central Kansas WIRED region became aware of the National Center of Innovation and Biomaterials in Orthopaedic Research (CIBOR) initiatives and was enthusiastic about their prospects. They voted to award the project a relatively small grant so that the Center could continue its efforts until additional grant funding or commercial investment funding was received.

Key Words: Product Development, university.
Goal Category: Regional Economic Development

Several aspects of this catalytic grant are of interest. First, the biomedical use of composites, which was the target sector for WIRED, appeared to have a strong potential for contributing to the expansion and diversification of the composites sector in the region. The South-Central Kansas region had focused on composites because of their increasing use in the aviation and aerospace industry. If the biomedical uses of composite materials could be demonstrated and could become commercially successful, then there would be an entirely different demand for workers trained in manufacturing processes that use composite materials. Furthermore, that demand, being tied to the medical services sector, appeared likely to be steady and growing. In addition to the logic of supporting a body of research with the potential for composite-industry diversification, the WIRED region leadership believed their support of this project made sense for WIRED because the level of funding was relatively minor, so that whereas there was some risk involved, it was not huge.

In the end, the investment proved to be quite successful. The CIBOR organization received considerable funding after the WIRED grant, and its commercialization was well underway as of 2010.

- **Challenges:** The principal challenge in this grant was its potential risk, since the activity was funding basic research and because the commercialization of the research was far from certain. The risks were mitigated by the fact that the effort was a perfect fit with the targeted sector and because of the relatively small amount of funding it required. This example

demonstrates the wisdom of an investment strategy that targets a mixture of low- and high-risk payoffs.

Generation II: Arkansas Delta
Promising Practice: Relocation of One-Stop onto a Community College Campus

- **Problem Statement:** This region is extremely challenged economically and has traditionally had a large public assistance and Workforce Investment Act (WIA) caseload. The overall strategy of the Arkansas Delta WIRED initiative was to use the community colleges in the region as centers for training in order to develop highly-skilled workforces and, hopefully, business location. The local fiscal agent for the WIRED grant was Mid-South Community College; the state fiscal agent was the Department of Workforce Development (DWD), which administered funding for the public workforce development system in the state and, in particular, the One-Stop agencies. The Director of DWD, Artee Williams, was on the advisory board for the WIRED grant, and he wished to include integration of the One-Stop into the grant's activities.

Mid-South Community College's Consolidated One-Stop

- To fully integrate the One-Stop in the WIRED initiative, the DWD and community college decided to locate the West Memphis One-Stop on the Mid-South Community College campus.
- In addition to traditional workforce development programs like the WIA, Career Pathways (Temporary Assistance for Needy Families), unemployment compensation, Wagner-Peyser Employment Services, and SNAP E&T, the college's adult basic education department is located in this center.

Key Words: Community college and One-Stop
Goal Categories: Workforce development system transformation, disadvantaged populations

The vision of Mr. Williams was that having the One-Stop on the campus might encourage clients to aspire to a community college degree. In fact, the move resulted in enrollment of some clients into community college offerings, and use of some TANF-emergency grants for equipment and tuition. Many of the individuals who were interviewed thought that this was the first occasion in the state for a Workforce Center One-Stop to be located on a college campus. The staff of the One-Stop were quite enthusiastic about their new location because it made training referrals much easier and more effective.

The co-location was considered quite successful and has been replicated in several other areas of the state. As of July 2010, one other Workforce Center One-Stop had been co-located (in Newport) and two other workforce investment boards (WIBs) had received grant funding from the state to open satellite offices on two-year college campuses.

- **Challenges:** The establishment of a One-Stop facility is a difficult task because of all the politics, bureaucracies, and vested interests involved. Getting a One-Stop onto a college campus increases significantly the difficulties because workforce development and higher education often do not speak the same language. Consequently, having a fully operational center was considered quite an accomplishment. This relocation faced two main challenges.
  - First, it required substantial bureaucratic interaction because of the number of different programs that were funded and offered at the One-Stop, as well as the fact that the

contractor operating the One-Stop was a for-profit corporation. Furthermore, the staff of the One-Stop needed to be convinced, as well as the college's staff and students. Interviewees indicated that this obstacle was overcome through intensive meetings and open communication.

- The second challenge was a perception by local individuals that the One-Stop had become a community college activity, and was therefore not accessible to the broader community. At the time of the site visits, this concern had not yet been resolved.

Generation III: Central New Jersey
Promising Practice: Transforming Graduate Education

- **Problem Statement:** Historically, the Central New Jersey region has been dominated by some of the world's largest pharmaceutical companies that have conducted research to discover new pharmaceuticals, transformed their discoveries into commercial products, and manufactured many of these products in the area. In the years leading to the WIRED designation, however, a large portion of the region's pharmaceutical manufacturing had been outsourced to other locations, and the processes by which pharmaceutical giants discovered new solutions to medical problems had become increasingly reliant on research conducted by numerous small, start-up companies in the region. In fact, some of these start-ups had been established by scientists who were displaced as a result of restructuring in the pharmaceutical industry. Meanwhile, steep job losses in the manufacturing and information technology sectors, together with the closure of the Fort Monmouth military base, underscored the critical role of the life sciences sector in Central New Jersey's economic well-being.

Key Words: Higher education, universities, entrepreneurship, and biotechnology
Goal Categories: Workforce development system transformation, regional economic development.

Transforming Graduate Education

- To make graduate science education in the region more responsive to industry needs and give students and professional scientists the tools to convert their expertise into marketable products and services, the grantee developed a suite of Professional Science Master's (PSM) degree programs.
- The largest investment in this category was the PSM Program at Rutgers University, which offers two certifications. The first, the Master of Business and Science (MBS) degree, allowed students with bachelor's degrees in science or engineering to choose one of 14 science concentrations while also taking courses in business and entrepreneurship. The second, the Certificate in Science and Technology Management, was directed at scientists who already have advanced degrees but wanted to gain business credentials through coursework targeted to their professions.
- Another degree program in this category was the Master of Science (MS) degree in molecular pathology, which was to be taught at the University of Medicine and Dentistry of New Jersey. This program was developed in close consultation with two small biotechnology companies.

The MBS program completed the university approval process at Rutgers in December 2009 and had approximately 60 students enrolled as of the fall 2010 semester. Program organizers aimed to have 200 new students enrolled by the fall semester of 2011, which would make this MBS program the largest of its kind in the world.

Beyond the development of the PSM programs themselves, organizers leveraged partnerships with universities around the world. As of 2010, partnerships had been developed with two leading Korean universities and discussions were taking place with universities in China,

Australia, and Europe. The goal was to engage at least ten global partners, each of whom would send up to 25 students to New Jersey to participate in the program. As noted by a program representative, this influx of international students could result in new, highly skilled international residents or could engender ongoing business relations between Central New Jersey and the partner countries when program participants returned home after developing social networks in the region.

The program also leveraged considerable funding beyond the Bio-1 grant, including $300,000 from the Sloan Foundation, $600,000 from the U.S. Department of Education, $1 million from Rutgers University, and $700,000 from the National Science Foundation. It was designed to become completely self-supporting through student tuition. Interviewees praised both the MBS program at Rutgers and the MS program at UMDNJ for being strongly industry-driven from the outset, thus fulfilling one of the Bio-1's core ambitions—to transform education to fit the needs of the region's bioscience industry.

- **Challenges:** As discussed above, the Central New Jersey region had already experienced widespread layoffs as a result of restructuring in the pharmaceutical industry. Beginning shortly after the receipt of the WIRED grant, the nationwide recession took a further toll, forcing increasing numbers of highly skilled workers to seek new employment within—or outside—the region. Fortunately, the PSM programs were well positioned to provide displaced workers and those entering the workforce with the business skills to be competitive in their job search or to form startups of their own.

Generation III: South-Central Kansas Promising Practice: Developing, Funding, and Sustaining a Summer STEM Program

- **Problem Statement:** South-Central Kansas' first overarching goal was to "Coordinate and leverage the region's educational and workforce development resources to develop talent and encourage lifelong learning practices that will support sustainable, high wage, high-skilled jobs to meet the changing demands of employers and the global economy."[9] To help meet this goal, the region was interested in developing and refining pre-college STEM (science, technology, engineering, and mathematics) education among a diverse body of students to generate interest in engineering, advanced manufacturing, and other highly skilled technical occupations to serve industries in the region.

Wichita State University College of Engineering's STEM Summer Camps

- The Wichita State University (WSU) College of Engineering developed a series of week-long summer camps for high school students and for female students in grades 4-6 with hands-on courses in engineering, math, and computer science.
- Students were recruited through school-district contacts in the region, as well as brochures and a Web site.
- The WIRED grant and other grant monies were used to offer scholarships to the high school students. For all grades, tuition was paid on a sliding scale based on need; however, to motivate attendance, all students were required to pay some amount of money. Even full-scholarship recipients were required to pay $10, which was reimbursed to them on concluding the course.

Key Words: Science, technology, engineering, and math (STEM); K-12; curriculum development; career pathways; collaboration; leveraging funds
Goal Categories: Workforce development system transformation, disadvantaged populations

The summer camps grew steadily from the time of their inception and attracted significant funding outside the WIRED grant. Two camps were offered in 2007 (sponsored by the Society of Women Engineers), three in 2008, and five in 2009. For 2010, the college anticipated offering seven summer camps as of early 2010; they did not anticipate holding more than seven camps per summer in the future. For future camps, organizers planned to diversify the course content, expand the range of ages beyond the current K-12 focus, and maintain the already-high levels of diversity among participating students. In addition to positive feedback by students, sponsors provided a substantive vote of confidence. As a camp organizer noted, ". . .this year, organizations have been sending donations for the camps even before we started fundraising, which speaks volumes of what people think of the camps."

- **Challenges:** As the WIRED grant paid only for high school students, program organizers had to seek funding elsewhere to allow for the participation of students in fourth, fifth, and

[9] This wording of the three strategies comes from the region's quarterly report, October through December 2009, pages 4, 8, 13. The region's implementation plan worded the strategies differently, but the implications of the strategies are unchanged.

sixth grades. Fortunately, they were able to secure ongoing grant funding from the Knight Foundation to cover this age group.

Generation III: North Oregon
Promising Practice: BizConnect

- **Problem Statement:** The state of Oregon requires public high school students to complete career-related learning experiences (CRLEs) prior to graduation.[10] This policy is intended to give students the workplace awareness and exposure to employment that will help them make sound educational and career choices. For employers, it is a way to foster interest in their industries and the kind of skills they want workers to have. The students' activities range from "basic" experiences like mock interviews, company tours, and informational interviews to "advanced" experiences like job shadowing and internships. This presented a challenge for schools as their counselors sought to connect with area employers and to track the activities. Prior to BizConnect, the schools had to contact employers individually to arrange for the experiences, with employers receiving multiple requests from a variety of directions. This uncoordinated approach was burdensome for employers.

Key Words: K-12, internships, job shadowing, mock interview, career learning experiences, business-education partnership
Goal Categories: Workforce development system transformation

BizConnet

BizConnect uses online databases to share information across participating schools (57) in the region. By entering employers and students into a common system, there were fewer overlapping demands on employers. In addition, the program placed a coordinator to assist school staff and employers with using the database in each of the participating counties (there were five at the outset). This added capacity to the system.

While Oregon's CRLE requirement is not common, a system like BizConnect could be useful in any location. It offers a means of building relationships, facilitating the earning of CRLEs, and helping to give meaningful context to in-school learning. The schools, through facilitated discussions, met monthly to discuss the implementation process and shared strategies to resolve problems. The program manager noted that this early investment in consensus-building helped to encourage trust between school partners. The common vision was also fostered through clear memorandums of understanding, collaboratively reviewing student preparation standards, and creating common definitions for student career learning experiences. Once the structure and staffing was in place, the system worked smoothly and increasingly assisted students and employers in having positive experiences.

The program received $200,000 from the State of Oregon to support the efforts beyond the WIRED-funding period.

- **Challenges:** The program ended up using two data systems, which then had to be cross-referenced, because one county was using I-Match Skills. The others used CisConnect. The

10 This policy was adopted in 2002 for implementation with the class of 2007. The curriculum standards related to the CRLEs include personal management, problem solving, communication, teamwork, employment foundations, and career development. Source: Oregon Department of Education, "Diploma - Career-Related Learning Standards," http://www.ode.state.or.us/search/page/?id=2097.

CisConnect system was developed in Wisconsin, and this region was the pilot site. The I-Match Skills system was pre-existing and administered through Oregon Employment Department, but presented its own challenges around levels of access and confidentiality. The program's evaluation, conducted during 2010, is intended to assist with determining whether one should be preferred over the other.

Another challenge for this program was the need to attract the participation of a sufficient number of employers to support experiences for 1,500 students. In addition, because schools had some pre-existing relationships with local employers, there was hesitancy at first to trust that these connections would not be compromised by the program. As of February 2010, however, the region had over 1,000 employers in the system, and they had received positive feedback from schools, employers, and students. The program intends to expand statewide.

Generation II: South Central & South West Wisconsin Promising Practice: Collaboration, Innovation, and Outreach in Health Care Worker Training

- **Problem Statement:** Like many other areas of the country, the South Central & South West Wisconsin region has been facing a growing shortage of workers trained in nursing and other health care service professions. In assessing the issue and how to ensure an adequate future workforce, two major needs were identified that the existing system was struggling to meet: a shortage of opportunities for nursing students to gain hands-on clinical experience and the need for basic medical training and ongoing education for first responders and nurses. The latter concern is especially true in the region's more rural areas where medical personnel do not have the necessary training facilities for them to keep their skills current.

Center for Nursing Excellence and the Mobile Simulation Units

- To address these needs, a collaborative center called the Center for Nursing Excellence (CNE) was formed in Madison, Wisconsin and truck-based mobile training labs were developed to provide an alternate means of offering simulated clinical training experiences.
- The establishment of the center and purchases of simulation and training equipment was primarily supported by grant funding from the State of Wisconsin and the U.S. Department of Labor, with ongoing operational support to come from tuition fees and the support of local hospitals.
- Primary responsibility for the operation of the CNE and the mobile training labs falls to Edgewood College and two local hospitals, although other technical schools and community colleges throughout the region are able to make use of the facilities.

Key Words: Training innovations, health care, rural, workforce, nursing.
Goal Categories: Workforce development system transformation

The CNE addresses the region's health care worker shortage in several ways. First, the center houses several simulation labs equipped with life-like human patient simulators and hospital equipment that can be used to create training scenarios for nursing students. This both addresses the shortage of clinical training experiences available for students at local hospitals, and enhances nursing training by ensuring students are guaranteed to gain hands-on experience in severe medical situations that might not naturally occur for nurses training in a hospital setting.

Second, the mobile labs bring simulators out to nurses and emergency medical technicians (EMTs) that are living or working in rural areas. Because the center is a collaborative regional effort and not just tied to one specific college, the truck-based equipment can travel throughout the area and provide training simulations or recertification testing to workers and students on site through cooperation with one of several technical colleges and hospitals. This capability makes the training more accessible in rural communities, where trained health care workers can be hard to find. Additionally, the mobile labs were described during the site visits as being especially helpful in providing basic medical training to first responders, such as firefighters and sheriff's deputies, which are often part-time or even unpaid volunteer positions in many rural communities. Additionally, volunteer and part-time positions typically face higher turnover,

which increases the training needs, while the individuals may be less able to travel to other locations for coursework or testing because of financial or time limitations.

- **Challenges:** Given the solid growth expectations expected for the nursing field, there is little doubt that the CNE simulation labs, both stationary and mobile, will not lack for demand in the near future. However, like any innovative program there are challenges that must be overcome for the strategy to succeed. For the South Central & South West Wisconsin region, challenges included both delays in getting the equipment and arranging for the long-term sustainability of the CNE in a shared resource environment. The region utilized state and federal funds to obtain the equipment, which did result in some delays because of procurement rules; a challenge for setting up a center that is depending on an academic calendar schedule to serve students. Additionally, although grant monies covered the purchase of the equipment, the region had to rely on numerous local sources of support to ensure the CNE would be properly staffed and maintained. Two local hospitals have donated funds to the project and Edgewood College supported operations with tuition and fees from its nursing students, as well as students from other colleges and high schools that make use of the facility.

  Regional leaders indicated that one future risk could be the longevity of the equipment for the simulation labs and the relatively high cost of replacement or repairs after the five-year warranty period expires.

Generation III: North Oregon
Promising Practice: Community College Liaison Structure

- **Problem Statement**: As this region sought to plan and implement its goals, community college partners wanted a structure that would allow them to more easily communicate across projects. With six community colleges involved, there was a need for someone to act as a coordinator between them and a need for individual colleges to have point-persons for action. Similarly, the region required that there be some mechanism for coordination and communication from the colleges to the project administrator (Worksystems, Inc.).

Community College Liaison Structure

To facilitate communication, decision-making, and activities, the region devised a tiered approach. A liaison was hired to work with the community colleges and individuals at each college were designated as internal coordinators, who linked with faculty on customized training. The liaison coordinated efforts through regular meetings, tracking of progress, and problem solving. She also met regularly with the project manager at Worksystems, Inc., who had contacts across other aspects of the initiative. This allowed them to keep each other apprised of the activities taking place.

Key Words: Collaboration, job profiles, community college, workforce board, liaison
Goal Categories: Workforce development system transformation, social networking

This structure, shown below in Figure 1, streamlined communications, took advantage of existing knowledge and networks within the partner organizations, and helped the region to make strong progress on some very complex undertakings. For instance, the community colleges, before the close of the grant period, had completed 35 job profiles and aligned curriculum. For instance, the colleges prepared a statewide Basic Manufacturing Technician certification (as it is called in Oregon) and Fundamentals of Manufacturing certification (as titled in Washington). The structure appeared to be simple and effective. Of course, a lot relied on the two liaisons, as well as the next tier of coordinator contacts, but the region had highly committed and competent individuals in these roles.

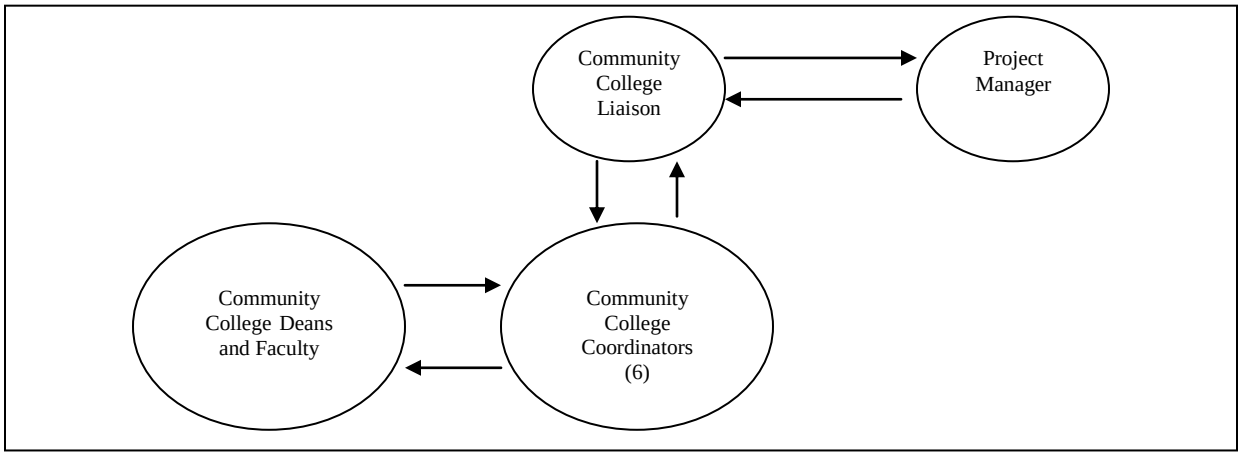


Figure 1

- **Challenges**: The chief difficulty for the region with this structure was working across state lines. The community college design in each state differs. In Washington, there is a statewide system to govern the community colleges, while in Oregon there are 17 boards. Also, in Oregon a Board of Statutes must have notice of intent for changes, whereas Washington does not have that requirement. These differences resulted in some communication challenges for the partners early on, creating the need for education of one another about their systems. The liaison was helpful in spotting the need for this and in facilitating discussions in such a way that progress could still be made despite state variations.

  Unfortunately, the liaison structure was not sustained beyond the grant period. During the site visits, the structure was praised as effective and necessary, but in the absence of a clear new focus, the project manager returned to his regular duties in the workforce system and the community college liaison took a new position.

Generation III: South-Central Kansas
Promising Practice: Collaboration of Local Workforce Investment Boards

- **Problem Statement:** The main population center of the South-Central Kansas region is Wichita, but its labor market reaches well beyond both the city and Sedgwick County. Prior to WIRED, stakeholders in the region had already begun to collaborate by way of their membership in the Regional Economic Area Partnership of South-Central Kansas (REAP), an organization founded in 1997 with the intention "to guide state and national actions that affect economic development in the region" and "to consider and adopt joint actions among member governments that enhance the regional economy."[11] This partnership helped lay the groundwork for the much more intensive collaboration that took place under the region's Generation III WIRED initiative.

Collaboration of Local Workforce Investment Boards

- The South-Central Kansas WIRED Initiative was a collaborative effort of two local Workforce Investment Boards, the Workforce Alliance of South Central Kansas and Kansas WorkforceONE. The initiative covered ten counties in the region, including the entire service area of REAP plus one county. Six of these counties comprise the workforce investment area of the Workforce Alliance, and the other counties are a portion of the area administered by WorkforceONE, which is the administrative entity for the Local Area I Workforce Investment Board. The full service area of WorkforceOne is very large, covering 62 counties.
- The South Central Kansas WIRED initiative was housed at the Wichita office of the Workforce Alliance. However, the governance structure of the region was very carefully set up to include two co-chairs, including one individual from each workforce investment board (WIB).
- The executive directors of the two workforce development agencies were ex officio members of the Leadership Team, and each served on one of the Strategy Implementation Teams. Based on observations by the site visit team, both WIB directors participated actively in the initiative and collaborated extremely well throughout the grant period.

Key Words: Local workforce investment board role, collaboration, governance.
Goal Category: Workforce development system transformation

The smoothness with which the two WIBs collaborated shows that local WIBs do not have to be competitive. The pre-existing relationship between the WIB directors was an important contribution to their success, but the initiative also benefited significantly from the explicit establishment of dual leadership and the intentional involvement of individuals from both WIBs on working committees. In the early stages, there was some skepticism about one WIB becoming dominant and receiving most of the funding. But even though there was no explicit attempt to fund projects based on their location, it turned out that the funded projects (which had been judged on their merits) were geographically dispersed, and the region's stakeholders appeared to adopt a genuine attitude of regionalism. Interestingly, when the region's asset map

[11] "Regional Economic Area Partnership of South-Central Kansas," http://www.reap-ks.org

was developed, individuals from both WIBs were surprised to learn about the number of firms in their areas tied in to the composites industry and how interconnected the entire region was.

- **Challenges:** As noted above, the most significant potential obstacle for this collaboration was the fear by one of the WIBs that the other WIB would dominate the initiative in terms of funding and activity. This challenge was addressed by having co-chairs, and the broad geographic distribution of the funding of activities helped to further allay fears of domination by one WIB. Furthermore, the directors of both of the WIBs were sensitive to the potential for competitiveness to arise, and they both worked hard to make sure that their boards and staff were well aware of the regional scope and goals of WIRED.

Generation II: Southeast Michigan
Promising Practice: Second-Tier Business Training, Product Realization and Technology Commercialization Program

- **Problem Statement:** The Southeast Michigan WIRED region has long been central to the state's economic vitality. Supporting the development of entrepreneurship in order to foster economic growth and diversity was a main goal of the region as it approached its grant activities under WIRED. This program sought to help those entrepreneurs that had some experience, but who needed additional information and connections to advance to the next level of business development and expansion. These entrepreneurs were considered those that were ready for "stage two" operations.

Second-Tier Business Training

The region set up a program at the University of Michigan-Dearborn, led by a professor experienced in business development, to deliver training to select entrepreneurs over the course of six months. The participants went through a screening process and were chosen based on their existing sales and product lines, current staff size, and other indicators of being ready for the next level.

Key Words: Entrepreneurship, business, expansion, training, tech transfer
Goal Categories: Workforce Development System Transformation

The curriculum incorporated theories from a variety of disciplines and taught them to advance the thinking of the entrepreneurs. The program was held on Saturdays and included lessons presented by those who work with businesses regularly, such as accountants, lawyers, and investors from local firms and through the Detroit Chapter of Entrepreneurs' Organization. There were a total of 14 modules over the six months on topics ranging from expanding operations capabilities to developing and testing new products. These lessons were supplemented with simulation exercises, case studies, and networking opportunities.

The training was provided at no cost to the entrepreneurs, and they left the training with a certificate from the university. Over 40 entrepreneurs enrolled in the program. Of the first cohort of 20, one entrepreneur launched a new product quickly; a second changed his business model to go national, which resulted in a three-fold expansion while still remaining in Michigan; and a third launched a new company.

The success of this program approach lies in its careful selection of participants based on known factors in readiness for business growth, its attention to the interactive learning and topic focuses needed for entrepreneurs to consider new opportunities and make them a reality, and its sensitivity to the time of the entrepreneurs by holding the classes on the weekends. The program's use of volunteers from the community to act as speakers not only saved on program costs (allowing for expanded class size), but fostered local connections and context for the entrepreneurs.

- **Challenges:** This program is likely replicable in other areas, provided that the organizers are well-informed about the needs of "stage two" businesses. One of the challenges of this program approach was capturing outcome data; means of doing this were not built into the

program early on and so much of the knowledge of its effectiveness comes from conversations between the professor and entrepreneurs and business plan changes that occurred during the course. More detailed measures might include increases in business revenue, product sales, staff hires, and the like, captured regularly during the course and for a designated period of time afterward. Surprisingly, the program did not report any difficulty with recruiting volunteer speakers, although it did allow for paid speakers when needed.

The program's place within a four-year university setting was unusual, particularly given that none of the entrepreneurs enrolled were connected with the university as faculty or students. This posed some difficulty for the program as it worked to satisfy university requirements for issuing a certificate to the completers—an atypical offering—and in determining a longer-term future within the business college. Unfortunately, the program did not find a permanent home within the university and ceased with the end of WIRED funding.

Generation II: Rio South Texas Region
Promising Practice: Development of Sustainable Partnerships

- **Problem Statement:** Successful economic development programs are based on strong sustainable partnerships. For the North American Advanced Manufacturing Research and Education Initiative (NAAMREI), in the Rio South Texas region, this is especially the case because it has been an impoverished region with limited resources. Without these partnerships, the region's resources would not be used efficiently. Worse yet, without quality partnerships, the region's training and economic development organizations could compete against other. Indeed, in the past several of the communities in the WIRED region competed against one another and in doing so wasted their limited resources on the duplication of services.

North American Advanced Manufacturing Research and Education Initiative

- The importance of administrative leadership cannot be underestimated. The executive officer of NAAMREI is the driving force keeping the organization's momentum up. This individual had the trust of the partners, which provided a strong foundation for the collaboration. In fact, there exists almost a blind trust among the initiative's key partners for the executive officer.
- The Rio Grande Valley maintains a homogenous culture and nearly all of its communities face the same challenges and share the same strengths and weaknesses. These include serious workforce issues and the presence of Mexico being only a couple of miles away. While, McAllen, Brownville and Laredo are the larger cities, their challenges and concerns are very similar to those of the smaller neighboring cities. These shared challenges and opportunities make it easier for the stakeholders to work together.

Key Words: Partnership, collaboration, sustainability, vision, leadership, networking, regionalism.
Goal Categories: Social networking.

The region holds a clear and focus economic development vision and objective. While NAAMREI has been criticized for only focusing on one target (advanced manufacturing), its single focus has kept its stakeholders from straying into other economic development directions and it has avoided limited resources being spread too thinly across many different initiatives. Additionally, it can be said that the key partners in NAAMREI are committed to this truly shared vision for the region. In the site visit interviews, it became clear that each partnering organization was aware of their tasks and responsibilities, understood how their roles fit into the larger vision and strategy of the initiative, and, most importantly, comprehended the strength and depth of that focused vision. .

There exist long-term relationships between the majority of the partners. A majority of the partners had known each other for more than 10 years. As one person said, "Partnerships are in our culture." This sentiment is enhanced and maintained by having leadership meetings held across the region. This is simple, but very important practice that insures that no one area feels that they are being ignored or neglected.

An "infrastructural institutional strategy" was designed so that NAAMREI would continue to function after the grant was done. The commitment of South Texas College (STC) to support the administrative functions of NAAMREI and the University of Texas Pan American (UTPA) to retain its leadership role on NAAMREI leadership council were established before the expiration of the WIRED grant.

Also, NAAMREI is successfully sustaining its entire WIRED governance structure due to the strength of established partnerships and the commitment of its stakeholders. Based on the interviews conducted during the third site visit of the Rio South Texas region (November 3-5, 2010), key elements emerged as important to the development of sustainable partnerships. Several of these elements are transferable to other regions and initiatives; others may not be and could be due to the unique environment of the Rio Grande Valley.

- **Challenges:** The sole challenge that could impact the survival of NAAMREI is its high dependency upon the leadership skills and personality of its executive officer. It is true that the strength of the organization's structure allowed it to continue with the retirement on the former president of UTPA, who was a strong founding partner to the regional initiative. The new president of the university quickly committed his full support to the organization and its mission. Still, it is questionable that another person could hold all of the partners together, as the current executive officer has done.

Appendix B: Summaries of WIRED Generation II and III Projects

Generation II

- Appalachian Ohio
- Arkansas Delta
- Central-Eastern Puerto Rico
- Delaware Valley
- Northern California
- Northern New Jersey
- Rio South Texas Region
- Southeast Michigan
- Southeastern Wisconsin
- Southwest Indiana
- Southwestern Connecticut
- Tennessee Valley
- Wasatch Range

Generation III

- Central Kentucky
- Central New Jersey
- Greater Albuquerque (NM)
- Southwest Minnesota
- North Oregon
- Pacific Mountain Washington
- South Central & South West Wisconsin
- South-Central Idaho
- South-Central Kansas
- Southeast Missouri
- Southeastern Mississippi
- Southeastern Virginia
- Southern Arizona

Region: Appalachian Ohio
Geography: Southeastern Ohio — Generation II

Counties: Clermont, Brown, Highland, Adams, Ross, Pike, Scioto, Lawrence, Gallia, Jackson, Vinton, Hocking, Perry, Athens, Meigs, Morgan, Washington, Monroe, Noble, Muskingum, Coshocton, Holmes, Tuscarawas, Guernsey, Belmont, Harrison, Jefferson, Carroll, Columbiana

Leadership:

- ■ Kent State University
- ■ Ohio University
- ■ Shawnee State University

Industry Sectors:

- ■ Interactive digital technology (IDT)
- ■ Information technology
- ■ Others, as determined by the local WDAs (advanced energy, distribution, advanced manufacturing, health care, construction, and professional services)

Partners:

- ☐ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☒ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☐ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Capitalize on the regions existing IDT educational programs to build a sector around digital animation.
- ■ Develop a high-tech workforce that can attract new business to the area and encourage new business development by entrepreneurs within the region.
- ■ Raise awareness at the secondary educational level of higher educational benefits and the opportunities associated with career paths in IDT and with technology in general.
- ■ At the university level, use resources to improve outreach, hands-on experience, and entrepreneurial skills that would attract local students into more advanced IDT programs, and encourage these highly skilled individuals to remain in the region after graduation.

Activities:

- ■ Each of the three universities used Initiative funds to improve the quality and capacity of its college-level IDT programs. In addition, the university partners operated "cyber centers" that provided outreach to younger students, who participated in high school "cyber clubs."
- ■ Kent State/Tuscarawas implemented a Community Engagement Program, which collaborated with area school districts and high schools to establish and expand networks of school officials and teachers; disseminate STEM (science, technology, engineering, and mathematics) instruction; and then offer dual enrollment that would allow students to earn college credit.
- ■ WDA#1 (Local Workforce Development Agency) and 10 One–Stop Centers used Initiative funds to supplement WIA funds for the training of dislocated workers.

Outcomes:

- This region increased the capacity of community colleges to provide digital animation programs for students by obtaining state-of-the-art equipment and developing new curricula.
- 1,124 students estimated to receive training as a result of IDT program improvements.
- 766 dislocated workers entered training in high-demand occupations.
- 274 students enrolled in IT entrepreneurship training at Hocking College.
- 3 Cyber Centers were implemented.
- 18 Cyber Clubs were formed.
- 23 college students completed internships in IDT.
- 38 high school instructors received professional development in IDT.

Accomplishments:

- The region promoted an emerging industry sector in a largely rural region that had traditionally been dominated by manufacturing and mining.
- The leaders of the Kent State/Tuscarawas program excelled in developing meaningful connections with employers and public schools.
- Ohio University developed an array of tools that enabled students to present data in new and creative ways.
- Shawnee State took significant strides to develop its IDT program and attract new students within a very limited time frame.
- At the high school level, the purchase and use of server space on the Second Life platform generated significant interest in IDT among high school students.
- Entrepreneurial efforts within one college led to IT services programs that met a high demand among area businesses

Post-Grant:

- Kent State/Tuscarawas developed a model program that demonstrates the power of its partnerships with employers and public schools. The program, which benefited from the strong support of Kent State's leaders, used community college faculty to advance the knowledge of high school students in technology. The resulting pipeline of students continues to draw the attention of employers, who are eager to provide internships for them.

Region: Arkansas Delta
Geography: Eastern Arkansas — Generation II

Counties: Jackson, Arkansas, Monroe, Phillips, Lee, St. Francis, Woodruff, Cross, Crittenden, Poinsett, Craighead, Mississippi, Lincoln, Desha, Drew, Ashley, Chicot

Leadership:

- Arkansas Delta Training and Education Consortium (ADTEC)
- Mid-South Community College

Industry Sectors:

- Transportation, Distribution, and Logistics (TDL)
- Biofuels
- Advanced Manufacturing

Partners:

- ☐ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☐ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- Create an ADWIRED Academy.
- Expand through partnerships with industry, government, philanthropic organizations, and education, with focus on: alternative fuel training and education capacity; center for excellence for TDL; and expansion of the advance manufacturing support structure.
- Expand education infrastructure to support new technologies and to foster economic development.
- Establish an entrepreneurship development system.
- Expand the workforce system.

Activities:

- Established a Center of Excellence in Renewable Energy Technology Education at Phillips Community College-University of Arkansas to develop and provide training for a career pathway in renewable energy technology.
- Established a Center of Excellence in Advanced Manufacturing at Mid-South Community College to provide training in programmable logic controllers, CAD/CAM, robotics, welding, computerized numerical control equipment, and warehousing and distribution.
- Offered training in diesel technology at Mid-South Community College.
- Expanded Workforce Technology Center and University Center at Mid-South Community College.

Outcomes:

- 718 individuals completed training for careers in high-wage, high-demand industries—a key priority for this largely rural region, which faces high rates of poverty and unemployment.
- Of these, 638 individuals completed training in advanced manufacturing, 18 in alternative energy, 25 in health care, and 37 in TDL.
- 1,003 incumbent workers completed training in advanced manufacturing.
- 200 degrees or certificates were awarded, including 138 in advanced manufacturing, 25 in health care, and 37 in TDL.
- 1,387 high school students participated in career development activities.
- Six advanced manufacturing internships were completed.
- 70 educators received professional development in renewable energy.
- 10 new educators were hired (seven in alternative energy and three in TDL).
- 61 individuals completed business training for minority contractors.
- 91 trainees entered employment in advanced manufacturing, health care, and TDL.

Accomplishments:

- To integrate the One-Stop in the WIRED initiative, the DWD and community college co-located the West Memphis One-Stop on the Mid-South Community College campus; this added the resources of a community college to the workforce system's arsenal of tools. The co-location was considered a success and was replicated in other areas of the state.
- The region leveraged resources from multiple sources, including other DOL grants, as well as grants from the National Science Foundation, the Economic Development Administration, and the Delta Regional Authority. It also received funding from the state legislature.
- The region built physical facilities and installed high quality equipment. The expansion of the University Center and the Workforce Technology Center on the campus of MSCC updated these facilities with current technology. Representatives of the region indicated that similar investments were made in facilities at the other institutions in ADTEC.

Post-Grant:

- As of July 2010, one other One-Stop had been co-located (in Newport) and two other WIBs had received grant funding from the state to open satellite offices on two-year college campuses.
- This region sustained its activities after the WIRED grant through other funding sources and referred to itself through the ADTEC label. Its governance structure was essentially unchanged from what it had been during and prior to WIRED. The organization maintained its industry focus and remained adept at securing grant funding from numerous sources.

Region: Central-Eastern Puerto Rico
Geography: Central-Eastern Puerto Rico — Generation II

Municipalities: Caguas, Gurabo, Humacao, Juncos, Las Piedras, Naguabo, San Lorenzo, Cayey

Leadership:

- Iniciativa Tecnológica Centro-Oriental (INTECO)
- Global Learning (training provider)
- Puerto Rico Manufacturing Extension
- Universidad del Turabo

Industry Sectors:

- Life sciences (pharmaceutical, biotechnology, and medical devices)
- Manufacturing
- Health care
- Emerging technology

Partners:

- ☒ State Government
- ☒ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- Retain and up-skill incumbent workers in strategic sectors: The region has a strong pharmaceutical and bioscience industry representation and was interested in facilitating the growth of this industry while nurturing industry diversification through manufacturing, health care, and innovative technologies.
- Strengthen the talent pipeline by educating future workers in STEM-related fields that impact strategic sectors. To generate qualified workers and entrepreneurs for the region's key industry sectors, the region sought to get high school students interested in them through summer STEM programs.
- Create an entrepreneurial ecosystem by strengthening small and medium enterprise development. To revive their economy from within, the region sought to provide local entrepreneurs with the tools and knowledge to grow their businesses.

Activities:

- Convened human resources staff from multiple companies to identify skill sets and skill gaps in targeted industries.
- Conducted three STEM summer camps for students in grades 10-12, vocational and technical institutions, and postsecondary programs.
- Implemented five industry-specific incumbent worker training programs in computer skills, computer certifications, lean enterprise, lean health care, and project management.
- Conducted a three-module training program for entrepreneurs at various stages of development in the region's INOVA business incubators.

Outcomes:

- 338 students completed summer STEM courses in metrology, materials science, nanotechnology, hydrographic basin sampling, business development for engineers, basic computer skills, Web design, hydroponics, summer science research, biotechnology, DNA analysis, protein analysis, and project management.
- 2,192 incumbent workers received employer-responsive training; employers reported that this training was helping to improve the skills of their workers without compromising their ability to stay afloat in challenging economic conditions. By impressing upon employers that the training had significant value in terms of its quality and the federal dollars invested, INTECO achieved an excellent record of program attendance and completion.
- 129 INOVA business incubator clients received entrepreneurship training appropriate for their stages of development.

Accomplishments:

- INTECO was credited as one of the first organizations to bring a collaborative approach for workforce and economic development to Puerto Rico by building networks, opening lines of communication, and breaking down political and bureaucratic barriers in a region long accustomed to a silo mentality.
- Thanks to strong industry representation, the training was faster, more responsive to employer needs, and far more accessible for incumbent workers than much of the training offered previously.
- All of the training programs incorporated curricula that had been created under the auspices of WIRED and with the input of key industry representatives. Many of these had strong prospects for continued use after the grant period.

Post-Grant:

- As of 2010, INTECO continued to operate and work with organizations united under the Initiative to develop coordinated programs and take advantage of new funding streams. Region leaders reported that there was interest among members of the Puerto Rico Manufacturing Association in continuing to use the incumbent worker training modules developed under the Initiative.
- INTECO was also working to expand on the small business development efforts begun under the Initiative. They conducted focus groups with participants in the three entrepreneurial training modules to learn what changes were recommended by their target audience; the result was the INTECO Technology Entrepreneurship Cluster (iTEc). This region took a holistic approach to entrepreneurial development, providing modules of training and resources to support small businesses at several different stages of development.

Region: Delaware Valley
Geography: Delaware Valley Region — Generation II

Counties: *Pennsylvania*: Berks, Bucks, Chester, Delaware, Lancaster, Montgomery, Philadelphia. ***New Jersey*:** Burlington, Camden, Gloucester, Mercer, Salem. ***Delaware*:** New Castle

Leadership:

- ■ Innovation Philadelphia (IP)
- ■ New Economy Strategies

Industry Sectors:

- ■ Life Sciences

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Use the recommendations of the Life Science Talent GAP Analysis [asset map] to ensure that the "demands" of the life sciences industry are being supported by the "supply" from educational and training institutions.
- ■ Support and strengthen the education and outreach infrastructure to address the current and emerging needs of the life sciences industry.
- ■ Support Human Capital Development, through Innovation Investment Grants, to provide resources to educate, train, and develop the skills of workers for the life sciences industry.
- ■ Foster Regional Collaboration and Knowledge for economic development, workforce development, and education professionals to deepen their understanding of the life sciences, supporting knowledge industries, and the region.

Activities:

- ■ Completed the Life Science Talent GAP analysis.
- ■ Developed the Life Science Career Lattice and Program Inventory, which provided print and multimedia materials to encourage students to pursue careers in the life sciences.
- ■ Provided scholarships for 28 educators to participate in the Teacher-Leader Program at the Conference on Biotechnology Education.
- ■ Issued a wide variety of Innovation Investment grants for education and outreach, capacity building, training for incumbent workers, a life science fellowship program, and many more.
- ■ In response to the recession, the region instituted the Tri-state WIB/DVIN Worker Skills Upgrading Stimulus Initiative, which provided life science skills training to dislocated workers through the region's 13 WIBs.

Outcomes:

- 6,009 educators received professional development in the life sciences, a critical priority in a region that is an internationally recognized life science hub.
- 3 curricula implemented, including an interdisciplinary biotechnology program at Camden County College that links math, science, and mentoring; a Pennsylvania Biotechnology Center program to create a formal curriculum in bio-entrepreneurism for translational research scientists; and a professional science master's program in biotechnology at the University of Delaware.
- 483 dislocated workers and 342 incumbent workers received training in life sciences, biotechnology, and project management.
- 2,983 students, minorities, dislocated workers, and incumbent workers attended a variety of career development activities focused on the life sciences
- Distributed 80 Science Education Product Certificates to science educators throughout the region for the purchase of science supplies and lab equipment.

Accomplishments:

- Promoted a high level of collaboration among governmental, industry, educational, and workforce development agencies across the three participating states—Delaware, Pennsylvania, and New Jersey.
- Catalyzed the development of a consortium of the region's 13 WIBs.
- Established a community college collaborative with membership from all three states.
- Formed the Life Science Educators Resource Network, a collaborative group of approximately 200 life science teachers.
- Facilitated cooperation among Labor Market Information agencies across three states
- Stimulated close interaction between the region's three bioscience industry associations—BioNJ, Delaware Bioscience Association, and Pennsylvania Biotechnology Association. Association representatives indicated that they would continue to meet regularly in the future.

Post-Grant:

- The region completed its Initiative activities on January 29, 2010. However, the region's legacy may be very far-reaching, given the large numbers of individuals touched by the work and its strong focus on capacity building through the development of curricula and the professional development of educators in the life sciences.
- The region's 13-WIB collaborative group continued to meet after the end of the grant period.
- The region's GAP analysis, final report, and several other reports and data sources continued to be available on IP's Web site.[1]

[1] "Databases and Reports," Innovation Philadelphia, accessed December 29, 2010, <http://www.innovationphiladelphia.com/initiatives/databasesreports.aspx>

Region: Northern California
Geography: Northern California — Generation II

Counties: Alpine, Butte, Colusa, Sierra, Siskiyou, Sutter, Tehama, Trinity, Yuba, Del Norte, El Dorado, Lake, Lassen, Modoc, Nevada, Placer, Plumas, Shasta, Glenn, Yolo

Leadership:

- The Northern Rural Training and Employment Consortium (NORTEC)
- State of California

Industry Sectors:

- Entrepreneurship
- Agritech/Agribusiness
- Advanced Manufacturing
- Information Technology
- Allied Health
- Renewable Energy.

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- Create sustainable employment opportunities by encouraging a strong entrepreneurial environment.
- Link potential entrepreneurs to regional resources and assist in the development of successful business and marketing plans.
- Foster business development in its identified targeted industrial cluster and offer its services to all entrepreneurs and would-be entrepreneurs.
- Encourage innovation and entrepreneurial activities in existing firms as well as new business startups.
- Provide job training resources for business expansion and retention activities.

Activities:

- Completed three rounds of Venture Island, an innovative program that provided budding entrepreneurs with peer-group learning experiences, opportunities to interact with potential funders, and business plan development assistance.
- The region's One-Stops implemented business outreach programs to help with staffing and boost job training and retention. The One-Stops also provided support services for entrepreneurs.
- Provided health care occupational training to new and incumbent workers in the hope of sustaining the region's rural health care sector workforce.
- Butte College and local One-Stops offered employer-responsive weatherization courses.

Outcomes:

- Developed 22 new or expanded courses to prepare workers in the region's target industry sectors and facilitate the shift away from a resource-based economy; for example, the region awarded three grants for the development of curricula in the green building trades.
- Created 15 new entrepreneurship training programs.
- 1,780 individuals completed training through the business outreach programs implemented in the region's One-Stops.
- 177 new jobs were created as a result of the business outreach programs implemented in the region's One-Stops.
- 663 workers entered employment in the region's target industry sectors.
- 1,424 degrees and professional/occupational certificates were awarded in the region's target industry sectors.
- 19 business incubator clients received assistance through Venture Communities/Venture Island.
- 102 entrepreneurs assisted through Venture Communities/Venture Island.
- 167 business startups and 109 business expansions reported.

