



### **Workforce Innovation in Regional Economic Development (WIRED):**

## A Summary of Findings from the Evaluations of Generation I, II and III WIRED Grants

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by

Berkeley Policy Associates Public Policy Associates, Incorporated University of California, San Diego W.E. Upjohn Institute for Employment Research





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WIRED Regions	

In late 2005, the U.S. Department of Labor's Employment and Training Administration (ETA) developed the Workforce Innovation in Regional Economic Development (WIRED) Initiative. ETA's goals for the Initiative focused on transforming regional economies, increasing the skills of the current and future workforce, and transforming the work of three public systems: workforce development, education, and economic development toward greater coordination and integration. Three rounds (or "generations") of WIRED grants were awarded competitively in 2006 and 2007 to consortia in regional areas across the U.S. The initial 13 grants (Generation I) were for \$15 million each while grants for the other two rounds (Generations II and III) were smaller, at \$5 million each. In total, ETA awarded 39 multi-year grants, representing a \$325 million investment.

Two teams of external contractors conducted evaluations of the different generations of WIRED grants, which concluded in late 2010. Berkeley Policy Associates, with University of California, San Diego/Extension as a subcontractor, was responsible for evaluating Generation I projects while Public Policy Associates, Incorporated (with the Upjohn Institute as a subcontractor) evaluated the 26 grants in Generations II and III. The evaluations were designed to harvest policy, strategic, operational, and program-related lessons for Federal, state, and local audiences. This report is a summary of the findings from the two evaluations, looking across all three generations of WIRED projects.

## **Federal Goals**

The goals of the WIRED Initiative included the following:

- *Workforce System Transformation:* Developing an integrated approach to workforce and economic development and education.
- *High-Skill, High-Wage Jobs:* Expanding employment and career advancement opportunities for workers and catalyzing the creation of high-skill and high-wage opportunities.
- *Regional Economic Development:* Fueling regional economic competitiveness.
- *Supporting Innovation:* Creating highly networked communities that are key to supporting innovation and the economic growth process.
- Disadvantaged Populations: Expanding opportunities to increase the work skills and work readiness of low-wage workers.

## **Project Outcomes and Achievements**

The regions sought to achieve a variety of outcomes, some of which were more easily quantified than others. They submitted traditional Common Measure outcome data along with other data designed to capture the success of efforts to increase the skills and productivity of incumbent workers. They also offered evidence of their efforts to create new curricula and establish new collaborative agreements designed to build the capacity of the education system to respond to

regional needs more rapidly and effectively in the future. Other longer-term benefits of WIRED grant activities, such as enhanced collaboration across institutional boundaries and future efforts to work collaboratively on workforce development challenges, were not quantified.

Below is a brief summary of estimated outcomes from the WIRED Initiative as a whole. These figures give a basic sense of the results from efforts undertaken in the regions, but are not intended to be a definitive accounting, due to differences among grantees in each generation -- and across the three generations -- in regional goals, performance metrics, and reporting practices.

### **Education and Training Highlights**

- An estimated total of 138,092 participants entered training across the three generations of the Initiative grants, among whom:
- Almost 85 percent completed training (a total of 115,295);
- 91,172 individuals attained a degree, certificate, or credential through participation in WIRED activities representing 79 percent of those who completed training.
- 18,397 participants entered employment across the three generations.

### **Capacity-Building Highlights**

- The three generations of grants prepared 31,532 teachers to present curricula related to the target industries and projected that these instructors would train 293,680 students annually as a result of that training.
- Partners in the 39 regions developed 1,351 sets of industry-related curricula, and the grantees estimated that instructors would use these materials with at least 47,595 students per year.
- The regions also reported that they had developed and implemented 755 different career guidance or career development activities during the grant, and provided 392,940 individuals with access to these strategies.

### **Business Development and Entrepreneurship Highlights**

- The grants facilitated 1,065 business startups and expansions.
- A total of 326 business incubator clients were served.

## **Insights into Regional Collaboration and Systems Integration**

Through their efforts to plan and implement the WIRED grants, regional stakeholders and leaders revealed an array of important insights, including:

- The manner in which their regions were formed,
- The challenges associated with aligning education, workforce, and economic development systems,

- The key roles that local Workforce Investment Boards (WIBs) played in their regions,
- The ways in which data were used to support decision-making,
- The importance of building upon existing regional assets,
- The challenges related to engaging employers and maintaining their meaningful involvement, including the strategic uses of incumbent worker training to support business growth,
- The importance of strong leadership and effective governance,
- The strategies for leveraging resources and overcoming siloed ways of thinking,
- The strategic uses of performance measures, and
- The strategies for sustaining the effective elements of their regional strategy.

In addition, since the recent national recession occurred during the period of performance of the WIRED grants, the evaluation teams documented important lessons about the need for adaptability and responsiveness to changing economic conditions.

### **Lessons for Stakeholders**

A sampling of the strategic and operational lessons for regional stakeholders is provided below.

- Regional strategies offered considerable benefits because of the opportunity to align organizational resources to pursue shared goals that have the potential to affect a regional economy.
- A culture of regional collaboration made it possible to work across jurisdictional boundaries and overcome institutional barriers.
- Strong leadership at the executive level was essential to establishing an institutional commitment to regional collaboration.
- Local WIBs were important partners in regions that seek to integrate economic, education, and workforce development systems; although, in many cases, local WIBs were in an early stage of understanding how to incorporate this role into their organizations' missions.
- In many areas of the country, and at the state and regional level, employers and other local partners were concerned about the level of knowledge and abilities of the emerging workforce in areas related to science, technology, engineering, and mathematics (STEM). They were concerned about the ability of the education system to incorporate STEM into the curriculum for all of their students. This issue cut across the education and workforce investment systems, making collaboration essential.
- Some of the leadership and management skills needed to manage the work of local WIBs and American Job Centers (AJCs, formerly One-Stop Career Centers) may be transferrable to coordinating the work of regional collaboratives, although additional peer support and training may be needed to enhance those skills.

The current array of performance measures used to assess the effectiveness of local WIBs and AJCs act as a disincentive for local WIBs to become fully engaged in capacity-building and systems-building efforts because those measures do not acknowledge these activities. The ability to develop and use project-related performance measures as a supplement to the Common Measures could act as an incentive for greater participation among local WIBs.