Accomplishments:

- The Initiative helped expand the recognition that the region's One-Stops do more than help disadvantaged individuals. It also expanded the mindset from solely workforce development to include community-building partnerships.
- The Network opened new ways for economic development corporations (EDCs) and One-Stops to operate jointly or to share costs and staff. For example, One-Stops in the region began working with local EDCs to carry out business retention activities that had formerly been done by the EDCs alone. In addition, the One-Stops became more active in the development of the EDA's regional Comprehensive Economic Development Strategies.
- The Network brought together economic and workforce development interests around a common goal to foster entrepreneurship and business expansion.
- Network leadership proved extremely flexible in response to the changing economic landscape of the region. Faced with falling demand in IT and agribusiness due to the recession, the region refocused its training toward health care and renewable energy.

Post-Grant:

- The region's governance structure ended at the conclusion of the grant period; however, it facilitated the evolution of the region's economic development focus.
- Several relationships that had begun under the Initiative continued in different forms. For instance, two One-Stops established nonprofit economic development organizations to support business attraction. Under the Initiative program the primary relation between NORTEC and Chico State University was through the University's Small Business Development Administration (SBDA) offices. After the grant, it was with the research arm of the university.
- Work continued on an alternative energy cluster that was identified as a target industry under the Initiative.

Region: Northern New Jersey
Geography: Northern New Jersey — Generation II

Counties: Bergen, Essex, Hudson, Morris, Passaic, Sussex, Union, Warren

Leadership:

- Newark Alliance

Industry Sectors:

- Transportation, logistics, and distribution (TLD)
- Life sciences and health care
- Entertainment, arts, and retail (EAR)
- Entrepreneurship and small business development

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- Create and foster an environment where stakeholders within the region collaborate.
- Establish an integrated workforce delivery continuum.
- Accelerate regional economic revitalization by sparking innovation, small business development, and entrepreneurship, and create partnerships among industry, academic, and capital sectors.

Activities:

- Under the auspices of WIRED, the WIBs and One-Stops established a regional consortium that sought sectoral approaches to workforce development issues.
- The region established three advisory councils to determine workforce needs, identify industry trends, establish training, and place trained workers.
- The Innovation and Entrepreneurship Project supported small business and tech-based innovation; provided entrepreneurial training; collaborated with other entities to support entrepreneurship; integrated entrepreneurship and workforce development; and developed a capital access network.
- The Opportunity Trust Fund Strategy provided funding for projects with strong industry ties, a strong record of placement and retention, and a focus on shortages in demand occupations.

Outcomes:

- 942 individuals completed training across the program.
- 212 individuals entered employment in target occupations, including 13 in health care, 38 in TLD, and 155 in EAR.
- 10 certified training curricula created, including project management, entrepreneurial training, a high school career academy, four TLD distance learning modules, and health site coordinator training.
- 476 individuals attained degrees or certificates in project management, entrepreneurial training, customer service, and health site coordinator training.
- 212 new job pipelines (i.e., types of jobs) created in the target industry sectors.
- 15 new business incubation and acceleration services created.
- 154 individuals completed training through business incubation and acceleration services.
- 1,070 small businesses served.
- $62,000 in new risk capital funding invested.
- 1,207 industry leaders engaged region-wide.
- 2,401,573 individuals reached region-wide.

Accomplishments:

- The creation of a WIB consortium helped the region break a long history of independent, parochial behavior in its workforce community.
- An integrated workforce delivery continuum was accomplished through the establishment of advisory councils for several of the region's targeted industries. As one industry advisory council member commented, this was a "sector focus based on real information and real relationships with employers."
- The region developed numerous entrepreneurship supports, including an "entrepreneur training academy" for business incubator companies, a nine-month entrepreneur training program for up to 100 "first generation" entrepreneurs, a business plan competition, and more.
- The Opportunity Trust Fund supported various promising practices; for example, the "Learn, Do, Earn" student achievement curriculum was developed and distributed to high schools throughout the eight-county Northern New Jersey region.

Post-Grant:

- As of 2010, the region's WIB consortium had agreed to remain a consortium, pay dues, and adopt the "North Jersey Partners" name after the grant period. To increase business involvement in its affiliated One-Stops, the consortium was in the process of creating an industry liaison in each of the One-Stops who would assist employers in navigating the workforce system. In addition, the consortium added two WIBs from Middlesex and Monmouth counties.
- Importantly, the region's goals were aligned with state priorities; The New Jersey Department of Labor and Workforce Development continued to support collaborative efforts financially through a REDI (Regional Employment Development Initiative) grant of $500,000 to integrate capacity building in One-Stops. The State is enthusiastic about continuing sector-based approaches that have been supported to date by the region's "opportunity trust fund" sub-grants.

Region: Rio South Texas
Geography: South Texas

Generation II

Counties: Hidalgo, Cameron, Starr, Willacy, Webb, Zapata, Jim Hogg

Leadership:

- ■ Laredo Community College
- ■ South Texas College
- ■ Texas Manufacturing Assistance Center
- ■ Texas Southmost College
- ■ Texas State Technical College
- ■ WorkFORCE Solutions

Industry Sectors:

- ■ Aerospace
- ■ Automotive
- ■ Communications
- ■ Electronics
- ■ Defense
- ■ Industrial
- ■ Logistics
- ■ Medical Devices
- ■ Manufactured Components for the Energy Industry

Partners:

- ☐ State Government
- ☒ Local Government
- ☐ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☐ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☒ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ To strengthen the manufacturing and regional advanced technology base and target rapid-response manufacturing-based industries to sustain economic growth and prosperity.
- ■ To establish a regional skills credentialing customized training system in the region to develop a globally competitive manufacturing workforce.
- ■ To meet the statewide T-STEM (Texas Science, Technology, Engineering, and Math) goal of developing the nation's leading innovation economy workforce by aligning high school, postsecondary education, and economic development activities.

Activities:

- ■ The Rapid Response Manufacturing Center (RRMC) promoted a flexible and responsive process to integrate technology, management, and systems. It sought to improve the speed of product development, increase responsiveness to clients, and address the demand for fast, affordable, customized products.
- ■ The Rio South Texas Manufacturing College Alliance led the implementation of a skills credentialing and customized training system for the region.
- ■ The T-STEM Alliance worked to design innovative STEM curricula, deliver teacher professional development, and create partnerships among businesses, schools, and higher education.
- ■ The Rio South Texas Economic Council united a broad array of economic development agencies in support of regional knowledge dissemination, competitiveness, and economic growth.

Outcomes:

- 3,857 individuals completed training for target industries through community and technical college programs coordinated by the Rio South Texas Manufacturing College Alliance.
- 1,457 professional/occupational certifications awarded.
- 51 STEM programs developed through T-STEM Alliance.
- 2,947 teachers received professional development through the T-STEM Alliance.
- 141 school administrators received professional development through T-STEM Alliance.
- Developed new curricula for industrial maintenance, facility maintenance, quality technician training, and technology-based entrepreneurship.
- South Texas College added two Bachelor of Applied Technology degree programs: Computer and Information Technologies and Technology Management.
- $2,203,705 in equipment purchased for STEM activities.
- One new business incubator established.
- Four new business training programs created.

Accomplishments:

- Achieved a shared institutional vision about the governance of the region, recognition of the interdependence necessary to reach common goals, and great success at securing leveraged funding.
- Established a formal governance structure that included a core leadership team and three multisector action teams, including the North American Technology and Innovation Alliance, Rio South Texas Manufacturing College Alliance, and T-STEM Center Alliance—all of which continued to operate beyond the grant period—to provide a regional approach to advanced and rapid response manufacturing.
- Established the Rio South Texas Economic Council as an operational entity and a working example of the region's interest and willingness to collaboratively identify and create solutions to regional challenges.
- Enhanced the skills of the workforce in the region's less well-educated, less economically robust counties in order to improve the overall competitiveness of the entire region.

Post-Grant:

- As of late 2010, the region had developed a business plan for 2010-2012 and expected to continue operating under its existing name, geographic area, governance structure (including the core leadership team as well as the three action teams and the Rio South Texas Economic Council), partners, and sector focus. According to project leaders, the region had funding already in place to continue operating for at least 18 months after the grant period, including $480,000 from a city in the region, and was actively exploring ongoing funding sources.

Region: Southeast Michigan
Geography: Southeast Michigan — Generation II

Counties: Wayne, Oakland, Macomb, Lapeer, Lenawee, Livingston, Monroe, St. Clair, Washtenaw

Leadership:

- ■ Detroit Chapter of Entrepreneurs' Organization
- ■ Detroit Regional Chamber
- ■ Eastern Michigan University (EMU)
- ■ Mid-Michigan Innovation Team
- ■ University of Michigan-Dearborn
- ■ West Michigan Strategic Alliance

Industry Sectors:

- ■ Advanced Manufacturing
- ■ Life Sciences
- ■ Homeland Security
- ■ Alternative Energy
- ■ Transportation/Distribution/Logistics

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☒ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Create a pipeline to meet the workforce demands of existing and emerging industries.
- ■ Realign assets and programs to promote entrepreneurship.
- ■ Foster a diversified economy through innovation.
- ■ The central strategy of this region was to address fundamental educational shortcomings and entrepreneurial opportunities in order to set the foundation for a strong economic future. The region aimed to take advantage of existing assets—strong postsecondary educational institutions, a diverse network of resources, the established automotive workforce and distribution system—to help the area diversify its economy and make gains in talent development, attraction, and retention.
- ■ Foster next generation of regional economic development leaders.

Activities:

- ■ "Intern in Michigan," a Web-based system, was developed to facilitate searches for and posting of internships.
- ■ The TranslinkeD project involved researching regional assets, including infrastructure and workforce; determining hub connectivity; and connecting economic developers and businesses with opportunities for growth and efficiencies in the region.
- ■ The Product Realization and Technology Commercialization Program sought to help existing entrepreneurs expand their businesses so that they could create jobs and bolster the region's economy.
- ■ Enhance science, technology, engineering, and math (STEM) skills among youth, the region, led by EMU, adopted Project Lead the Way (PLTW), and began to implement it in selected schools.

Outcomes:

- "Intern in Michigan," launched in April 2009, projected the completion of 25,000 internships by 2014. The program had posted 209 internships and registered 5,022 students and 529 employers as of late 2009.
- TranslinkeD helped establish a TDL-specific training center, completed an interactive transportation assets map, and connected with universities, business, and others to promote the industry and enhance training.
- The Product Realization and Technology Commercialization Program developed a curriculum and 14 course modules to train the region's entrepreneurs.
- EMU aligned PLTW with Michigan science and math standards, received State endorsement, and delivered summer workshops for teachers and conferences for counselors. 73 schools participated, and WIRED allowed 21 teachers to attend the workshops free of charge.

Accomplishments:

- Several of the region's programs proved to be very resilient despite the formidable challenges posed by the Southeast Michigan economy, outlasting the grant period and continuing their operations as of 2011.
- The Southeast Michigan Community College Consortium (SMC3) brought together the region's nine community colleges.
- Intern in Michigan leveraged significant funding, including $1.2 million from the W.K. Kellogg Foundation and $1.9 million from the New Economy Initiative, a local consortium of ten foundations.
- The Product Realization and Technology Commercialization Program reported many successes resulting from its program; for example, one entrepreneur launched a new product, another tripled the size of his business and decided to remain in the state, and a third started another company.

Post-Grant:

- "Intern in Michigan" remained active as of 2011; the region considered this program one of its greatest successes, despite the many implementation challenges that were encountered.
- The TranslinkeD initiative continued to operate within the Detroit Regional Chamber; in spring 2011, TranslinkeD held a series of workshops aimed at establishing a regional intermediary for the development of a Michigan/Ohio/Ontario TDL cluster.[2]
- PLTW also continued to operate under the auspices of EMU, with a round of training slated for summer 2011.
- SMC3 continued to provide its member community colleges with a venue for collaboration.
- As of 2010, the region's board had agreed to continue the work and meet quarterly. Its leaders felt the group could play a leadership role in helping the Chamber and other organizations find funding and other resources.

[2] Detroit Regional Chamber, "TranslinkeD—Our Work.," < http://www.detroitchamber.com/region/Regional-Initiatives/TranslinkeD/719-translinked-our-work>

Region: Southeastern Wisconsin
Geography: Southeastern Wisconsin — Generation II

Counties: Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, Waukesha

Leadership:

- ■ Regional Workforce Alliance

Industry Sectors:

- ■ Manufacturing
- ■ Financial services
- ■ Water technology

Partners:

- ☐ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☐ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Grow workforce talent in a manner that supports the regional economic development organization, Milwaukee 7's, strategic framework. This included investing in projects that established career pathways in the region, strengthening links between secondary and postsecondary education, promoting entrepreneurship, and providing opportunities for lifelong learning.
- ■ Deliver demand-driven talent development services to support Milwaukee 7's efforts to grow, expand, and attract export-driver industries and emerging business clusters.
- ■ Catalyze systems integration to support talent development across Southeastern Wisconsin.

Activities:

- ■ **Articulation task force.** Developing comprehensive articulation agreements for health care, green and sustainable, and water sector programs among educational institutions in the region, and developing an articulation model for other colleges and universities to use.
- ■ **Venture Track.** Venture Track was intended to help build infrastructure including training and mentoring for fast-growing companies.
- ■ **Biz Learn College Initiative.** A consortium of 20 higher education institutions was convened to develop and increase the amount of entrepreneurship programming offered across the institutions.
- ■ **Regional branding**. Efforts to brand the region as a hub for the water industry sector.

Outcomes:

- The region reported that 500 out of 661 individuals that entered training in manufacturing and water-related industries also completed. Of those 500, 101 entered employment.
- 406 people participated in career development or guidance activities, and 67 individuals participated in internships.
- Three entrepreneur mentorship training programs were implemented and an active network of entrepreneurs, mentors, and investors was established.
- A coordinated effort by 20 post-secondary institutions to discuss entrepreneurship training gaps and to coordinate curricula and course offerings across the region was implemented and continued on past the end of the grant period.
- There were 14 new curricula created as a result of the investment in the region, and 45 educators received training to build the region's education capacity in manufacturing and water-related industries.

Accomplishments:

- The work of the task force allowed the institutions to come together and work collaboratively to benefit students and the entire region and workforce
- The formation of an accelerated program for business plan development to appeal to and entice entrepreneurs, and a mentoring program, have allowed the region to establish a support network for entrepreneurs.
- One of the most important accomplishments was building familiarity among the institutions. As the project moved forward, they shared promising approaches from colleges within the region and engaged the business community in building a spirit of entrepreneurship on campus.
- The investment in building the water sector resulted in university research and exploratory studies identifying educational gaps in the sector; the development of articulation agreements and capacity building at educational institutions. A sort of asset map was also developed, which provided an overview of the density of water-related companies in the region and helped identify the skill sets that are required by industries in this sector.

Post-Grant:

- After the grant period, the three WIBs that participated in the region's leadership body, the Regional Workforce Alliance, continued to meet, discuss, and develop plans to approach talent development in a regional manner.
- There was an additional effort made by the regional economic development organization, modeled after the CEO for Cities Talent Dividend program, to increase the educational attainment of the workforce in the region across the board.
- Many of the individual projects that were originally funded also continued after the end of the grant, including the articulation task force, Biz Starts, coordinated entrepreneurship efforts, and the water sector advocacy evolved into a 501(c)3.

Region: Southwest Indiana
Geography: Southwest Indiana — Generation II

Counties: Dubois, Gibson, Knox, Perry, Pike, Posey, Spencer, Warrick, Vanderburgh

Leadership:

- ■ Grow Southwest Indiana Workforce Board, Inc.
- ■ Industrial Training University
- ■ I-STEM Resource Network
- ■ University of Southern Indiana
- ■ Vincennes University
- ■ WorkOne centers

Industry Sectors:

- ■ Advanced manufacturing
- ■ Biomed/biotech (health care)
- ■ Chemical and plastics
- ■ Energy
- ■ Transportation, distribution, and logistics

Partners:

- ☒ State Government
- ☒ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☐ K-12
- ☒ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☒ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ *Process Goal:* Establish processes to support the goals of the region through data collection, sustainability measures, and by linking the grant activities to Workforce Investment Act (WIA) activities.
- ■ *Goal 1:* Meet workforce needs today and tomorrow through education, regional collaboration, and focused workforce development.
- ■ *Goal 2:* Integrate economic development and workforce development for job creation.
- ■ *Goal 3:* Create a supportive culture for new business formation and growth.
- ■ *Goal 4:* Develop transportation, distribution, and logistics (TDL) capabilities for economic growth.
- ■ *Goal 5:* Promote broadband access to accelerate communication, education, and economic development.

Activities:

- ■ The region conducted four major research studies to assess broadband expansion opportunities, examine the potential for developing green industry, provide an overview of the region's "innovation assets," and study the feasibility of an inland intermodal facility.
- ■ The region funded two trucks with STEM instructional materials for teachers and their students across the area, with a focus on the higher grades in the high schools.
- ■ To help those who might otherwise have to take on debt or forego schooling, college scholarships were provided for study in the targeted industry sectors.
- ■ Industrial maintenance training was provided to incumbent manufacturing workers in areas such as programmable logic controllers (PLC), electronics, and HVAC (heating and air conditioning systems).

Outcomes:

- Completed four research reports and shared the findings among the partners.
- Formed Project GREEN, a program to build a network of potential energy sector businesses and identify the workforce needed to build this sector.
- Two delivery trucks were stocked with over $300,000 in STEM instruction equipment.
- 2,866 high school students received instruction through the use of STEM trucks by the end of the grant period. Of these, at least 575 students advanced to post-secondary engineering and engineering technology courses.
- 226 educators received training to improve their STEM teaching (e.g., using hands-on approaches) in order to better engage students.
- 120 college students received scholarships in the targeted industry sectors.
- The region sent Indiana's Hot 50 Jobs list to all high schools in the region and reported increased enrollment in the 21st Century Scholars Program.
- 258 workers received industry-specific training in health care, advanced manufacturing, TDL, and alternative energy.

Accomplishments:

- The initial research positioned the region to make informed decisions about where to place economic and workforce development energies in the near future, based on the existing workforce and the region's industry strengths and potential. It was also used to position local communities for additional funding opportunities (e.g., ARRA grants).
- Building on earlier collaborative work, this region took significant strides toward increasing collaboration among economic development, workforce development, and postsecondary education; understanding its population and economic opportunities; and enhancing workforce development activities.
- The universities worked together on STEM efforts, even beyond the Initiative's activities, and one representative noted that the Initiative had "opened up communication channels" for them. Collaboration between the community college system and a university resulted in a $2 million federal grant.

Post-Grant:

- As of 2010, the STEM trucks continued to operate, and the University of Southern Indiana continued to offer summer and fall STEM teaching workshops to educators.
- The region's Leadership Team was broken down into smaller, more focused groups; most of the team moved into a committee of the region's local WIB. Although the official governance structure was disbanded, representatives of the region reported that the relationships among the different stakeholders remained active and intact.

Region: Southwestern Connecticut
Geography: Southwestern Connecticut and New York — Generation II

Counties: *Connecticut*: Fairfield. ***New York:*** Putnam, Westchester

Leadership:

- ■ The WorkPlace, Inc.

Industry Sectors:

- ■ Health care
- ■ Information technology
- ■ Green industries

Partners:

- ☐ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☐ Four-Year Colleges and Universities
- ☒ K-12
- ☒ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☒ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Create an integrated, regionally-based talent development system linking education, workforce, and economic development system partners in a seamless collaboration with regional employers.
- ■ Prepare a pipeline of skilled workers to support both core and innovation-intensive industries.
- ■ Connect to and leverage existing infrastructure initiatives to establish a world-class regional communications backbone enhancing regional productivity, and to achieve mobility and connectivity for workers and employers throughout the region.
- ■ Develop a culture of innovation and entrepreneurship throughout the region.

Activities:

- ■ **Health Careers Without Borders**. Expanded training for certified nursing assistants (CNAs). Creation of an "integrated" patient care technician (PCT) program through a cross-border collaborative.
- ■ **Get Wired**. A training program for at-risk youth 18 through 25 years of age that focuses on both soft skills (e.g., job readiness skills) and "hard" skills leading to A+ certification and, ultimately, employment in the information technology business.
- ■ **CareerStart, School to Career Program**. A regional program aimed at providing students with opportunities to make knowledgeable career choices and to learn about career pathways and the work environment. This project was a school-based program done in collaboration with local employers to start or enhance school-to-career programs. It also included internships, job shadowing, job site tours for students and teachers, and a business speakers' bureau.

Outcomes:

- The region reported that there were 316 individuals who completed training that was offered under the Initiative-funded projects. 306 certifications were also earned by program completers.
- 191 individuals were placed in jobs in the focus sectors: health care, information technology, and green technology.
- 1,500 high school and post-secondary students were exposed to career development or guidance activities.
- The region reported having created and implemented 13 curricula, including CNA and PCT training programs at Housatonic Community College that did not have such programs before.
- Over the course of the grant, there were 360 individuals that enrolled in a business training program.

Accomplishments:

- Significant cross-border collaboration among the three community colleges in the "Fairchester" area to develop new CNA and PCT programs, and to establish a new health care training laboratory at Housatonic Community College.
- Alignment of the CNA and PCT training at all three colleges.
- Extensive cooperation established between an educational organization in one state (with the capacity to provide technical skills training) and a community-based organization in an adjacent state (with the experience and capacity to provide workplace readiness skills).
- Accomplishments included "first time" regional relationships and roles: first collaboration between philanthropic organizations and the local workforce system; first occurrence of the Westchester and Fairfield County business councils serving as intermediaries between businesses and the region's workforce system; and a significant leap in the perceived value of community colleges as talent development resources for the business community.

Post-Grant:

- The region reported that as a result of the Initiative investment, relationships across state lines are flourishing and getting stronger. It is now commonplace among business, nonprofits, WIBs, and education stakeholders to seek partnerships across (CN-NYS) state lines.
- The WIB Consortium that was established also continues to operate, seek funding, and meet on a quarterly basis, to support regional activities consonant.
- Some of the activities that were funded through the Initiative continue to be carried out by partners independently.

Region: Tennessee Valley
Geography: Tennessee Valley — Generation II

Counties: ***Alabama:*** Madison, Marshall, Jackson, Morgan, Lawrence, Cullman, Limestone, Colbert, Lauderdale, Dekalb, Blount, Winston, Marion, Franklin, Etowah. ***Tennessee:*** Lincoln, Franklin, Giles, Marshall, Lawrence, Marion, Maury, Lewis, Wayne

Leadership:

- ■ Alabama Department of Economic and Community Affairs (ADECA)
- ■ Calhoun Community College (CCC)

Industry Sectors:

- ■ Biotechnology
- ■ Nanotechnology
- ■ IT
- ■ Advanced Manufacturing

Partners:

- ☒ State Government
- ☒ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☒ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☒ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Promote the improvement of science instruction in Alabama and Tennessee schools.
- ■ Provide solid training to community college students in biotechnology to prepare them for careers as laboratory technicians or for more advanced education.
- ■ Provide capital and other supports for entrepreneurial startups in the technological sectors targeted by the region.
- ■ Improve the technical skills of the students being trained in machine trades.
- ■ Provide students in relatively disadvantaged, rural school districts the opportunity to pursue a rigorous (high school) curriculum in the STEM fields, including the integration of computer assisted distance learning technologies.
- ■ Link newly separated or recently retired non-commissioned and warrant officers from the armed forces who have training, experience, or previous academic coursework in technical areas with job openings at participating firms in the Huntsville area that seek a similarly trained workforce.

Activities:

- ■ To improve public school science instruction, the region supported two Alabama public high school teachers as "Educators in Residence" at the HudsonAlpha Institute for Biotechnology Research.
- ■ To prepare students for biotech careers, CCC created a dual enrollment biotechnology program.
- ■ The Huntsville Angel Network (HAN) received funding to assist start-ups, expand the number of Huntsville-area investors, and help to start or expand Angel Networks in other regions.
- ■ To prepare students for machine trades, the region funded Winston County High School's purchase of computerized numerical control (CNC) equipment.
- ■ The region provided STEM education through two Project Lead the Way (PLTW) programs.
- ■ The Non-Traditional Emerging Workforce in Science, Technology, Engineering and Mathematics (NEW-STEM) initiative worked to connect former armed forces officers with new jobs.

Outcomes:

- CCC's biotechnology program quickly reached capacity, enrolling at least 85 students within the grant period; the program also coordinated 15 internships at five biotech firms. Several students were hired, and others transferred to other schools to continue their biotech education.
- HAN expanded in size, began to work closely with The Shoals Angel Network, and invested in several small enterprises.
- Five kits were developed for Science in Motion, a mobile laboratory instruction resource for high schools.
- 34 teachers received professional development, including robotics (12) and Science in Motion (22).
- The CNC equipment purchase met an advanced manufacturing training need in a high-poverty district.
- The State of Alabama piloted a Career/Tech program in biomedical sciences, and two Alabama schools implemented a PLTW biomedical science curriculum.
- At least six noncommissioned officers received training through the NEW-STEM initiative.

Accomplishments:

- The region carried out an array of projects that were very well suited to its implementation plan and goals.
- CCC's biotechnology program created a self-sustaining opportunity for training in a high-demand industry sector.
- The region catalyzed the early efforts of the Educational Office of the HudsonAlpha Institute for Biotechnology Research.
- The region developed a collaboration that seamlessly spanned two states.
- Projects were funded in every county of the region.
- The region supported and helped to grow an angel network of investors that furnished capital and expertise to fledgling startups in the targeted sectors.
- The region secured first-class equipment, curricula, and materials to enhance education in biomedical science, advanced manufacturing, and other industry areas at high poverty, rural schools.

Post-Grant:

- As of 2010, the region's collaborative board was no longer meeting; however, some partners were still meeting under a regional planning group and were preparing an application to the U.S. Small Business Administration to develop a regional innovation cluster that would also include the Mid-Alabama region.
- The Huntsville Area Chamber of Commerce and the regional WIB continued to be active with regional collaboration.
- Several educational programs started under the region's work—such as Calhoun Community College's biotech curriculum—were still active.

Region: Wasatch Range
Geography: Wasatch Range, Utah — Generation II

Counties: Cache, Morgan, Rich, Salt Lake, Summit, Utah, Wasatch, Weber

Leadership:

- State of Utah Governor's Office of Economic Development

Industry Sectors:

- Life sciences
- STEM (science, technology, engineering, and math)

Partners:

- ☒ State Government
- ☐ Local Government
- ☐ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☒ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations
- ☒ Museum

Goals and Strategies:

- Develop a pipeline of emerging workers that are prepared to fill job openings in the region's growing life sciences industry.
- Training and biotech career promotion for high school students and recent graduates.
- Expand two- and four-year post-secondary certificate and degree options for the emerging workforce.
- Promote collaboration across the K-16 education and training continuum.
- Increase the exposure of opportunities in science and technology occupations to minority and underserved populations.
- Develop an organization that could bring together a wide variety of parties with an interest in the Great Salt Lake, including academics, government, and private business.

Activities:

- **Expanding access to STEM Careers through informal science education experiences.** Outreach to high school juniors and seniors through traveling hands-on science exhibits sponsored by local museums. The exhibits draw connections to real-world careers in biotechnology that would be available to students either after high school vocational training or obtaining a two-year degree.
- **Development of a Bachelor's degree program in Biotechnology**. The state's first four-year bachelor of sciences degree in biotechnology focuses on providing training that is specific to the needs of the biotech employers in the region.
- **Bioinnovations Gateway Incubator and Biomanufacturing Program.** Established a business incubator space for biotechnology companies, and developed a biomanufacturing training program with coursework for both high school and college students.

Outcomes:	**Accomplishments:**
■ There were 1744 individuals that entered training, of which 1088 completed, 1277 credentials were awarded, 715 internships were granted, and 39 entered employment. ■ The region implemented 7 new curricula as well as 8 dual enrollment programs, which affected 8151 students. ■ The region also reported that approximately 500 teachers participated in Life Sciences related professional development and that this will ultimately affect nearly 50,000 students. ■ The region concentrated a great deal of effort on Life Sciences career awareness activities including: summer camps, STEM career trading cards, and radio broadcasts. The region estimates that these efforts reached 182,862 individuals.	■ Developed a report based on the region's interactive science exhibits that will assist other museums around the country in the development of similar career-oriented outreach efforts. ■ The expansion of interest in and access to biotech training has reached down into the high schools: through the Initiative, area high schools have begun offering college-credit concurrent enrollment courses. ■ The efforts in the natural products/dietary supplement and food industry led to a Memorandum of Understanding with other national centers to make Utah the site for industry-related regulatory training. ■ The region reported that the success of the partnerships has led to the emergence of a STEM leadership consortium.

Post-Grant:

- The region continues to be relevant to stakeholders beyond the end of the grant. The effort has taken on a new name, STEMLink, and will serve as the infrastructure for further statewide integration of talent and economic development. New partnerships are being formed that will enhance the funding available to move the region forward. The region engaged outside consultants to evaluate the projects that were implemented and the metrics that were used. The resulting report provided the region with recommendations for additional metrics as well as suggestions on how to develop a strategic plan for promoting the life sciences industry cluster and the talent pipeline for the state as a whole.
- The sector strategy developed and tested through this effort now serves as a model for the State's comprehensive sector strategy.

Region: Central Kentucky
Geography: North Central Kentucky and Southern Indiana — Generation III

Counties: ***Kentucky:*** Adair, Breckenridge, Bullitt, Carroll, Grayson, Green, Hardin, Henry, Jefferson, Larue, Marion, Meade, Nelson, Oldham, Shelby, Spencer, Taylor, Trimble, and Washington. ***Indiana:*** Clark, Crawford, Floyd, Harrison, Jefferson, Scott, and Washington (7)

Leadership:

- ■ Lincoln Trail Workforce Investment Board

Industry Sectors:

- ■ Transportation and logistics
- ■ Life sciences
- ■ Health care services
- ■ Information technology
- ■ Advanced manufacturing
- ■ Agriculture

Partners:

- ☐ State Government
- ☒ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☐ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☒ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Fix the pipeline. Improve and expand programs to keep students in school and working towards graduation.
- ■ Prepare for 21st century jobs by investing in skills training and postsecondary education through a "partnership between individuals, businesses, institutions, and governments."
- ■ Create a talent magnet in the region to retain and attract skilled, educated young people.
- ■ Invest in new priority sectors, such as, human resources management and energy technologies, along with the original Initiative target clusters (logistics and distribution and health care), as well as existing regional foci on advanced manufacturing, agriculture, and tourism.
- ■ Focus on quality of place by promoting the attractiveness and the appeal of the 26-county region as a talent recruitment and retention tool.

Activities:

- ■ **Create and disseminate a regional asset map.**
- ■ **Kentucky–Indiana Exchange (KIX portal).** An integrated Web portal serving as a one-stop shop for employers seeking talented and skilled workers and for individuals looking for work.
- ■ **Junior Achievement Real Jobs Real World/Career Cruising**. Career exploration program for 9th grade students that focused on broad occupational opportunities in the greater Louisville region; modified to work in Indiana as well.
- ■ **School at Work: Health Care Incumbent Worker Training.** Workers received career information and training to apply for higher level health care careers or additional training.
- ■ **Campaign for College.** To counteract the low rate of college enrollment in the region, this project provided one-on-one counseling and application assistance as well as regional education forums to high school students.

Outcomes:

- The region reported that 895 individuals had completed training offered through the grant, with 105 credentials being earned.
- It was also reported that there were 4873 students that were exposed to career development or guidance activities, and that 264 internships were created.
- There were 39 business training programs created with 101 courses held.
- As a result of the efforts to promote regionalism, it was reported that 470 regional leaders had received training on regionalism.

Accomplishments:

- The regional asset map provided a framework for the implementation strategy of the Initiative grant, and became a tool to promote regionalism and a common vision of the region's future.
- The KIX portal provides a single source for job seekers, employers, as well as a tool for economic developers to access regional labor market information and industry needs.
- The success of the Junior Achievement program has stimulated interest by Junior Achievement to address community and region-wide workforce needs as one of their strategies throughout their service area in and around Louisville and southern Indiana.

Post-Grant:

- As of 2010, all four workforce boards (Cumberlands, Workforce Region 10, Lincoln Trail WIB, and Greater Louisville WIB [formerly known as Kentuckiana WIB]) had pledged 1 percent of their WIA funds (~ $120,000) to continue the regional effort and carry WIRED65 through to the end of 2010 ("a one-time investment to get certain things done in a 6-8 month period"). Many of the initiative's grant programs had found funding to continue past the end of the Initiative, and the KIX portal was supported through the end of the year. To address the question of how the cost of the site would be met after the end of the year, the WIRED65 group was seeking additional funds and evaluating each piece of the site to determine which were of the most value.

Region: Central New Jersey
Geography: Central New Jersey — Generation III

Counties: Hunterdon, Mercer, Middlesex, Monmouth, Somerset

Leadership:

- Rutgers University
- Middlesex County WIB

Industry Sectors:

- Biotechnology
- Life Sciences

Partners:

- ☒ State Government
- ☒ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- Excite young people about the biosciences with a focus on underrepresented groups.
- Lay smooth education and career pathways and have a new biotechnology educators' consortium develop articulation agreements.
- Transform graduate education to create a new set of professional master's degrees tailored to the needs of bioscience companies.
- Develop professional science master's degree programs for integrating science and business.
- Increase bioscience workforce development.
- Enhance linkages between education and industry, with the aim of establishing a "one-stop" bioscience career site.
- Facilitate global competitiveness to attract and enhance global partnerships and to attract international bioscience companies to the region.

Activities:

- Implemented activities to engage youth, such as the multimedia Life Science Career Campaign, designed to build awareness and interest in bioscience careers.
- Provided seed funding for the New Jersey Biotechnology Educators' Consortium (NJBEC).
- Developed three industry-responsive professional science degrees, including a master's degree and certificate at Rutgers and a master's degree at the University of Medicine and Dentistry of New Jersey.
- Implemented ten bioscience workforce development projects, such as the Bioscience Boot Camp to reeducate employees of a closing military base.
- Created the Bio-1Stop Internship and Job Matching Site, which connects employers with job seekers.
- Carried out four projects to stimulate globally competitive bioscience businesses, such as the Expand Entrepreneur Education program and curriculum.

Outcomes:

- Posted Career Awareness Strategy materials on the region's Web site, trained 248 students as part of the RISE program to broaden participation of underprivileged students in the sciences, and more.
- Working through the Biology Teachers Association of New Jersey, distributed 3,000 "Get Growing Career Pathways" posters across the region.
- 140 educators from middle schools, high schools, colleges, and other organizations joined NJBEC.
- The Master of Business and Science, Master of Science in molecular pathology, and Certificate in Science and Technology Management programs were established and began enrollment; 61 individuals completed certificates by the end of the grant period.
- 309 individuals completed training in ten bioscience workforce development projects; for example, 30 workers completed the Bioscience Boot Camp.
- 102 individuals were placed in life science industry jobs.
- The Internship and Job Matching Site went live.
- A total of 12 curricula were developed across the region.

Accomplishments:

- Many stakeholders strongly praised the partnerships generated and strengthened by the region; a few even felt they were the region's most important impact.
- From the composition of its board to its front-end research and its numerous projects, the region responded directly to industry needs and thus created strong potential for real-world impacts.
- The region forged much stronger connections among higher education institutions. For example, Middlesex County College and Rutgers developed a template to compare the content of different courses, thus helping to ensure that their core curricula matched.
- The region created numerous educational programs and curricula with strong potential to live on in their host institutions or be adopted by other institutions.
- The region's metrics dashboard was widely praised and was shared with other regions via the WIRED Academies and other venues.

Post-Grant:

- As of 2010, the region had secured funding from the State of New Jersey to continue in operation at least through the following summer, and a core group of the region's governance board continued to meet regularly.
- Many of the region's activities continued to operate. For example, the Master of Business and Science program had enrolled 60 students for the fall semester of 2010. As of June 2011, Bio-1Stop's Web site—which included Life Science Career Campaign materials, model curricula, and more—was still in operation, and new jobs were still being posted on the Internship and Job Matching Site.
- Two former leaders of the region accepted positions as the Assistant Commissioners of Labor of the State of New Jersey, which opened the possibility that the collaborative and innovative spirit of the Initiative would become embedded in the state's workforce development practices.

Region: Greater Albuquerque (NM)
Geography: Greater Albuquerque, New Mexico — Generation III

Counties: Valencia, Sierra, Torrance, Santa Fe, Los Alamos, Socorro, Sandoval, Bernalillo

Leadership:

- ■ New Mexico Department of Workforce Solutions
- ■ New Mexico Technet

Industry Sectors:

- ■ Optics
- ■ Green-building construction
- ■ Aerospace and aviation
- ■ Renewable energy
- ■ Microelectronics
- ■ Advanced manufacturing
- ■ Entrepreneurship

Partners:

- ☒ State Government
- ☐ Local Government
- ☐ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Construct a training pipeline for green manufacturing occupations in the region.
- ■ Develop the entrepreneurial and innovative capacity of the region around Green Technology.
- ■ Monitor, expand, nurture, and promote the pipeline of Green Tech talent in the region.

Activities:

- ■ Santa Fe Community College worked with Santa Fe High School (SFHS)'s Engineering Program to expand the availability of dual credit (e.g., high school and college) engineering courses to SFHS students by funding materials, tools, and teacher training.
- ■ The University of New Mexico, Continuing Education (UNM-CE) and the UNM School of Engineering designed a curriculum for instruction on commercial energy efficiency retrofits.
- ■ UNM-Los Alamos scholarships, curriculum and staff development, and science and technology offerings, e.g., applied environmental technology.
- ■ The region funded an annual business plan competition and the Venture Fair, designed to prepare entrepreneurs to present ideas to investors.

Outcomes:

- Expanded the availability of dual credit engineering courses to third and fourth year high school students in SFHS.
- Curricula for 14 courses at SFCC were developed, and 5 short course modules were created
- The commercial energy efficiency retrofit curriculum at UNM-CE and the UNM School of Engineering was completed and offered to students.
- 3,268 high school students participated in academy programs at six public schools.
- 5,414 certificates in green manufacturing were awarded.
- 223 workers were retained or entered employment as a result of the training they had received.
- 21 students entered green technology internships at five companies.
- 91 students completed job-shadowing experiences.
- 432 entrepreneurs were served at Venture Fairs.
- 109 business networking events were held.

Accomplishments:

- As of the 2010-2011 school year, SFHS offers a complete four-year engineering/technology curriculum, which is also part of a dual credit engineering certificate at SFCC.
- SFHS engineering students produced designs and prototypes for local manufacturers that generated approximately $6,000 in revenues which, in turn, were used to support the cost of materials for their program.
- The primary utility company in the area has offered to subsidize the cost to future students for taking UNM-CE's energy efficiency retrofit course. The course was made available starting in fall 2010, and the catalog listing of courses was provided to 60,000 individuals.
- Key informants indicated that the WIRED support had helped to raise the profile of the Venture Fairs and that this activity had become the premier venture capital showcase activity within the region.
- Many of the region's projects reinforce the state's commitment to green technology talent development, including the biofuels training program at Santa Fe Community College, the green construction training program at Central New Mexico Community College, energy efficient retrofitting course at the University of New Mexico's Continuing Education division, and the solar energy program at UNM Los Alamos.

Post-Grant:

- This region received an extension of its WIRED grant through 2010; as a result, its core staff and stakeholders remained active and continued their focus on green jobs across an array of industries.
- The region has an active role in a statewide ARRA-funded grant of $6 million for workforce and economic development activities around the biofuels, solar, wind, and green construction industries.

Region: Southwest Minnesota
Geography: Southwest Minnesota — Generation III

Counties: Big Stone, Blue Earth, Brown, Chippewa, Clay, Cottonwood, Douglas, Faribault, Freeborn, Grant, Jackson, Kandiyohi, Lac qui Parle, Lincoln, Lyon, Martin, McLeod, Meeker, Murray, Nicollet, Nobles, Norman, Otter Tail, Pipestone, Pope, Redwood, Renville, Rock, Sibley, Stevens, Swift, Traverse, Waseca, Watonwan, Wilkin, Yellow Medicine

Leadership:

- Minnesota Renewable Energy Marketplace, an Alliance for Talent Development

Industry Sectors:

- Renewable energy
- Agriculture
- Manufacturing
- Biosciences

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☒ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☐ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- Build a skilled workforce.
- Build stronger communities.
- Build a stronger regional economy through talent development.
- Stop the outflow of talent and younger workers who are leaving these communities to find work in more metropolitan areas.
- Address the needs of existing companies within the region, linked with the renewable energy sector.
- Show people that there are real opportunities for good jobs in the region, in both renewable energy and advanced manufacturing.

Activities:

- **Chippewa Valley Ethanol/Benson Public Schools.** A partnership between the high school and the local ethanol plant to develop a "table top" ethanol production facility in the high school science lab. There is also a school-to-work program provides for internships at the ethanol plant.
- **Granite Falls Ethanol Simulator.** This project developed an ethanol plant simulator training manual, provided hands-on training as a plant operator using the simulator, and provided additional supervisory management and leadership training.
- **Mechatronics.** The Mechatronics program is a combination of mechanical and electrical engineering, computer science, and controls and systems design for advanced manufacturing. Tailored to meet the needs of area manufacturers, training was conducted as a pilot Shared Work program.
- **Albert Lea Academy Project.** The academy was focused on adult basic education, internships, and pre-employment experiences for those considering entering the renewable energy field.

Outcomes:

- The investment funded 31 projects across the region.
- There were 947 individuals that completed training offered through the programs, with 662 credentials earned, 214 individuals being placed in employment, and 63 internship opportunities.
- It was also reported that the projects resulted in 110 curricula and 26 STEM-related programs having been developed and implemented.
- 359 educators received additional professional development in the region's focus sectors.
- The regions' efforts to enhance the pipeline of workers resulted in 16,247 students being enrolled in STEM-related training.

Accomplishments:

- The public school system created a high school curriculum in renewable energy while also offering a school-to-work program at the ethanol plant.
- The simulator training proved to be very popular among employers and students were able to practice as an ethanol plant operator without the dangers accompanying on-the-job training.
- Stakeholders in the Mechatronics program worked to get a bill signed into law which allowed incumbent workers in the Shared Work program to receive training through the Initiative-funded project.
- The WIB, in consultation with industry, developed a career ladder for the ethanol industry and is currently working on a career ladder for the wind energy industry.
- Identified regulatory issues constraining business growth and launched communications campaign to educate policy makers.

Post-Grant:

- As of 2010, MNREM had reorganized as a nonprofit 501(c)3 organization that planned to grow a group similar to the one under the Initiative, but with a statewide focus and driven by private industry. It was exploring several potential funding streams.
- Several of its programs also continued after the grant period; for example, a Youth Energy Summit, which had expanded its geographic reach with funds from MNREM, had since found private donors to maintain this focus and even reach out a little further.
- The colleges and universities that had begun to work together under MNREM were continuing to collaborate.

Region: North Oregon
Geography: Northern Oregon/Southern Washington — Generation III

Counties: ***Oregon:*** Multnomah, Washington, Clackamas, Columbia, Yamhill, Marion, Polk**.** ***Washington:*** Clark, Cowlitz, Wahkiakum

Leadership:

- ■ Worksystems, Inc.

Industry Sectors:

- ■ Advanced manufacturing (bioscience, metals)

Partners:

- ☐ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☐ Economic Development Agencies
- ☒ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Supporting leadership for regional economic growth. Activities addressing this goal included regional analyses, advocating for support for talent development, aligning resources, and bringing together partners.
- ■ Growing the talent pipeline. This goal included four strategies to help students and teachers understand the semiconductor and other "high tech" industries; a regional workforce readiness assessment and certification; career-related learning experience (CRLE) processes; and efforts to engage advanced manufacturing.
- ■ Aligning curriculum to reduce skills gap. The strategies for achieving this goal included developing curriculum through WorkKeys, creating career ladders, and assisting mature workers with establishing new careers.
- ■ Increasing training opportunities. Regional partners planned to prioritize training needs and apply funding to new or additional training opportunities.

Activities:

- ■ Conducted a variety of regional analysis activities, including resource mapping, a workforce audit, a global competitiveness assessment, a WIRED Information Center, and value stream mapping to apply lean manufacturing concepts to the workforce system.
- ■ Created BizConnect, an online tool that helps to coordinate the matching of students and employers for workplace experience.
- ■ Created WorkKeys job profiles to help community colleges align their programming with industry needs.
- ■ Created a Web-based regional work-readiness assessment and certification system.
- ■ Developed a series of customized trainings to enhance the skills of incumbent workers.
- ■ Overcame initial political reticence to forge a partnership with three counties in southwest Oregon; the expanded region better reflected the labor market.

Outcomes:

- 1,465 employers were enrolled, and 8,600 CRLEs were completed by students at 57 high schools via BizConnect.
- 35 WorkKeys profiles for jobs in advanced manufacturing were completed and distributed to 6 community colleges.
- The value stream mapping studied customer service processes, then planned for and made necessary changes.
- 240 WorkSource Oregon staff received professional development to become more industry-responsive.
- Funded 10 trainings for Vocational English as a Second Language (VESL).
- Delivered 11 customized trainings for 482 incumbent manufacturing workers, including a Manufacturing Leadership Academy at two community colleges.
- Developed 4 new degree/certificate programs.
- 31 curricula implemented regionwide.
- Created a "Regional Roadmap" on manufacturing careers.
- Reported a 91 percent increase in career pathways trainees aged 50 or older.