## I. Introduction

The Introduction of this report discusses the origins of the Workforce Innovation in Regional Economic Development Initiative and places it in the historical context of discussions about the ability of the United States to compete in the emerging global economy. This is followed by a discussion of the investment strategy that was used by U.S. Department of Labor's Employment and Training Administration to award 39 grants to regions across the United States. This section also includes a list of the regions and a map showing their location.

Throughout the 20<sup>th</sup> Century, the United States was a global economic leader; however, in the early part of the 21<sup>st</sup> Century publications from the U.S. Council on Competitiveness (2004)<sup>1</sup> and the National Academy of Sciences (2005)<sup>2</sup> fed a growing uneasiness about our country's economic situation. Using phrases like "gathering storm," "looming crisis," <sup>3</sup> and a "world of challenge and change," these authors charged that the U.S. needed to take action to hold onto its coveted position in the global economy. They warned that the U.S. was losing its competitive edge because of a lack of investment in education and research, and called for action based on the United State's traditional strengths: diverse human potential, innovation, and a rich variety of resources. The authors of these reports have offered several possible solutions, including retraining workers, improving educational attainment, promoting entrepreneurism, and encouraging product diversification, among other strategies.<sup>4</sup>

In late 2005, the U.S. Department of Labor's Employment and Training Administration (ETA) created the Workforce Innovation in Regional Economic Development (WIRED) Initiative in response to these concerns. ETA's goals for the Initiative focused on transforming regional economies, increasing the skills of the current and future workforce, and transforming the work of three public systems -- workforce development, education, and economic development -- toward greater coordination and integration. The goals included:

- *Workforce System Transformation:* Developing an integrated approach to workforce and economic development and education.
- *High-Skill, High Wage Jobs:* Expanding employment and advancement opportunities for workers and catalyzing the creation of high-skill and high-wage opportunities.
- *Regional Economic Development:* Fueling regional economic competitiveness.

<sup>&</sup>lt;sup>1</sup> Council on Competitiveness, *Innovate America: National Innovation Summit and Report: Thriving in a World of Challenge and Change* (Washington, DC: 2004), http://www.compete.org/pdf/NII\_Interim\_Report.pdf.

<sup>&</sup>lt;sup>2</sup> National Academies, National Academies' Committee on Science, Engineering, and Public Policy, Committee on Prospering in the Global Economy of the 21<sup>st</sup> Century, *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future* (Washington, DC: National Academy Press, 2005), http://www.nap.edu/books/0309100399/html.

<sup>&</sup>lt;sup>3</sup> National Association of Manufacturers, *Looming Workforce Crisis: Preparing American Workers for 21st Century Competition*, (September 2005), http://www.nam.org/s\_nam/index.asp.

<sup>&</sup>lt;sup>4</sup> U.S. Department of Education, *Meeting the Challenge of a Changing World: Strengthening Education for the* 21st Century, (Washington DC: Jan. 2006). Phan and Siegel, *The Effectiveness of University Technology Transfer:* Lessons Learned from Quantitative and Qualitative Research in the U.S. and U.K., (R.P.I., April 2006). Many other reports are available in ETA's WIRED Resource Library. http://www.doleta.gov/wired/tools/resourceLibrary.cfm.

- *Supporting Innovation:* Creating highly networked communities that are key to supporting innovation and the economic growth process.
- Disadvantaged Populations: Expanding opportunities to increase the work skills and work readiness of low-wage workers.<sup>5</sup>

## A. The Investment Strategy

From the outset, the intent of the Initiative was quite different from ETA's usual approach to grant making because of its emphasis on collaboration and its focus on regional strategies. Instead of funding (and then monitoring) local worker-training programs to help targeted populations of job seekers gain the skill sets that employers sought, the Initiative encouraged communities to work collaboratively to promote regional economic growth and job creation. The regional design stemmed from an understanding that labor market areas and industry sectors or clusters often reached across local and state boundaries, thus the grantees' partners had to learn how to work across such jurisdictional boundaries.

As the Initiative unfolded, regional partners from education, business, economic development, and workforce development convened to take strategic action aimed at positioning their local and regional economies to thrive, and thereby, help put the nation back on the path to greater global competitiveness. ETA asked grantees to devise goals and strategies aligned with those of the Initiative, applied in a regional context, and designed to address regional needs.

While ETA wanted the regions to be flexible, the Initiative's funding source (H-1B fees<sup>6</sup>) somewhat limited the types of activities the regions could undertake. Regions could not use grant funds for public infrastructure improvements, product research and development, inventory acquisition, general business capitalization or expansion, or revolving loan accounts. In addition, regions could not use grant funds to serve individuals under age 16.

ETA organized the Initiative as a series of three "generations" of three-year grants, awarded through a national, competitive process. State governors were the official grantees, although regional partners developed the proposals. Early in 2006, ETA announced the award of 13 Generation I grants of \$15 million each.<sup>7</sup> A few months later, ETA selected a second group of 13 grantees from the remaining pool of applicants for Generation I. ETA awarded \$100,000 to these "virtual" regions to develop their implementation plans,<sup>8</sup> and offered them an opportunity to participate in some of the Initiative's technical assistance activities. In early 2007, ETA increased funding for the virtual regions to a total of \$5 million each for a three-year period, and

<sup>&</sup>lt;sup>5</sup> The emphasis on disadvantaged workers was not included in the original Initiative design but was added later, when ETA leadership changed.

<sup>&</sup>lt;sup>6</sup>Authorized under Sec. 414 (c) of the American Competitiveness and Workforce Improvement Act of 1998 (P.L. 105-277, title IV), as amended. U.S. employers pay these fees to secure H-1B visas for the foreign workers they hire but there are restrictions on use of these funds when used for training services.

<sup>&</sup>lt;sup>7</sup> U.S. Department of Labor, *Solicitation for WIRED Generation I, SGA/DFA PY 05-04*, (Washington, DC, 2005).

<sup>&</sup>lt;sup>8</sup> Because the Generation II regions had originally applied for the larger amount of funding, they needed to adjust the scope of their activities.

required that local Workforce Investment Boards (WIBs) be partners in the regional effort. Once ETA approved their plans, the agency renamed this group as "Generation II."

In 2007, through a new solicitation and proposal process, ETA awarded 13 additional grants referred to as "Generation III." Each of these grants was also for \$5 million over a three-year period.<sup>9</sup> This solicitation put a stronger emphasis on the involvement of WIBs than had been done previously, stating that one of the region's local WIBs was required to be the lead agency for the grant.<sup>10</sup>

In total, ETA funded 39 grants with over \$325 million. Before they could access the grant funds, grantees were required by ETA to develop implementation plans that described the region's goals, activities, budgets, and performance measures. Once the plans were reviewed and approved, grant the funds could be drawn down.