Accomplishments:

- The region created resources to help overcome cycles of unemployment in the traditional manufacturing, technology, and wood-product industries.
- BizConnect streamlined student-employer connections, facilitated the completion of CRLEs, and gave meaningful context to in-school learning.
- WorkKeys job profiles were used by community colleges to develop curricula, assist with job placements, and carry out similar workforce activities.
- The value stream mapping uncovered inefficiencies and led to improvements in at least five WIB areas, such as creating clearer signage, establishing a customer Plan of Action, and providing prompt interviews with staff.
- The region reported 13 instances of collaboration among funding sources in planning, funding, and implementing talent development projects.

Post-Grant:

- As of 2010, the region's governing board was no longer meeting, but its WIB directors were meeting on a quarterly basis to explore further opportunities to work together. For example, they had begun to collaborate around the provision of skilled health care workers.
- The region had received a federal stimulus grant of $5 million, and the WIBs were using the relationships developed under the Initiative to coordinate the training portions of that grant.
- Several projects funded by the region continued to operate. For example, the BizConnect tool continued to provide an important linkage between students and employers, and the region's curricula were still in use by participating institutions.
- The cross-border partnership between northwest Oregon and southwest Washington continues, involving both WIBs and community colleges.

Region: Pacific Mountain Washington
Geography: Pacific Mountain, Washington — Generation III

Counties: Thurston, Mason, Lewis, Grays Harbor, Pacific

Leadership:

- Pacific Mountain Workforce Development Consortium
- Thurston County Board of Commissioners

Industry Sectors:

- Traditional and renewable energy
- Manufacturing
- Construction
- Entrepreneurship/innovation.

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☒ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☐ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☒ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- Develop a globally competitive, dynamic, and technologically savvy talent pool.
- Grow and support innovation and entrepreneurships as the basis of the regional economy.
- Leverage the resources of partners to establish and support the regional identity.

Activities:

- Developed data reports about the region's talent and business characteristics, assets and gaps, multiple training programs, and secondary education efforts.
- At an abandoned nuclear power station, established the Regional Education and Training Center (RETC) to provide the public sector, the private sector, education, and the trades with opportunities to define and meet workforce needs.
- Created the Computerized Manufacturing Technology Training Program to train adult students to design and produce parts by programming, setting up, and maintaining robotic manufacturing technology.
- Expanded the Northwest Manufacturers Alliance (NWMA) to connect manufacturers regionwide.
- Established Lifelong Learning Accounts (LiLAs) to help incumbent workers plan for and participate in training and education.

Outcomes:

- Pacific Mountain Alliance for Innovation (PMAI) completed several research products, such as a State of the Region report and studies on renewable energy.
- RETC opened in 2008, became a 501(c)(3), established a board of directors, and began delivering industry-responsive training.
- NWMA held an Innovation and Manufacturing EXPO and created a regional database of manufacturers that enabled information and resource sharing.
- At least 2,361 individuals completed training across the region.
- 561 incumbent workers entered training, including at least 21 through the LiLA program.
- 176 individuals entered employment in target industries.
- 252 professional/occupational certificates were awarded programwide.
- 6 curricula were developed and implemented.
- 22 educators received professional development.
- Grant funds supported the first cohort of the Computerized Manufacturing Technology Training Program.

Accomplishments:

- The region's research helped stakeholders understand their assets and draft industry skill standards.
- The region rallied diverse stakeholders to create a workforce pipeline, help manufacturers see common concerns, and improve the skills of existing workers.
- RETC was a sub-recipient of a $12 million U.S. Department of Energy Smart Grid Workforce grant. RETC used its portion of the funds to create a Smart Grid Knowledge Portal for which it collaborated with employers, utilities, higher education, and labor.[3]
- NWMA's grant funding provided it with early stability to bring together manufacturers and economic and workforce development professionals.
- The LiLA program helped incumbent workers plan for and participate in training and education to improve their skills, earn credentials, and improve the region's economic viability through a stronger workforce.
- The experience helped increase trust and collaboration among participating community colleges and economic development organizations.

Post-Grant:

- As of 2010, this region's governance structure was no longer meeting; however, many of its projects continued to operate. For example, RETC, which region leaders considered to be PMAI's most significant achievement, had received at least two grants to allow its work to continue.
- The local WIB serving the area had moved its operations to the RETC, which helped streamline the provision of workforce services in the region and was viewed as a major accomplishment by the region.
- All five of the region's economic development agencies were meeting regularly and seeking joint funding opportunities for research and support services to new and expanding businesses.

[3] RETC, "Current Major Projects," http://www.retcs.org/pages/about-us.

Region: South-Central and South-West Wisconsin
Geography: South-Central and South-West Wisconsin — Generation III

Counties: Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Marquette, Richland, Rock, Sauk

Leadership:

- ■ Workforce Development Board of South Central Wisconsin

Industry Sectors:

- ■ Biotechnology
- ■ Agriculture
- ■ Health care
- ■ Construction/skilled trades
- ■ Utilities
- ■ Advanced manufacturing

Partners:

- ☒ State Government
- ☒ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☒ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Develop robust and regional infrastructure and training strategies to support an innovative and entrepreneurial talent development system.
- ■ Establish innovative cross-industry strategies to develop skills for emerging, under-prepared and incumbent workers.

Activities:

- ■ Funded 24 programs across its six target industry areas. For example, in the agriculture sector, the region supported five training, networking, and capacity-building initiatives.
- ■ To provide basic nursing training for high school students interested in exploring careers in health care and continuing education for existing and new nurses, the region funded a new Center for Nursing Excellence and three mobile simulation units.
- ■ Funded equipment, curricula, and staffing for the Advanced Manufacturing Basic Skills and Advanced Manufacturing Automation Initiative (AMAI).
- ■ Funded research and informational meetings for a plan to locate an individual quick frozen (IQF) vegetable processing plant in the state.

Outcomes:

- 2,740 individuals completed training programwide.
- 998 individuals completed training through the Center for Nursing Excellence and mobile simulation units by the end of the grant period.
- 319 individuals completed training through the Advanced Manufacturing Basic Skills and Automation programs.
- The Driftless Economic Development Plan conducted research on grower needs, held informational meetings, and developed materials showing steps in the process of finding and training growers for an IQF plant.
- 2,660 degrees, certifications, or industry-certified credentials were awarded as a result of training funded by the region.
- 662 educators received professional development, impacting an estimated 5,374 students annually.
- 451 new curricula developed, impacting an estimated 3,849 students annually.
- 343 clinicals and internships implemented.
- 4,580 career guidance strategies implemented.

Accomplishments:

- The region provided significant resources to build the infrastructure—including curriculum development, teacher professional development, and more—for a wide selection of training programs in each of its targeted industry sectors.
- The region's contribution allowed the Center for Nursing Excellence to be housed in an appropriate location, and the mobile simulation units proved useful for providing advanced training to small rural hospitals throughout the region's ten counties.
- The Advanced Manufacturing Basic Skills program and Automation Initiative provided valuable training to dislocated and lower-skilled workers referred by the area's job centers, as well as incumbent workers.
- The region's funding of the Driftless Economic Development Plan helped to facilitate continued support for that plan.
- At the end of the grant period, the region reported that $10 million had been raised to sustain various Initiative-supported activities through 2012.

Post-Grant:

- As of 2010, the region's governance structure had reverted to other regional bodies that predated the Initiative, but several of its projects had continued or even expanded. For example, the Center for Nursing Excellence had broadened its focus to include all the rural hospitals in the region; according to regional representatives, all of these hospitals were willing to pay for the training provided by the Center.

Region: South-Central Idaho
Geography: South-Central Idaho — Generation III

Counties: : Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls

Leadership:

- Workforce Development Alliance

Industry Sectors:

- Manufacturing
- Construction
- Culinary arts
- Renewable energy
- Entrepreneurship

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☐ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☒ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- Develop a career pathway infrastructure that spans the major industry sectors.
- Expand training capacity, mostly through expansion and improvement of training programs at the area technical college.

Activities:

- **Turning Point Campaign**. A communications campaign designed to promote training for jobs that do not require a four-year degree, increase career awareness, and build a pipeline of talent.
- **Entrepreneurship Portal**. A One-Stop shop for business startups providing information on starting and running a business, access state and local resources, and an online forum for sharing ideas.
- **Fundamental Skills Certificate**. A career readiness program for high school students that involved internships, job shadowing, and employability skills training.
- **Trade and Industry Prep (TIP).** This program offered a contextual learning approach to prepare adult basic education students for a college experience. Participants also received supportive services when possible.
- Developed and improved the community college programs in construction, manufacturing, culinary arts, and renewable energy.

Outcomes:	**Accomplishments:**
■ The region reported that as a result of the Initiative investment, 760 professional or occupational certificates were awarded. ■ There were 1307 individuals that participated in career development or guidance activities. ■ Five people entered employment, while 156 individuals participated in an internship, and 25 individuals were placed in apprenticeships. ■ There were 10 new curricula created, along with 100 new incumbent worker programs, as well as 5 dual-enrollment programs.	■ Increased career awareness by creating newsletters, developing informational materials and a Web site, and purchasing stand-up banners for schools and job fairs. ■ Built a database of individuals and organizations interested in helping entrepreneurs create businesses, as well as a resource database for entrepreneurs. ■ Implemented a program that gives employers a reasonable expectation that the worker they are hiring has at least the fundamental skills necessary for employment, and provides on-the-job experience to high school students. ■ The local college expanded its training capacity and its program offerings that aligned with local business needs.

Post-Grant:

- As of late 2010, the region's leaders planned to continue working together but had not yet secured funding to continue in the manner they had become accustomed to under the Initiative. Nevertheless, they continued to connect on an informal basis and were seeking funding for additional training and capacity building.
- Several of the region's activities continued to operate with the support of the organizations that had hosted them under the grant. For example, a Manufacturer's Alliance, developed under the auspices of the Initiative, was being run through the Twin Falls Chamber in partnership with chambers in surrounding counties, and the Fundamental Skills Certificate program had been incorporated into the curriculum at its hosting institution.

Region: South-Central Kansas
Geography: South-Central Kansas — Generation III

Counties: Butler, Cowley, Harper, Harvey, Kingman, Marion, McPherson, Reno, Sedgwick, Sumner

Leadership:

- ■ Workforce Alliance of South Central Kansas (Local Area IV)
- ■ Kansas WorkforceONE (Local Area I)

Industry Sectors:

- ■ Composites and advanced materials (aerospace and other sectors)

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Leverage the education, training, and workforce development resources in the region as a way to develop a highly skilled workforce that will support the sustainable, high wage jobs required in a global economy (education and training).
- ■ Catalyze the research and development, investment, and application of composite and advance materials sciences in ways that will strengthen the economy of the region, such as in biocomposites and agricultural equipment (employment opportunity expansion).
- ■ Cultivate an emerging global cluster to strengthen the regional economy (regional economic development).

Activities:

- ■ **Strategy 1: Education and Training.** Funded five activities in composites fabrication and repair instruction, teacher professional development, STEM education, and career exploration.
- ■ **Strategy 2: Employment Opportunity Expansion in Composite and Advanced Materials Technology, Products, and Business**. Funded four activities, including research in biocomposites, business startup training and assistance, business strategic planning, and a Nondestructive Testing (NDT) course.
- ■ **Strategy 3: Establish the Region as a Center of Excellence for an Emerging Global Cluster in Composites.** Funded three activities, including the convening of a composites-sector advisory board and the promotion of the region's economic development potential in composites and advanced materials.

Outcomes:

- 1,735 individuals completed training.
- 453 degrees, certificates, or industry certified credentials awarded.
- 1,401 individuals entered employment in the target industry cluster.
- 326 educators received professional development, impacting an estimated 8,946 students annually.
- 52 composites/advanced materials curricula developed, impacting an estimated 1,271 students annually.
- 63 work-based strategies developed, impacting an estimated 317 students annually.
- 52 career guidance strategies developed/implemented.
- $893,083 in equipment purchased to provide hands-on composites instruction to an estimated 1,375 students annually.
- Supported Kansas Career Pipeline career exploration web site and videos.
- Created a searchable online database of 54 firms dealing in composites and advanced materials.
- 211 students trained in two summer STEM programs.
- 250 incumbent workers trained.

Accomplishments:

- The region's asset map was used and valued by numerous stakeholders, who noted that it revealed a larger industry network than they had been aware of previously.
- The region exerted a substantial impact on talent development systems in support of the growing composites and advanced materials industry through investments in instructional equipment, new curricula, educator professional development, and incumbent worker training.
- The region built and strengthened partnerships across industry, education, and workforce and economic development. The collaboration between the two WIBs that co-chaired the region was especially notable. Although they had worked together in the past, the Initiative strengthened their collaboration considerably.
- The region provided important support to the pioneering biocomposites work of the Center of Innovation for Biomaterials in Orthopaedic Research, which was developing applications of composites to medical devices and surgical implants.

Post-Grant:

- As of late 2010, the formal leadership structure of South-Central Kansas was not meeting as a group, but its members reported that they were still collaborating frequently (and more intensively than they had prior to the start of the Initiative) and continued to work under a regional mindset.
- Thanks to the region's strong emphasis on capacity building, the curricula, equipment, and other resources funded by the grant were still in use as of late 2010 and were expected to remain in service for an extensive period of time
- The Workforce Alliance of South Central Kansas has been formally included in the National Fund for Workforce Solutions as a Funding Collaborative and workforce partnership.

Region: Southeast Missouri
Geography: Southeastern Missouri

Counties: Bollinger, Butler, Cape Girardeau, Dunklin, Iron, Madison, Mississippi, New Madrid, Pemiscot, Perry, Scott, St. Francois, Ste. Genevieve, Stoddard

Generation III

Leadership:

- ■ Workforce Investment Board of Southeast Missouri

Industry Sectors:

- ■ Renewable energy
- ■ Tourism
- ■ Logistics
- ■ Health care
- ■ Advanced manufacturing
- ■ Entrepreneurship

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☒ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Develop a strong entrepreneurial support system.
- ■ Accelerate the targeted sectors.
- ■ Create a more responsive workforce system by bringing together the WIB, educators, and industry to share concerns and plan for improvement.

Activities:

- ■ **Project Lead the Way and FIRST Robotics**. Hands-on, supplemental STEM learning, complemented by the FIRST Tech Challenge and Robotics Competition.
- ■ **MO-REAL/BEST.** This program trains secondary teachers to deliver entrepreneurship curriculum at the high school level, in the context of existing courses, and to train other teachers to maximize the reach of the program.
- ■ **Renewable Energy Technology Degree and Articulation Agreements**. An agreement was developed to ensure that a two-year Renewable Energy Technology degree and a Sustainable Energy Systems Management bachelor's degree program were articulated smoothly.
- ■ **Health care *Journey to Excellence*.** Included a summer camp segment for high school students , a Sterile Processing Technician course for incumbent workers, and a Critical Care training course for incumbent nurses.

Outcomes:

- Of the 1532 who entered training, 864 individuals completed training, and 331 credentials were earned.
- Of those who entered training, 139 completed alternative energy training, and 14 entered employment.
- There were 114 individuals who were exposed to career development or guidance activities.
- During the first phase of the (MO-REAL) program, five teachers were trained, and nearly 200 students benefited. In the next phase (BEST), another 56 teachers underwent training, with approximately 2,240 students benefiting. Overall, 333 educators participated in professional development.
- 304 individuals received business training and 304 completed that training.

Accomplishments:

- Stakeholders indicated that the region was moving toward greater cooperation among higher education, workforce, and economic development. The value of the collaboration was demonstrated by the fact that members who signed on at the outset remained involved even when their organizations did not receive funding for which they had applied.
- The region developed a new approach to curriculum development and representatives from the schools worked collaboratively to address the region's needs in the renewable energy sector.
- The P20 Council became a 501(c)(3) organization, enabling it to operate separately from the Leadership Council and pursue additional funding from a variety of sources.

Post-Grant:

- Perhaps owing to the fact that the region's Leadership Council set a standard of requiring 50 percent of the total project cost (a match of 100 percent of the granted funds) in other resources before approving funding through WIRED, many of this region's iprojects remained active as of late 2010. The region's governance structure had disbanded; however, representatives remained very pleased with the continued life of the region's projects, the increased communication between education and business interests, and the region's prospects for future economic growth.

Region: Southeastern Mississippi
Geography: Southeastern Mississippi — Generation III

Counties: Clarke, Covington, Forrest, George, Greene, Hancock, Harrison, Jackson, Jasper, Jefferson Davis, Jones, Lamar, Marion, Pearl River, Perry, Smith, Stone, Wayne

Leadership:

- ■ Momentum WIRED

Industry Sectors:

- ■ Advanced manufacturing
- ■ Metal industries
- ■ Construction

Partners:

- ☒ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☐ Four-Year Colleges and Universities
- ☐ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Develop and test a sector-focused business model for transforming the region's, and ultimately, the State's workforce development strategy.
- ■ Link all stages of workforce development: basic education, post-secondary education and skills training, and lifelong learning.
- ■ Provide accessible skills training to workers and job seekers, emphasizing adult workers who seek skills upgrades or transitions to better jobs.
- ■ Use improved training programs to retain and grow existing companies and attract new ones to the state.

Activities:

- ■ **Outreach Campaign.** Initiative funds were used to support an outreach campaign called "Make Things Happen" that sought to change the mindset of individuals who considered manufacturing to be a dirty and second class occupation with few advancement opportunities. The campaign was aligned with a separate campaign that was launched by the Mississippi Department Education (MDE) called "Dream It. Do It.", which focused on career pathways in technical and career education for middle and high school students.
- ■ **Centers of Excellence.** Designed to improve the pipeline of qualified workers, three of the region's community colleges agreed to take steps to improve the quality of instruction, upgrade curricula and infrastructure, and institute external review processes for their metal working and welding programs. In addition, the colleges took steps to make the programs more accessible to adult students and to incumbent workers through on-line trainings, flexible scheduling, and open-entry programs.

Outcomes:

- A video that was developed as part of the outreach campaign was aired twice on Mississippi Public Television.
- The region reported that 1,629 individuals entered training at the Centers of Excellence; 1,085 completed training and earned a total of 3,885 credentials. This includes 18 incumbent workers who were certified as welding supervisors.
- 49 educators received additional training and national certifications in welding and metal working.
- A mobile welding training center was utilized to provide hands-on training at area high schools and vocational centers.

Accomplishments:

- Based on the perceptions of the stakeholders and increased enrollments in the college welding programs, the outreach campaign had a generally positive impact. According to one guidance counselor, "there seemed to be a little more understanding that a four-year degree path was not the only path to success for students."
- All three college campuses were able to upgrade their training equipment, increase staff competencies with industry certifications, and reported that the metal working curriculum is now aligned with National Institute for Metal Working Skills (NIMS) standards and the welding curriculum aligned with American Welding Society (AWS) standards.
- The colleges also instituted competency-based, third-party assessments of each student's technical skills.

Post-Grant:

- As of late 2010, the Centers of Excellence were still in existence. The larger group of stakeholders had disbanded at the end of the grant period, but its industry subcommittee planned to continue meeting and to audit the Centers of Excellence on an annual basis. This audit will ensure that the Centers are continuing to produce qualified candidates with skills relevant to Gulf Coast industry. In addition, the region's strategy of working with training providers to provide credentialed training was being replicated in other areas of the state.
- Regional representatives also planned to use the Initiative model to help with the development of the aviation and other sectors in the state.

Region: Southeastern Virginia
Geography: Southeastern Virginia — Generation III

Counties: Gloucester, Isle of Wight, James City, Southampton, York, Chesterfield, Dinwiddie, Greensville, Prince George, Surry, Sussex. **Cities**: Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, Williamsburg, Colonial Heights, Emporia, Hopewell, Petersburg

Leadership:

- ■ Hampton Roads Workforce Development Board (Opportunity Inc.)

Industry Sectors:

- ■ Transportation, warehousing, and distribution
- ■ Modeling and simulation

Partners:

- ☐ State Government
- ☐ Local Government
- ☒ Local WIBs/One-Stops
- ☒ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- ■ Foster economic development by supporting the workforce needs of the transportation, warehousing and distribution (TWD) and Modeling and Simulation (M&S) industries.
- ■ Mitigate the impact of base realignment and closure (BRAC) and industry downsizing by strengthening the pipeline for talent development to fast growing occupations in TWD and M&S.
- ■ Enhance relationships between existing partners and expanding the collaborative as needed.

Activities:

- ■ **Establishing an Innovation and Entrepreneurship System for Hampton Roads.** Designed to raise the visibility of M&S applications for the TWD industry through research, workshops, seminars, and conferences specifically targeting logistics, TWD, and other supply-chain businesses in the region.
- ■ **Curriculum Development for M&S and TWD Industries.** Filling pipeline gaps with expansion and development of dual enrollment courses to provide M&S education for high school students. Establish community college and baccalaureate programs in M&S.
- ■ **Leverage BRAC-Related Job Creation through Fort Lee Expansion.** Included feasibility and implementation studies to establish a Virginia Logistics Research Center adjacent to Fort Lee. Establishment of a logistics certificate program and the expansion of an undergraduate logistics degree program. Establishment of on-line business training courses within a small business development center in Petersburg.

Outcomes:	**Accomplishments:**
■ The region reported that 561 individuals had entered training including 277 enrollments in TWD-related courses (an additional 156 enrollments that were WIA funded); 195 enrollments in M&S courses (an additional 118 cumulative enrollments that were WIA funded); and 89 students participating in dual enrollment courses in M&S. ■ As of the first quarter 2010, 143 individuals had completed training and 92 people had entered employment in TWD and M&S industries, while 148 participated in work-based strategies. Of those completing training, 132 credentials were earned. ■ 686 individuals enrolled in business training and 94 individuals participated in a business module series for M&S and TWD businesses. ■ 62 educators received professional development in the target industries. 271 guidance counselors received training to increase their awareness of M&S and TWD industries.	■ Two reports were created on the region's TWD industry that covered the extent of the supply chain industry, its potential for growth, and a gap analysis. The reports were instrumental in communicating the training and curriculum needs for expansion of the industry in the region. ■ The curriculum and training opportunities developed filled the remaining gaps in the region's M&S career pipeline. Most of the pipeline developed to date relates directly to technical support positions which are in demand within the industry. ■ There is greater cooperation among the region's workforce development boards, economic development agencies, and educational institutions. ■ The Small Business Development Center is providing access to more than 100 small business-focused courses. ■ Identified implementation elements for the Virginia Logistics Research Center.

Post-Grant:

■ As of late 2010, the formal governance structure of SEVA-PORT had disbanded, but many of its core stakeholders were continuing to pursue the goals promoted under the Initiative through an economic development group called Hampton Roads Initiative, which predated the Initiative but had expanded post-WIRED. This group developed a program called *Innovate!HamptonRoads*, which was focused on technology and entrepreneurship in M&S as well as other industries in the Hampton Roads area.

Region: Southern Arizona
Geography: Southern Arizona

Generation III

Counties: Cochise, Pima, Santa Cruz, Yuma

Leadership:

- Pima County Workforce Investment Board
- Pima County

Industry Sectors:

- Information technology
- Logistics/transportation/coordination
- Border patrol

Partners:

- ☐ State Government
- ☒ Local Government
- ☒ Local WIBs/One-Stops
- ☐ Industry Associations
- ☐ Organized Labor
- ☒ Community Colleges or CTE centers
- ☒ Four-Year Colleges and Universities
- ☒ K-12
- ☐ Community-Based Organizations
- ☐ Faith-Based Organizations
- ☒ Economic Development Agencies
- ☐ Chambers of Commerce
- ☒ Employers
- ☐ Foundations/Philanthropic Organizations

Goals and Strategies:

- Become a national Center of Excellence for homeland security and advanced technology.
- Create a home-grown talent pipeline for emerging and existing high-technology industries.
- Cultivate entrepreneurial culture, infrastructure, and pipelines to foster innovation and diversify the regional economy and career opportunities.
- Support regional knowledge exchange, maximizing learning, assets, and transformation capacity across all four counties.

Activities:

- **Employer Survey.** The survey was designed to assess industry needs and provide information for the development of training programs. Employers that indicated a specific or immediate training need were personally contacted by the One-Stop to provide assistance in finding training opportunities and employee referrals.
- **Border Professionals Preparedness Program.** The program provided training in two key areas: border context and border security. The training was designed to increase worker literacy and to prepare workers for border patrol jobs with the Department of Homeland Security.
- **Professional Development for K-12 Teachers in STEM Fields.** The region provided training to teachers in the delivery of hands-on lessons and career opportunities in STEM-related industries.
- **Training Programs in Engineering and Technology.** This program allowed the One-Stops to more quickly move displaced workers into training programs and college courses and also developed career ladders for the focus industries.

Outcomes:

- The region reported that 3,540 individuals entered training using Initiative funds, including 176 teachers and counselors that received further STEM-related training and 1,475 individuals that entered entrepreneurship training.
- Of those that entered training, 3,224 completed training earning a total of 792 credentials. There were 15 individuals that entered employment, with 5 internships also being granted. 1,445 of those individuals completed the entrepreneurship training.
- 29 curricula, 5 work-based strategies, and 6 incumbent worker programs were developed and implemented.
- The region projected that as a result of the STEM-related teacher training, 7,362 students were also trained in STEM-related disciplines.

Accomplishments:

- A searchable database of 800 employers across all major target industries was created. The One-Stops are notified when an employer indicates on a survey that they are seeking new workers or training, which allows for a rapid, personal response.
- The Border Professionals Preparedness Program succeeded in involving the business community and leveraging support outside of the Initiative including funds received under ARRA to develop a workplace readiness skills program.
- A total of 31 one-credit online courses that count toward advanced qualifications in math and science have been developed and made available for teachers throughout the region.
- Working relationships among the region's major workforce development and training organizations have improved and there is increased responsiveness to the needs of local industry.
- Strengthened alignment between community college and university.

Post-Grant:

- As of late 2010, Innovation Frontier Arizona (IFA) had retained its brand and its core governance structure, using WIA funds from participating One-Stops.
- The group's ongoing activities continued to focus on workforce development, with Pima County serving as the lead agency.
- Much of the training funded under the Initiative had not continued, but stakeholders reported that IFA's collaborative regional mindset was proving useful in the implementation of other projects, including an ARRA green jobs training grant focused on training incumbent workers in automobile and bus companies.

Appendix C: Comparison Regions

Indexed Employment Showing Manufacturing and Total Employment

Generation II

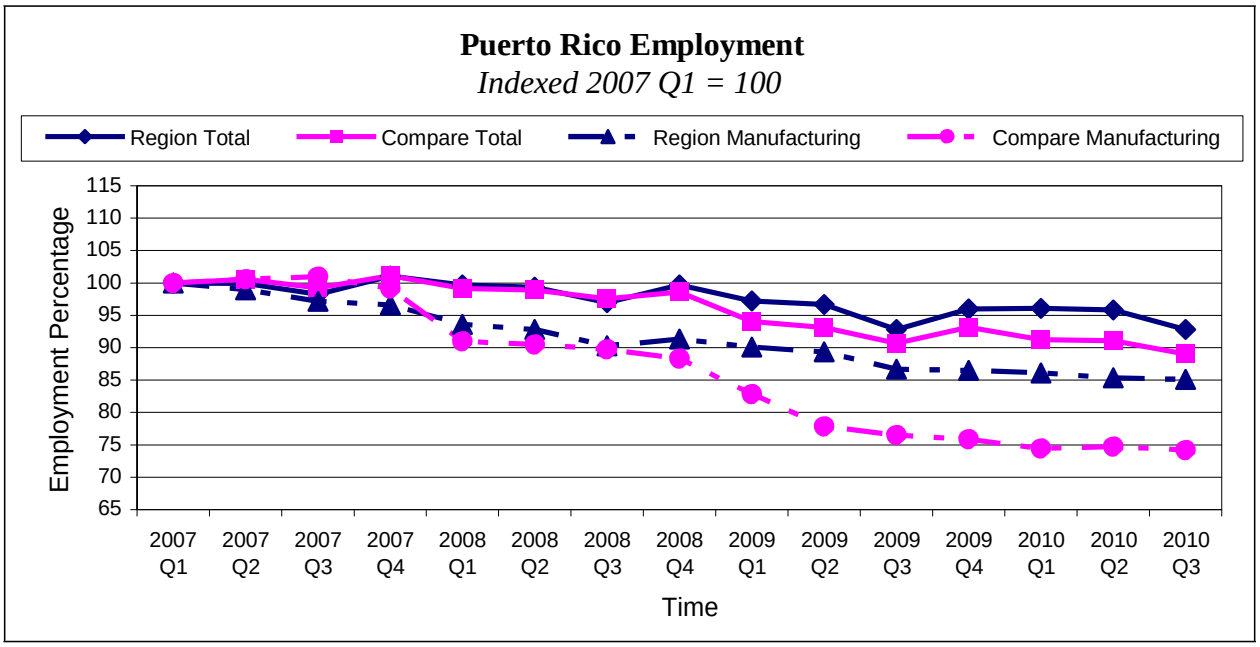


Figure C-1
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

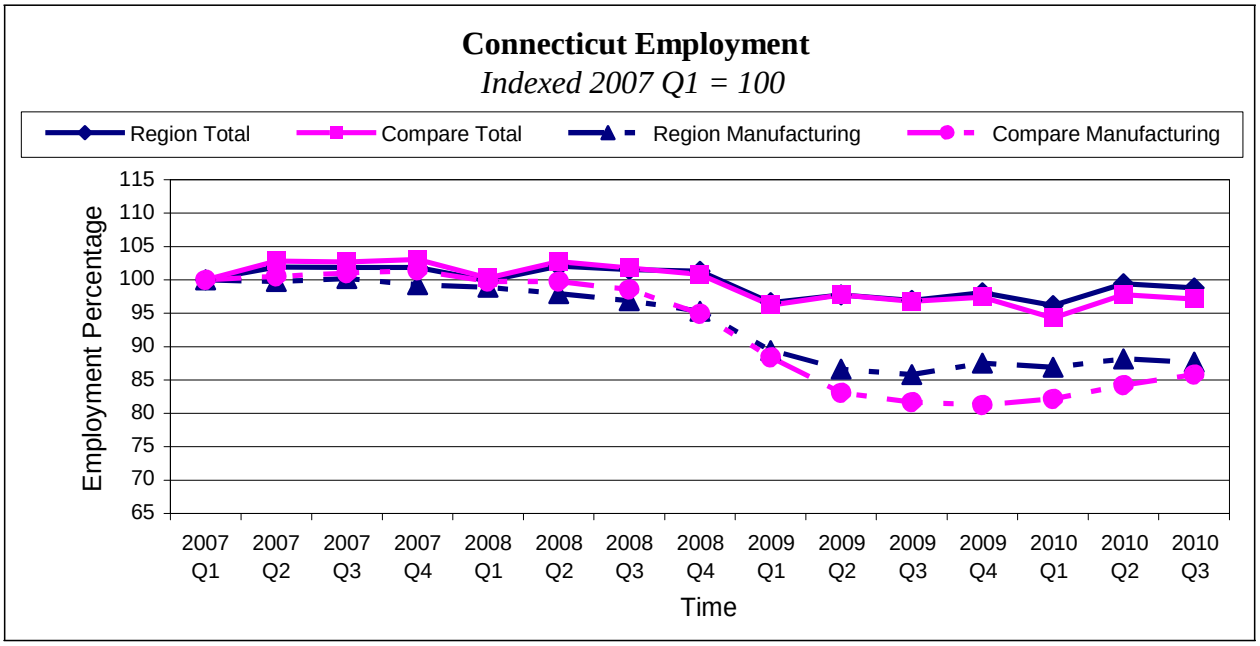


Figure C-2
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

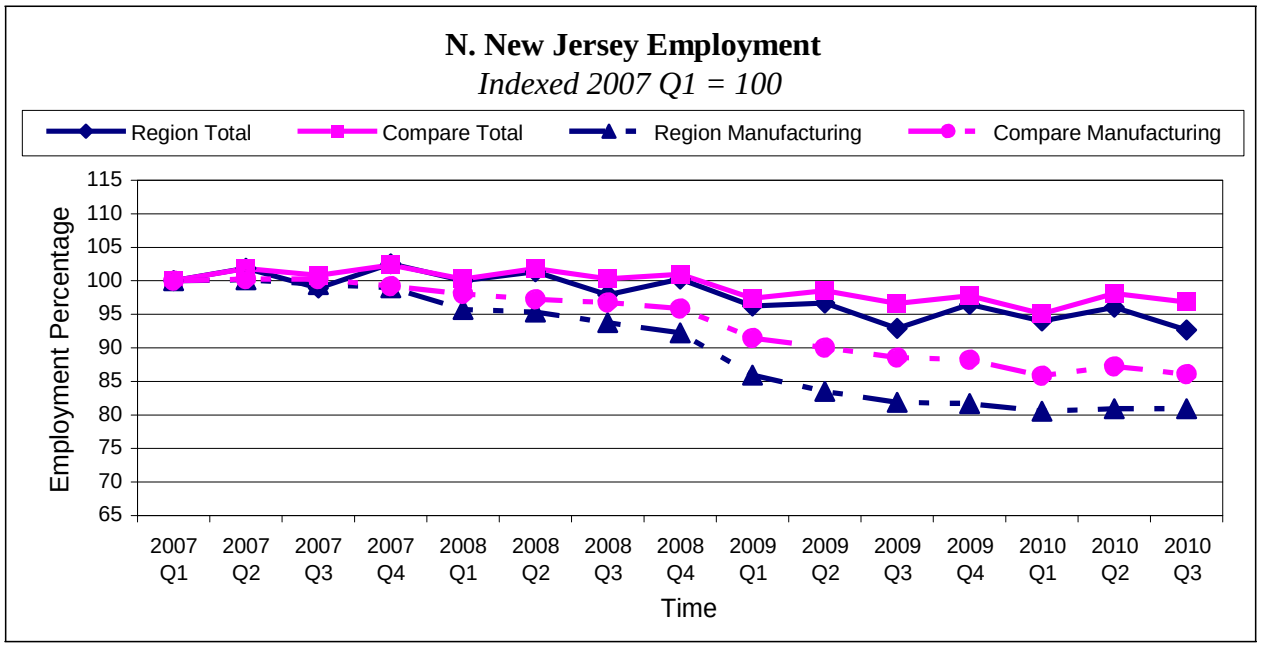


Figure C-3
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

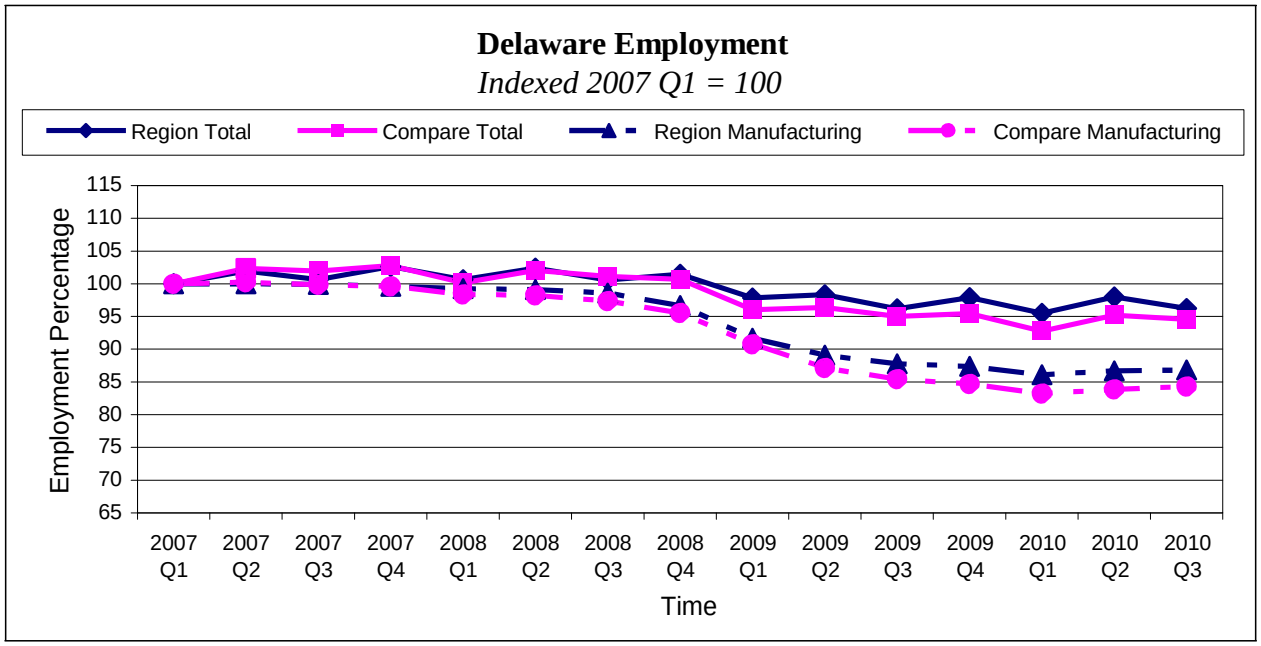


Figure C-4
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

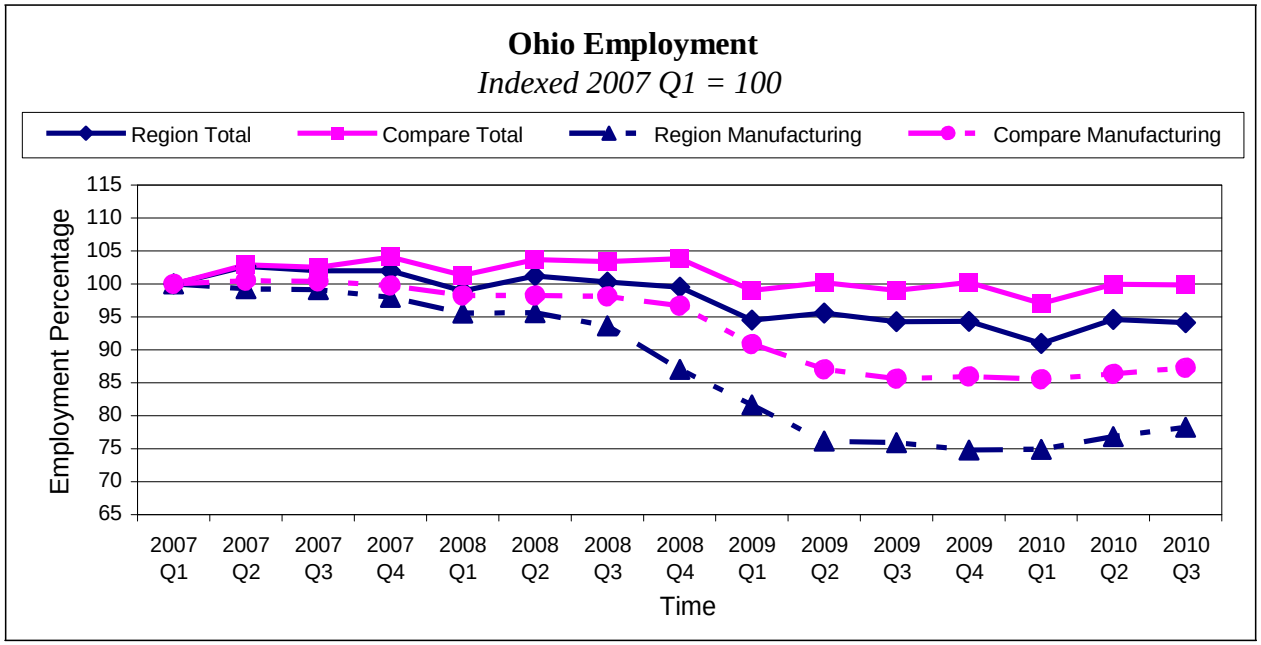


Figure C-5
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

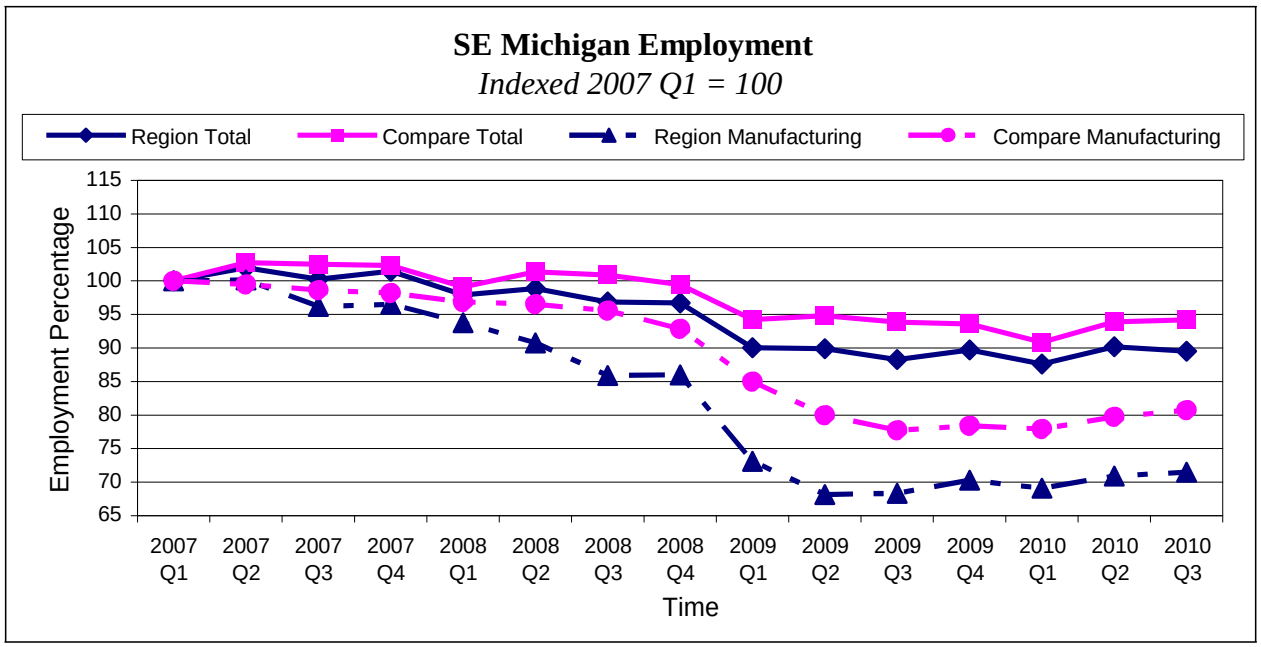


Figure C-6
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

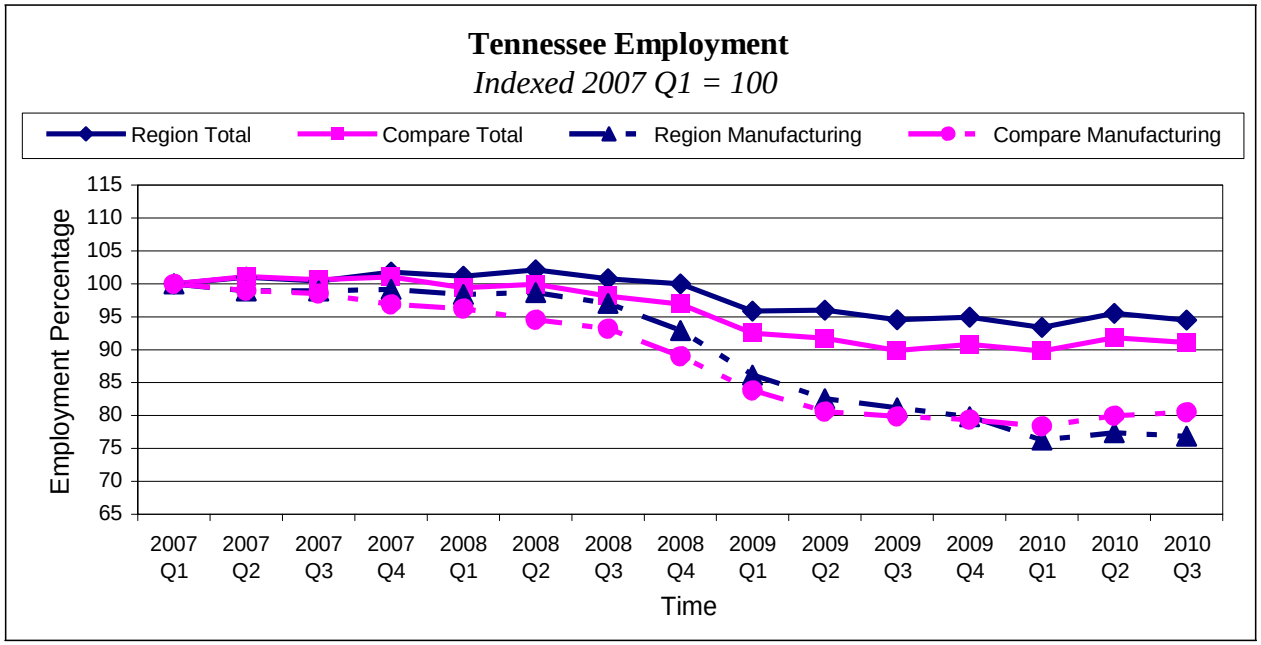


Figure C-7
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

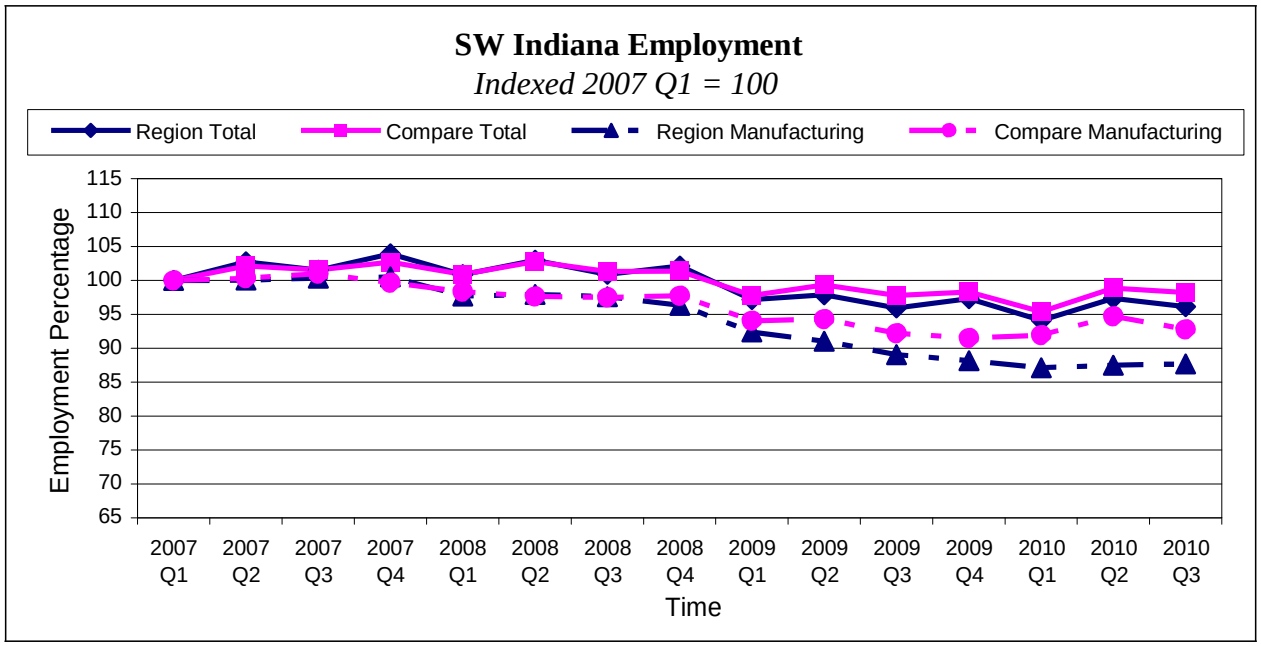


Figure C-8
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

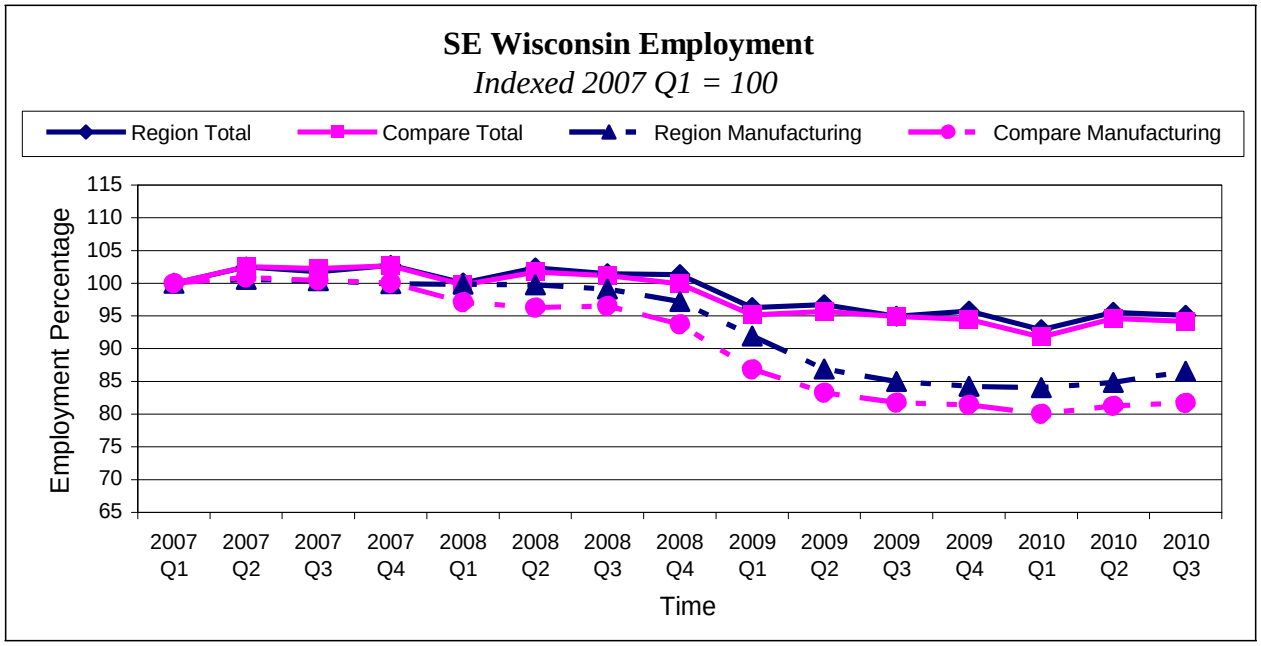


Figure C-9
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

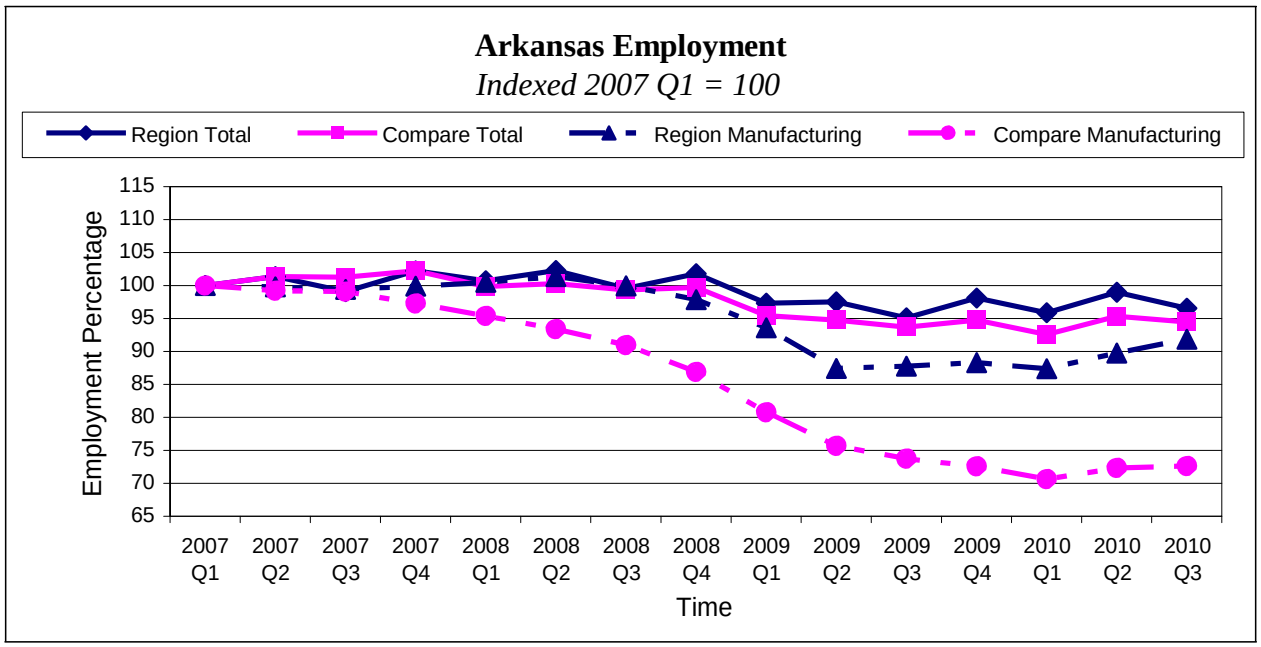


Figure C-10
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

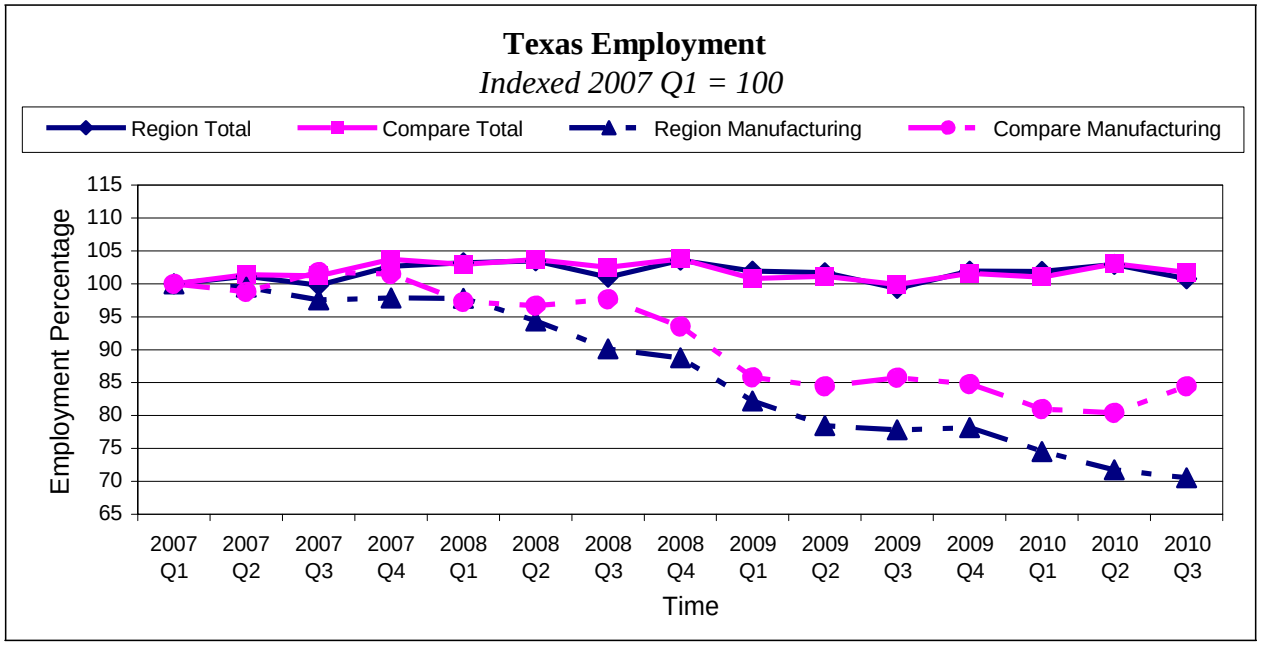


Figure C-11
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

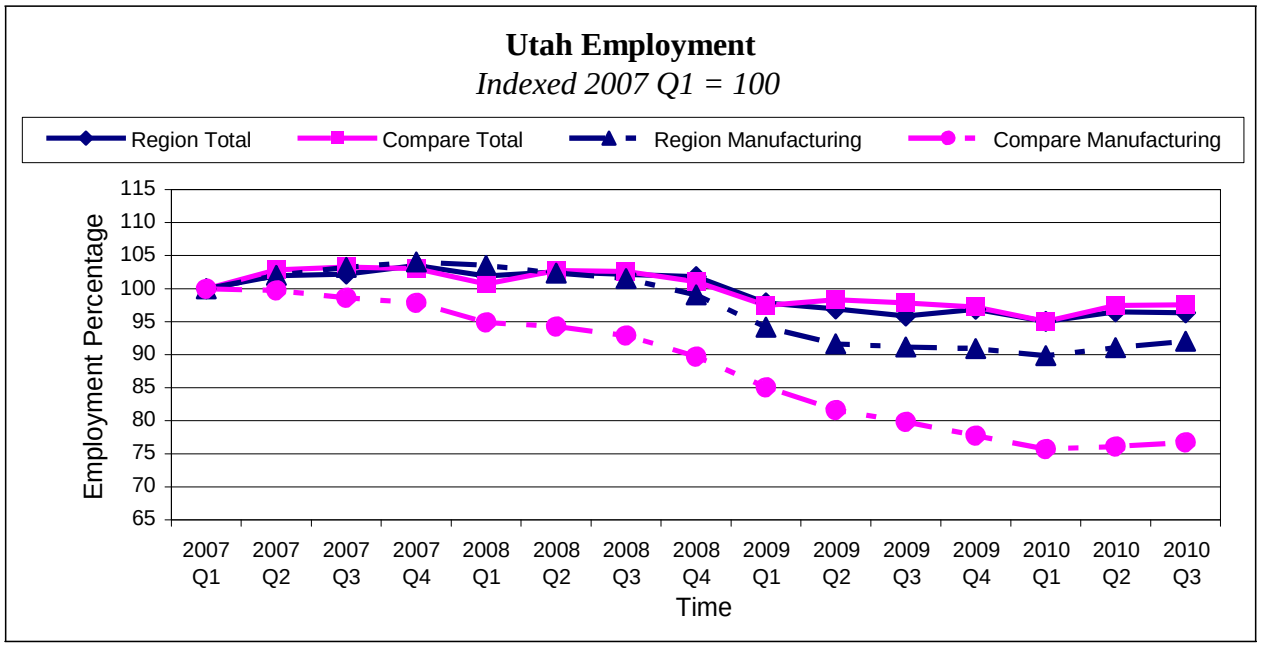


Figure C-12
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

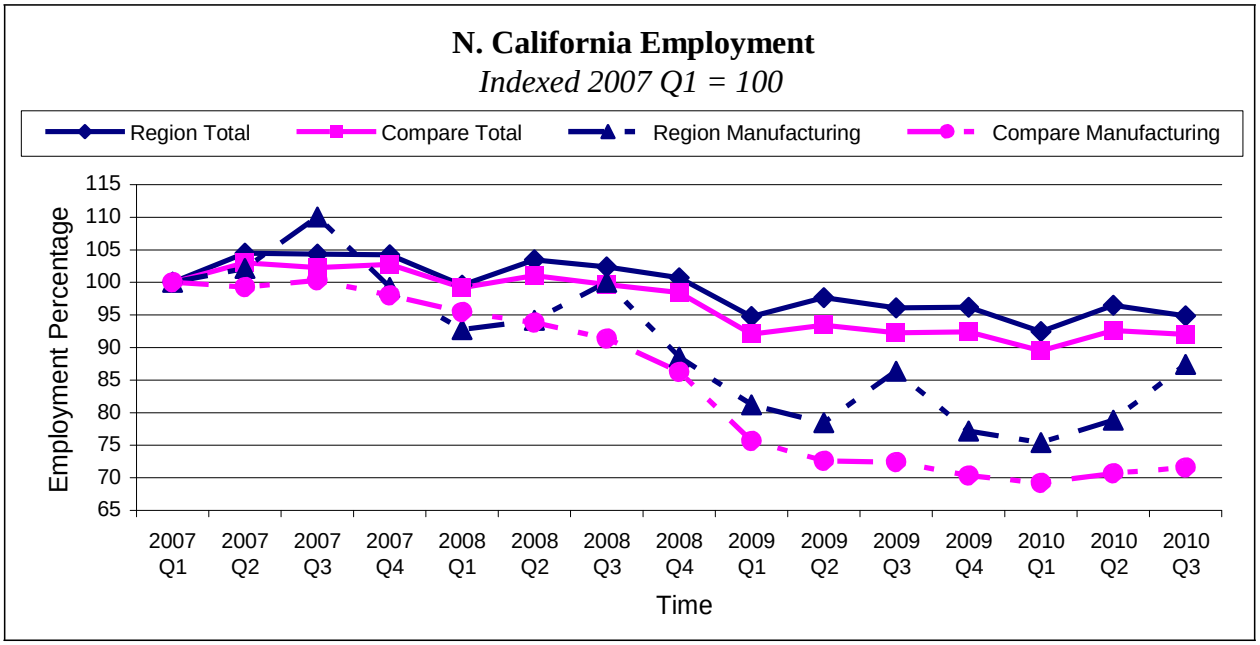


Figure C-13
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

Generation III

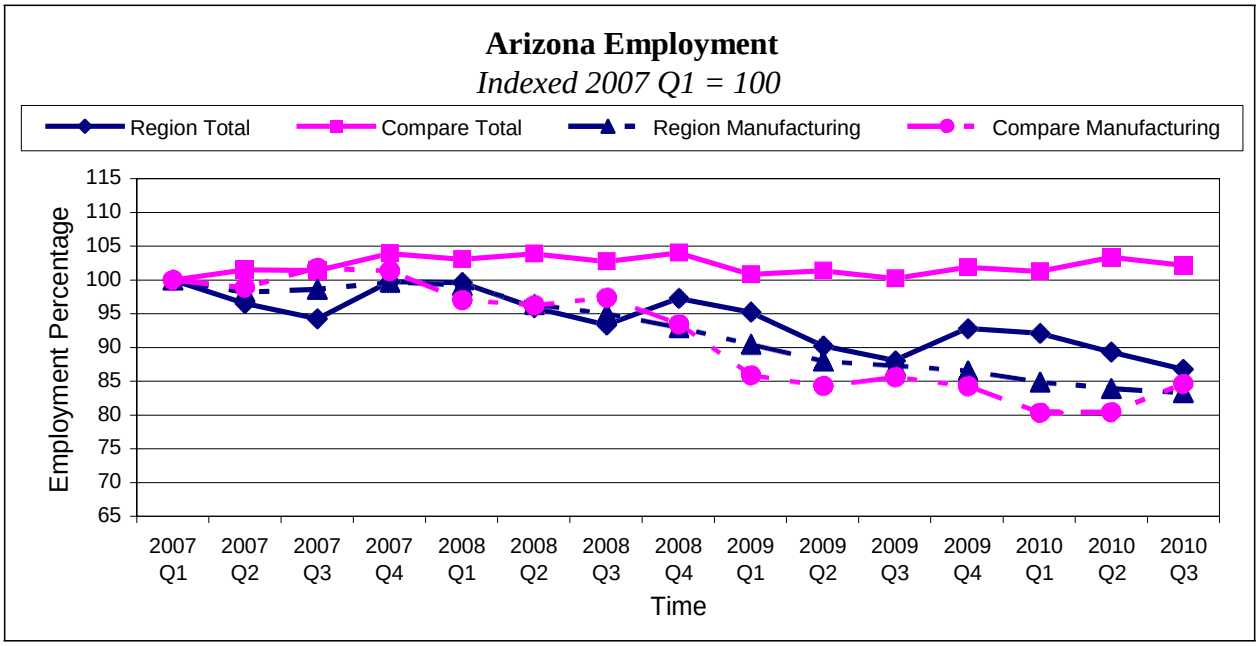


Figure C-14
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

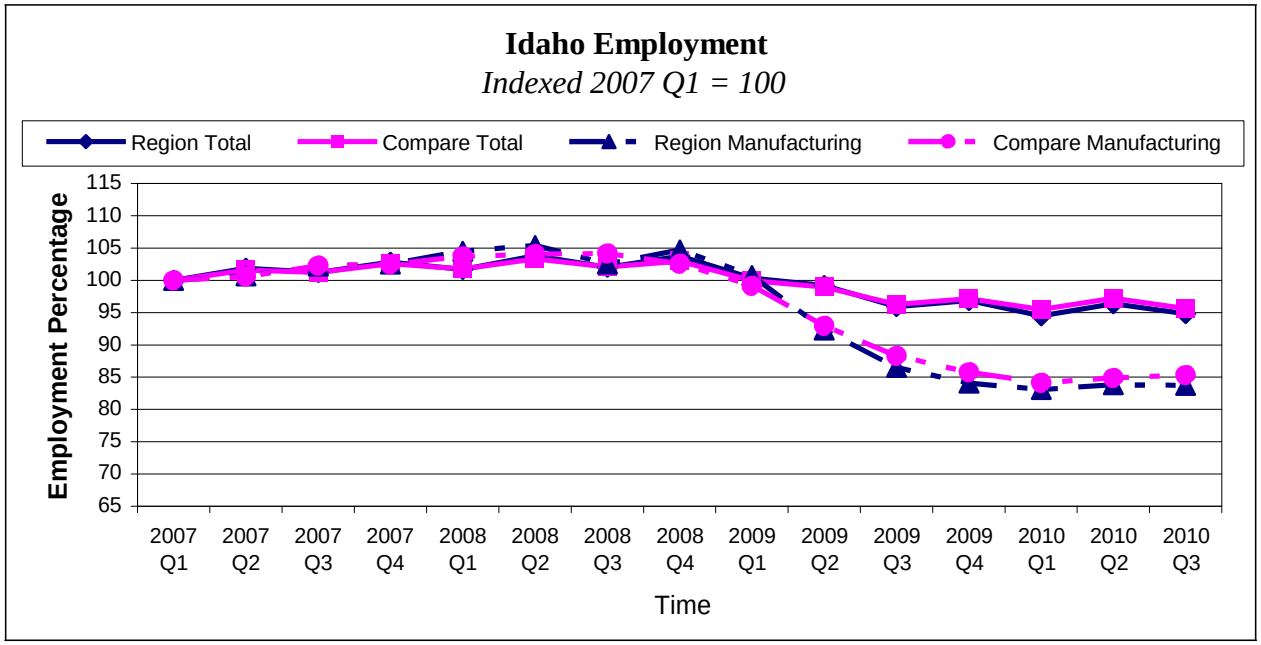


Figure C-15
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

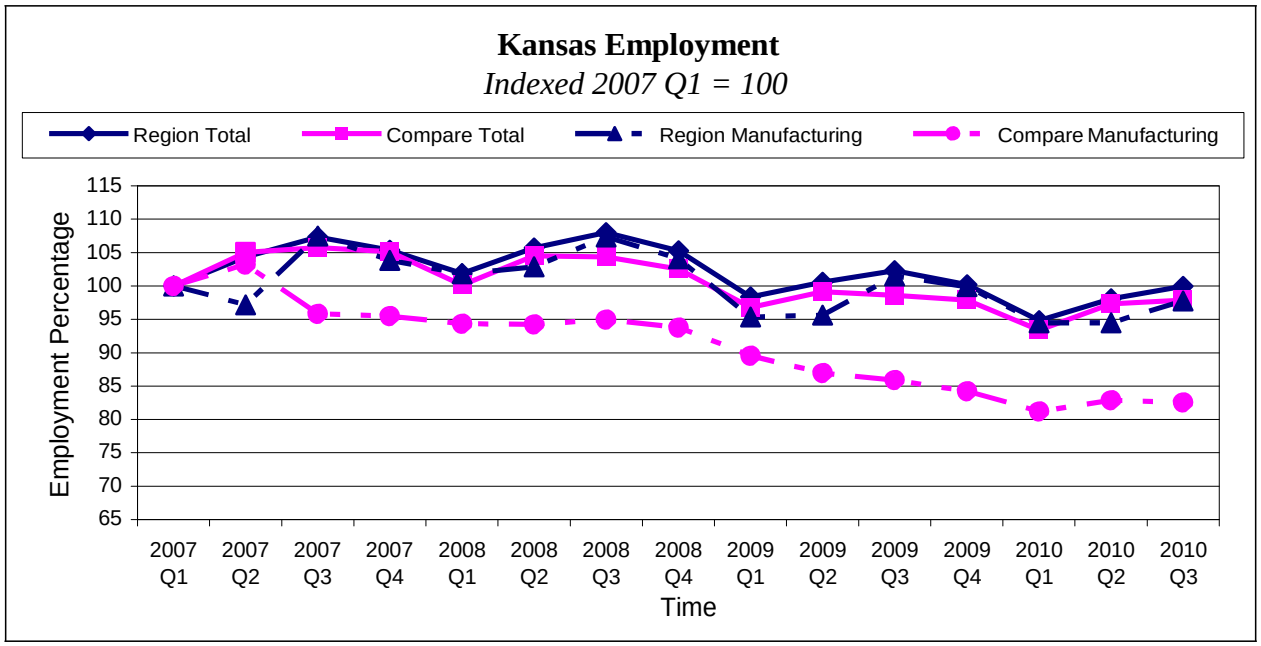


Figure C-16
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

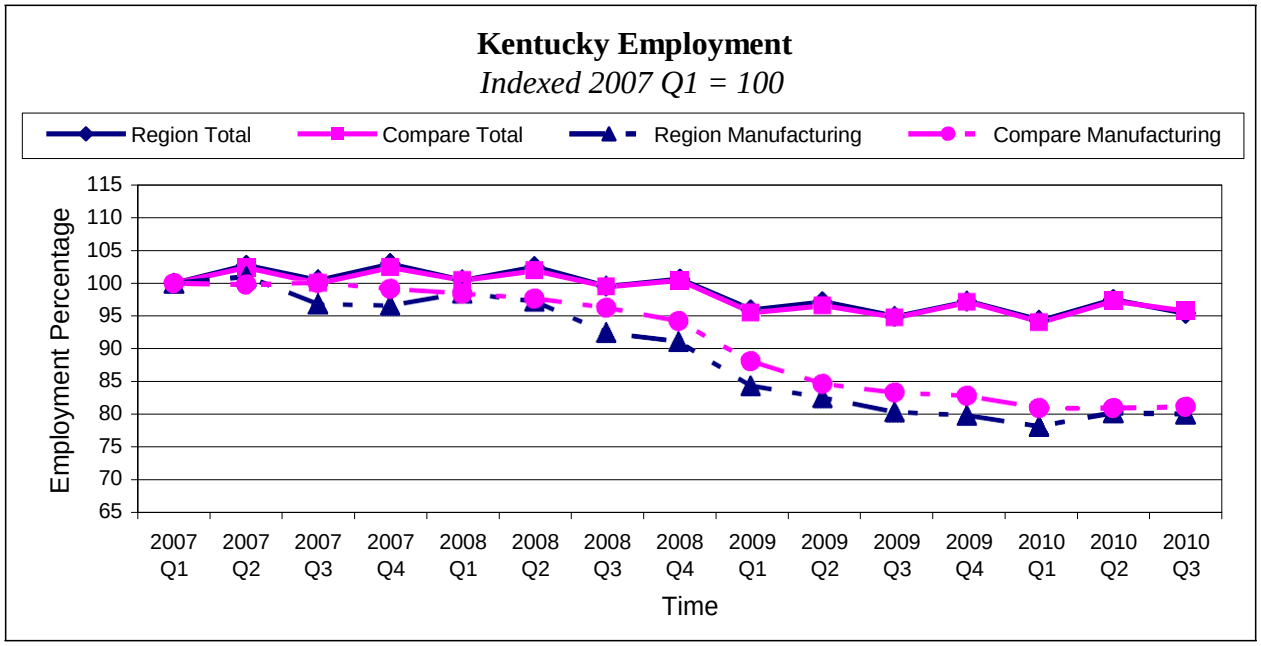


Figure C-17
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

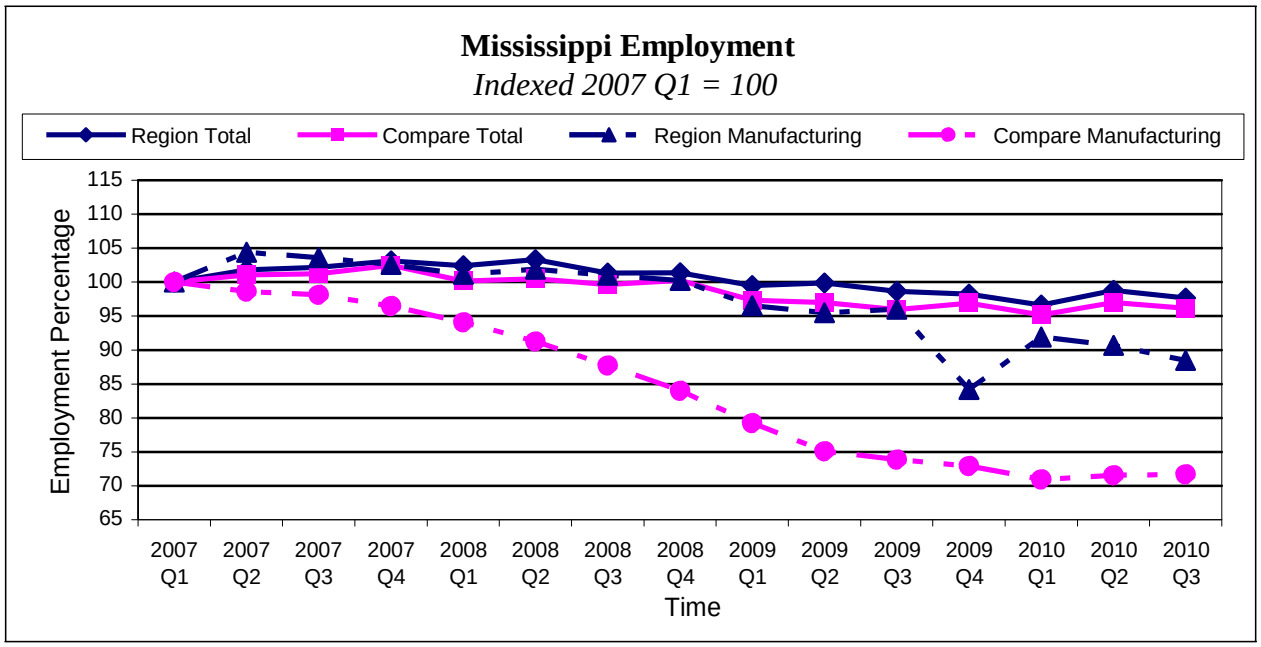


Figure C-18
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

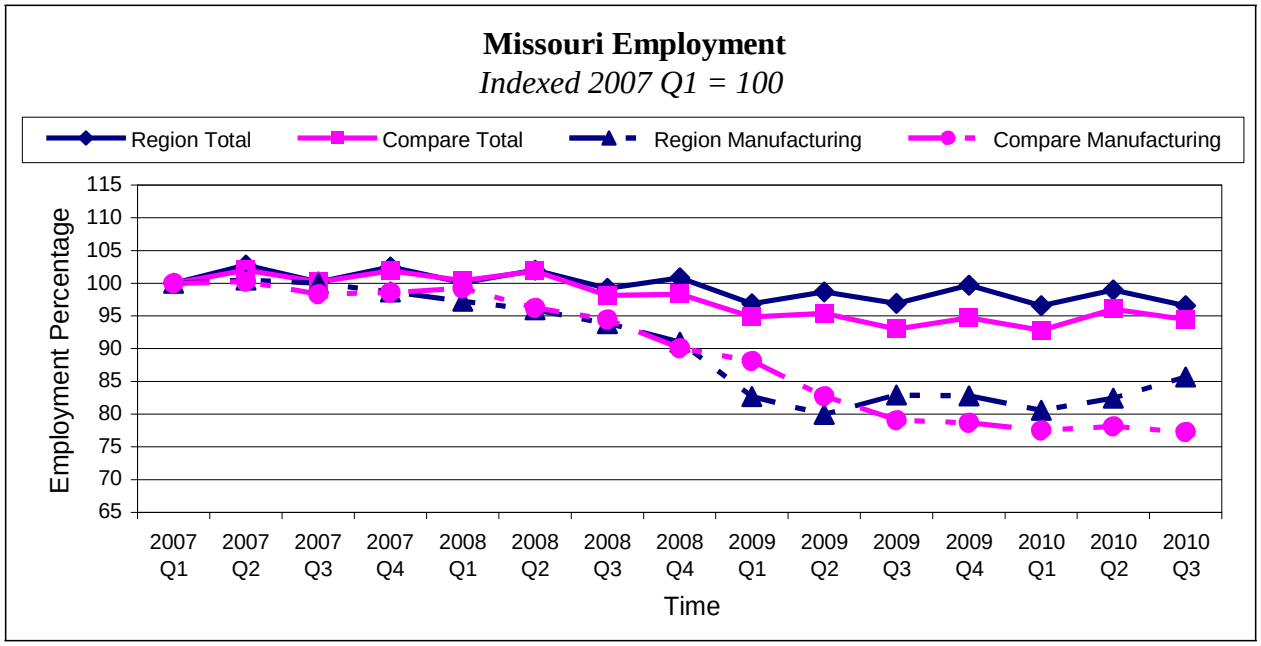


Figure C-19
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

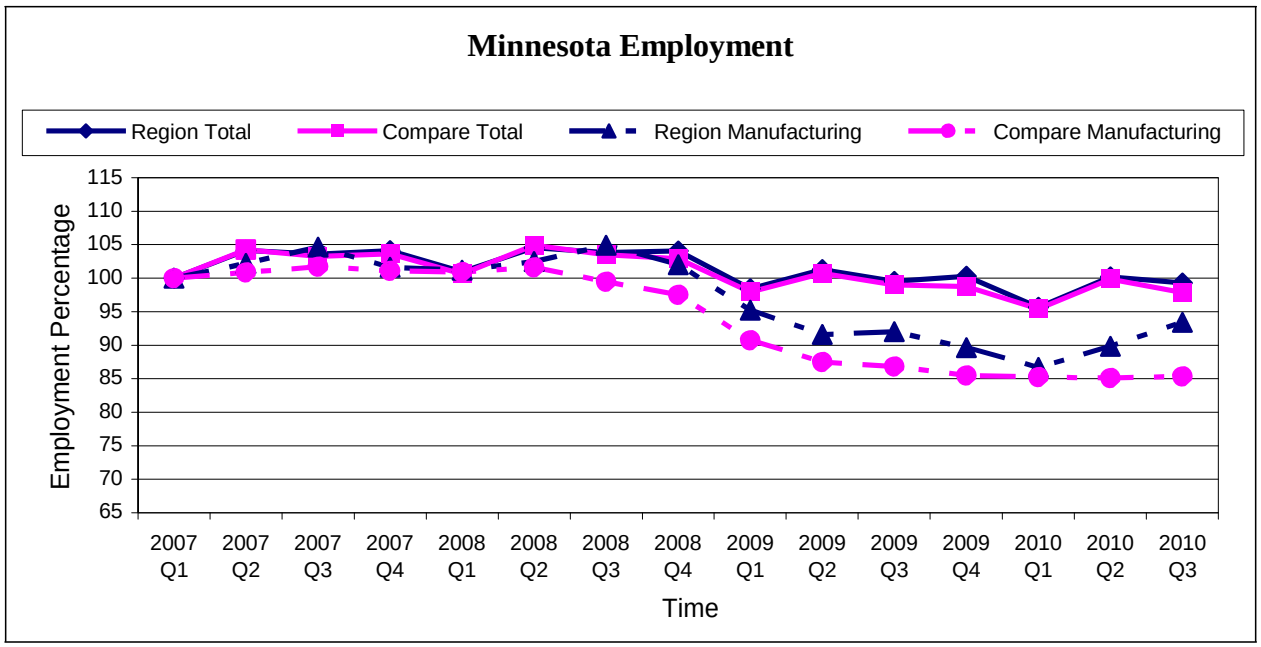


Figure C-20
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

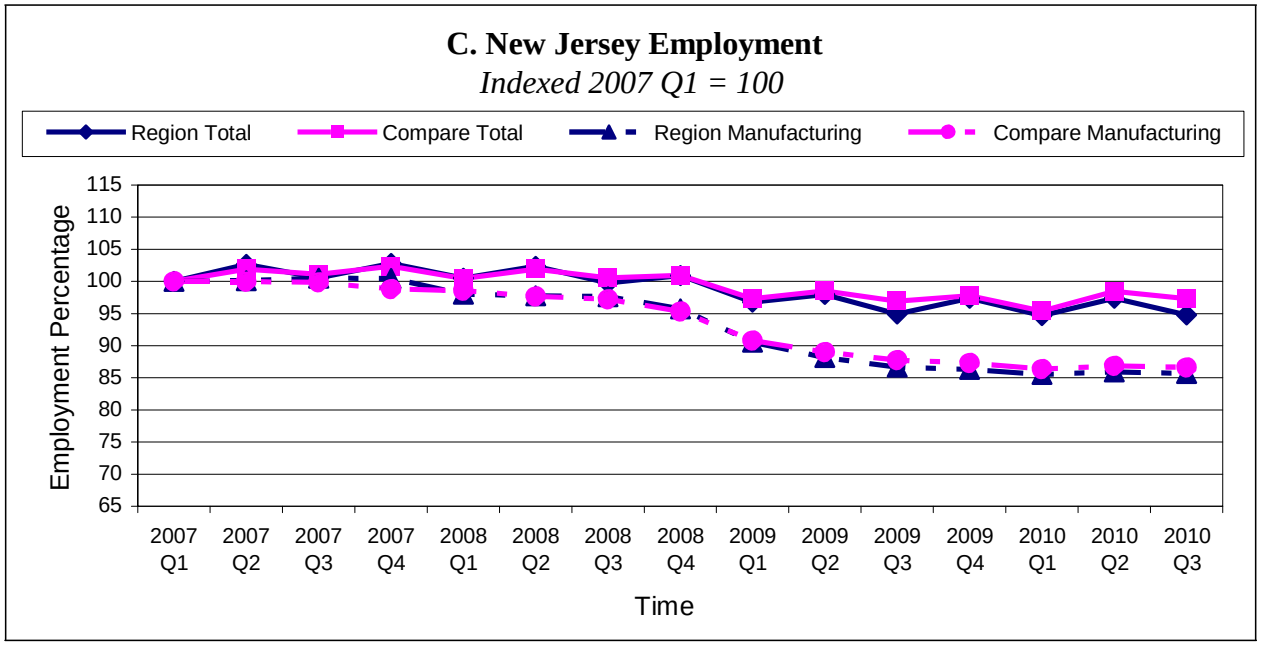


Figure C-21
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

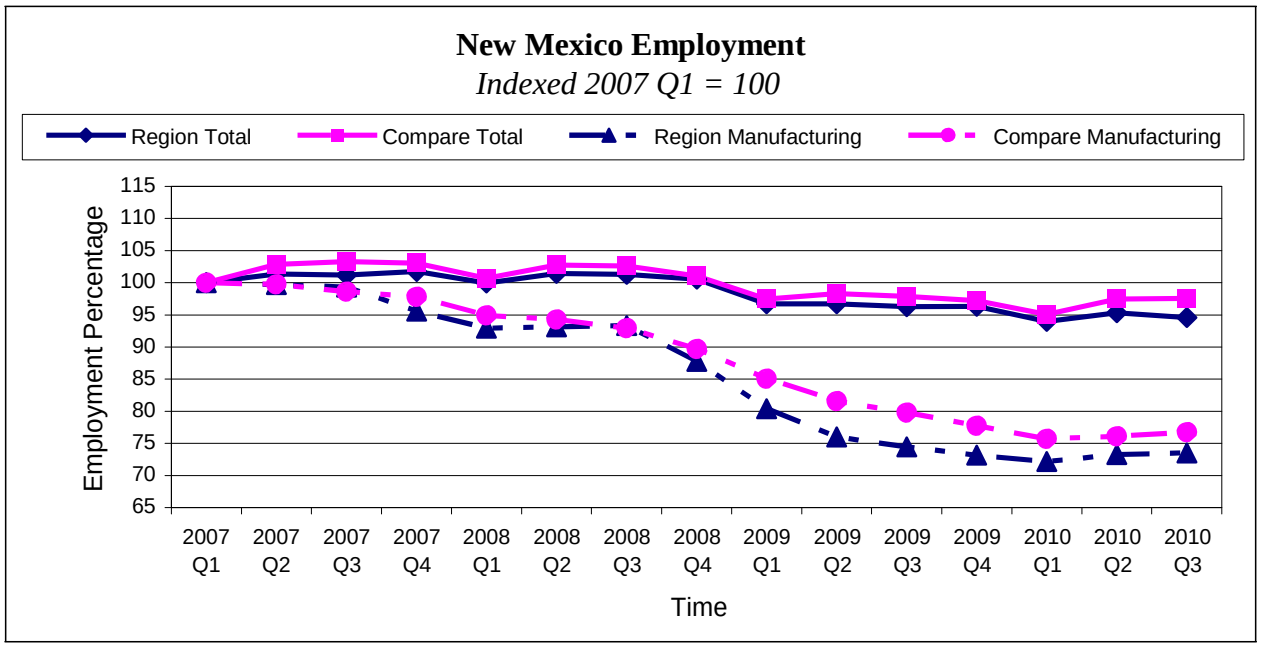


Figure C-22
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

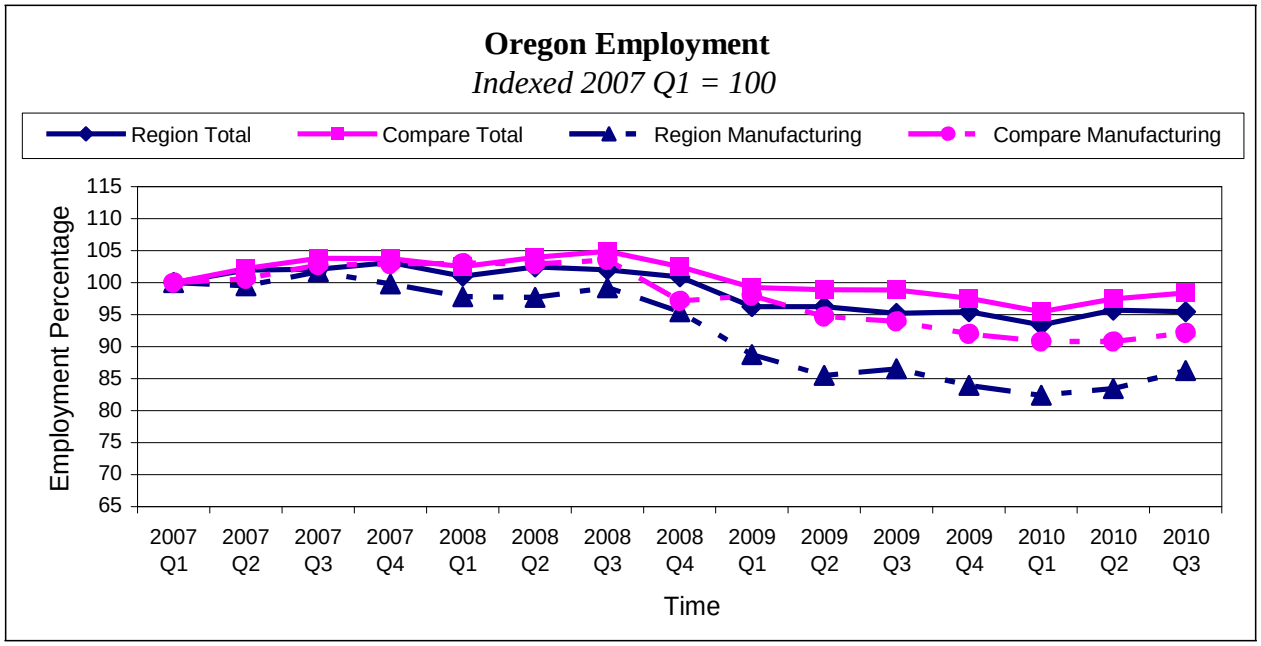


Figure C-23
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

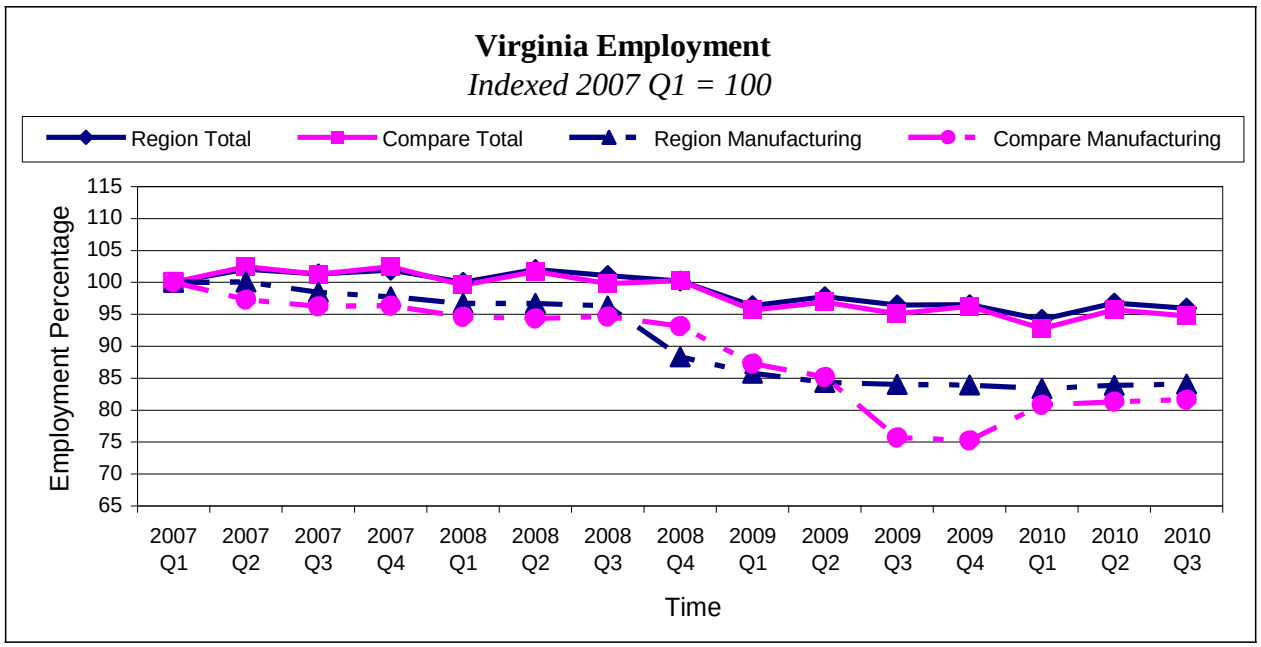


Figure C-24
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

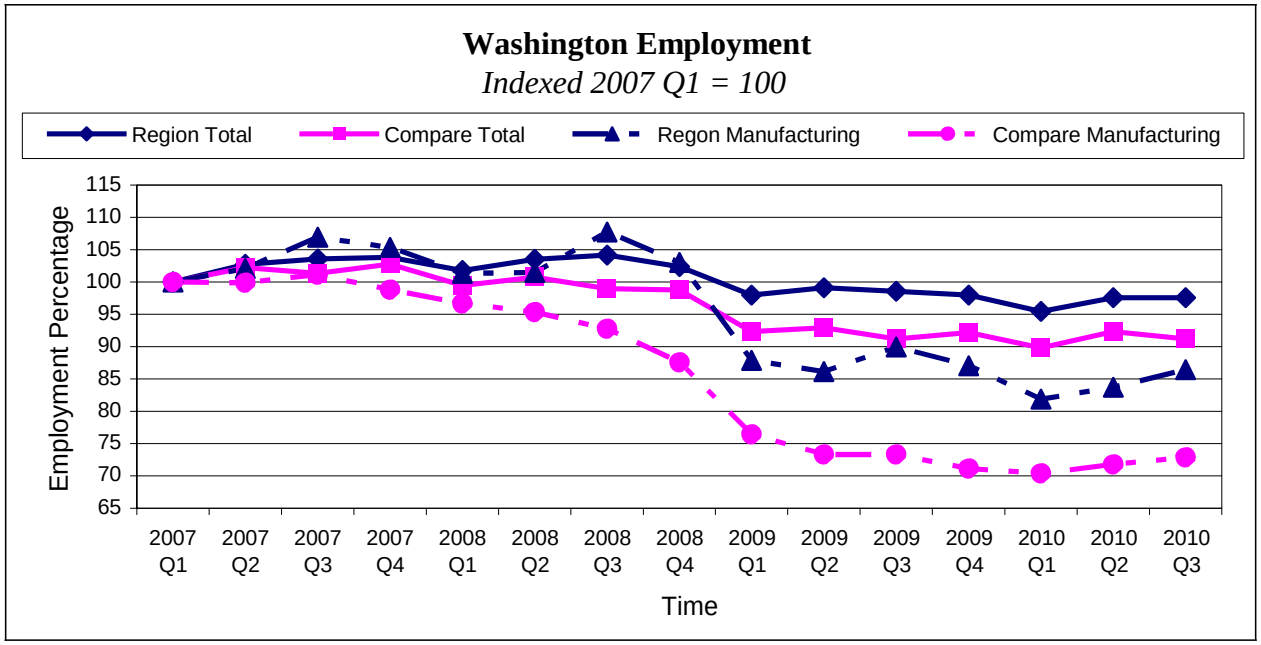


Figure C-25
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

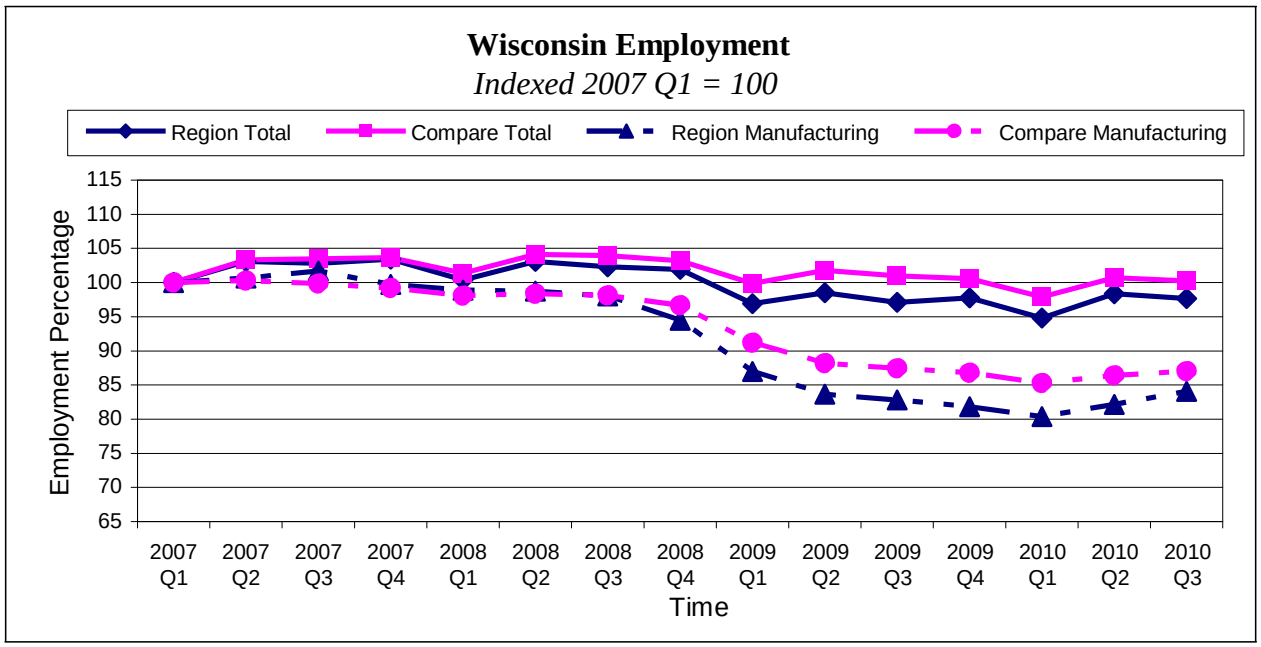


Figure C-26
Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages, http://www.bls.gov/cew/, accessed September 30, 2011.