ETA expected the WIRED funds to act as seed money, and that the regions would leverage the Federal investment with assets from other sources. Because of long delays in gaining final approval of implementation plans, and the restrictions on uses of H-1B grant funds, leveraged resources (i.e., time, money, and key staff) became even more important to the grantees, and to Generation I regions in particular (see the section on "Findings and Insights from the Initiative" for more information). In addition to grant funds, all regions had the option of using ETA-funded technical assistance (TA) to support their efforts.<sup>11</sup> The types of TA that the grantees used ranged from help on strategic issues such as leadership and overcoming barriers to collaboration, to technical issues such as maintaining the data needed to track performance.

The map below shows the location of all 39 regions. Additional information about each of the regions can be found as well in the table following.

<sup>&</sup>lt;sup>9</sup> U.S. Department of Labor, *Solicitation for WIRED Generation III, SGA/DFA PY-06-09*, (Washington DC: Feb. 2007).

<sup>&</sup>lt;sup>10</sup> While the role of the local WIB changed, the Generation III Solicitation for Grant Applications did not describe the specific duties of the lead agency.

<sup>&</sup>lt;sup>11</sup> This topic is discussed in greater detail in "Findings and Insights from the Initiative" See p. XX.



Figure 1

Table 1: Initiative Regions						
Shortened Reference Major Metropolita						
Official Name <sup>12</sup>	Used in This Report	Location	Areas			
Generation I						
		12 coastal counties in				
Coastal Maine	Maine	Maine	Portland, Bangor, Augusta			
		9 counties in Northeast	Allentown, Bethlehem,			
Northeast Pennsylvania	Pennsylvania	Pennsylvania	Scranton			
		9 counties in Upstate New				
Upstate New York	New York	York	Rochester, Syracuse			
Piedmont Triad North		12 counties in Northwest	Greensboro,			
Carolina	North Carolina	North Carolina	Winston-Salem			
Mid Mishigan	Mid Mishigan	13 counties in Central	Elint Longing			
Mid-Michigan	Mid-Michigan	Michigan 7 counties in Western	Flint, Lansing			
West Michigan	West Michigan	7 counties in western Michigan	Grand Rapids, Holland			
west whengan	west whenigan	14 counties in Northern	Oranu Napius, fiolialiu			
North-Central Indiana	NCI	Indiana	Lafayette, Kokomo			
North-Central Indiana	inci	16 counties in the Florida				
Florida's Great Northwest	Florida	Panhandle	Tallahassee, Pensacola			
		18 counties in W.				
Western Alabama &		Alabama; 19 counties in E.	Meridian (MS),			
Eastern Mississippi	WAEM	Mississippi	Tuscaloosa (AL)			
		10 counties in Missouri; 8	Kansas City (MO), Kansas			
Greater Kansas City	Kansas City	counties in Kansas	City (KS)			
			Denver, Boulder,			
Metro Denver	Denver	9 counties around Denver	Ft. Collins			
Central & Eastern		32 counties in Northeast				
Montana	Montana	Montana	Havre, Miles City			
California Innovation		13 counties from Oakland	Los Angeles,			
Corridor	California Corridor	to San Diego	San Diego, Oakland			
Generation II		1	1			
Central-Eastern Puerto		7 rural counties in Eastern				
Rico	Puerto Rico	Puerto Rico	Caguas, Cayey, Humacao			
		1 county in Southwest				
Southwestern Connecticut	Connecticut	Connecticut (Fairfield	Bridgeport, Norwalk,			
Southwestern Connecticut	Connecticut	County) 8 counties between New	Stamford			
		York City and the				
Northern New Jersey	N. New Jersey	Pennsylvania border	Newark, East Orange			
Normeni New Jersey	IN. New Jersey	7 counties in	Newark, Last Grange			
		Pennsylvania; 5 counties	Philadelphia (PA),			
		in New Jersey; 1 county in	Camden (NJ),			
Delaware Valley	Delaware	Delaware	Wilmington (DE)			
·		29 counties in Southeast				
Appalachian Ohio	Ohio	Ohio	Athens, Portsmouth			
		9 counties in Southeast				
Southeast Michigan	SE Michigan	Michigan	Detroit, Ann Arbor			
	_	12 counties in Alabama; 1				
Tennessee Valley	Tennessee	county in Tennessee	Huntsville, Decatur			

<sup>12</sup> These official names come from either the WIRED official Web site, or via conversations with ETA.

Table 1: Initiative Regions					
Official Name <sup>12</sup>	Shortened Reference Used in This Report	Location	Major Metropolitan Areas		
Southwest Indiana	SW Indiana	9 counties in Southwest Indiana	Evansville, Jasper, Vincennes		
Southeastern Wisconsin	SE Wisconsin	7 counties in Southeast Wisconsin	Milwaukee, Pewaukee		
Arkansas Delta	Arkansas	17 counties along the Mississippi River	West Memphis		
Rio South Texas	Texas	4 southernmost counties in Texas	Brownsville, McAllen		
Wasatch Range	Utah	8 counties in North- Central Utah	Salt Lake City, Provo		
Northern California Generation III	N. California	21 northernmost counties in California	Redding, Chico, Eureka		
Southern Arizona	Arizona	4 southernmost Arizona counties	Tucson, Yuma		
South-Central Idaho	Idaho	8 counties in Southern Idaho	Twin Falls		
South-Central Kansas	Kansas	10 counties in South- Central Kansas	Topeka, Wichita		
Central Kentucky	Kentucky	15 counties in North Central Kentucky	Louisville, Lexington		
Southeastern Mississippi	Mississippi	18 counties in Southeast Mississippi	Jackson, Gulfport		
Southeast Missouri	Missouri	14 counties in Southeast Missouri	Cape Giradeau		
Southwest Minnesota	Minnesota	36 rural counties in Southwestern Minnesota	Willmar, Mankato, Albert, Lea, Marshall, Worthington		
Central New Jersey	C. New Jersey	5 counties in Central New Jersey	Trenton, New Brunswick		
Greater Albuquerque (NM)	New Mexico	8 counties in Central New Mexico	Albuquerque, Santa Fe		
North Oregon	Oregon	7 counties in Northwestern Oregon	Portland		
Southeastern Virginia	Virginia	24 counties on Virginia's southern coast Norfolk, Virginia Bea			
Pacific Mountain Washington	Washington	5 counties in Western Washington	Tacoma, Olympia		
South-Central & South- West Wisconsin	Wisconsin	12 counties in Southern Wisconsin	Madison, Janesville, Beloit		

### **B.** The Evaluations of WIRED

Two teams of organizations collaborated in conducting the evaluation. Berkeley Policy Associates (BPA) and its subcontractor and partner, the University of California at San Diego (UCSD), evaluated the 13 Generation I grants. Public Policy Associates, Incorporated (PPA) with W.E. Upjohn Institute for Employment Research as a subcontractor and partner, evaluated the 26 Generation II and III grants. Both evaluations were multi-year studies that approximated the grants' period of performance, but extended beyond that time period to permit an examination of sustainability efforts and to prepare the final reports. Both teams focused on strategies, implementation activities, collaborative experiences, and outcomes. To ensure that data would be adequate for comparisons across the three generations of grants, the teams shared research questions, data collection methods, and site visit protocols.