Average Job Creation[1]

Generation II

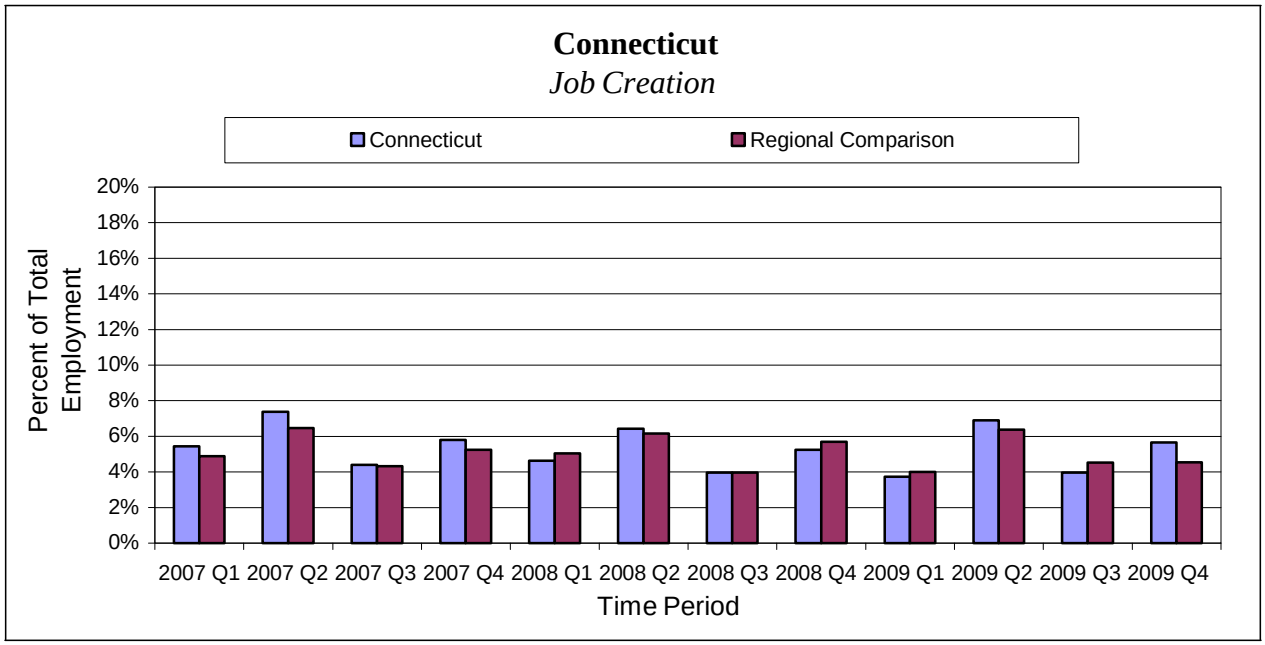


Figure C-27
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

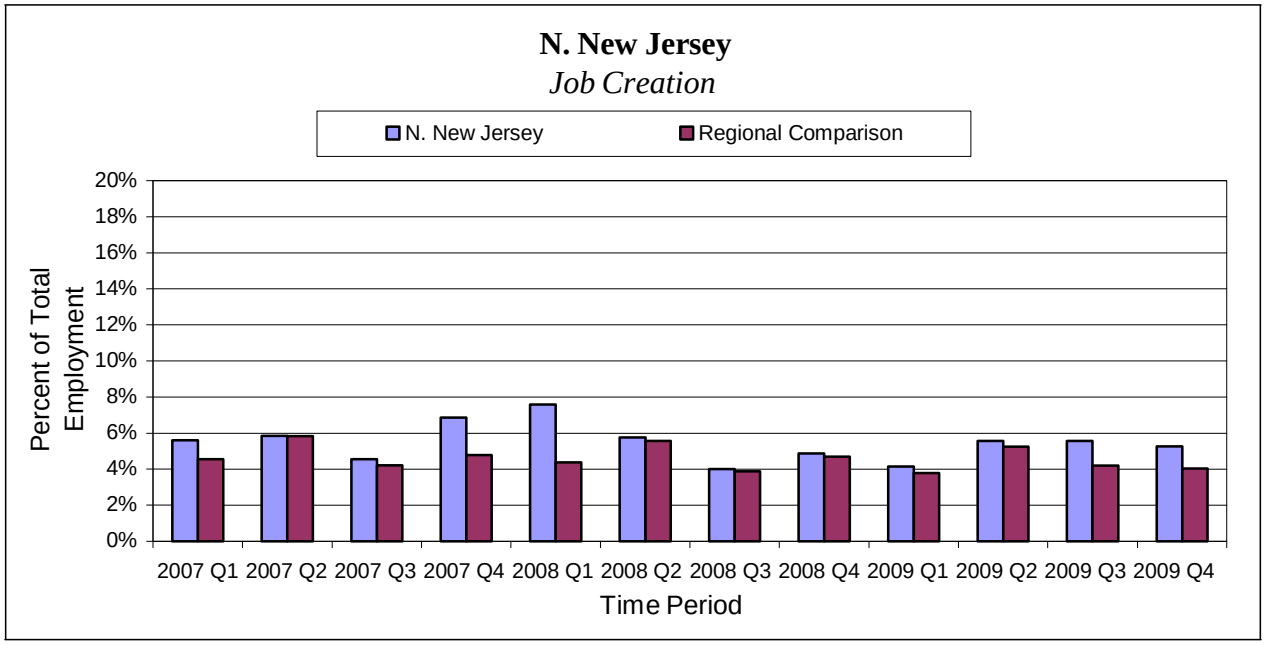


Figure C-28
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

[1] Puerto Rico is omitted from this section due to a data anomaly in its comparison region.