### **Goals and Research Questions**

The evaluations aimed to gain a comprehensive understanding of the implementation and cumulative effects of activities under the grants and to gauge the extent to which these led to integration of regional economic development, workforce development, and education systems. The goal was to harvest policy, strategic, operational, and program-related lessons for Federal, state, and local audiences. The evaluations thus focused on the following aspects of the Initiative:

- Strategic Approach, Implementation, and Institutionalization: Research in this area explored the strategies that grantees developed to address regional needs; the extent, nature, and impact of collaboration on regional partners; the extent to which funds from other sources were aligned and leveraged; and sustainability plans.
- Innovation and Capacity Changes: Research questions on innovation and capacity centered on efforts to identify and address barriers to innovation and industry growth; efforts to create a talent development system that supported economic and business development; the effectiveness of the Initiative in building the regions' capacity to train workers for their targeted industries; and measureable benefits for workers and job seekers.
- *Economic and Labor Market Effects*: Here, the research questions examined ongoing changes in the regional economy and labor market, and the extent to which the grantees contributed to job creation, education attainment, and business growth.
- *Cross-Generational Comparisons (across Generations I, II, and III)*:<sup>13</sup> This set of questions sought to understand commonalities and differences among the generations.

### **Data Sources**

The evaluations collected data from site visits at multiple points in time in each region, using interviews, facilitated group discussions, and observations. Other sources of data included a survey of regional partners and secondary sources. The data collection process entailed the following:

<sup>&</sup>lt;sup>13</sup> A complete list of research questions and detailed description of the evaluation methodology is included in the Design Reports for the evaluations of Generation I and of Generations II and III.

- Site Visits: A minimum of two site visits were conducted to each grant, with each visit including approximately four days on-site. A third set of visits was conducted to a small number of regions in Generations II and III. These were selected based on the need to collect additional information on a promising practice. Several months after the grantees' periods of performance ended, follow-up calls were made to several primary partners in each region to assess the status of sustainability efforts.
- *Interviews and Small Group Discussions:* Interviews and group discussions were conducted with a cross-section of stakeholders from the public workforce system, K-16 education, economic development, employers, state and local government, and the philanthropic sector.
- Surveys: Surveys were conducted with grant leaders and partners to gauge the extent of collaboration, leadership structure, the perceived effectiveness of regional strategies, and partner engagement in the initiative. In addition, data from the surveys was used to create social network maps for each region.
- Secondary Sources: The evaluations also used: 1) administrative data reported by the regions on participant characteristics, service use, and outcomes; and 2) extant data and reports from numerous public and private sources to document economic, education, innovation, commercialization, and labor market activities and trends.
- *Observations*: Observation of grant-funded activities was conducted during site visits to locations where these took place.

### Reporting

Each research team produced two interim reports and one final report on the respective WIRED generations for which the teams were responsible. This final summary report, the product of a collaborative effort between the two research teams, presents a summary of findings on all the grants and discusses commonalities and differences within and among the three generations of projects. (The two other final reports from the evaluations present more detailed findings on the various generations and discuss their significance)

## **C. Organization of This Report**

The remainder of this report consists of the following:

- *II. Outcomes and Achievements:* The second section summarizes several categories of outcomes and achievements of the 39 regions in the Initiative.
- *III. Findings and Insights from the Initiative:* This section examines several key elements of implementation with illustrations from selected regions.
- *IV. Lessons from the Initiative:* This final section summarizes the key strategic and operational lessons that emerged from the cross-cutting analysis of the regional initiatives.
- *Bibliography:* A selected bibliography has been created to provide a historical backdrop for the Initiative.

## **II. Outcomes and Achievements**

This section summarizes data that the grantees submitted, including those on the Common Measures and other relevant metrics. Due to regional variations in goals, performance criteria, and reporting practices, the data presented in this section are rough estimates of regional outcomes and achievements. The actual numbers were likely higher than what is reported here.

ETA encouraged the regions to develop strategies that aligned with the goals of the WIRED Initiative but that also responded to each region's unique mix of workforce, education, and economic development assets and needs. Regional leaders worked with assigned ETA staff to design implementation plans and to create a set of measures that tracked progress toward regional goals. The grantees of the three generations sought outcomes across several dimensions related to various stakeholder groups. These outcomes included:

- Providing education, employment and training services to meet the needs of both workers and employers.
- Creating new curricula, acquiring new instructional equipment, coordinating efforts across education institutions, and training educators to use new teaching techniques to increase student achievement in science, technology, engineering, and mathematics.
- Providing entrepreneurship training and access to entrepreneurship support networks to support business start-ups and accelerate small business expansion.
- Creating networks across stakeholder groups to foster innovation, share resources, improve the quality of their workforce, and facilitate growth in their target industries.

This section broadly describes the regions' successes in each of these outcome areas but should not be considered a definitive account of the quantitative outcomes of the Initiative. Although ETA provided a metrics template with suggested performance measures, many of the grantees deviated from the template in varying degrees to suit their individualized goals and performance criteria.

## **A. Employment and Training Highlights**

An estimated total of 138,092 participants entered training across the three generations of grants. Some of these customers were still engaged in training at the time the evaluation teams gathered data for this report. As Table 2 below indicates, Generation I regions enrolled nearly two-thirds of the trainees (89,419, or 65 percent), while Generation II enrolled 27,822 (20 percent of participants), and Generation III served 20,851 (15 percent of participants).

Table 2: Education and Training Outcomes by Generation <sup>a</sup>				
Measure	Total Trainees	Generation I Trainees	Generation II Trainees	Generation III Trainees
Enrolled in				
Education/Training Using				
Initiative Funds	138,092	89,419	27,822	20,851
Completed				
Education/Training Using				
Initiative Funds	115,295	75,374	22,908	17,013
Degrees, Certificates, and				
Credentials Earned Using				
Initiative Funds <sup>b</sup>	91,172	68,085	7,446	15,641
Trainees that Entered				
Employment	18,397	14,855	1,300	2,242

#### Table 2: Education and Training Outcomes by Generation<sup>a</sup>

<sup>a</sup> *Source:* The final reports of the grantees.

<sup>b</sup> The number of certifications in some regions exceeded the number enrolled because some programs did not formally enroll individuals who obtained WorkKeys certificates through the grant. Furthermore, some enrollees earned multiple certificates.

Almost 85 percent of all participants completed Initiative-funded training (a total of 115,295). The proportions of participants who completed the training were similar across the three generations (84 percent in Generation I and 82 percent in Generations II and III).

In all, 91,172 degrees, certificates, and credentials were awarded to individuals that participation in grant-funded programs. Some regions, however, paid for people to take the WorkKeys certification examinations without formally enrolling them as participants; these regions reported more individuals certified than the number who enrolled in training. The Generation II grantees reported a substantially smaller proportion (33 percent) of those who completed training and who earned a degree, certificate, or credential than did Generation I (90 percent) or Generation III (92 percent) regions. The differences between Generations II and III are due to combination of factors. Generation III had an increased emphasis on entrepreneurial training and supports and a greater emphasis on K-12 education, including STEM-based education programs, faculty training, and the development of student internships for high school and college students interested in pursuing careers in high-tech industries and the biosciences.

Finally, 18,397 participants entered employment across the three generations of grants. Of Generation I participants, 14,855 found jobs, while 1,300 Generation II and 2,242 Generation III participants entered employment. The differences between the generations are due to several factors including the following:

- Generation I regions had more resources to train participants and help them find jobs.
- Generation I grants operated for a longer period (four years<sup>14</sup>) than did the other two generations. Furthermore, the first group of grants had longer to assist participants in

<sup>&</sup>lt;sup>14</sup> A number of administrative issues contributed to implementation delays. As a result, all of the Generation I regions, and a subset of those in Generations II and III, received a one-year no-cost extension to their three-year grants.

finding employment before the recession started. (A further discussion of the impact of the recession can be found in the next section of this report).

Several technical issues suggest that the numbers of trainees may be higher than reported. For instance, ETA suggested, but did not require, the WIRED projects to provide the data discussed above. Many, but not all grantees, used the measures, and, thus, data are missing for some of the regions. In addition, ETA instructions on counting participants who entered employment vs. those who entered employment in the fields for which they trained varied across the three generations. Finally, the number of individuals who entered employment did not include incumbent workers who already had jobs. ETA asked the regions to report the amount that they spent on incumbent worker training, but not the number of workers who enrolled. Most of the regions provided this information nonetheless. The three generations of grants trained at least 20,000 incumbent workers. Generation 1 enrolled the majority (15,681) of this group, Generation II regions had 3,537 complete training, and Generation III grantees served 781.

Combining the number of participants who started new jobs in the target industries with the incumbent workers trained resulted in the three generations of grantees achieving a 32 percent placement rate. Considering only the Generation I regions, the placement rate rises to 41 percent. As noted above, the differences in grant size and the timing of the generations may account for this discrepancy.

## **B.** Capacity-Building Highlights

Due to their potential for generating impacts long after the conclusion of the grant period, all of the regions dedicated significant resources to capacity-building, including curriculum development, professional development, and instructional equipment. ETA asked the grantees to report the number of educators who were trained to teach courses related to the regions' target industries; Table 3 on the following page presents these outcomes. Other capacity-building measures included the number of new curricula, work-based strategies, and career guidance strategies that the regions developed, and the amount spent on instructional equipment. ETA also requested the number of students projected to be affected annually as a result of each capacity-building activity.

Partners in the 39 regions reported that 1,351 sets of industry-related curricula had been developed and that a total of 31,532 teachers received training on how to present or customize the new curricula for use in target industries. The regions projected that these instructors would train 293,680 students annually.

The WIRED Initiative funded the development of 3,609 work-based learning strategies for students, including apprenticeships, internships, and on-the-job training. The regions projected that 3,922 students would participate in these work-based strategies annually. The regions also reported that they had developed and implemented 755 different career guidance or career development activities during the grant, and provided 392,940 individuals with access to these strategies. Finally, the regions spent at least \$7,167,532 in purchasing instructional equipment, and anticipated that 13,730 students would use the equipment each year.

Table 3: Capacity-Building Outcomes by Generationab				
		Generation	Generation	Generation
Measure	Total	Ι	II	III
Educators Prepared to Teach				
in Identified Industries	31,532	18,278	9,914	3,340
Projected Number of Students				
to Be Trained Annually as a				
Result	293,680	173,015	56,631	64,034
Students Affected During				
Grant Period	9,957	—	2,700	7,257
New Curricula Developed	1,351	491	101	759 <sup>d</sup>
Projected Number of Students				
to Be Trained Annually as a				
Result	47,595	11,633	11,505	24,457
Students Affected During				
Grant Period	1,124	—	1,124	NA
Work-Based Strategies				
Developed/Implemented <sup>c</sup>	3,609	1,226	1,105	1,278
Projected Number of Students				
to Be Trained Annually as a				
Result	3,922	3,553	NA <sup>e</sup>	369 <sup>e</sup>
Career Guidance Strategies				
Developed/Implemented	755	82	56	617 <sup>f</sup>
Participants in Career				
Development or Guidance				
Activities	392,940	177,373	193,789 <sup>g</sup>	21,778
Grant Funds Spent on				
Instructional Equipment	\$7,167,532	\$2,242,935	\$2,803,705	\$2,120,892
Projected Number of Students				
to Be Trained Annually as a				
Result	13,730	11,796	$NA^h$	1,934 <sup>h</sup>

<sup>a</sup> *Source:* The final reports of the grantees.

<sup>b</sup> Generation I reported the number of students projected to be trained annually as a result of capacity-building.

Generations II and III reported the number of students affected by capacity-building during the grant period.

<sup>c</sup> Includes internships, apprenticeships, and on-the-job training.

<sup>d</sup> One Generation III region (Wisconsin) reported having developed 451 curricula.