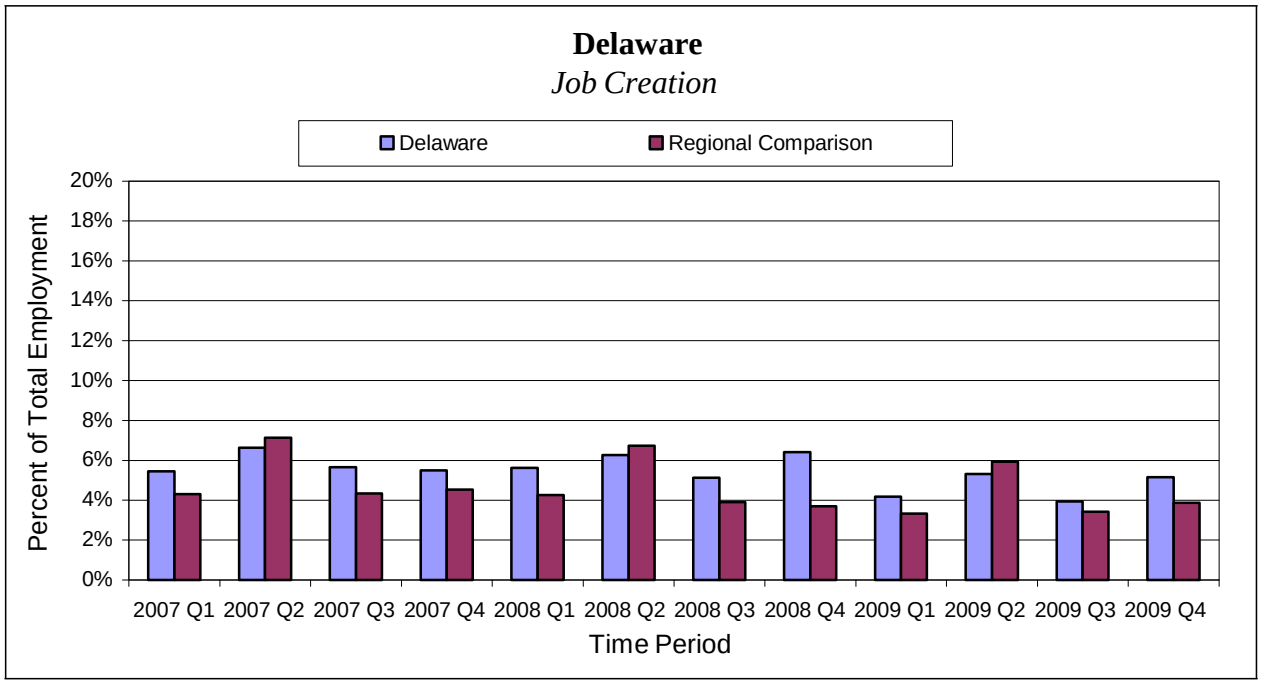


Figure C-29
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

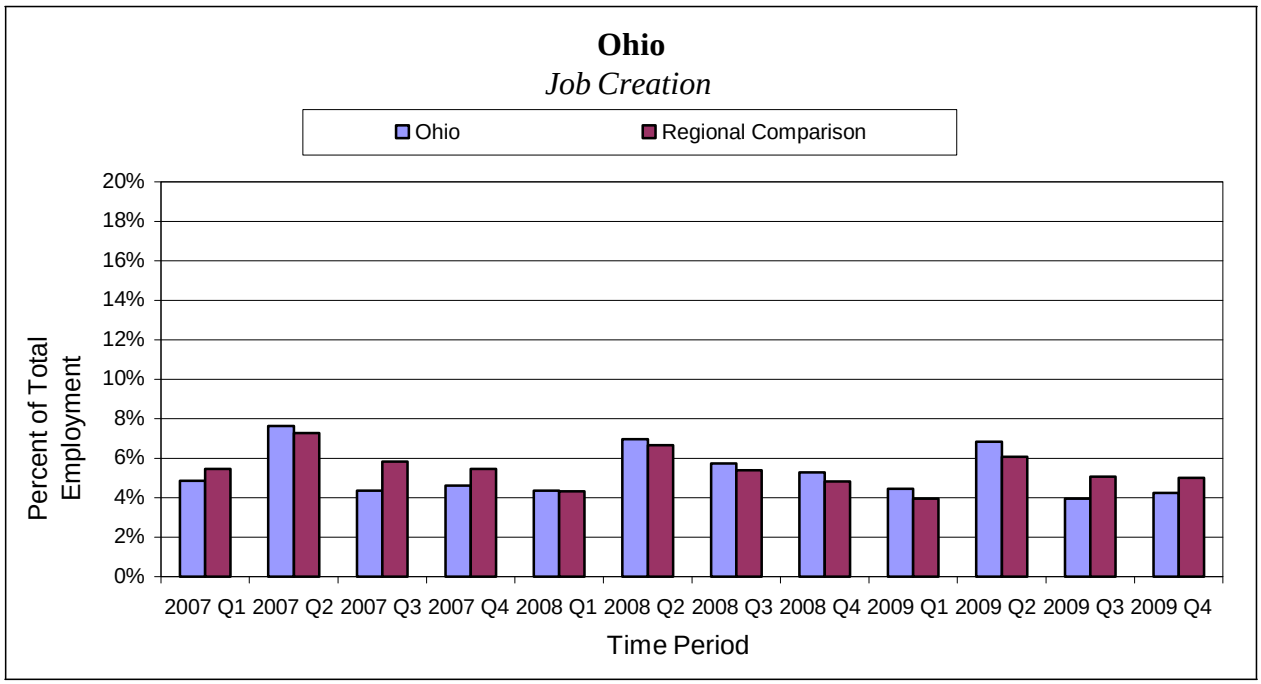


Figure C-30
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

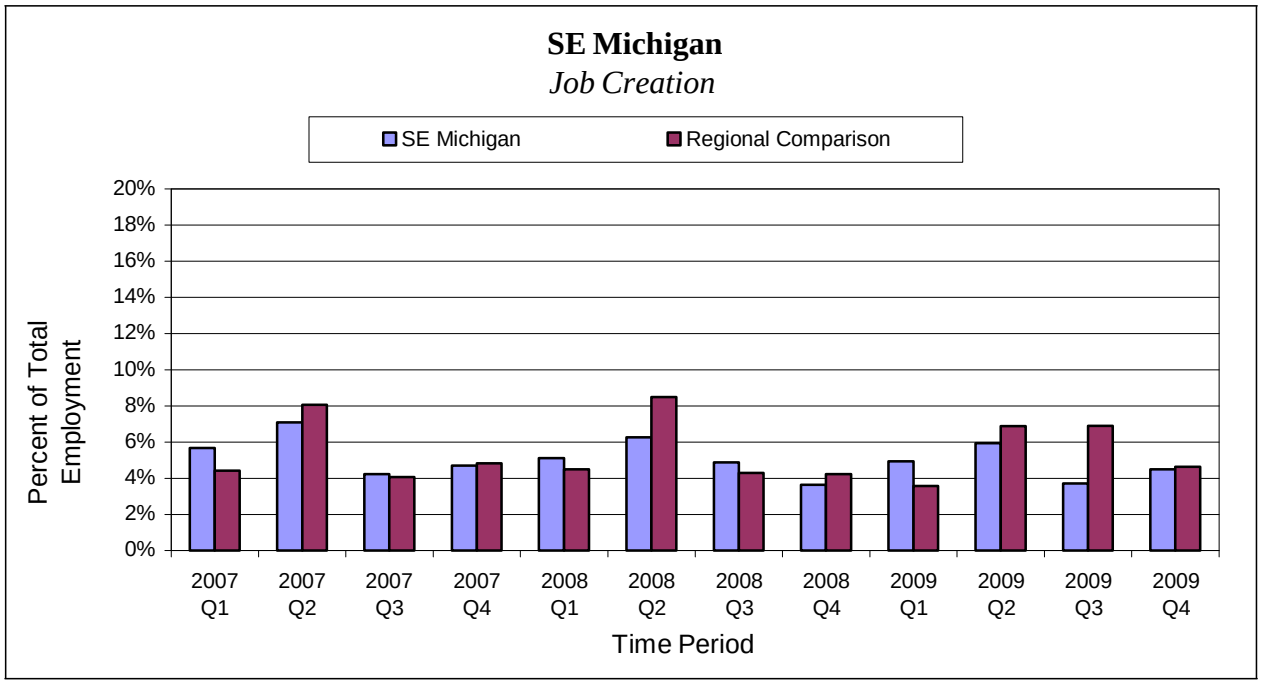


Figure C-31
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

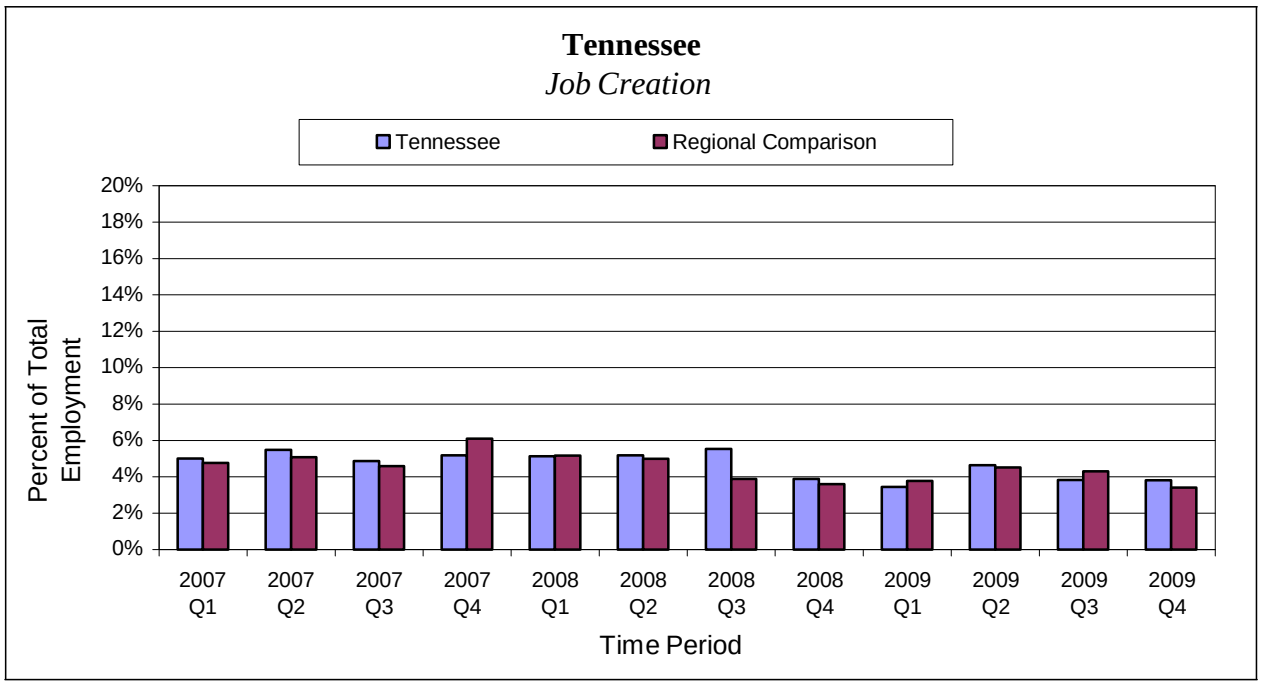


Figure C-32
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

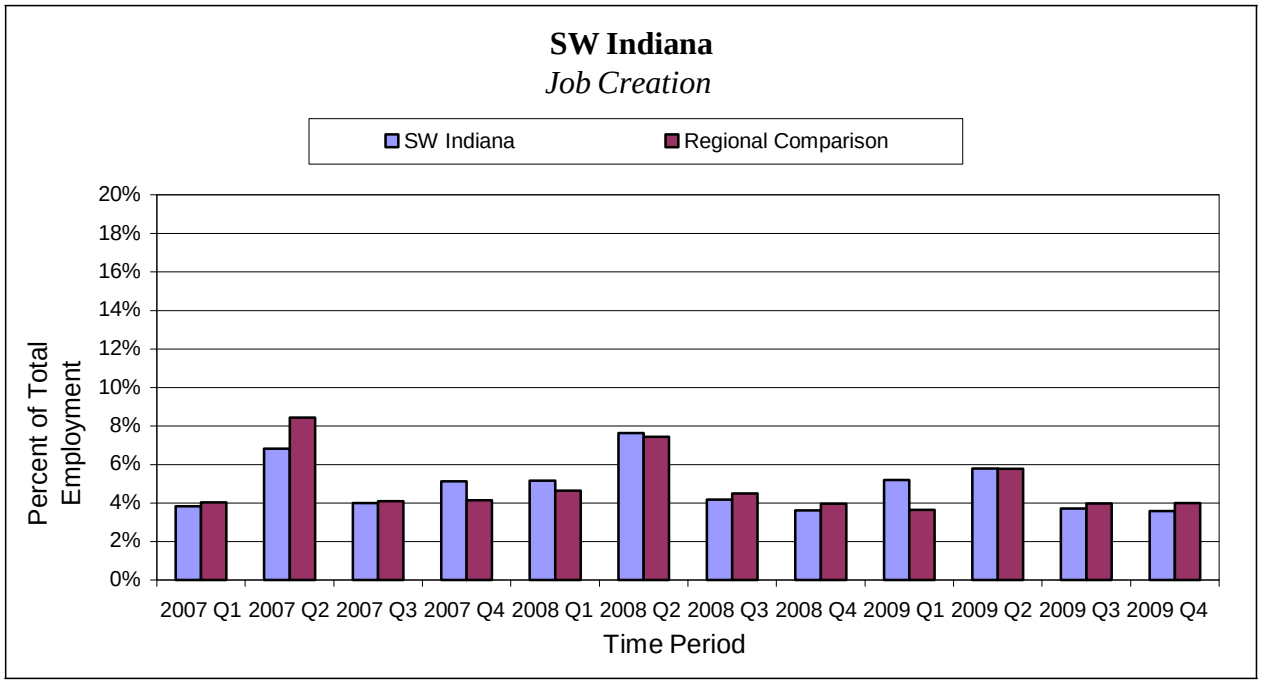


Figure C-33
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

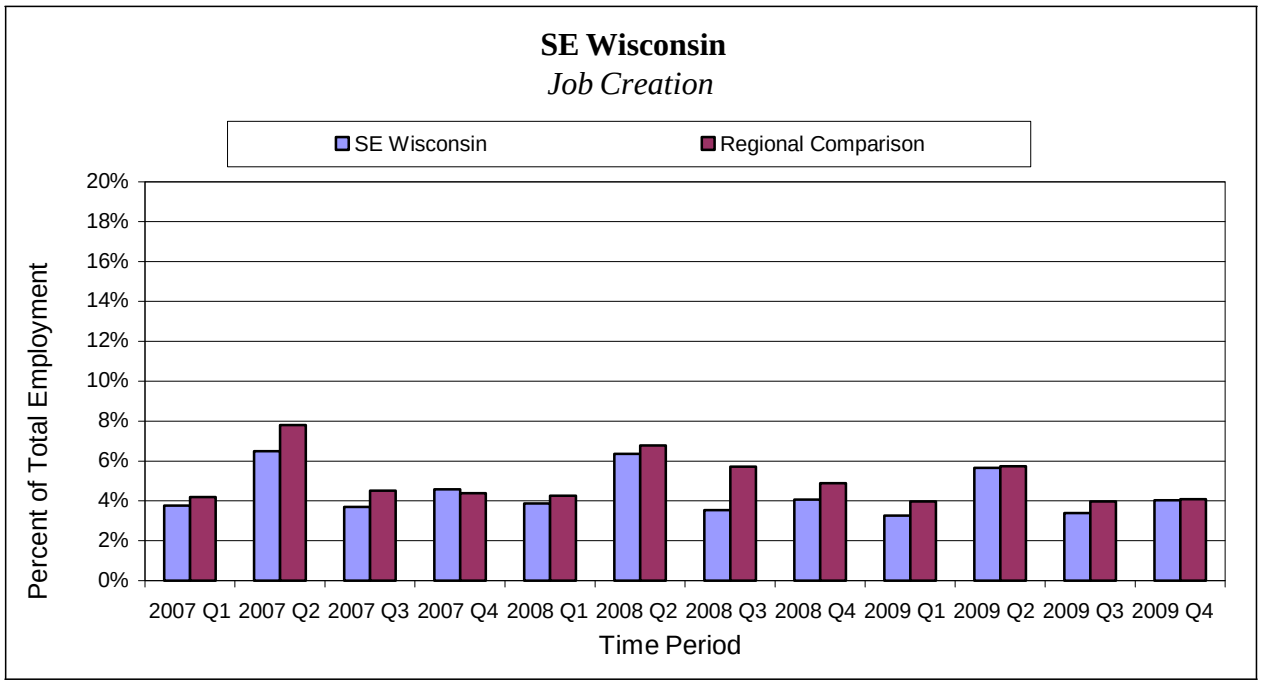


Figure C-34
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

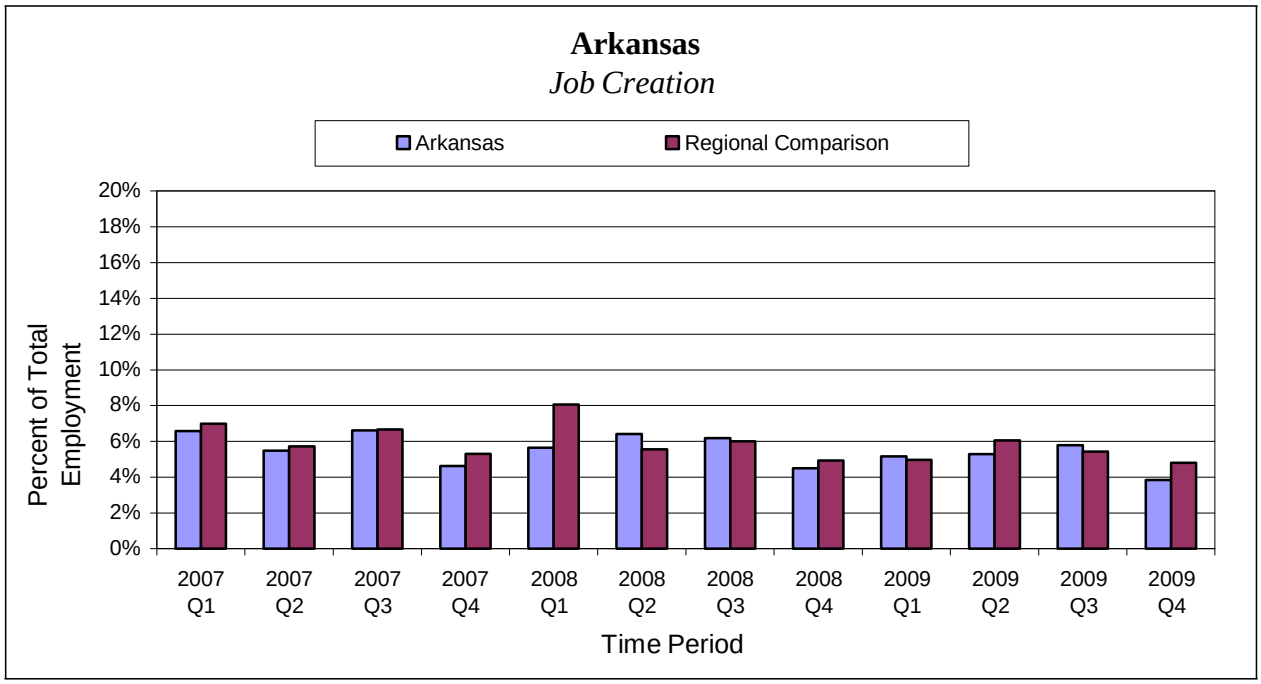


Figure C-35
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

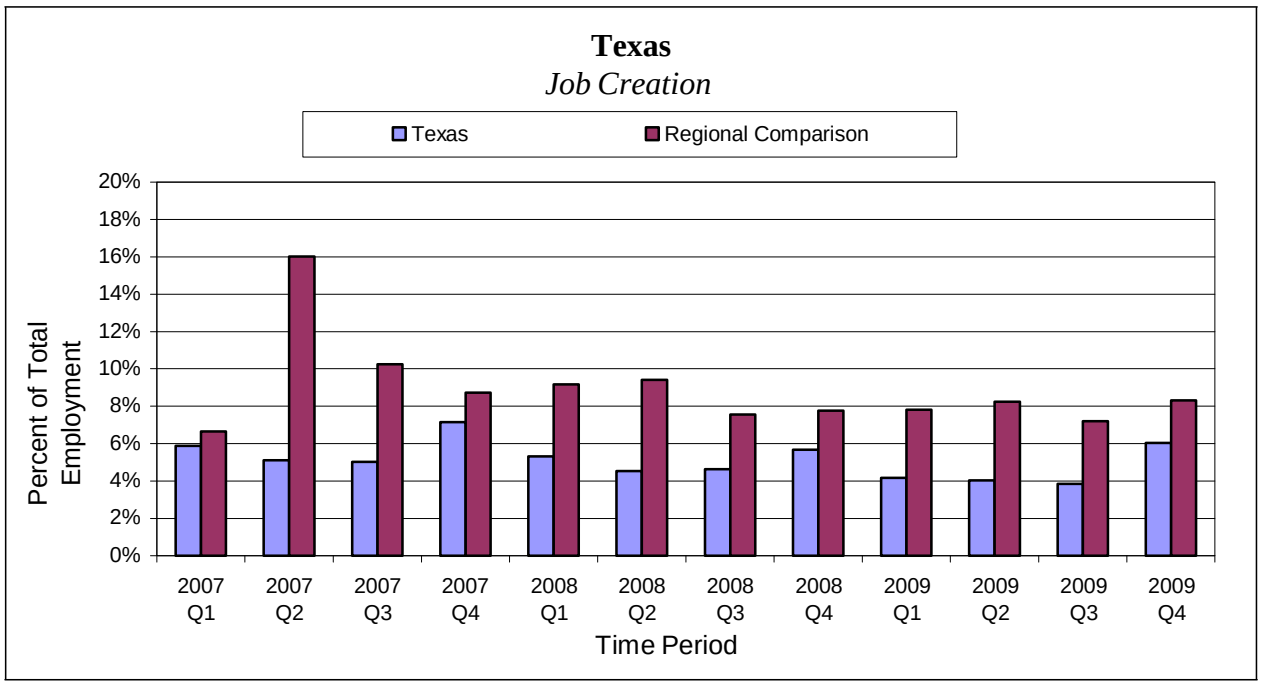


Figure C-36
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

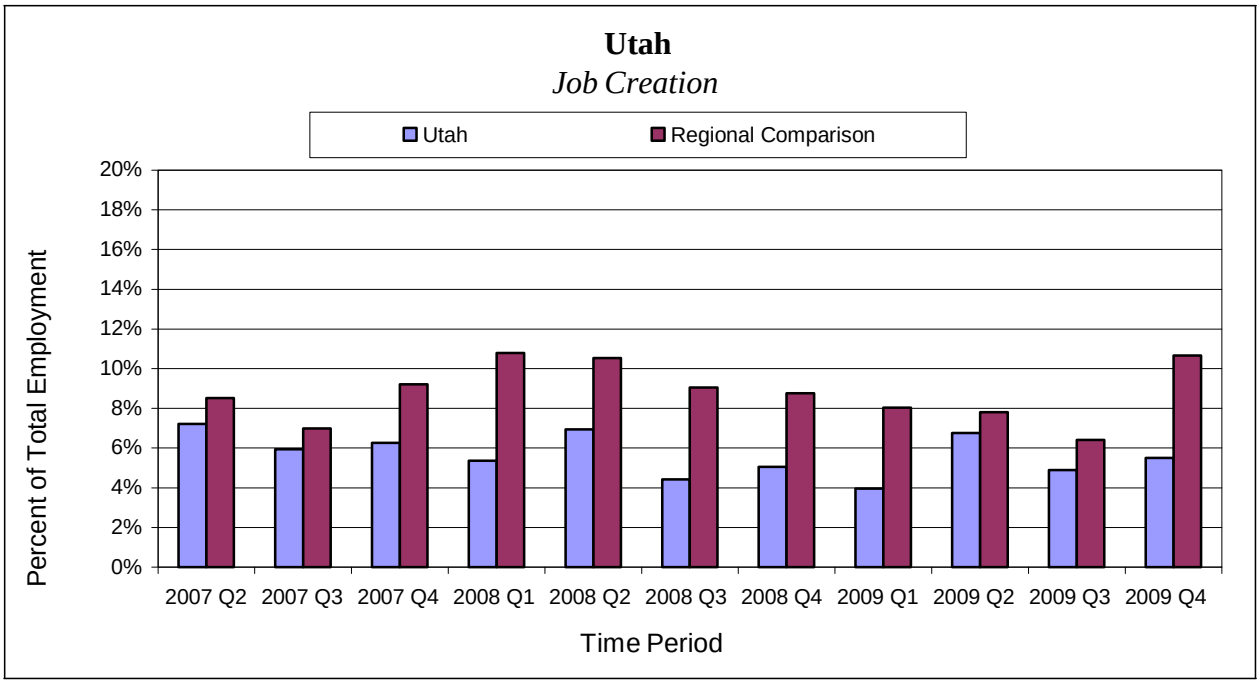


Figure C-37
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

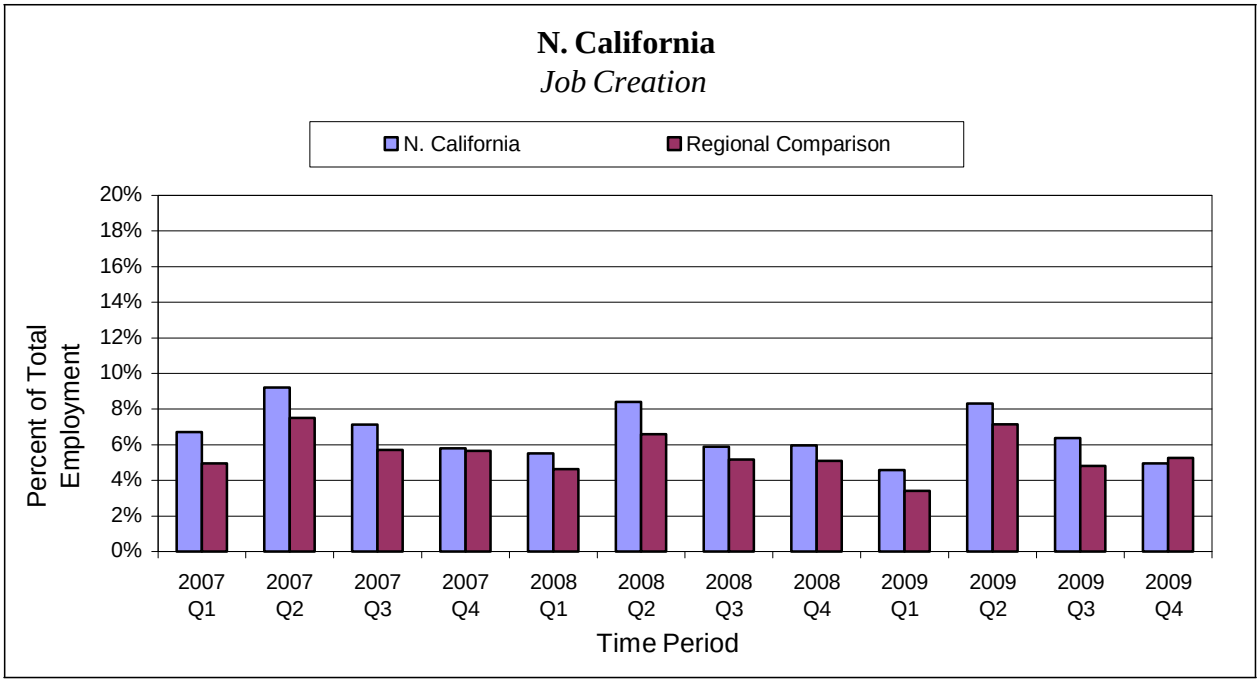


Figure C-38
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

Generation III

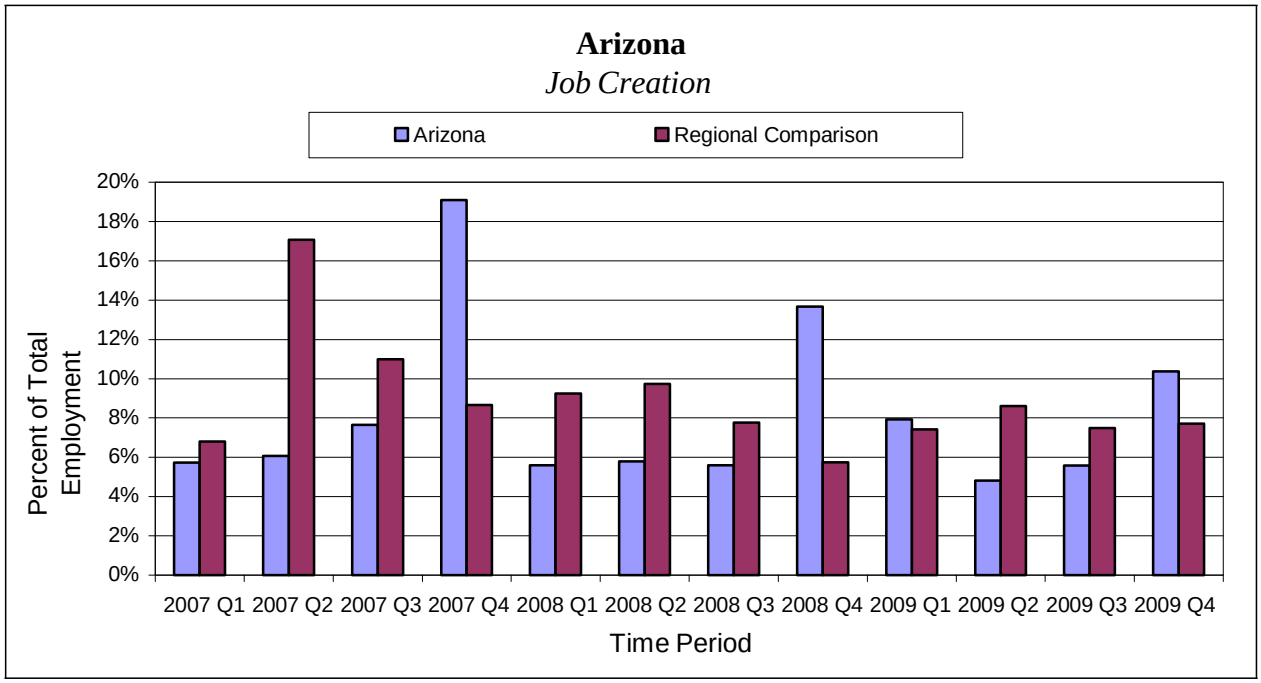


Figure C-39
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

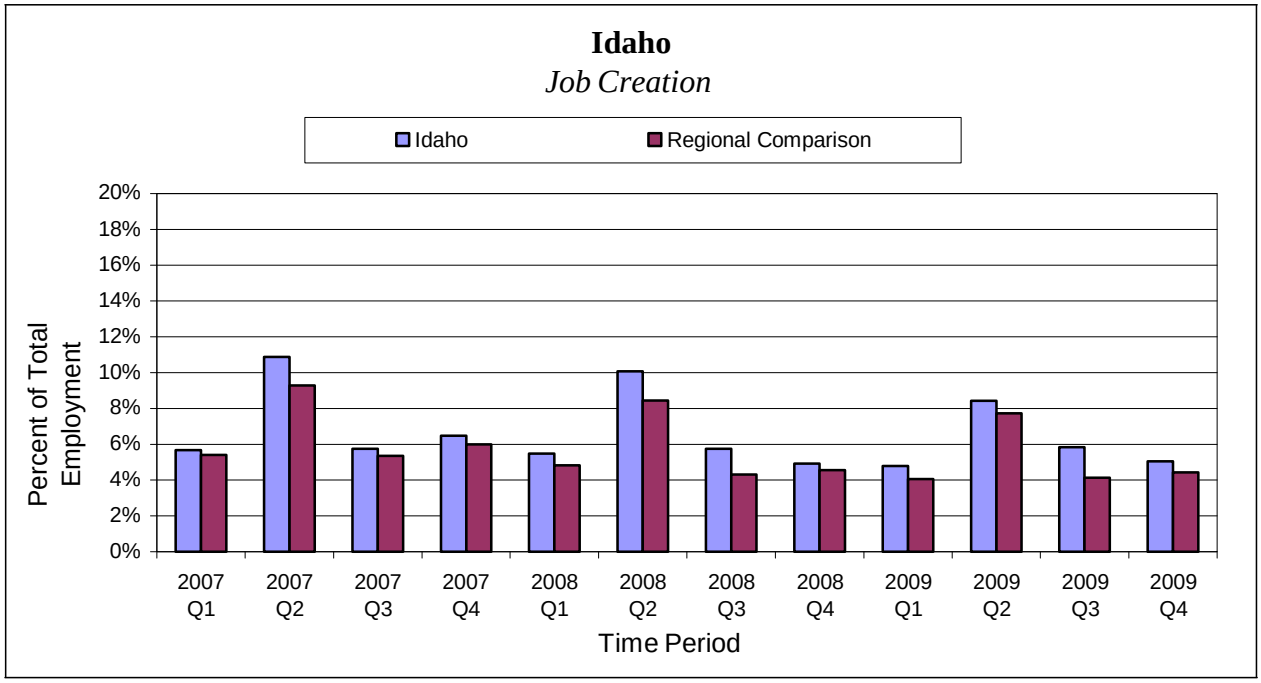


Figure C-40
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

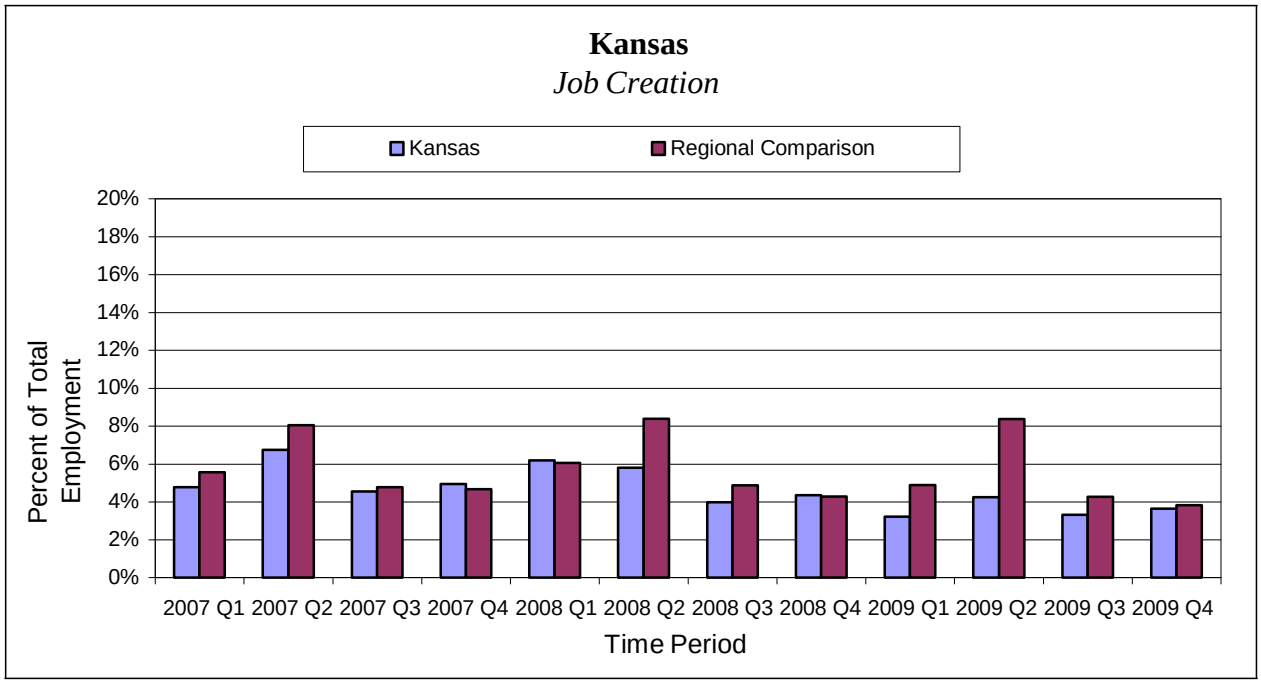


Figure C-41
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

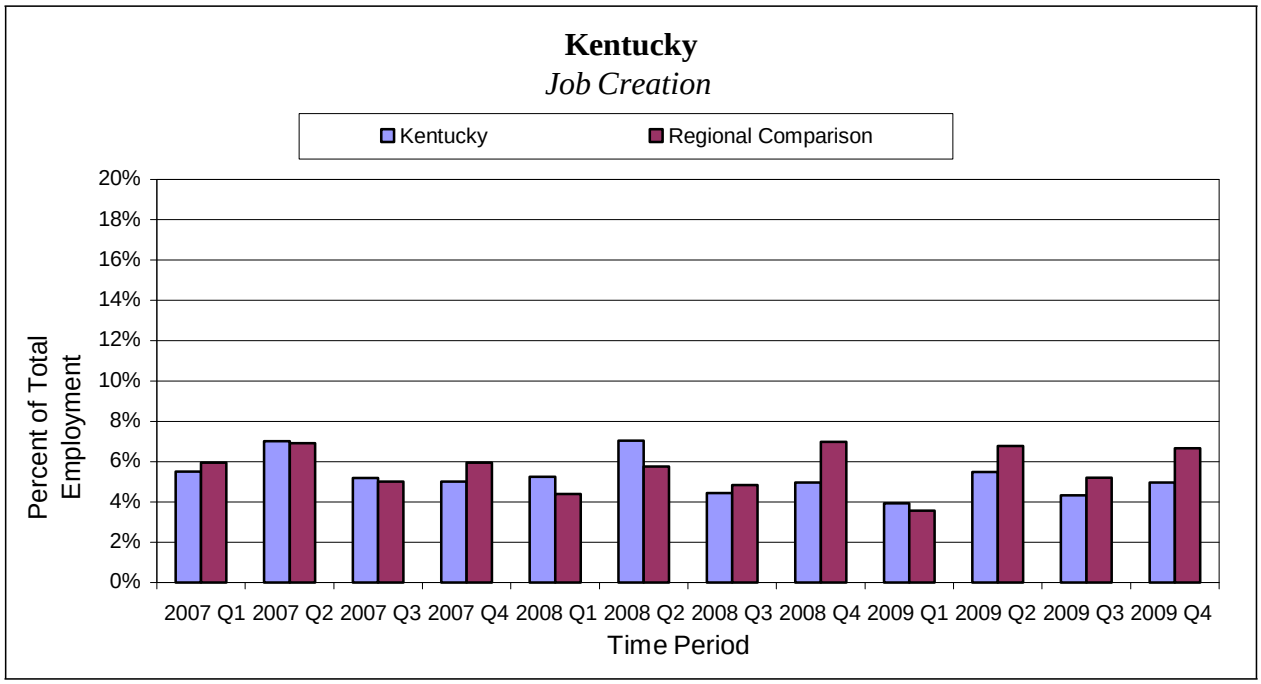


Figure C-42
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

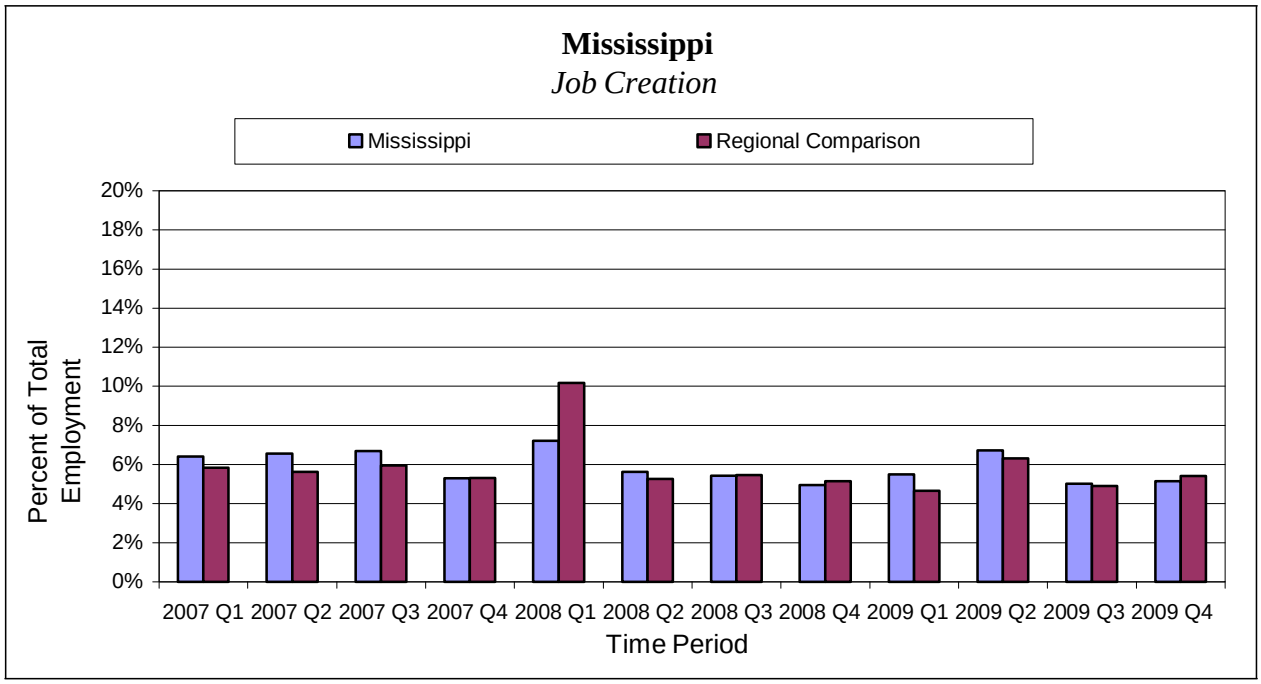


Figure C-43
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

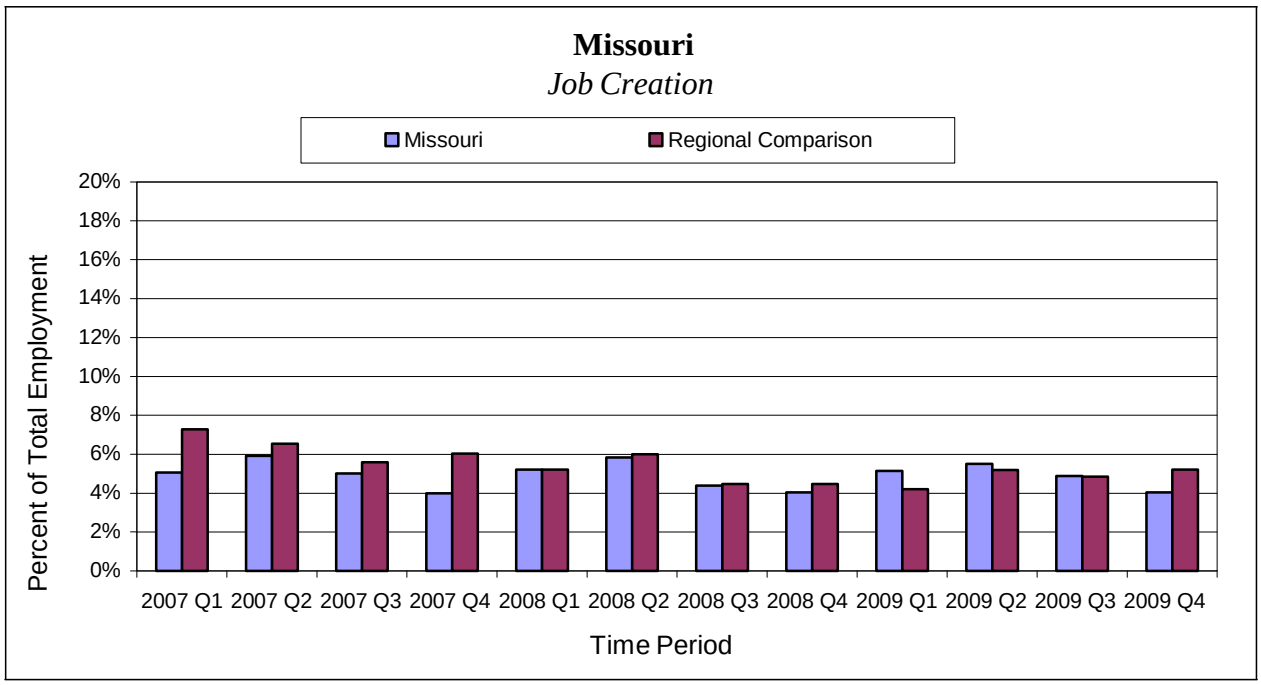


Figure C-44
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

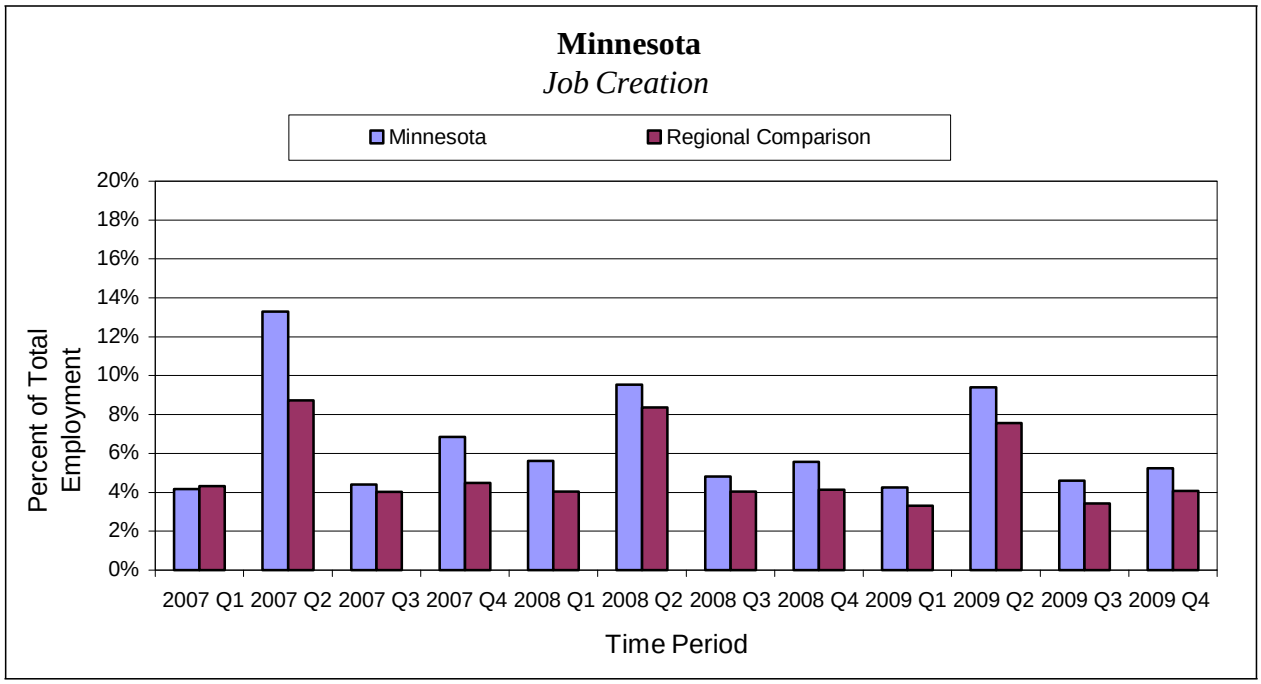


Figure C-45
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

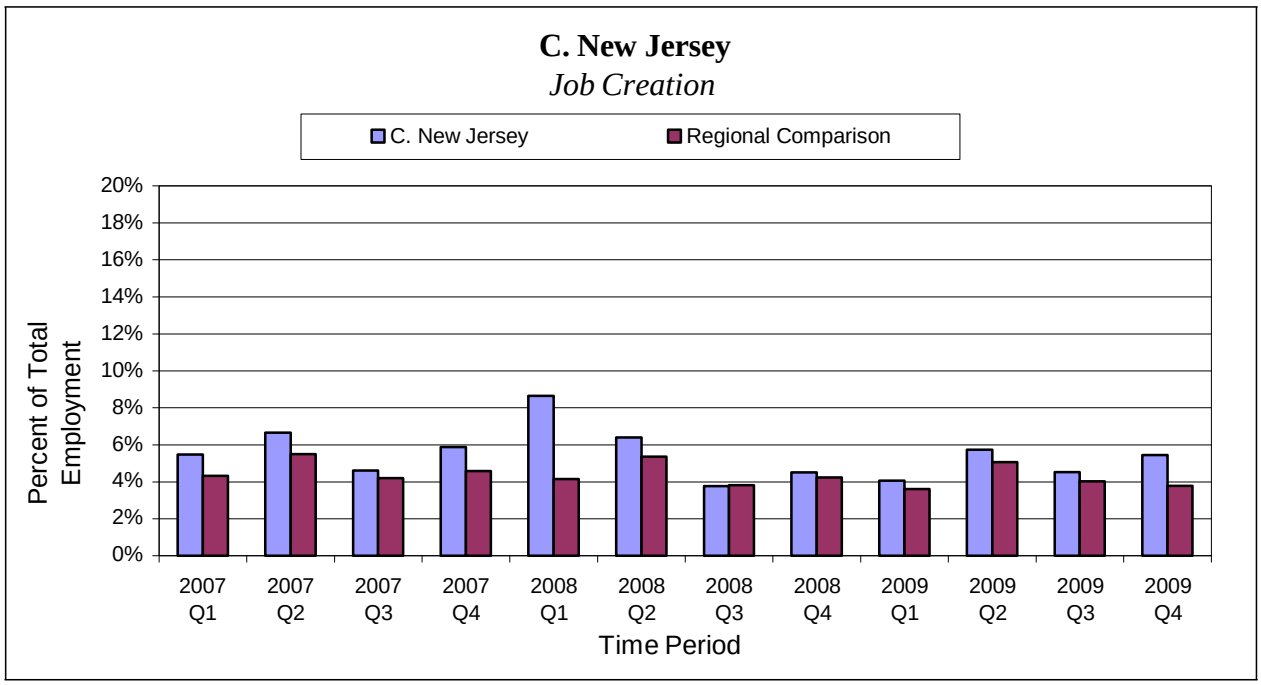


Figure C-46
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

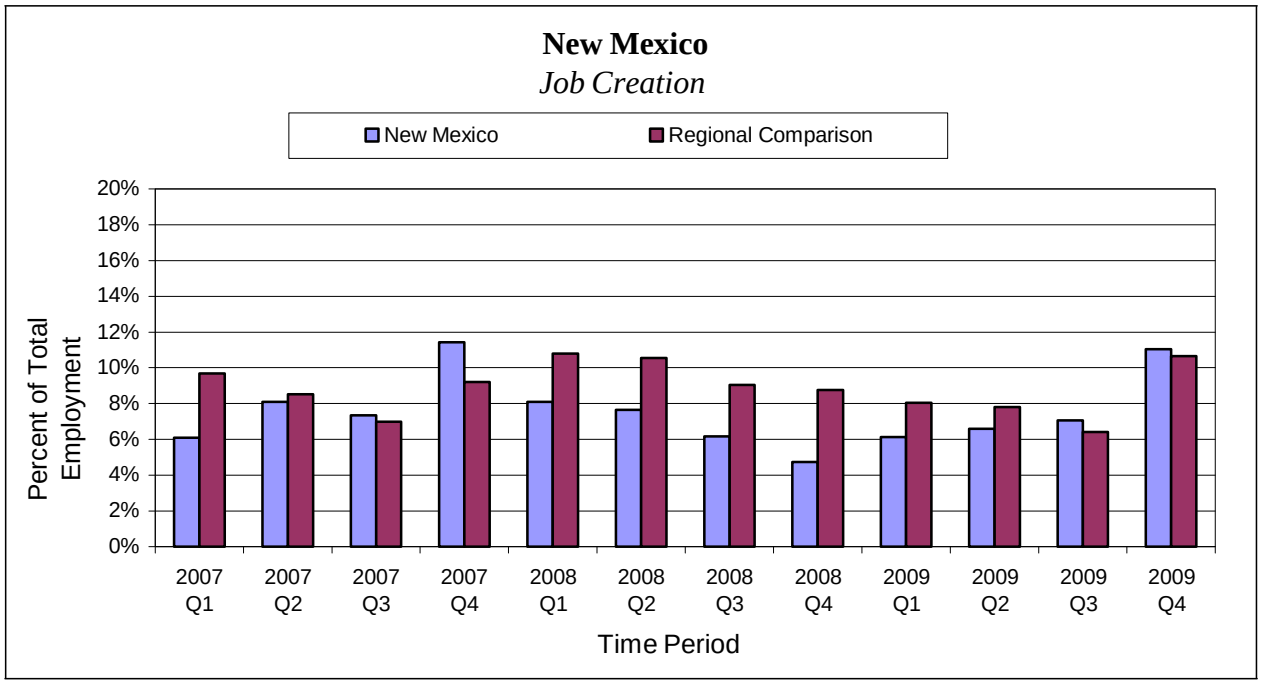


Figure C-47
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

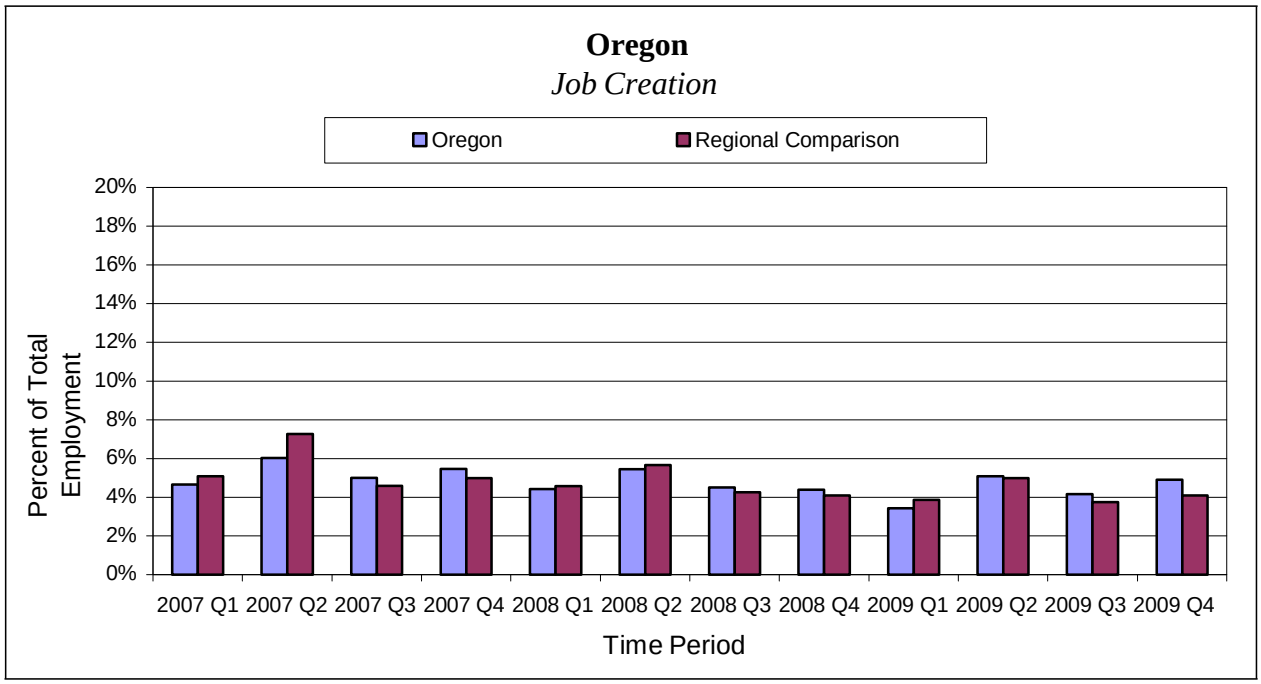


Figure C-48
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

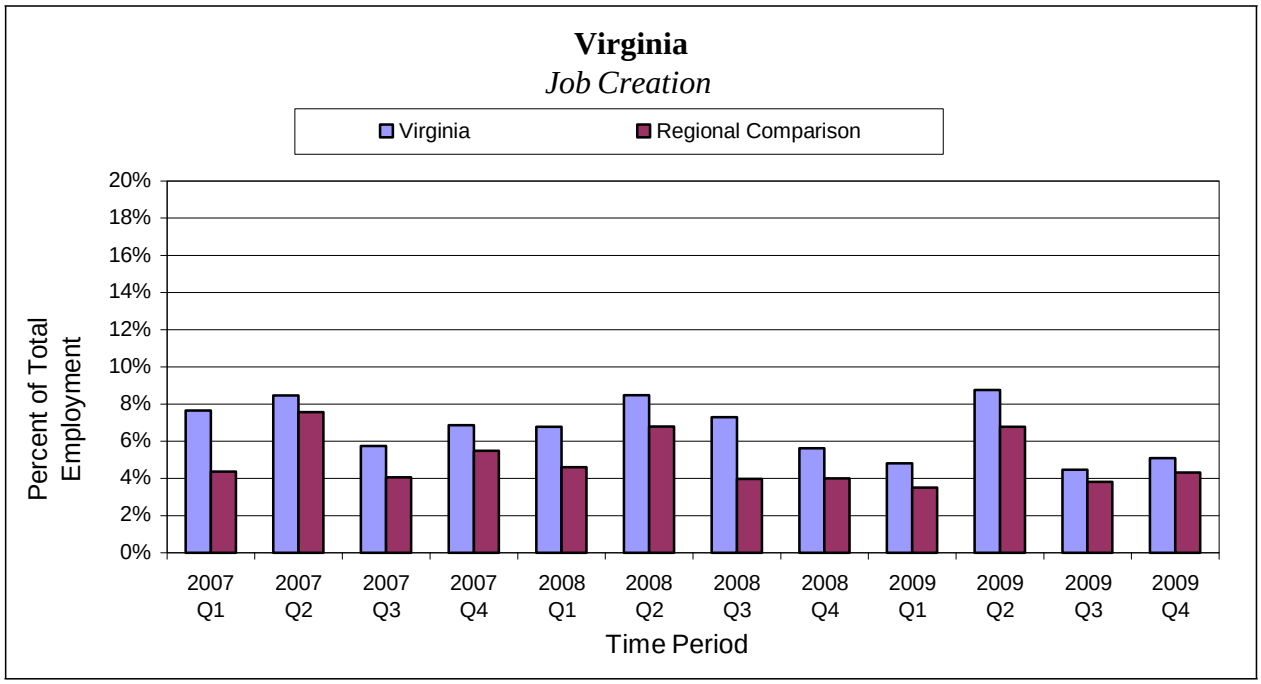


Figure C-49
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

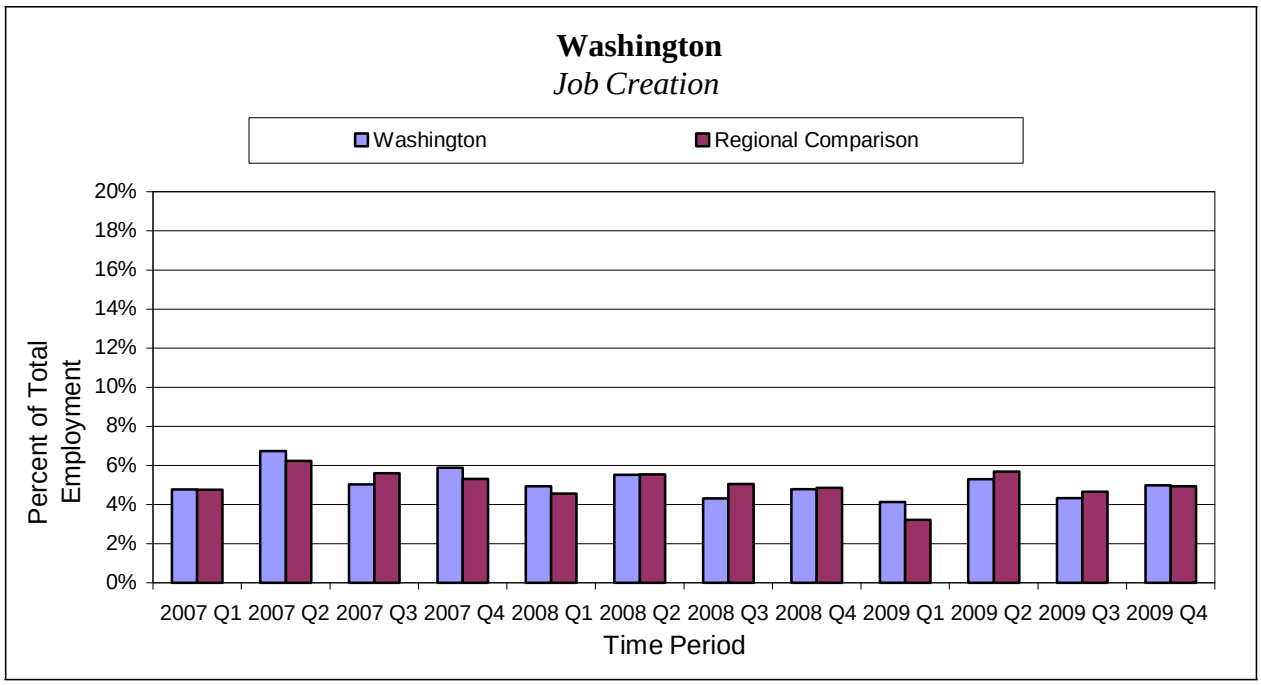


Figure C-50
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

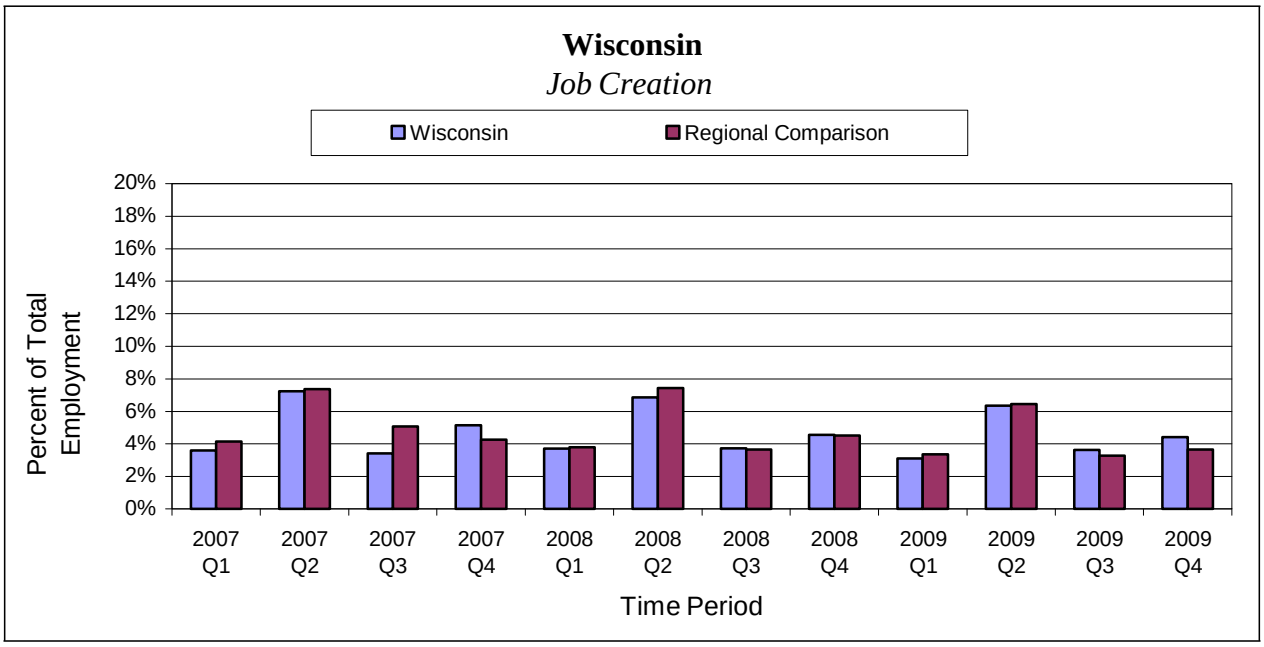


Figure C-51
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

Net Job Flows[2]

Generation II

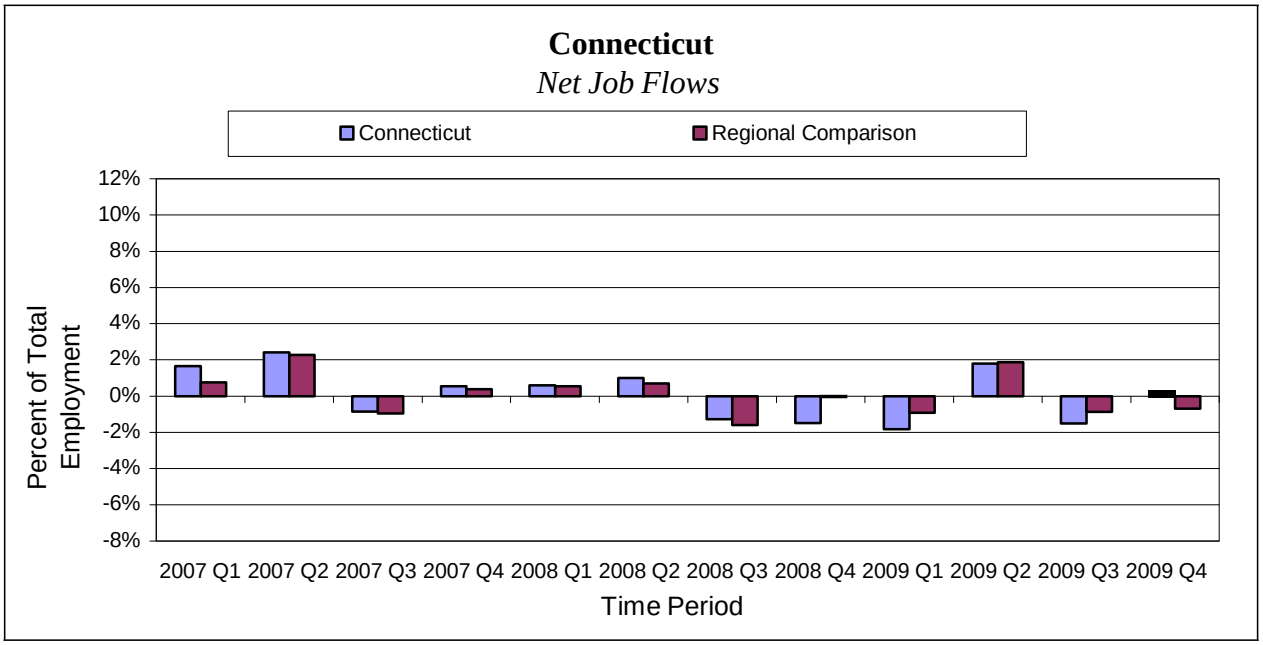
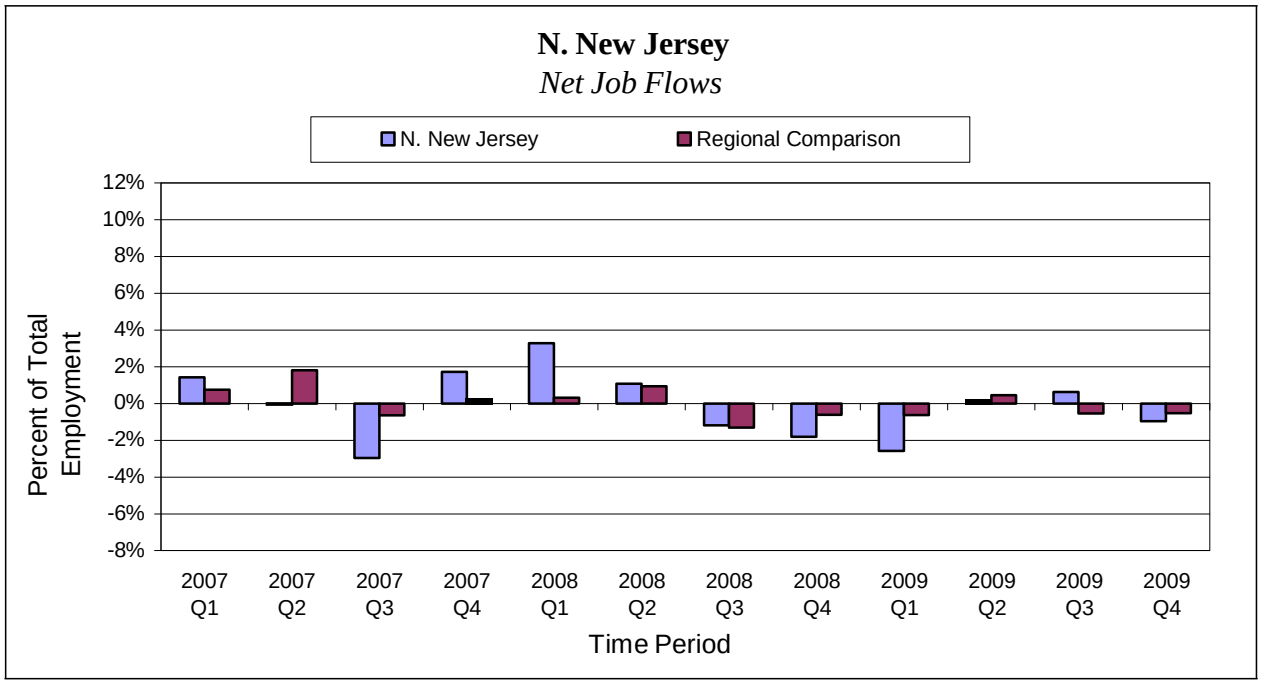


Figure C-52
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

[2] Puerto Rico is omitted from this section due to a data anomaly in its comparison region.



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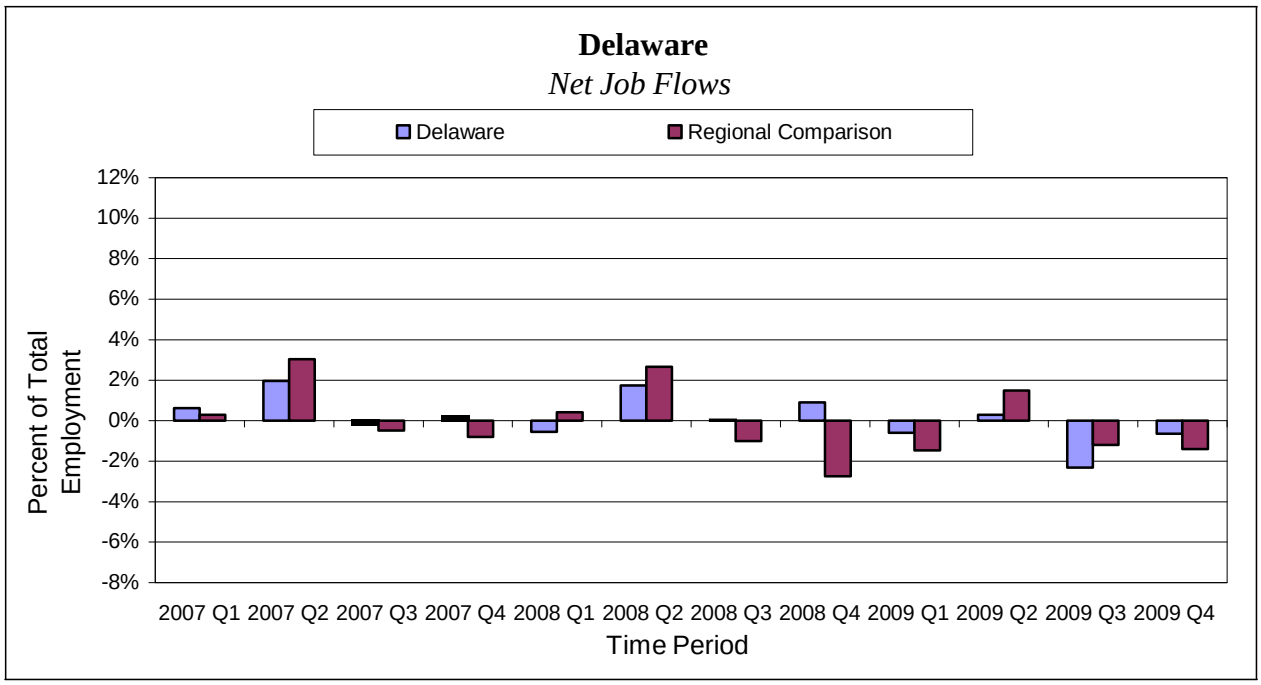

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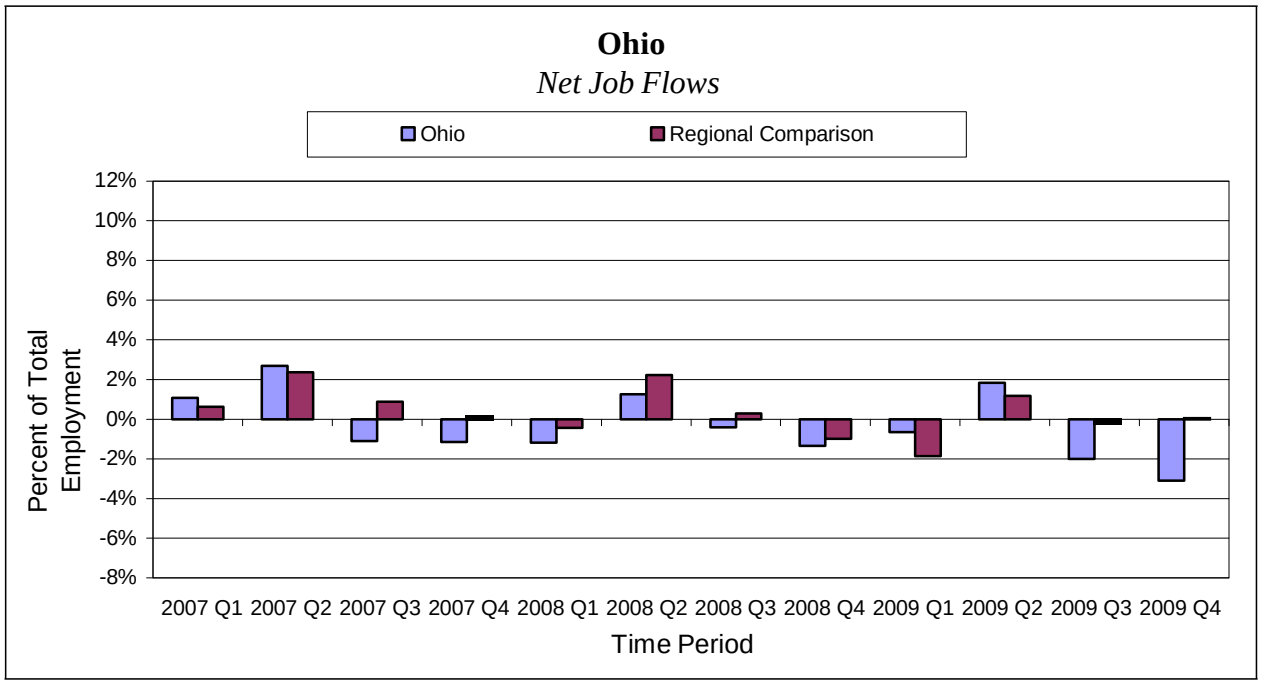

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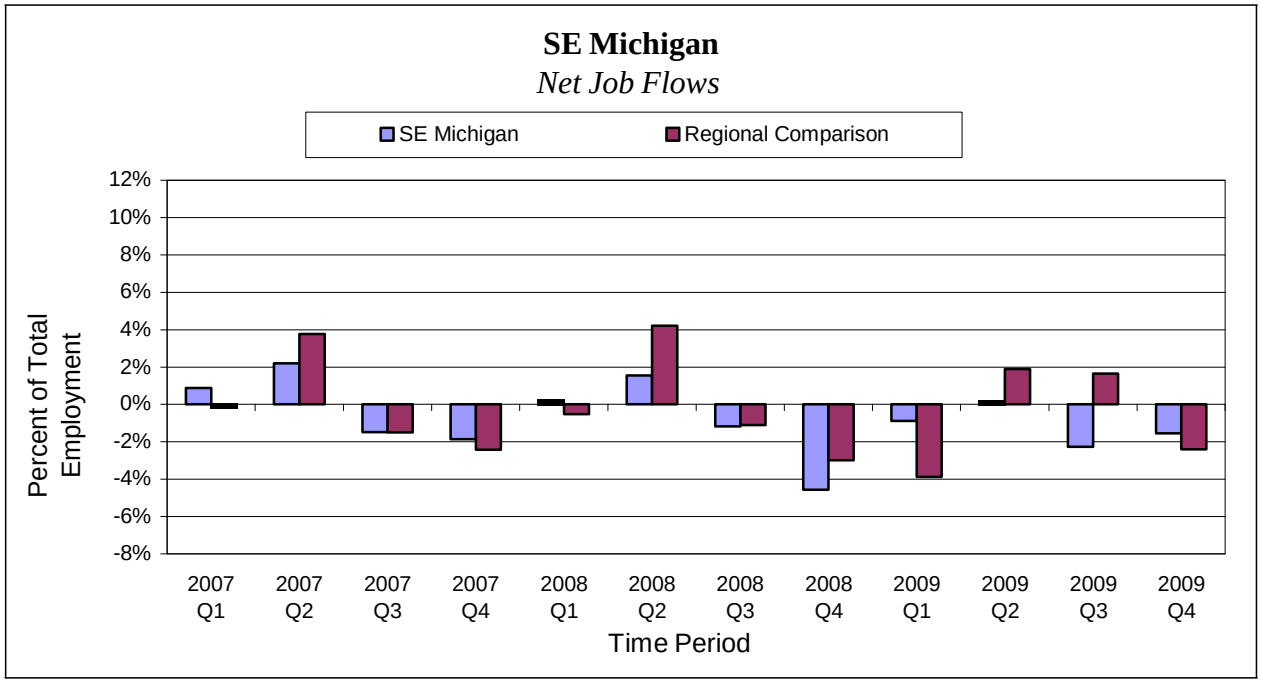

Figure C-56
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

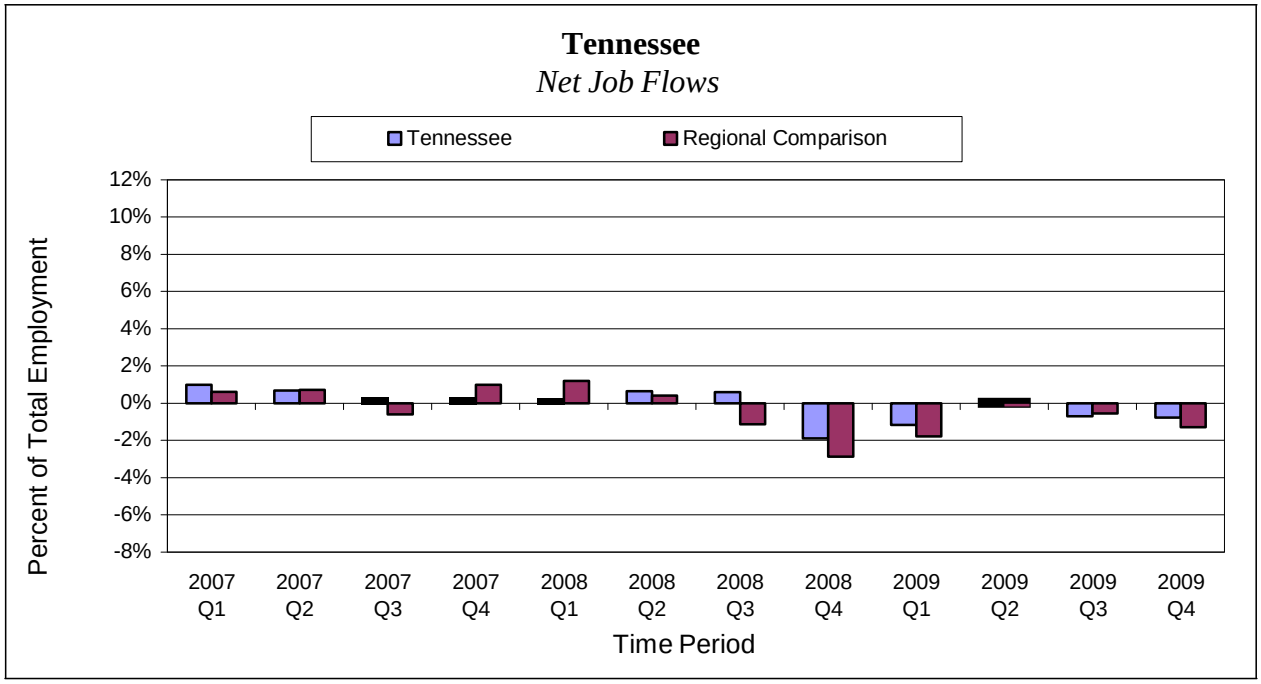

Figure C-57
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

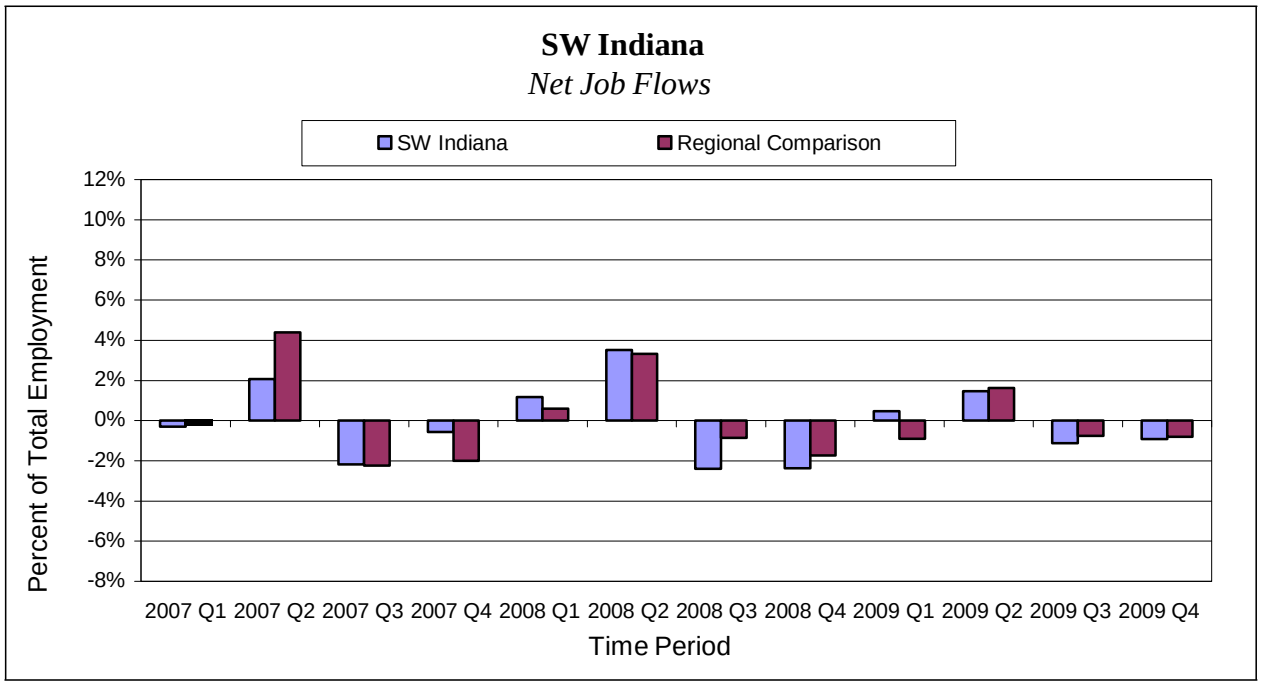

Figure C-58
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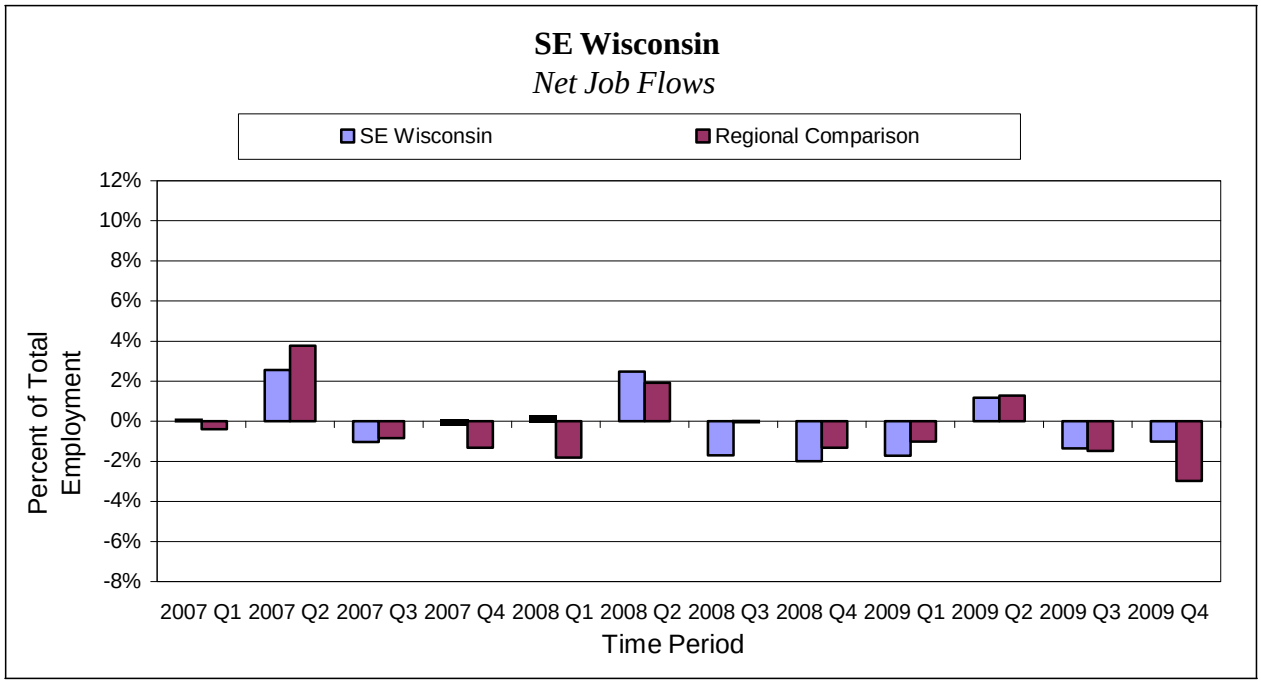

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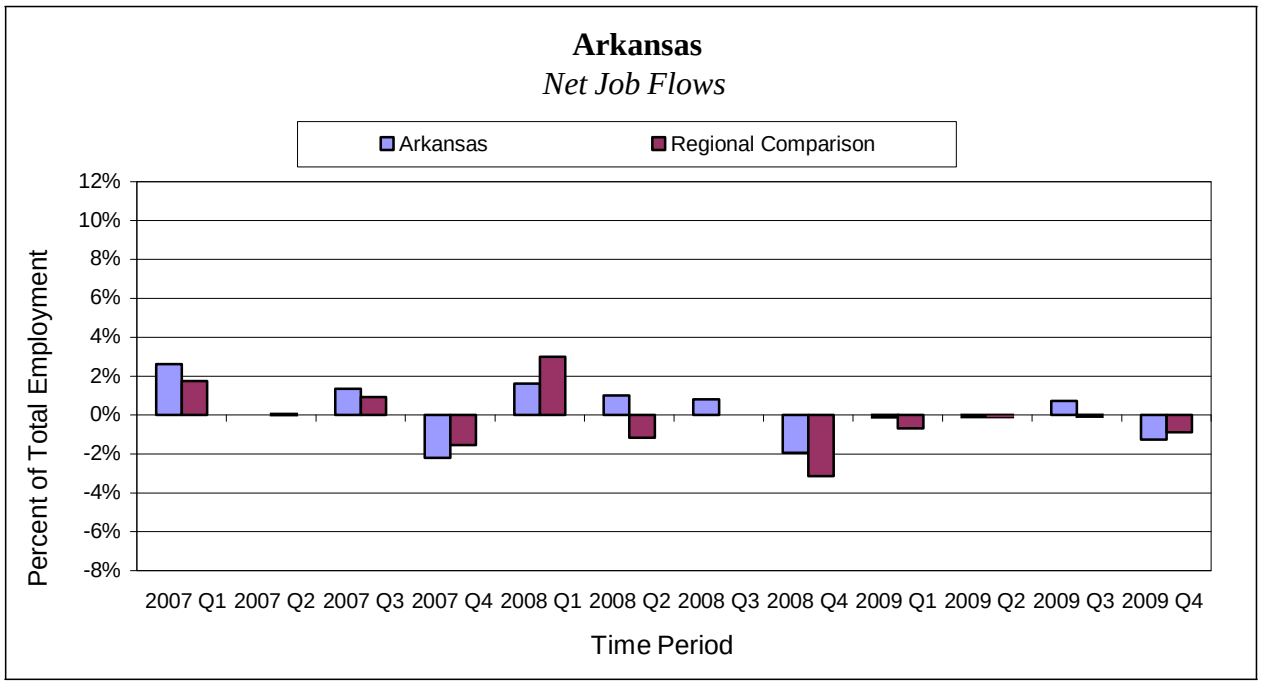

Figure C-60
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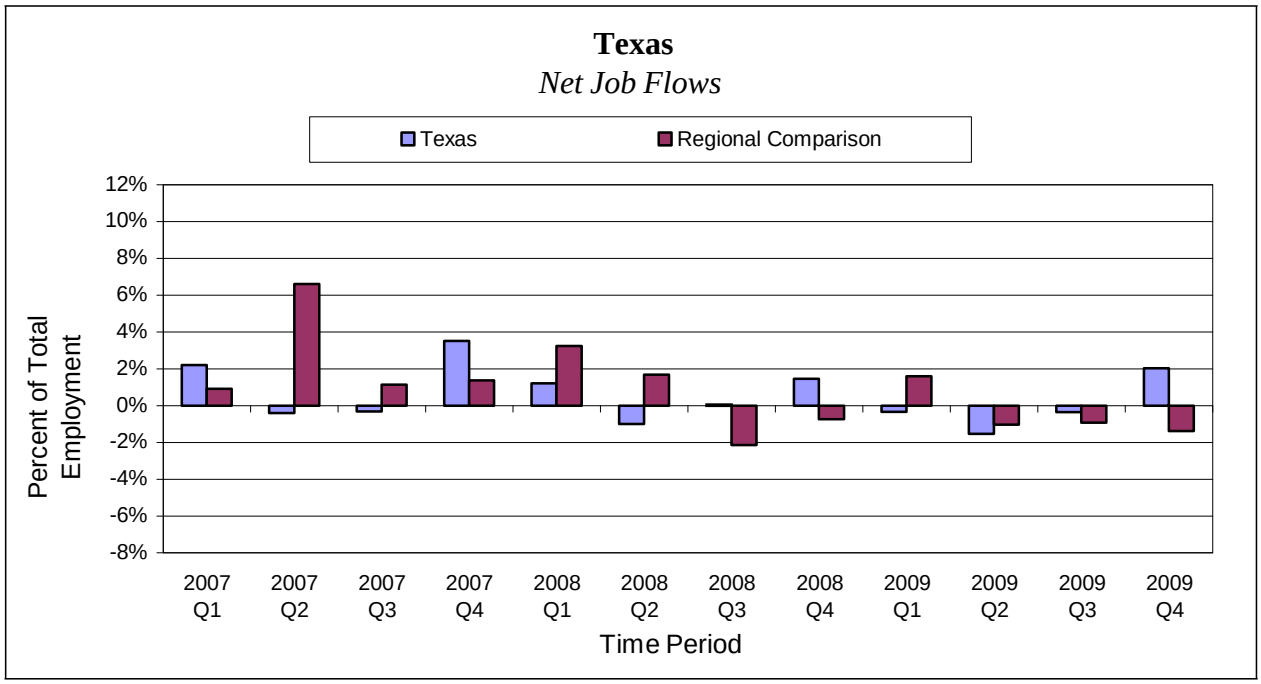

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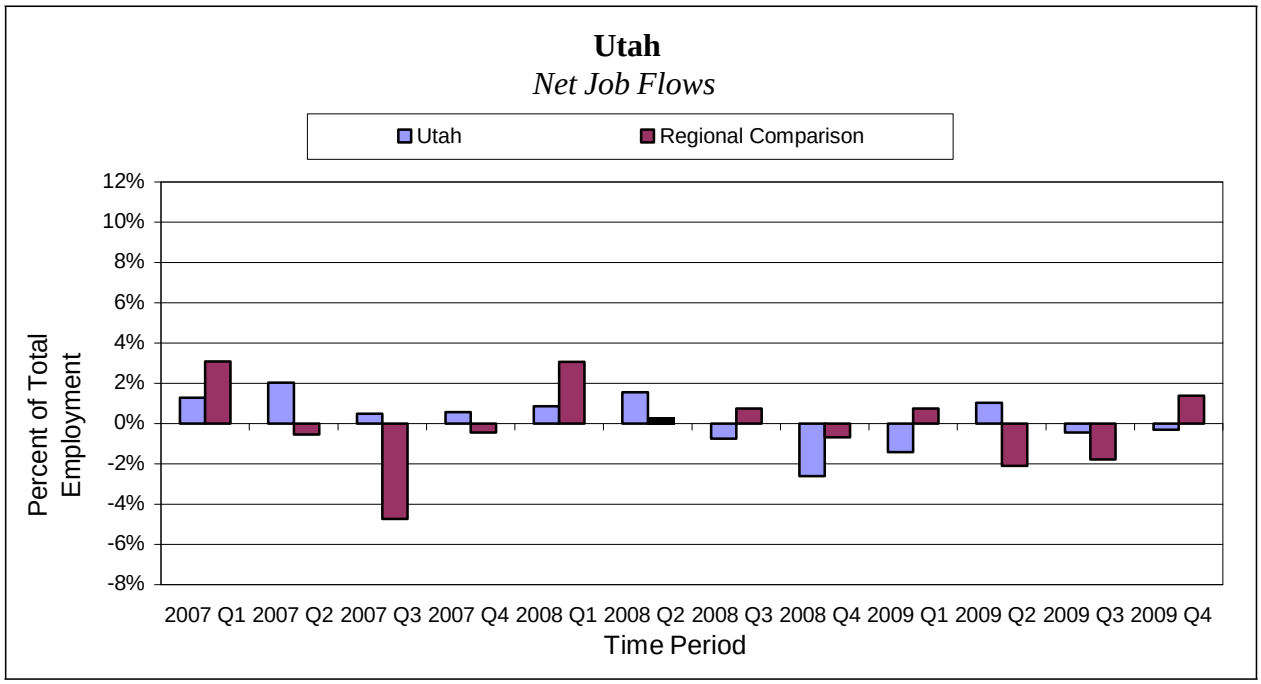

Figure C-62
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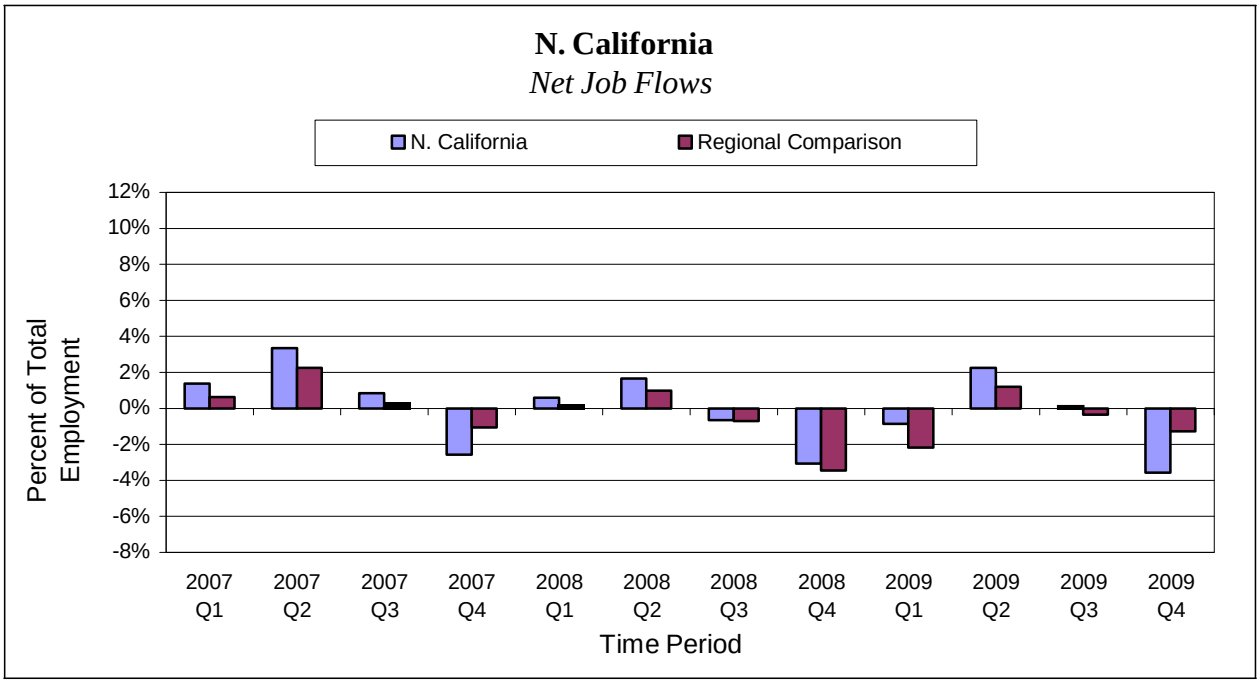


Figure C-63
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

Generation III

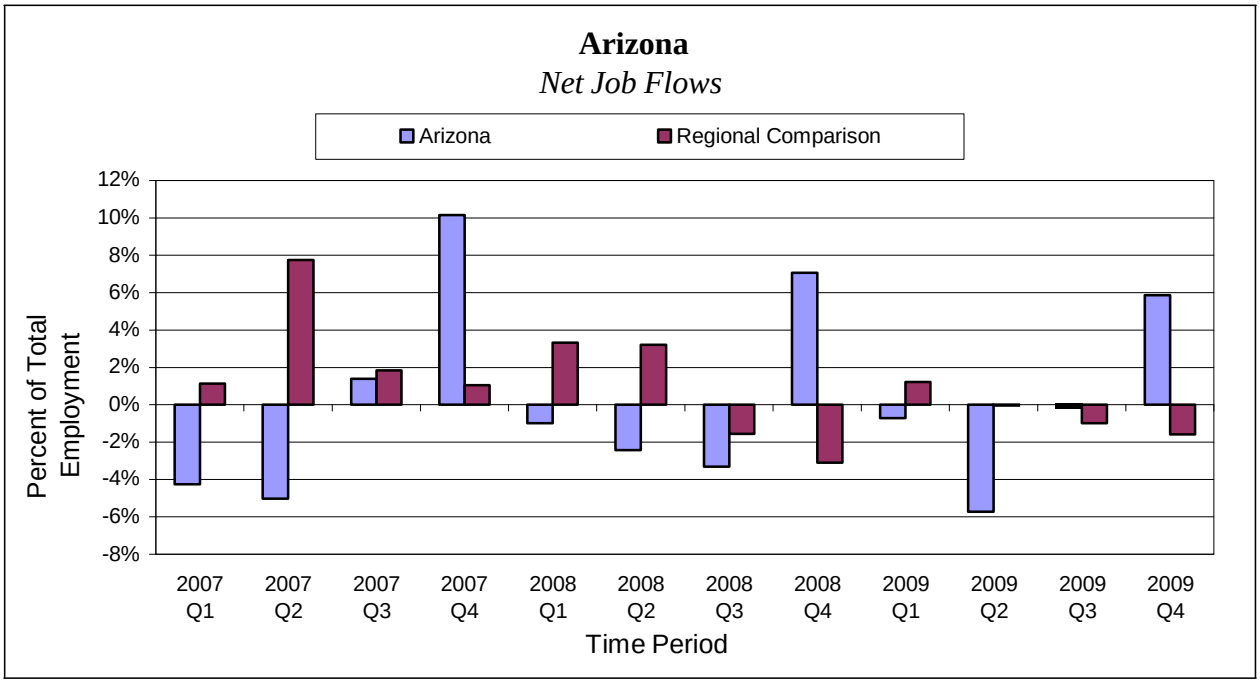
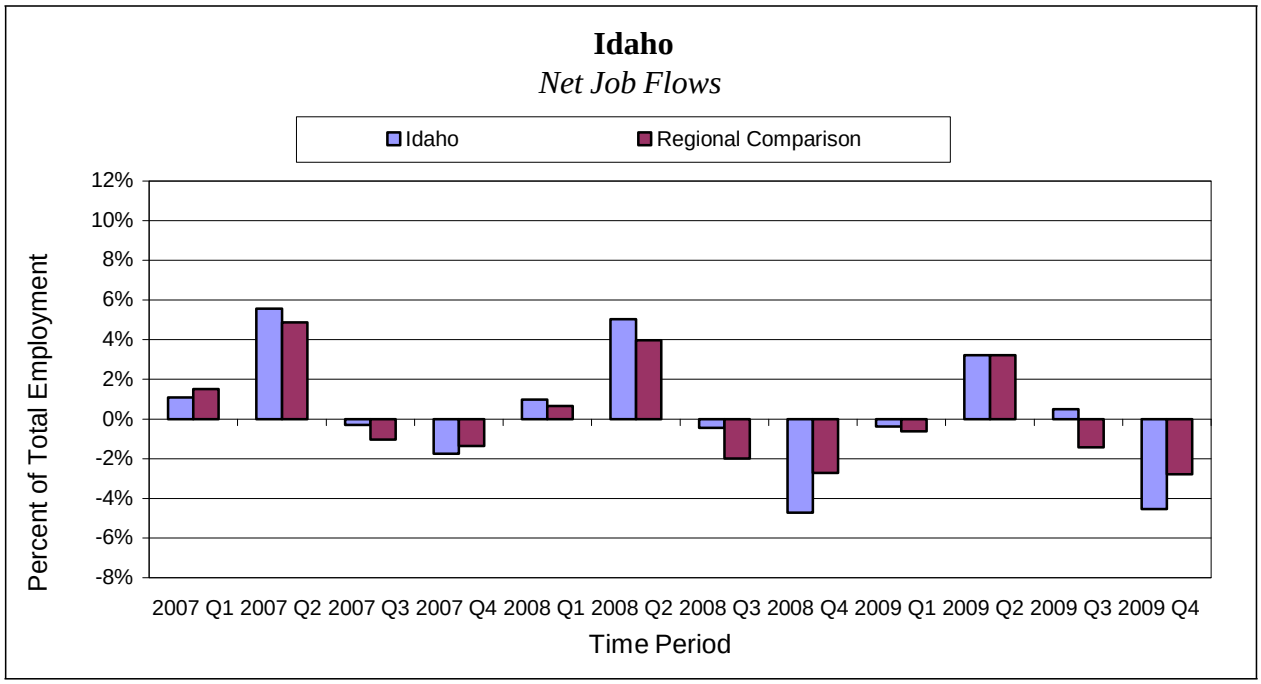


Figure C-64
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.



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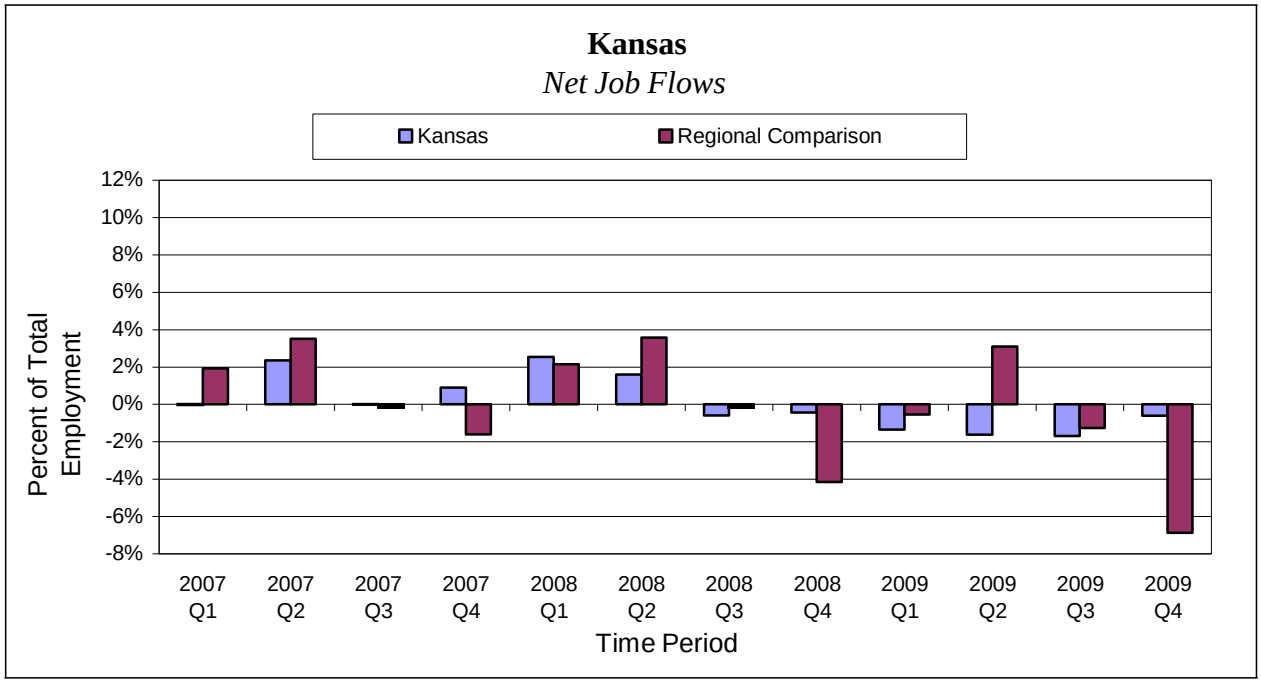

Figure C-66
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

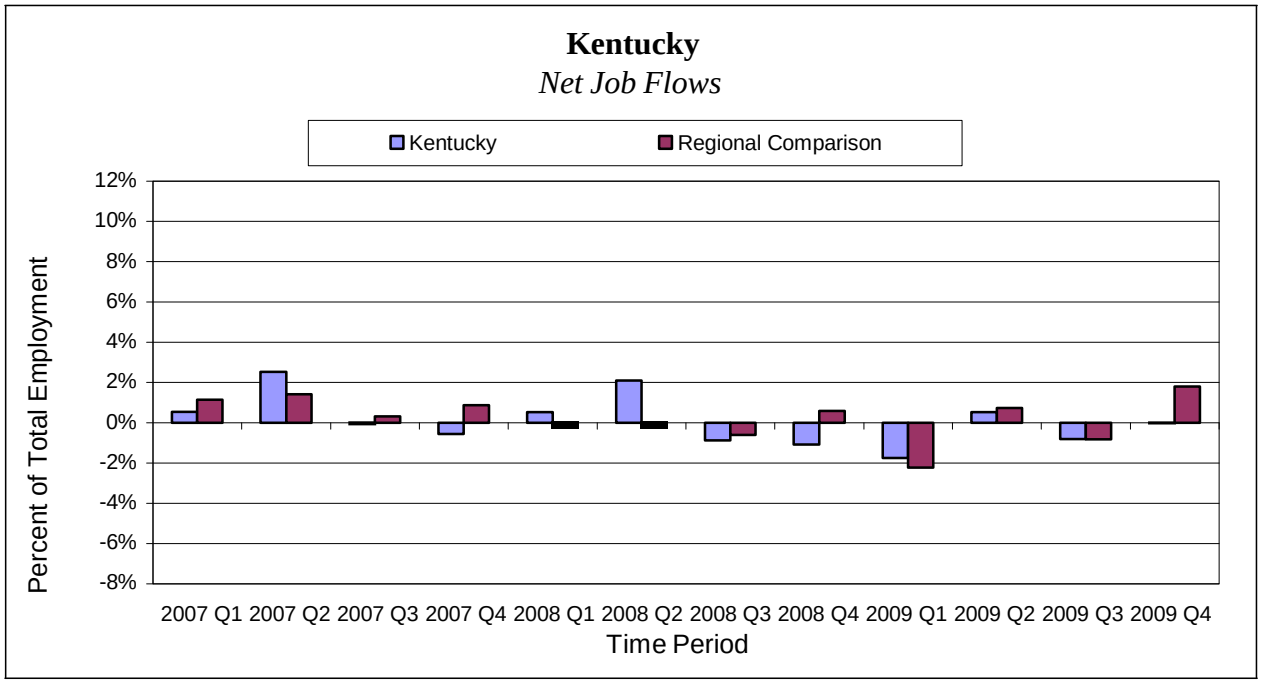

Figure C-67
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

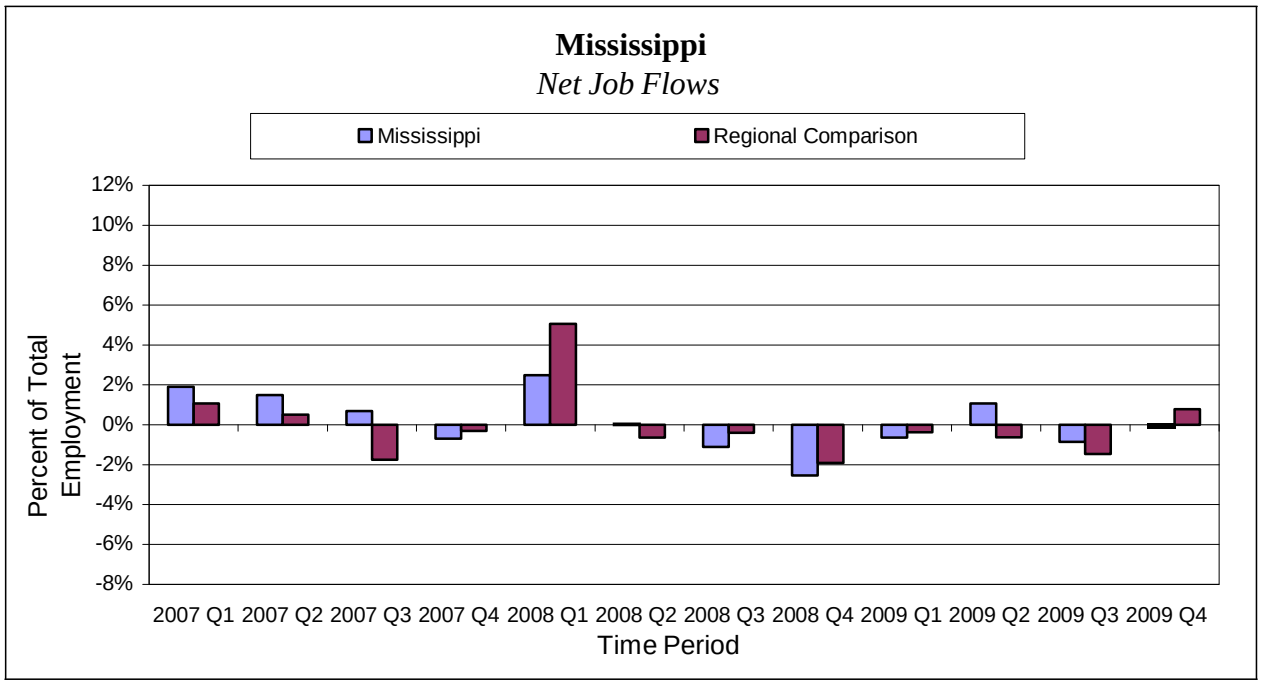

Figure C-68
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

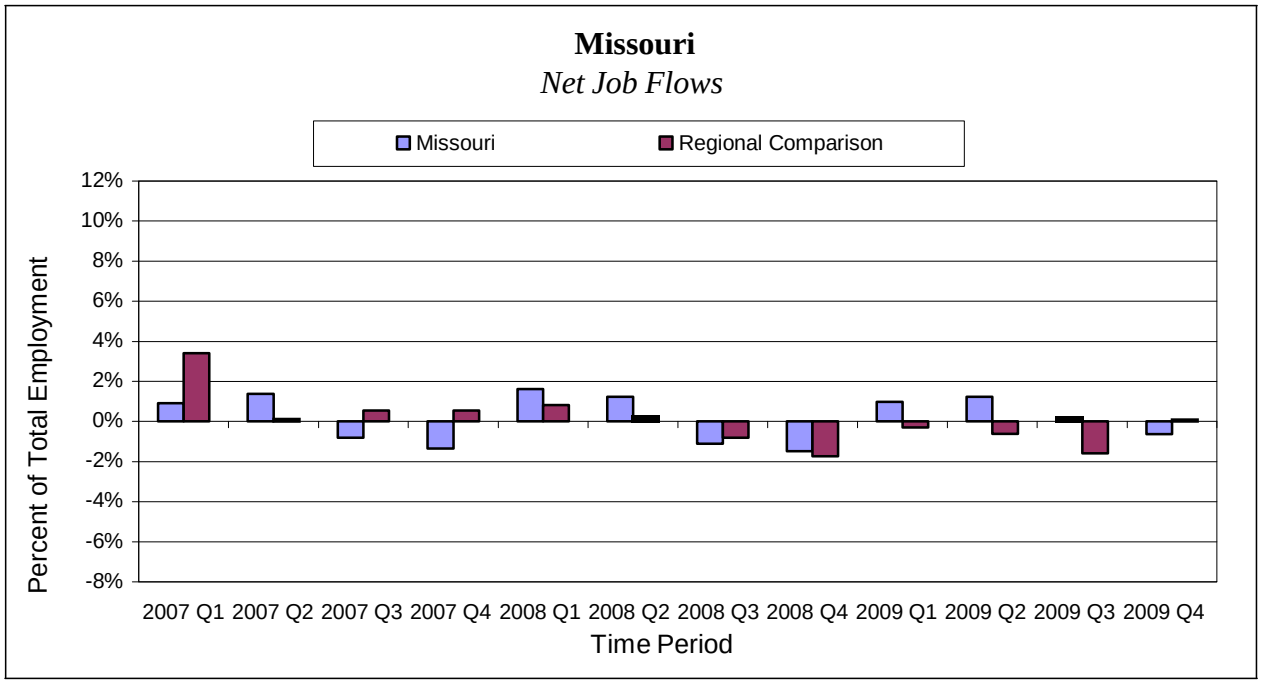

Figure C-69
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

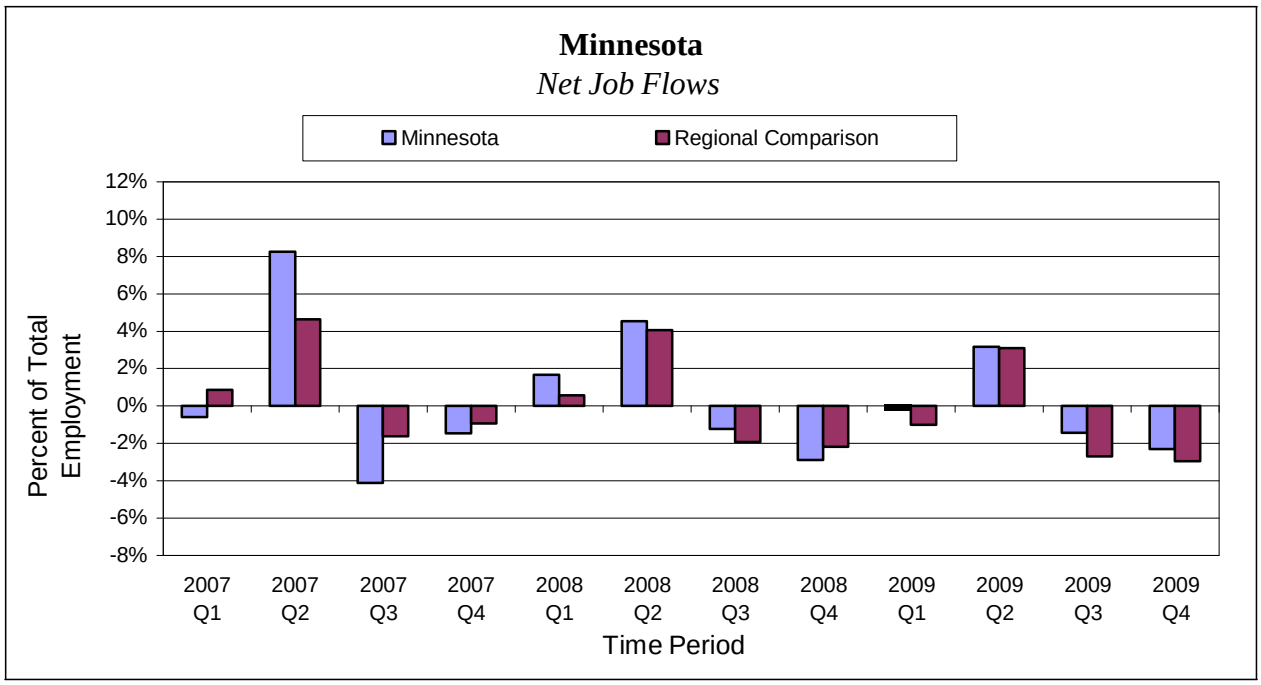

Figure C-70
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

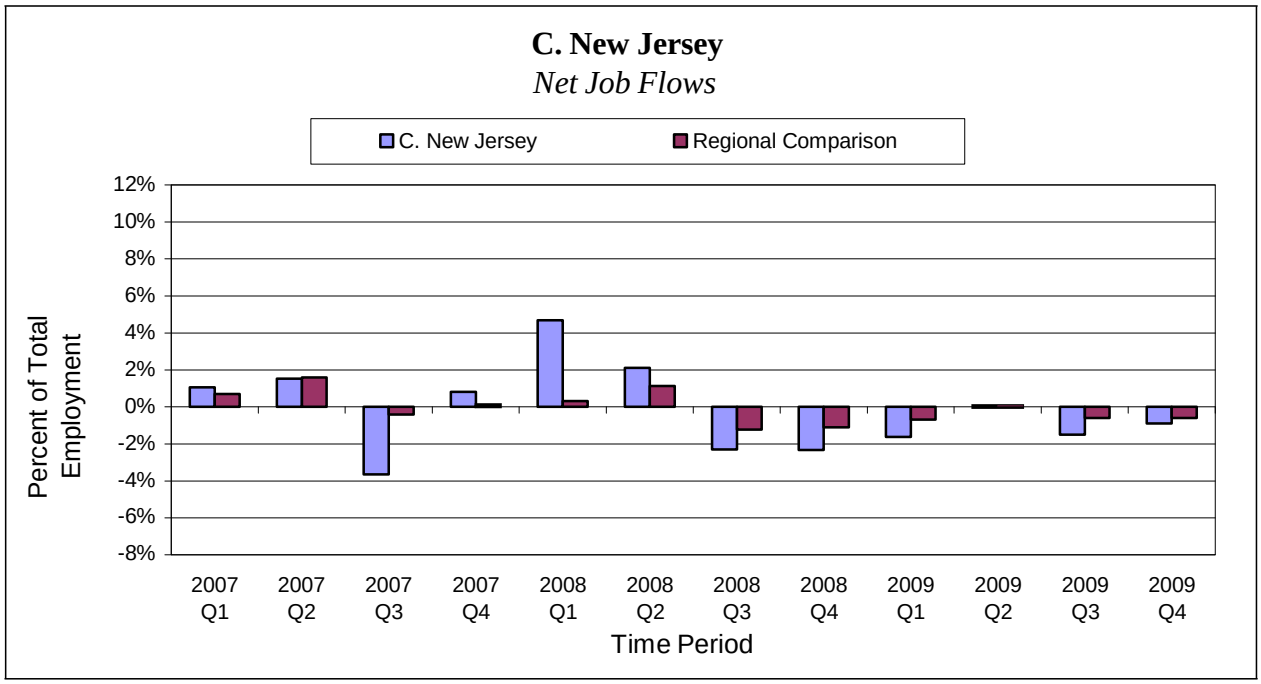

Figure C-71
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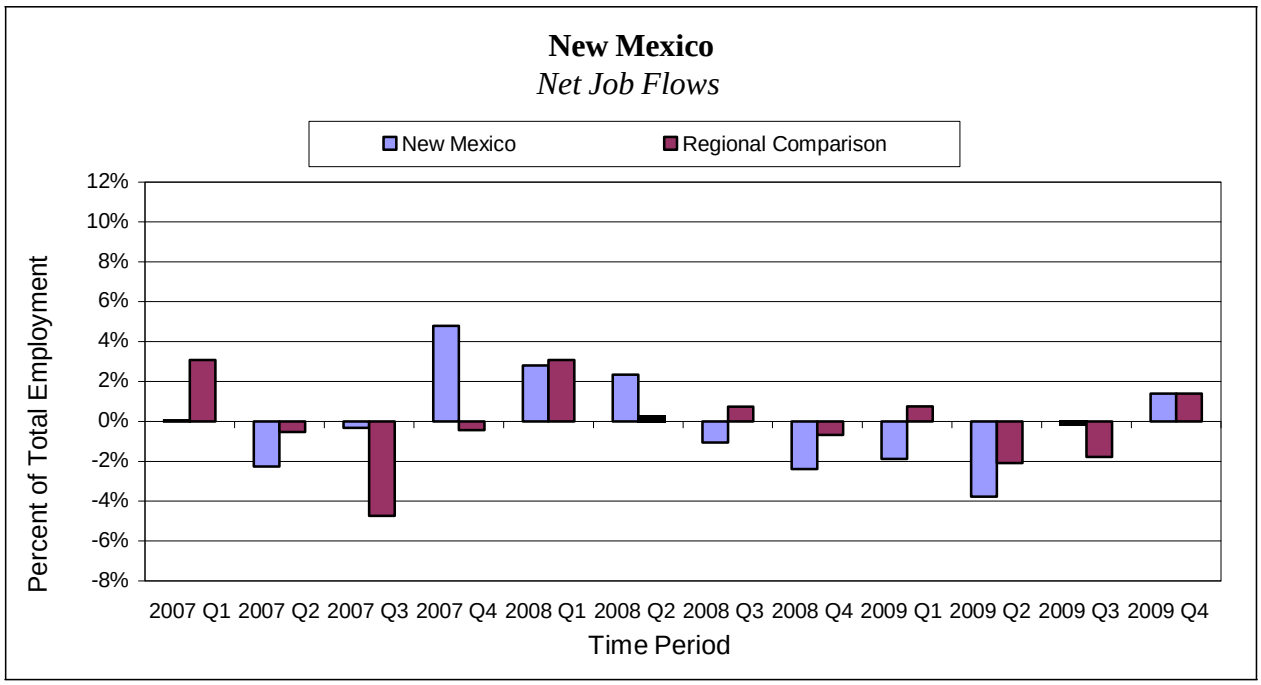