<sup>e</sup> Most Generation II and III regions did not project numbers of students to be trained annually as a result of workbased strategies.

<sup>f</sup> One Generation III region (Idaho) reported developing 513 career guidance strategies.

<sup>g</sup> One Generation II region (Utah) reported that 182,862 individuals participated in career development or guidance activities.

<sup>h</sup> Most Generation II and III regions did not project numbers of students who would be trained annually as a result of equipment purchases.

## **C.** Business and Entrepreneurship Highlights

To diversify their industrial base and cultivate economic growth from within, many of the regions provided training in entrepreneurship and businesses operations in targeted sectors. Table 4, below, presents the outcomes of these activities. ETA did not specifically ask the regions to provide numbers for these measures, and only 25 of the 39 grantees provided them. Thus, the figures discussed below are likely to underestimate the outcomes for these measures.

by Generation <sup>a</sup>					
		Generation	Generation	Generation	
Measure	Total	I	II	III	
Business Incubators					
Established	9	8	1	NA <sup>b</sup>	
Business Incubator Clients					
Served	326	178	148	NA <sup>b</sup>	
Business Startups and					
Expansion	1,065	767	298	NA <sup>b</sup>	
New Jobs Created	3,176	2,351	825	NA <sup>b</sup>	
Business Training Programs					
Created	128	43	32	53	

## Table 4: Business Incubation and Entrepreneurship Outcomes

<sup>a</sup> *Source:* The final reports of the grantees.

<sup>b</sup> Since grantees were not specifically asked to provide this information, no data were reported for many of these measures.

Seven regions also took part in establishing nine business incubators. One of the regions was in Generation II, and the rest were part of Generation I. Only four grantees reported the number of customers served by business incubators (a total of 326 entrepreneurs).

The grantees reported that 1,065 companies were launched or expanded as entrepreneurs worked with the regional networks of business development specialists that were assembled with the help of regional staff. The 11 regions that provided data for this measure reported that the establishment and expansion of these businesses had created 3,225 new jobs.

The majority of regions developed some sort of business training programs and/or modules on specialized topics like insurance or angel investors. Overall, 128 such programs were created, however, few regions reported how frequently the new courses or modules were offered during the grant period or how many participants were involved. Regions that did provide this data reported that a total of 195 courses or modules had been offered so far.

While the data on business support activities were sparse, they nonetheless provided a glimpse of the range of activities that the regions undertook.

Unfortunately, there was no successful way of estimating impacts or cost-effectiveness of the WIRED Initiative as a whole, nor of the individual generations.

### **D.** Networking and Relationship-Building Highlights

Quantifiable accomplishments are often viewed as the measures of success of a workforce development initiative. However, from the perspective of the WIRED grantees, many of the outcomes discussed above were secondary to the development of boundary-spanning relationships from which to launch projects that would revitalize and potentially transform their regions' economies. The results of these efforts are much harder to quantify than the more tangible outcomes discussed above. Nonetheless, site visit respondents consistently identified the partnerships developed through participation in WIRED as being among a region's most valued assets and most sustainable outcomes.

Working together allowed organizations that previously regarded themselves as competitors to recognize the extent to which they shared goals. Many discovered that they were stronger working together than in isolation or in competition with each other. The most notable examples of these new-found symbiotic partnerships were those among economic development organizations and colleges and universities, and many learned to de-emphasize rivalries and jurisdictional boundaries in order to meet common challenges. Partners had to reach beyond their accustomed "turf" and become knowledgeable about—and respectful of—the capabilities, priorities, funding constraints, and even vocabularies of organizations with which they previously had little in common or shared only a few interests. For many partners, this was a substantial journey.

Repeatedly over the WIRED Initiative's implementation period and beyond, regional partners and employers who were the beneficiaries of regional action pointed to the many lasting benefits of the collaborative relationships formed during their grants. Institutional leaders and management staff recounted how the cross-organization and cross-agency dialogue facilitated an exchange of ideas and helped to generate innovative solutions to issues that were making it difficult to implement certain programs. In most regions, these successful experiences with collaborative problem-solving helped to build a sense of trust among organizations that had a limited history of successful collaboration.

These boundary-spanning partnerships represent an important platform for the future. Partners that worked together on Initiative activities were well positioned to work together beyond the grant period. Most had positive experiences based on new forms of respect and trust as well as evidence that sharing resources can enhance and even enlarge their success. In sum, partnerships evolved in a number of ways, including:

- Expanding beyond the original inner circle,
- Being forged among traditional competitors,
- Solidifying among workforce investment boards, and
- Building boundary-spanning organizations and activities.

Chapter 3 discusses the process of developing these relationships, as well as the assessment of Initiative partners about the progress that regions made toward collaboration.

## Summary

This section provided quantitative information on the success of regional efforts to address the education and training needs of dislocated, incumbent, and emerging workers served in all three generations of the Initiative, although the accuracy of the findings are subject to question. A combination of traditional Common Measures and capacity-building measures were used to document the wide range of outcomes and achievements of the 39 regions that participated in WIRED. It has been far more difficult to quantify the development and utilization of public/private partnerships and the effectiveness of efforts to collaborate across jurisdictional and institutional boundaries that enabled the regions to achieve their regional goals. The next chapter section describes the nature of the challenges that the regions encountered in doing so.

## **III. Findings and Insights from the Initiative**

The regions that participated in WIRED were committed to developing and implementing a multifaceted strategy to create a workforce with the knowledge and skills needed to support economic growth and ultimately job creation. While each of the regions attested to the ability of its partners to meet the collaborative challenges associated with carrying out the work of the Initiative, all of the regions learned important lessons and gained valuable insights which are discussed below.

# A. Defining a Region and the Developing Sense of Regionalism

The WIRED Initiative challenged the grantees to think and act regionally, making clear that the programs' focus was on economic regions. Rather than relying on traditional jurisdictional boundaries—such as the multi-county service area of a local WIB or community college— ETA expected grant applicants to define their regions in a manner that corresponded with the dynamics of the actual labor market. Thus, the first task for stakeholders was to define their regional boundaries to reflect –but not be constrained by–the jurisdictional boundaries of participating organizations, institutions, or agencies. At the proposal stage, stakeholders brought different viewpoints and understanding to the process of determining the size, shape, and ultimately the development of a regional identity. A combination of factors influenced these perspectives, including:

- The strategic interests of the core leaders of the convener organization and others who were involved in the early decisions about the region's definition, and
- The history of relationships and prior collaboration among key partners throughout the proposed region (e.g., existing consortia, prior conflicts, and changing leadership).