Figure C-72
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

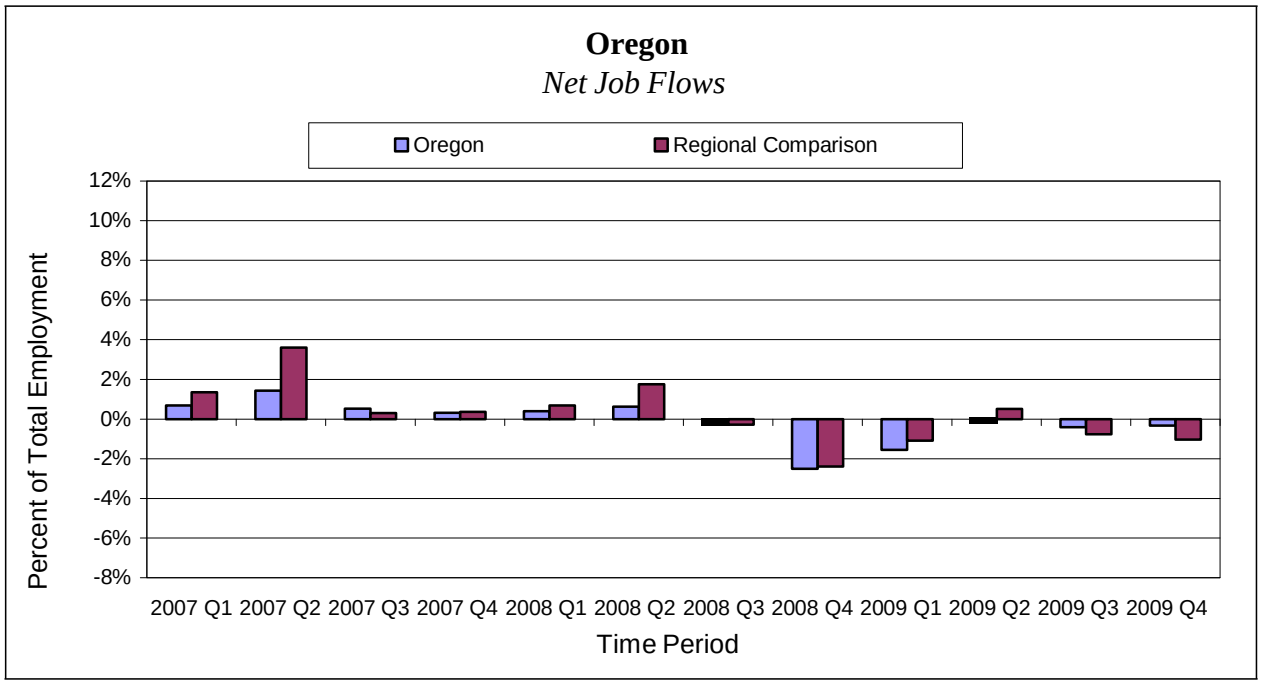

Figure C-73
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

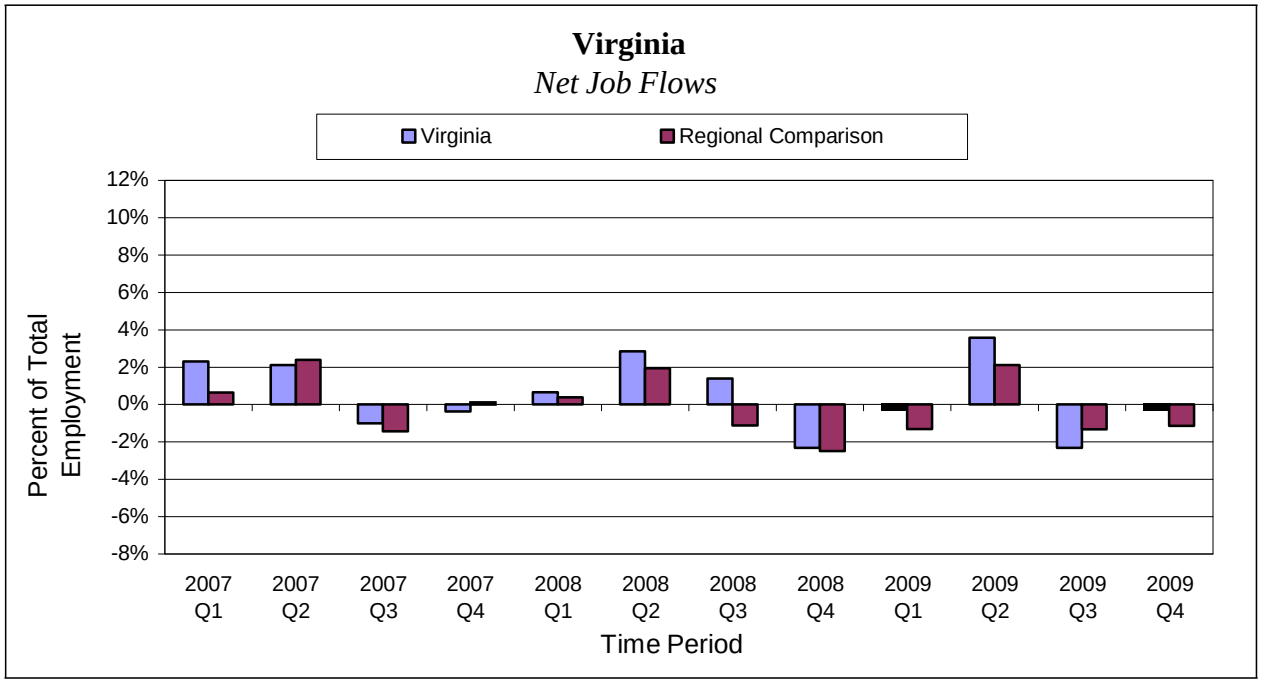

Figure C-74
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

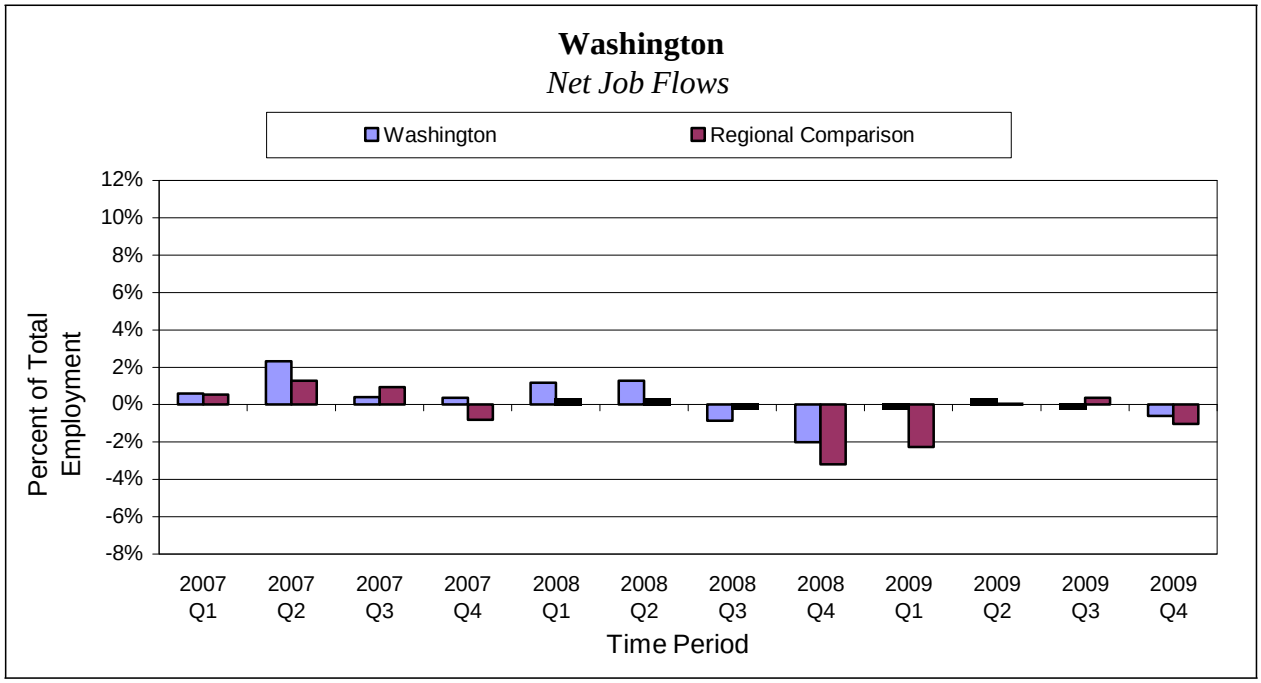

Figure C-75
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

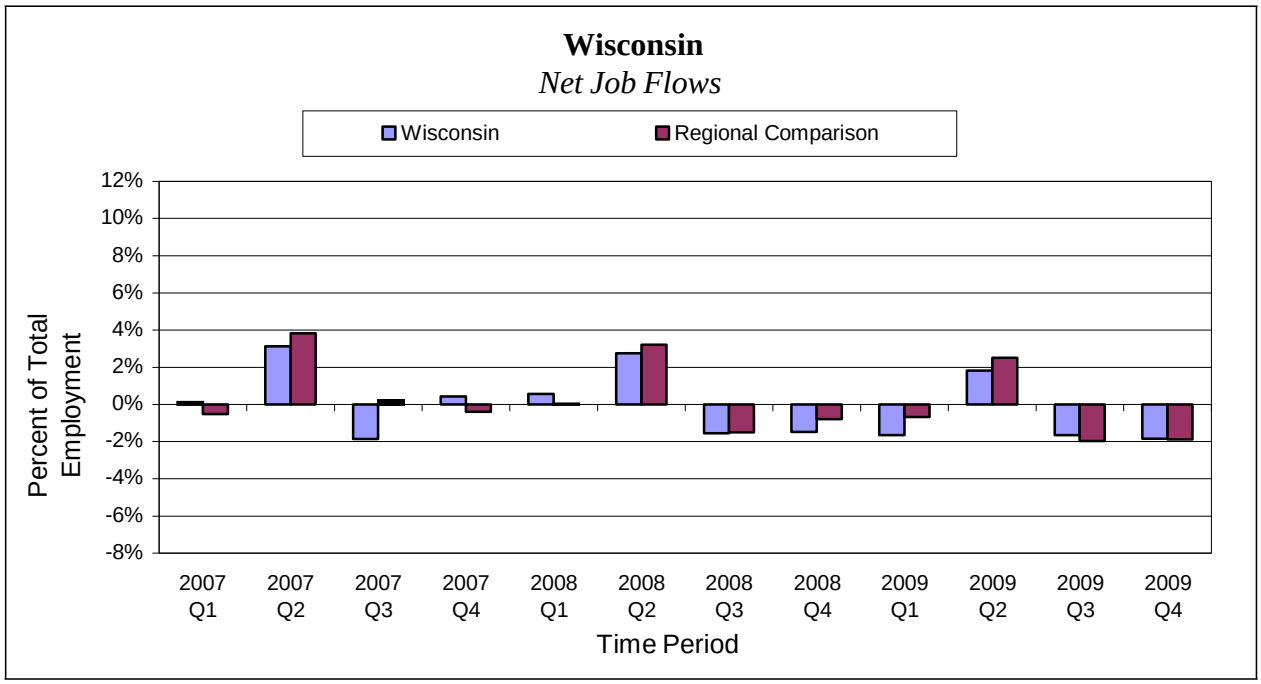

Figure C-76
Source: U.S. Census Bureau, "QWI Online [NAICS]," accessed September 30, 2011, http://lehd.did.census.gov/led/datatools/qwiapp.html.

Appendix D: Methodology

Evaluation Approach

The PPA/Upjohn team used the Theory of Change[1] as a framework for understanding the main components of the Initiatives strategy, the relationship between project activities and goals, and the relationship between activities and outcomes, both intermediate and longer-term. The Initiative approach clearly assumed that the success of each region was dependent upon the ability to establish and maintain collaborative arrangements among key stakeholders. Previous research conducted by the PPA/Upjohn Team members[2] [3] suggested that the Initiative collaborative strategies could be assessed on nine major dimensions anticipated to be critical for the operation and success of collaborative arrangements:

1. Context for collaboration
2. Governance/decision-making structure
3. Effective engagement among collaborators
4. Planning
5. Communications
6. Use of data
7. Resource adequacy and sustainability
8. Activities
9. Social networking

The PPA/Upjohn Team hypothesized that each region's performance in these nine dimensions would correlate with their success in achieving their goals. The findings of the evaluation did illuminate key components of effective inter-organizational, regional collaboratives.

Attribution Issues

The goal of the evaluation was to provide a comprehensive understanding of the implementation and cumulative effects of Initiative strategies on regions. Of interest was how regional strategies could facilitate transformation in regional economic and talent development systems. One of the primary challenges in assessing regional success was attribution, i.e., the extent to which

[1] Carol Weiss, *Evaluation Research: Methods for Assessing Program Effectiveness*, (Englewood Cliffs: Prentice Hall, 1995). Carol Weiss, "Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families." In *New Approaches to Evaluating Community Initiatives: Concepts, Methods, and Contexts*, ed. James P. Connell et al. (Washington, D.C.: Aspen Institute, 1977), Carol Weiss, "Research for Policy's Sake: The Enlightenment Function of Social Research," Policy Analysis 3(4), 531-545.

[2] Public Policy Associates, Incorporated, "Evaluation of the Skills Shortages Demonstration Programs Final Report," (Washington, DC: U.S. Department of Labor, 2003). Public Policy Associates, Incorporated, "Skills Partnership Self Assessment Tool," (Washington, DC: U.S. Department of Labor, 2003). Evaluating Collaboratives, University of Wisconsin Cooperative Extension, Ellen Taylor-Powell, B. Rossing, and J. Geran, *Evaluating Collaboratives, Reaching the Potential*, (University of Wisconsin Cooperative Extension, 1998).

[3] Upjohn Institute, *Evaluation of the Michigan Regional Skills Alliances*, (Mott Foundation, 2005).

regional changes could be attributed to the Initiative strategies. The evaluation team's approach to addressing the attribution problem was as follows:

- In the statistical analysis of extant data, the team used a matched comparison group approach. Although this could not identify causality, the combined evidence from the site visits, surveys, and administrative data, is indicative of regional progress toward transformation. However, there were severe limitations with the outcome measures. These limitations are discussed in greater detail in this section.

- Key informant interviews during site visits focused on how institutions changed with the influence of the Initiative and attendant leveraged resources. The Theory of Change (TOC) framework permitted a fine-grained dissection of nine dimensions of change. The team relied on self-reports from individuals implementing the Initiative strategies in the course of site visits and in the surveys of stakeholders and partners.

The other primary challenge in assessing such an investment endeavor was in identifying measures relevant to the long-term nature of the outcomes. The team response was to assess the initiative from multiple vantage points. This required examining the interconnections between activities, goals, strategies, and outcomes. This meant conducting an evaluation that addressed both implementation and outcome facets.

The implementation evaluation focused on gathering lessons from the field; that is, from the stakeholders with primary roles in designing and implementing regional projects. The outcome evaluation relied on secondary data sources, limited administrative data, and statistical techniques to identify the effects of Initiative activities on the local economy. Due to the long-term nature of the Initiative goals, final data sets from the evaluation offer insight into short-term and intermediate effects, but not long-term outcomes.

Design Process

The evaluation design process was driven in large part by the Theory of Change, a logic model for Initiative strategy, and a logic mode for Initiative region strategy. The team began the work of understanding the regions' approaches and context by crafting preliminary profiles for each of the 26 regions. These profiles summarized the economic conditions of the region, the strategies proposed in the applications and plans, and the partners involved in the Initiative. The basis for the initial profiles was information submitted to ETA by the regions, published on their Web sites, and preliminary media scans for each of the 26 regions.

Finally, the evaluation design process required consultation with those who had a stake in the evaluation design. This was primarily ETA, but also included individuals working on the evaluation of Generation I, Berkeley Policy Associates (BPA) and the University of California San Diego (UCSD). This ensured that lessons from the Generation I evaluation were reflected in the design for the Generation II and III evaluation.

The evaluation design addressed the four categories of ambitious and far-reaching questions put forward by ETA in the RFP:

1. Strategic approach, implementation, and institutionalization
2. Innovation and capacity changes
3. Economic and labor market effects
4. Cross-generational comparisons

Evaluation Activity

The evaluation team undertook a series of activities to assist ETA in documenting and understanding the unfolding of its Initiative investment:

- Site visits that chronicled each region's activities, infrastructure changes, and sustainability efforts
- Surveys of stakeholders in each region
- Social networking data
- Comparison of extant data across Initiative and matched regions

In addition to the above activities, the team gained knowledge from regional administrative data, reports to ETA, consultation with ETA and other experts, and research reports.

Site Visits

Two rounds of site visits provided the evaluation team with an opportunity to chronicle the progress and accomplishments of each region. The initial site visits were intended to be baseline observations. For the Generation II regions, they were conducted shortly after each region's implementation plan had been finalized. For Generation III regions, not all of implementation plans had been completed and approved, but considerable organizational activities and work had been conducted by the time the site visits occurred. The second round of site visits were conducted near the conclusion of the Generation II and III grant periods. These visits focused on an encapsulation of the activities that were undertaken in the region, an assessment of the level of success of the activities, and a discussion about plans, if any, for sustaining the region or individual programs that had been implemented.

Each site visit was conducted by two individuals from the evaluation team. The evaluators conducted interviews with individuals or groups of individuals and round tables. The interviews relied on a semi-structured protocol that was distilled from the OMB approved protocol used by the evaluators of the Generation I regions.

In order to cover all 26 regions with two site visitors in a relatively short period of time, approximately a dozen staff persons were involved (most participated in more than one). The number of site visitors necessitated efforts to standardize the data collection so that comparisons across sites were reasonably consistent. Thus, before each round of site visits, all site visitors

participated in an in-house Site Visit Academy, i.e., orientation meeting. The purpose of this meeting was to conduct a detailed review of the site visit guide, including background preparation requirements, logistics, reporting requirements, and timelines. An important goal of this meeting was to promote consistency in the use of the data gathering tools by different site visit teams at diverse site visit settings.

A debriefing of site visitors was held after each team had completed one site visit. The purpose of these meetings was to reflect on the site visit experience, discuss the utility of the regional profiles, identify any additional background information and/or data needs, and reflect on the use of the protocols and other data gathering tools. These meetings were intended to ensure that the data collection process was as consistent as possible across the Initiative regions and across the site visit teams.

The site visit teams used a systematic approach to planning each site visit. The three-pronged approach included reviewing background research, examining the current state of the region's economy, and utilizing the interview protocols to elicit information from stakeholders.

Background research was done by each site visit team to gain an understanding of the region prior to the actual visits. The site visit teams reviewed archival data such as the Initiative grant proposal, implementation plan, quarterly project status reports, and a profile of the region's economy and workforce characteristics. A Google search was conducted to identify recent news coverage relevant to the region and Google Alerts were established in order to receive updates about each region from local news sources. In addition, prior to the first site visit, calls were made to the ETA leads and Federal Project Officers to obtain their perspectives on the region's organization and activities.

Extant labor market data were examined to give the site visitors a picture of recent trends in and the current status of the regional economy. This included data on leading and emerging industry sectors, current unemployment rates and trends, and demographic characteristics of the existing labor market. This information was quite useful in interpreting stakeholder responses and formulating follow-up questions during the site visits.

Each site visit lasted three to four days. The visits featured discussions with multiple state and local stakeholders, including the WIRED regional leader and manager, workforce board and local One-Stop leads, leaders from the K-16 education system, representatives of state and local economic development agencies, employers, training program participants, and others deemed relevant to the regional initiative. The specific choice of individuals to participate in site visit meetings, and the scheduling of those meetings, was primarily developed by the WIRED region's project manager.

Following each site visit, a brief report was prepared. These reports were shared with the regions for review of factual accuracy and for other comments. The reports were revised (as needed and appropriate), and then forwarded to ETA.

In the latter half of 2010, after virtually all of the regions' grants had ended and the second round of site visits had been completed, the evaluation team had conversations with regional leaders to assess the sustainability of the regional initiatives. Based on the data that were collected and site visit team ratings of sites on various dimensions, eight sites were chosen for a third site visit. The purpose of these visits was to identify factors in unique or successful continuation efforts. The third site visits were shorter in length—one or two days—since they were focused on specific activities. Again, a semi-structured approach was followed in discussions with the region's stakeholders; and again, a brief report was drafted, shared with the regions, and submitted to ETA.

Survey of Stakeholders and Social Network Data Collection

The survey of stakeholders was conducted in two parts: a screener survey followed by a partner survey. The screener survey, which is described in greater detail below, was conducted during the summer of 2009, and the partner survey was conducted in September and October of 2009. The methods for these surveys are described in depth in the Second Interim Report, and are recapped here briefly.

The screener survey comprised a very short instrument that was sent to a broad set of potential respondents in order to determine whether they were familiar with and participating in, or affected by, regional collaborations aimed at integrating education, workforce, and economic development systems. Using publicly available hard copy and electronic databases, the evaluation team attempted to list *all* key stakeholders in each of the 26 regions in the following groups:

- K-12 school district superintendents
- College and university presidents
- Community college presidents and deans of workforce training
- Foundation executives
- Workforce investment board (WIB) chairs
- Workforce investment area agency directors
- Mayors
- County executives
- County/city economic development agency directors

Because the screener survey was designed to be conducted online, the evaluation team's goal was to obtain e-mail contact information for the potential respondents. Invitations to participate in the screener survey were sent electronically to the individuals for whom e-mail addresses were available (approximately 85 percent of the sample frame), and mailed to the individuals for whom e-mail addresses were not available. The total reachable sample for the screener was 2,178 and the response rate was 60.6 percent. For individuals whose organizations were participating in the Initiative, the screener survey identified a respondent for the partner survey.

The intent of the partner survey was to contact the entire set of individuals who were partners in the regional collaboration. The partner survey was intended to provide information on the organizational background of individuals involved with the regional collaboration; the regional

context and previous attempts to form collaborations; the roles played by various partners in the region; the views of those participants regarding the success of the region; and the social network formed by the regional collaboration.

The lists of respondents for the partner survey were constructed as follows. The evaluation team listed partners for each region from their initial site visit, from the regions' implementation plans, and from the social networking data that were captured during the initial site visit. These lists were sent to the regions (i.e., regional directors) with a request to edit contact information, as necessary, and to add contact information for any individual who was a partner, but was not included in the initial list. All of the regions responded to this request. In addition to the list of individuals that came from the site visit or regional documentation, the evaluation team added individuals who indicated on the screener survey that they were engaged in a regional transformation collaboration, i.e., a self-identified partner list. Across all of the regions, this list from the screener survey amounted to about 10 percent of the final list for the partner survey (194 out of 1, 912 individuals).

The survey was fielded online.[4] Follow-up reminders were provided via regional directors, emails, and telephone calls. The total reachable sample for the partner survey was 1,912 and the response rate was 76.3 percent (n = 1,458). A total of 454 individuals did not respond to the partner survey. Of these, 137 were outright refusals. Of the non-responders, 209 were called at least five times. Finally, telephone follow-ups were in process for the remaining 108 individuals, when they were eventually stopped at the end of the survey. The preponderance of these individuals had been telephoned at least three times by follow-up callers.

Social Networking Data

Since one of the explicit goals of the Initiative was the facilitation of collaborative behavior, the evaluation team used two opportunities to collect data on the social networking of regional stakeholders. Site visitors gathered social networking data from the stakeholders who were interviewed in the initial site visit using the instrument designed by the Generation I evaluation partners. This same instrument was incorporated into the partner survey. The specific data that were collected included the names and contact information of up to five individuals outside of their own organization who were communicated with most often concerning the Initiative. The contact information included organization type. Also the frequency of communication was noted. The respondents were asked to self-identify their own role in the collaboration, i.e., visionary, implementer, or doer.

Social network software was used to "map" and analyze the networks inherent in the information provided by respondents. Data analyses were focused on the extent of connections among different organizations (as represented by individuals), roles played by different types of organizations, the density of connections, and cohesiveness in the regional networks.[5]

[4] A Spanish version of the survey was made available, and respondents in Central-Eastern Puerto Rica were allowed to choose English or Spanish.

[5] Social network analysis was conducted using UCINET software from Analytic Technologies. Borgatti, S.P., Everett, M.G. and Freeman, L.C. 2002. UCINET for Windows: Software for Social Network Analysis. Harvard, MA: Analytic Technologies.

The social network data provided value in identifying success in crossing organizational boundaries, and the centrality of various types of stakeholder groups. The relative density of the networks, and the existence of isolated sub-networks provided hypotheses around the maturity and efficiency of communication.

The social network data are known to be incomplete for several reasons: the respondents were limited to five contacts, those contacts were not approached to ask for *their* contacts, individuals were forced to place contacts with multiple job titles into a single category, and not all participants in the regional network responded to the survey. These factors mean that the social network analysis underestimates, to an unknown degree, the true extent of the network connections within a region.

Extant Data

A series of extant data sources were utilized to craft a view of regions' demographic, labor market, and educational factors. These outside sources provided a context for Generation II and Generation III regions and how they compare to the nation, as well as to each other. Contextual information about each region highlights the needs and attributes of the workforce, the strengths of the local economy, and the potential resources available to the collaborations as they pursued development activities.

Data sources were identified for examination during the research design phase of the evaluation project.[6] Using these sources, data were collected at the county level and assembled to match the boundaries defined by each region. As described in the following section, comparison regions were developed for each of the regions. The indicators of interest which were gleaned using extant data include the following:

- Demographic and workforce data for each region.
- Job creation, which is a measure of the number of new jobs created at firms that were expanding during the quarter.
  - This is an important consideration for workforce development, since the presence of companies that are adding jobs may create a demand for newly trained workers even in places or times of seemingly modest net employment change.
- Net job flows, which simply measure the total change in total employment across all firms during the period [2007Q1 through 2009Q4].
  - This reflects the overall employment strength of the regional economy.
- Estimated 2006 employment levels for industries identified as a focus in each region's respective implementation plan.

[6] Nearly all data variables selected during the research design phase are included in this report, either in this section or in prior reports. However, it should be noted that two data sources have been excluded from this analysis for reasons beyond the control of the evaluation team. Federal research and development grant funding by county could not be included because the source of the data, the RaDiUS database, was discontinued by the Rand Corporation. Second, a county-level analysis of patent applications was to have been provided by Cleveland State University; however, they were unable to supply the requested data.

- Faculty hires 2009 as percent of total faculty and STEM employment 2009 as percent of total employment.
  - These data were relevant because many of the funded regions had a focus on expanding or supporting workforce training, or on starting or expanding educational programs in community colleges, tech schools, and universities, in STEM fields.
- Quarterly employment trends for each region and its comparison region for both total and manufacturing employment.
  - To illustrate trends and allow for cross-regional examination, total and manufacturing sector employment levels were indexed to a value of 100 in the first quarter of 2007. Index changes over quarters show relative percentage change from the original starting value.

Extant sources used in the evaluation included the following:

- U.S. Census and American Community Survey
- National Center for Education Statistics: Common Core of Data & Integrated Postsecondary Education Data System; Angel Capital Education Foundation
- U.S. Bureau of the Census, Quarterly Workforce Indicators (QWI)
- Bureau of Labor Statistics Quarterly Census of Employment and Wages
- Bureau of Economic Analysis
- 2006 Isserman CBP employment data (proprietary).

A Matched Region Approach to Estimate Net Impacts

In an attempt to estimate the net impacts of the regions in their area, the evaluation team constructed comparison regions for each of the 26 Generation II and III regions. Whereas quasi-experimental net impact estimation, i.e., matching, has most often been conducted for programs affecting individuals[7], there are a few precedent studies that have matched geographic regions or firms. Suzanne O'Keefe[8] and Daniele Bondonio and Robert T. Greenbaum[9] matched Census tracts and zip code areas, respectively, to examine the impacts of Enterprise Zone policies and

[7] James J. Heckman., H. Ichimura, and Petra Todd, "Matching as an Econometric Evaluation Estimator: Evidence from Evaluating a Job Training Programme," *Review of Economic Studies* 64, (1997): 605–654. James Heckman, Hidehiko Ichimura, Jeffrey Smith, and Petra Todd, "Characterizing Selection Bias Using Experimental Data," *Econometrica* 66(5), (1998): 1017–1098. R.H. Dehijia, R. H., and S. Wahba, "Causal Effects in Non-Experimental Studies: Reevaluating the Evaluation of Training Programs," Journal *of the American Statistical Association* 94, (1999): 1053–1062. P. Mueser, K. Troske, and A. Gorislavsky, "Using State Administrative Data to Measure Program Performance." *Review of Economic and Statistics* 89(4) (2007): 761–783. Carolyn J. Heinrich, Peter R. Mueser, and Kenneth R. Troske, *Workforce Investment Act Non-Experimental Net Impact Evaluation, IMPAQ International* (Washington DC: U.S. Department of Labor, Employment and Training Administration). Kevin Hollenbeck and Wei-Jang Huang, *Net Impact and Benefit-Cost Estimates of the Workforce Development System in Washington State*, Upjohn Institute Technical Report No. 03-018, (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2003).

[8] Suzanne O'Keefe, "Job Creation in California's Enterprise Zones: A Comparison Using a Propensity Score Matching Model," *Journal of Urban Economics*, 55(1) (2004): 131–150.

[9] Daniele Bondonio and Robert T. Greenbaum, "Do Local Tax Incentives Affect Economic Growth? What Mean Impacts Miss in the Analysis of Enterprise Zone Policies." *Regional Science and Urban Economics*, 37 (2007): 121–136.

others matched manufacturing firms in New York state to estimate the effect of environmental regulations on plant births.

The variables used by the evaluation team in constructing the comparison regions were meant to capture the following five explanatory factors for regional growth:

- *Industrial Mix:* Regions that house large manufacturing or farming sectors will likely experience slower employment growth than more service-based regions because 1) the demand for services is growing faster than the demand for manufactured goods, and 2) the nation's manufacturers and farmers are expected to continue to make substantial gains in labor productivity.
- *Entrepreneurship:* Regions that have a strong entrepreneurial environment are expected to perform better than other regions. This is true for rural areas as well as urbanized regions. In addition, innovation is often associated with entrepreneurship.
- *Urban Versus Rural:* Numerous studies have shown that large metro areas have more robust economic growth than small metro areas and rural regions. The reasons for this disparity in growth include the importance of economic clusters, attractive urban amenities, greater networking opportunities, and thick labor markets.
- *Human Capital:* Most economic development growth studies have confirmed that an area's ability to attract and retain an educated workforce is the primary factor that will influence its future growth.
- *Pre-Existing Trends:* Regions that have experienced population and employment growth in the past five years are likely to continue to enjoy above-average growth.

In Table 1, ten variables are shown that were used to build unique comparison regions for each of the 26 Generation II and Generation III WIRED regions.

Table 1: Economic Variables Used in Constructing Matching Regions

Growth Factor	Variable
Industrial Mix	Percentage of workforce in manufacturing Percentage of workforce in agriculture
Entrepreneurship	Percentage of workforce who are proprietors Number of proprietorships
Urban vs. Rural	Population in the region's most populous county Population density
Human Capital	Percentage of persons 25 years or older with a Bachelor's Degree Per capita income
Pre-Existing Trends	Percentage change in employment 2001 to 2005 Percentage change in population 2000 to 2006

In addition to these variables, unique characteristics of the Initiative regions were taken into consideration, including:

- Housing a major government/military facility
- Surrounding but not including the core county/city of a metropolitan area
- The presence of a major university
- Generally recognized physical amenities (mountains, bodies of water, and so forth)

Finally, comparison regions were crafted such that they were similar in population size; to the extent possible, regions that were in the same state or in a neighboring state; and excluded any county that was in a Generation I Initiative region.

Maps of all of the Initiative regions and their comparison regions were developed and are available in the Evaluation Design Report appendix. Table 2 lists the regions and comparison regions by county.

Table 2: WIRED and Comparison Regions

WIRED Region	Counties	Major Cities	Comparison Region	Counties	Major Cities
Generation II					
Appalachian OH	OH: Adams, Athens, Belmont, Brown, Carroll, Clermont, Columbiana, Coshocton, Ballia, Guernsey, Harrison, Highland, Hocking, Holmes, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Scioto, Tuscarawas, Vinton, Washington	None	Appalachian WV, Pittsburgh Suburbs, Northern KY	KY: Boyd, Greenup, Lawrence, Lewis PA: Beaver, Washington WV: Boone, Brooke, Cabell, Hancock, Jackson, Lincoln, Marshall, Mason, Ohio, Pleasants, Putnam, Titchie, Toane, Tyler, Wayne Wetzel, Wirt, Wood	None
Arkansas Delta	AR: Arkansas, Ashley, Chicot, Craighead, Crittenden, Cross, Desha, Drew, Jackson, Lee, Lincoln, Mississippi, Monroe, Phillips, Poinsett, St. Francis, Woodruff	None	Northwestern MS	MS: Bolivar, Carroll, Coahoma, Grenada, Holmes, Humphries, Issaquena, Leflore, Panola, Quitman, Sharkey, Sunflower, Tallahatchie, Tate, Warren, Washington, Yazoo	None
Central-Eastern PR	Municipios: Caguas, Cayey, Gurabo, Humacao, Juncos, Las Piedras, Nahuabl, San Lorenzo	None	North Central PR	Municipios: Corozal, Dorado, Manati, Morovis Toa Alta, Toa Baja, Vega Alta, Vega Baja	None
Delaware Valley	DE: New Castle NJ: Burlington, Camden, Mercer, Salem PA: Berks, Bucks, Chester, Delaware, Lancaster, Montgomery, Philadelphia	Philadelphia	Chicago and Suburbs	IL: Cook, Kankakee, Lake, Will	Chicago
Northern CA	CA: Alpine, Butte, Colusa, Del Norte, El Dorado, Glenn, Lake, Lassen, Modo, Nevada, Placer, Plumas, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Yolo, Yuba	None	Southern OR	OR: Coos, Curry, Descutes, Douglas, Jackson, Josephine, Klamath, Lane, Linn, Lincoln	Eugene
Northern NJ	NJ: Bergen, Essex, Hudson, Morris, Passaic, Sussex, Union, Warren	Newark	Baltimore Suburbs	MD: Anne Arundel, Baltimore, Howard, Montgomery, Prince George's Baltimore City	Baltimore

Table 2: WIRED and Comparison Regions

WIRED Region	Counties	Major Cities	Comparison Region	Counties	Major Cities
Rio South TX	TX: Cameron, Hidalgo Jim Hogg, Starr, Webb, Willacy, Zapata	Laredo; Brownsville	El Paso Area	NM: Dona Anna TX: El Paso	El Paso
Southeast MI	MI: Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, Wayne	Detroit	Cleveland Area	OH: Ashtabula, Cuyahoga, Erie, Geauga, Huron, Lake, Lorain, Mahoning, Medina, Portage, Stark, Summit, Trumbull, Wayne	Cleveland
Southeastern WI	WI: Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, Waukesha	Milwaukee	Cincinnati/ Dayton	OH: Butler, Hamilton, Montgomery, Preble, Warren	Cincinnati, Dayton
Southwest IN	IN: Dubois, Gibson, Knox, Pery, Pike, Posey, Spencer, Vanderburgh, Warrick	Evansville	South-Central IN	IN: Brown, Greene, Jackson, Johnson, Lawrence, Martin, Monroe, Morgan	None
Southwestern CT	NY: Putnam,Westchester CT: Fairfield	Stamford	Maryland	Anne Arundel, Calvert, Carroll, Howard, Prince George's	Annapolis
Tennessee Valley	AL: Bount, Colbert, Cullman, DeKalb, Etowah, Franklin, Jackson, Lauderdale, Lawrence, Limestone, Madison, Marion, Marshall, Morgan, Winston TN: Granklin, Giles, Lawrence, Lewis, Lincoln, Marion, Marshall, Maury, Wayne	Huntsville, AL	Western TN	TN: Benton, Carroll, Chester, Crocket, Decatur, Dyner, Fayette, Gibson, Hardeman, Hardin, Haywood, Henderson, Lauderdale, McNairy, Madison, Shelby, Tipton	Memphis
Wasatch Range UT	UT: Cache, Morgan, Rich, Salt Lake, Summit, Utah, Wasatch, Weber	Salt Lake City	Colorado Springs/Pueblo	CO: El Paso, Fremont, Pueblo, Teller	Colorado Springs; Pueblo
Generation III					
Central KY	KY: Breckenridge, Bullitt, Grayson, Hardin, Henry, Jefferson, Larue, Marion, Meade, Nelson, Oldham, Shelby, Spencer, Trimble, Washington	Louisville	East-Central KY	KY: Anderson, Bourbon, Boyle, Clark, Estill, Fayette, Franklin,Garrard, Harrison, Jessamine, Lincoln, Madison, Mercer, Nicholas, Powell, Scott, Woodford	Lexington
Central NJ	NJ: Hunterdon, Mercer, Middlesex, Monmouth, Somerset	None	Baltimore Area	MD: Anne Arundel, Baltimore, Howard, Carroll, Baltimore City	Baltimore
Greater Albuquerque	NM: Bernalillo, Los Alamos, Sandoval, Santa Fe, Sierra, Socorro, Torrance, Valencia	Albuquerque	Colorado Springs/Pueblo	CO: El Paso, Fremont, Pueblo, Teller	Colorado Springs; Pueblo

Table 2: WIRED and Comparison Regions

WIRED Region	Counties	Major Cities	Comparison Region	Counties	Major Cities
Minnesota Triangle	MN: Blue Earth, Big Stone, Brown, Chippewa, Clay, Cottonwood, Douglas, Fairbault, Freeborn, Grant, Jackson, Kandiyohi, Lac qui Parle, Lincoln, Lyon, Martin, McLeod, Meeker, Murray, Nicollet, Noble, Norman, Otter Tail, Pipestone, Pope, Redwood, Renville, Rock, Sibley, Stevens, Swift, Traverse, Waseca, Watowan, Wiliben, Yellow Medicine	None	Northern IA	IA: Bremer, Buena Vista, Calhoun, Cerro Gordo, Cherokee, Chickasaw, Clay, Dickenson, Emmett, Floyd, Franklin, Hamilton, Hancock, Hardin, Howard, Humbolt, Ida, Kossuth, Lyon, Mitchell, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Souix, Webster, Winnegabo, Winneshiek, Woodbury, Worth, Wright	None
Northern OR	OR: Clackamas, Columbia, Marion, Multnomah, Polk, Washington, Yamhill	Portland	Seattle Area	WA: King, Snohomish	Seattle
Pacific Mtn. WA	WA: Grays Harbor, Lewis, Mason, Pacific, Thurston	Olympia	Eugene OR	OR: Benton, Lane, Linn, Lincoln	Eugene
South-Central and SW WI	WI: Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Marquette, Richland, Rock, Sauk	Madison	Des Moines/ Ames IA	IA: Boone, Clarke, Dallas, Guthrie, Jasper, Lucas, Madison, Marion, Polk, Story, Union, Warren	Des Moines
South Central ID	ID: Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls	None	Southeast ID	ID: Bannock, Bear Lake, Bingham, Caribou, Granklin, Oneida, Power	None
South Central KS	KS: Butler, Cowley, Harper, Harvey, Kingman, Marion, McPherson, Reno, Sedgwick, Sumner	Wichita	Northeast KS	KS: Dourglas, Franklin, Geary, Jackson, Morris, Osage, Riley, Shawnee, Wabaunsee	Topeka
Southeast MO	MO: Bollinger, Butler, Cape Giradeau, Dunklin, Iron, Madison, Mississippi, New Madrid, Pemiscot, Perry, Scott, St. Francis, Ste. Genevieve, Stoddard	None	West KY/ West TN	KY: Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, McCracken, Marshall TN: Crockett, Dyer, Gibson, Haywood, Lake, Lauderdale, Obion, Weakly	None
Southeastern MS	MS: Clarke, Covington, Forrest, George, Greene, Hancock, Harrison, Jackson, Jasper, Jefferson Davis, Jones, Lamar, Marion, Pearl River, Perry, Smith, Stone, Wayne	None	Northwestern MS	MS: Bolivar, Carroll, Coahoma, Hinds, Holmes, Humbphries, Issaquena, Leflore, Madison, Panola, Quitman, Sharkey, Sunflower, Tallahatchie, Tate, Warren Washington, Yazoo	Jackson
Southeastern VA	Counties/Cities: Chesapeake, Chesterfield, Colonial Heights, Dinwiddie, Emporia, Franklin, Gloucester, Greensville, Hampton, Hopewell, Isle of Wight, James City, Newport News, Norfolk Petersburg, Poquoson, Prince George, Southampton, Suffolk, Surry, Sussex, Virginia Beach, Williamsburg, York	Norfolk; Virginia Beach	Connecticut/ Rhode Island	CT: Middlesex, New Haven, New London RI: Bristol, Kent, Newport, Providence, Washington	Providence; New Haven

Table 2: WIRED and Comparison Regions

WIRED Region	Counties	Major Cities	Comparison Region	Counties	Major Cities
Southern AZ	AZ: Cochise, Pima, Santa Cruz, Yuma	Tucson	El Paso/ Las Cruces	NM: Catron, Dona Ana, Grant, Hidalgo, Luna, Sierra, Socorro TX: Brewer, Culbertson, El Paso, Hudspeth, Jeff Davis, Presidio	El Paso

Analytic Procedures

During the evaluation period, a variety of analytic procedures were employed to render large volumes of data into meaningful information. Administrative and extant data were used as described above to compile regional profiles. Qualitative data were managed using NVivo ™ software, and analyzed using standard social science data reduction processes.

Analytic procedures using extant data included an econometric model of outcomes, which was constructed from the Common Measures, i.e., entering employment, retaining employment, and earnings. This regression analysis of the Common Measures data used WIBS rather than individual data.[10]

Regression analysis was used to examine differences in means—across comparison region dyads, and across generations—for employment change, and for job creation and net job flow.

Finally, a multivariate difference-in-differences analysis was conducted using new hires, job creation, separation, and net job flow data. New faculty hires and STEM completions were also assessed in this manner.

Reporting

Over the course of the evaluation, a series of reports were delivered to the client team. The principal products and the nature of the data and analyses are noted here.

The first Interim report offered primarily qualitative data, presented according to each facet of the Theory of Change. This report also included qualitative and quantitative baseline social networking findings.

In the second Interim report, findings were focused mainly on partnerships and contextual labor market data. The partnership findings spoke to roles, partner perspectives on regional successes, broader impacts to the region, and social networking analysis. Extant data were used to provide contextual information on labor markets, demographics, and education and training. These were considered baseline due to lags in the availability of said extant data sources.

Volume I of the final report was a cross-generational effort covering all three generations. This presented quantitative outcomes aggregated across regions in each generation, in the areas of

[10] Although all regions were told to use WIASRD to report common measures, only about half actually did so.

employment and training; capacity building; networks and relationships; and business start ups and entrepreneurship. This report also offered analyses, based on qualitative and quantitative data, of key features of regions: defining regionalism; aligning efforts; use of data; engaging employers; nurturing networks; asset building; incumbent training; local WIBs roles; response to recession; leveraging; accountability; leadership; and sustainability.

Volume III of the final report, this document, provides a breakdown of the Initiative according to the five overarching Initiative goals as a framework. This sets out an analysis of each of the five Initiative goals at the aggregate level; regional activity responsive to the five goals; extant outcomes in STEM, faculty hires, and workforce variables; and quantitative aggregated region outcomes in employment and training, capacity building, stakeholders, education partnerships, STEM programs, and business incubators and entrepreneurship.

Evaluation Challenges

Multiple Goals

The purpose of evaluation in its broadest sense is to establish value.[11] Peter H. Rossi, Mark W. Lipsey, and Howard E. Freeman define *program evaluation* as

> …a social science activity directed at collecting, analyzing, interpreting, and communicating information about the workings and effectiveness of social programs. Evaluations are conducted for a variety of practical reasons: to aid in decisions concerning whether programs should be continued, improved, expanded, or curtailed; to increase the effectiveness of program management and administration; and to satisfy the accountability requirements of program sponsors.[12]

Ann Blalock[13] outlined the three major types of evaluations that can be done for an employment and training program: implementation (or process) evaluation, gross impacts evaluation, and net impacts evaluation. Kevin Hollenbeck[14] points out that the audience for an implementation evaluation is the administrators of the program and the audience for a net impacts evaluation is the funding agency or investors. It is only through a net impacts evaluation (or comparative research) that value can be established and that Rossi et al.'s third practical reason for conducting an evaluation, i.e., for accountability reasons, can be met.

[11] Joint Standards, *The Program Evaluation Standards: How to Assess Evaluations of Educational Programs*, 2nd ed. (Thousand Oaks, CA: Sage Publications, Inc., 1994).

[12] Rossi, Peter H., Mark W. Lipsey, and Howard E. Freeman, *Evaluation: A Systematic Approach*. 7th ed. (Thousand Oaks, CA: Sage Publications, Inc., 2003).

[13] Ann B. Blalock, *Evaluating Social Programs at the State and Local Level: The JTPA Evaluation Design Project*, (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 1990).

[14] Kevin Hollenbeck, "Using Administrative Data for Workforce Development Program Evaluation." *Upjohn Institute Working Paper*, No. 04-103, (Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2004).

There was ambiguity in ETA's expectations about the goals and purposes of the Initiative. In its two solicitations for grant applications (SGAs), ETA made the following statement:

> The goal of WIRED is to expand employment and advancement opportunities for workers and catalyze the creation of high-skill and high-wage opportunities in regional economies.[15]

This goal statement would suggest that the primary outcomes of interest would be labor market outcomes such as employment, promotions, and wages (or earnings). However, the SGAs and background literature indicate that the theory or logic model underlying WIRED was support of talent, or workforce, development (i.e., education and training). Furthermore, WIRED was intended to promote institutional transformation through the formation of aligned economic, workforce development, and education systems. Finally, the second WIRED SGA listed specific transformations for local workforce systems. In short, the specifications pointed to both process outcomes and labor market outcomes. As noted previously, the PPA/Upjohn teams response to this challenge was to be comprehensive, in offering both process and outcome evaluation efforts. While the process evaluation was successful, the outcome measurement proved to be more difficult, as described below.

Net Impact Challenges

The Initiative had many characteristics that challenged severely the ability to conduct a net impact (outcome) assessment. One of the issues complicating the ability to identify or isolate the net impact of the Initiative was its relatively small treatment. Very large multi-county regions were awarded $5 million over a three-year time period. While this investment was substantial for the organizing entities of the regional collaboratives and was used to support a substantial amount of training or educational investments, it represents a small fraction of each multi-billion dollar regional economy.

Another issue complicating Initiative's evaluability was the fact that each region chose its target sectors, supported activities that varied in type and scale, and varied considerably in their level of leveraged resources. This level of regional autonomy left no degrees of freedom for isolating causality.

The most important barriers to estimating the net impact of the Initiative were factors confounding outcome measurement. Most regions complied with ETA's requirement of quarterly progress reporting, but the data that were reported were outputs, rather than outcomes. Additionally, while most regions reported the number of individuals trained or participating in educational activities and the number of curriculums that were developed or improved, noncompliance by some regions made it impossible to get a complete set of outputs. Finally, in virtually no region were outcomes tracked, and the longer-term impacts can only be indirectly attributed to the initiative.

[15] Employment and Training Administration, *Solicitation for WIRED Generation III, SGA/DFA PY-06-09*, (Washington, DC: U.S. Department of Labor, 2007), Accessed August 10, 2011, http://www.doleta.gov/grants/sga/DOL-SGA-DFA-PY-06-09.pdf

Critique of Methods

The methodologies used in the evaluation of the Generation II and III WIRED regions included both qualitative and quantitative techniques. The qualitative methodology comprised a series of interviews, round tables, and observations in site visits to each region. These visits, along with the concomitant document reviews (proposals, implementation plans, and quarterly reports) were the most informative activities and were critical for evaluating the implementation aspect of the initiative.

The screener and partner surveys were supplemental to the site visits and document reviews. In terms of a methodological innovation, the screener survey collected information about broader effects of the WIRED regional collaborations on other organizations in the region that were not necessarily directly involved. For a complex survey, the response rate to the partner survey of over 75 percent was quite remarkable.

Straddling the methodological dichotomy of qualitative and quantitative techniques was the social networking analyses. Because a primary goal of the Initiative was alignment of economic and talent development systems through collaboration, it became important to map out the communication processes of the key stakeholders. Responses to the social networking question about five primary contacts outsides one's organization provided rich data with implications for communication strategies.

Finally, the evaluation team invested effort into devising comparison (or benchmark) multi-county regions for each of the regions. The intent was to track labor market and regional economic growth variables across each dyad of region/comparison region, to estimate the net impact of the Initiative regionally. However, the small magnitude of the treatment, the variation across sites in goals, performance criteria, and reporting practices, and the long-term nature of regional transformation militated against being able to isolate such impacts. Despite the severe limitations in the outcome measures, the effort did yield rough estimates of regional achievements, and demonstrated the feasibility of using an area matching methodology for programs using a regional investment approach.