In the end, the grantees tended to form their regional boundaries around either industry clusters, or existing economic development areas representing labor markets. Delaware (II), for example, based its boundaries on the locations of the top ten multinational pharmaceutical companies with facilities in their area. Minnesota (III) used a similar approach, drawing the region's boundaries around the location of wind-turbine farms that generated electricity for homes throughout the Midwest. Kansas (III) referred to itself as "Composites Kansas" because the five major aircraft manufacturers in the area companies were increasingly using composites in aircraft. On the other hand, North Carolina (I) and Florida (I) based their regional boundaries on state-recognized labor markets that were designated as economic development areas. Ohio (II) was the only grantee that determined its regional boundaries based on the location of university and college partners.

### **Regional Configuration**

Across the three generations, the regions varied considerably in size and population density, and jurisdictions covered. In some cases, regions encompassed major portions of large states (e.g.,

California Corridor [I], Montana [I], Arizona [III], and Minnesota [III]). Stakeholders in some of the larger regions discovered that the region's size made it more challenging to achieve the longer-term goal of establishing a regional identity. For instance, some larger regions encountered difficulties with maintaining communications among its partners. Initially, Minnesota (III) committed to conducting face-to-face meetings of its regional board members in order to build a stronger sense of regional identity and trust among stakeholders who had very little previous contact. However, the driving distances, adverse weather conditions, and distribution of employers throughout the region prevented the program from continuing that approach. Arizona (III) stakeholders had a similar experience. Likewise, the leaders of Montana's region, the largest of all 39 regions, recognized the challenges that distances represented to the initiative. Its partners were able to overcome these barriers with regular conference calls and frequent emails and phone calls, supplemented by annual, in-person, regional Initiative "Academies."

Over time, as the grantees began to implement their regional work, they established individual websites to overcome the distances within their large regions and to create a virtual identity. The websites provided information to both external audiences (e.g., area companies, businesses that were considering relocating to the area, and others) and internal audiences (i.e., partner organizations, business leaders, and members of workgroups and governing boards). In Arizona (III), the core leaders of the region invested in the development of a Web site intended to promote a sense of regional identity around the work of the many partner organizations.<sup>15</sup> Ohio (III) may have benefited from a similar approach if the mountainous terrain had not been a barrier to broadband access.

Other regions were more limited in size and concentrated around an urban area (e.g., Denver [I], Delaware [II], SE Michigan [II], Kansas [III], and Virginia [III]). Face-to-face communications among the area partners may have been easier in these regions, however, the number of relevant potential partners could be overwhelming, particularly compared to the resource-sparse larger, rural regions.

Regions that covered multi-state areas – for example WAEM (I), Kansas City (I), Tennessee Valley (II), and Delaware Valley (II) – experienced a number of unique challenges.<sup>16</sup> Each state's Workforce Investment Act (WIA) structures, policies, and priorities differed, which immensely complicated the effort. Resolving conflicting priorities across multiple states was a time-consuming task in these regions. For example, in the WAEM (I) region, the WIA program is located in different state agencies in Mississippi (Department of Employment Security) and Alabama (Department of Economic and Community Affairs). The agency location influenced the priorities of each state's grant program coordinator, as well as their implementation processes. The Mississippi program coordinator had a close administrative relationship with the governor and was able to use an abbreviated procurement process for purchasing training equipment, while the Alabama coordinator had to use the standard procurement process that took much longer to complete the same task.

<sup>&</sup>lt;sup>15</sup> "Innovation Frontier AZ," accessed August 4, 2011,

http://www.innovationarizona.com/Workforce/Innovation%20Frontier%20Arizona.htm.

<sup>&</sup>lt;sup>16</sup> A total of seven regions were located in multiple states. The other three were Southwest Connecticut (II), North Oregon (III), and Central Kentucky (III).

### **History of Relationships and Prior Collaboration**

Previous successful efforts to collaborate on other issues may have been a strategic advantage in some regions. A history of good working relationships, open communications about problems affecting multiple communities, and joint efforts to address previous issues, helped set the stage for collaboration on issues of regional interest. On the other hand, a history of conflicts among organizational leaders, such as long-standing cultural differences, differences in belief about the appropriate uses of public funds, and competition for scarce resources could make it far more difficult to build a collaborative relationship in the relatively short period of time that was available to the regions in Generations I and II in particular. In Ohio (II), the clash of viewpoints between a university-based entrepreneur (with information technology expertise and experience with technology transfer) and a workforce agency administrator (with experience that dated back to the implementation of Job Training Partnership Act (JTPA) and concerns about plant closings and increasing lay-offs) interfered with building a shared sense of regional identity.

In both New York (I) and Wisconsin (III), long-standing differences existed between regional leaders in the urban center and rural stakeholders in surrounding communities. Both initiatives made specific efforts to ensure that rural partners were heard during the process of setting regional priorities, and to fund projects that benefitted the more rural parts of the region as well as the cities.

In all but a few cases, grantees maintained their original regional configuration throughout the grant period and beyond. Regions that changed their boundaries did so because of requests from neighboring counties that identified with the goals and priorities of the region. For example, West Michigan (I) added two additional counties to its region, but only after the new county partners provided evidence of their willingness to put the needs of the region above the needs of their individual counties. In two other regions, the boundaries were expanded after a persuasive case was made to include areas that had been overlooked previously.

### An Evolving Sense of Regional Identity

Different factors came into play as the grantees moved from the process of defining the region as a geographic entity to building a sense of regionalism or regional identity, and developing a regionally-integrated workforce, education, and economic development system. Furthermore, some regions were more successful than others in achieving these milestones. In most regions, a regional identity began to take shape as participating organizations worked through inter-organizational challenges. Through these efforts, the staff at partner organizations, agencies, and institutions developed and strengthened working relationships. In their original proposals for the Initiative, regions were asked to characterize the status of efforts to form regional partnerships. Initially, all 39 regions claimed that considerable progress had been made in doing so, but it later became apparent that just 3 of the 39 had established a regional identity prior to the Initiative. Stakeholders in 11 of the remaining 36 regions made regionalism a high enough priority to include it as a goal in their regional implementation plans. As the initiative progressed, regionalism received ongoing attention from all of regions, including those who claimed that their regional identity had already been established. By working across jurisdictional

boundaries, and participating in collaborative efforts to identify and address shared needs, a greater sense of partnership emerged. For example, in SE Wisconsin (II), Montana (I), and Utah (II), articulation agreements were established between community colleges and universities to increase the flexibility of the education system to better accommodate movement of students from one institution to another. Mississippi (III) took this idea a step further by establishing Centers of Excellence that were intended to demonstrate flexibility and program quality to both students and employers. The Centers showcased complementary areas of specialization at each of the three college campuses and emphasized the capacity of those Centers to collaborate and respond quickly and efficiently to meet the needs of existing and future employers across the region. Associated program quality measures were introduced to demonstrate that the programs were aligned with industry standards. Together, these program components were part of a broader strategy to convince new employers that there was a skilled workforce available to support their relocation to the region.

A region's target industry also contributed to building a regional identity, for example:

- The Utah (II) region's history of work in the biological sciences was the foundation of its growing identity as a comprehensive center of the life sciences industry, and had a designated advocate for continued growth within the Governor's Office of Economic Development.
- Maine (I) had a tradition of boat building for almost 400 years. By selecting boat building as its target industry, the initiative strengthened recognition of the coastal region as the source of world-class boats.
- Several grantees, including Montana, chose to launch a new business sector in the region. Although the recession interfered with the region's plan to become recognized as a major producer of biofuels and biolubricants, the initiative nonetheless started the residents of Montana's plains thinking of themselves as part of a distinct region.
- SE Wisconsin (II) focused its efforts on work with the Milwaukee 7, an economic development collaborative, to establish its identity as a center of water technology innovation in national and international markets.

The Initiative targeted its funds to support collaborative efforts among diverse arrays of regional stakeholders in various locations across the U.S. In many regions, the grant awards were a catalyst for regional activities that had the potential to fuel deeper discussions about the potential for shaping the economic identity of the region.

## **B.** Aligning Systems

The WIRED Initiative's vision of a 21<sup>st</sup> Century workforce system called for each region to "integrate talent and skills development into their larger economic strategies, and transform their workforce development, economic development, and education systems into one comprehensive system that was both flexible and responsive to the needs of businesses and workers."<sup>17</sup> According to the solicitation, this transformation required an alignment between each of these

<sup>&</sup>lt;sup>17</sup> ETA, Workforce Innovation in Regional Economic Development (WIRED) Initiative Solicitation for Grant Applications (Washington, DC: Nov. 17, 2005).

Federally-funded service systems, that is, changing each system's policies and practices so that all were consistent in areas in which systems have had similar or overlapping mandates.

Alignment needed to be both vertical and horizontal. Vertical alignment (across local, regional, state, and Federal levels) would allow policies and information to flow freely between the policy framework set at the Federal level and operational policies at the local, regional, and state levels. Horizontal alignment would establish policies that were consistent across agencies or departments that served the same geographic areas or stakeholders.<sup>18</sup>

Aligning different Federal systems (each with vastly different goals, funding mechanisms, auditing requirements, and metrics of success) is a large and difficult enterprise. Even within each system, dealing with a large collection of separate, siloed programs can be daunting. For example, the workforce system alone includes WIA, Wagner-Peyser, Unemployment Insurance (UI), Veterans, H1-B, and other programs, each with its own funding stream and eligibility and accountability requirements. An additional challenge was the fact that there was little history of collaboration across and within most economic development and education systems in the majority of the regions prior to the Initiative.

### Aligning Education with the World of Work

The Initiative's grantees found that aligning the workforce development and education systems often was complicated by the fact that the two systems are not usually housed within the same state or local agency.<sup>19</sup> However, some of the regions did enjoy organizational or structural arrangements that helped in aligning education and workforce. In a few cases, community college catchment areas and local workforce investment area (LWIAs) boundaries both followed county jurisdictional lines, so that both served the same population. In other regions, where the local board and college boundary lines did not match, some regions enacted special policies—such as allowing articulation and registration across jurisdictional boundaries—to ensure that they were able to provide education and training services to the intended population (although the process of establishing articulation agreements was at times challenging). In addition, some regions established structures that supported the alignment of the workforce and education systems. In Montana (I), for example, the State WIB took over the grant's transformation processes and created a new bureau in the Department of Labor and Industry to coordinate with the state's Office of Continuing and Higher Education.

The regions used a variety of strategies to build and strengthen the alignment between the workforce and education systems including: establishing partnerships with K-12 school districts and postsecondary institutions to accomplish specific regional goals; developing curricula, especially in the areas of technology skills training and entrepreneurship; and leveraging financial and other support from educational institutions within the region. Several regions

<sup>&</sup>lt;sup>18</sup> Bruce L. Smith, *Public Policy and Public Participation: Engaging Citizens and Community in the Development of Public Policy* (Canada: Population and Public Health Branch, Atlantic Regional Office, Health Canada, 2003).

<sup>&</sup>lt;sup>19</sup> An especially complicated system exists in Alabama, where a college-based workforce development system is housed in the Governor's Office of Workforce Development and headed by a cabinet-level individual from the State Office of Postsecondary Education, while the Office of Workforce Development in the Alabama Department of Economic and Community Affairs (ADECA) is the ETA-funded agency charged with implementing WIA.

placed an emphasis on STEM (science, technology, engineering, and math) careers. For example, Utah (II) emphasized STEM during the grant period, and the State of Utah ultimately adopted this focus as part of an ongoing campaign to improve the quality of education. Many regions also recognized the importance of lifelong learning, especially how lifelong learning activities supported individuals in adapting to changing economic or workplace conditions. The following sections briefly describe examples of efforts in these areas.

### **Establishing Partnerships**

- The local WIBs in the Florida (I) region had a history of successful collaboration on a variety of issues. In addition to receiving individual grant funding for their own local projects, the local WIBs worked together with regional staff to develop high school Career Academies in information technology, health care, aviation, pre-engineering, and other fields relevant to the employment needs of the region's businesses. After several years of successful programs, the State mandated that Career Academies be established in every school district in the state.
- The California Corridor (I), WAEM (I), New Mexico (III), Utah (II), and Arizona (III) university and state college campuses worked together to establish dual credit programs and formal agreements for transferring credits between study programs that were relevant to local and regional employers. In states that allowed community colleges and public universities to operate independently, and without the existence of system-wide policies and practices, it was far more difficult to form partnerships and establish and manage regional programs.
- In Denver (I), partners sought to strengthen STEM skills for all students in Colorado and align educational curricula with the technology workforce needs of the region's businesses. An important lesson from this region was that employers wanted the publicly funded workforce system to start talking with students about careers in elementary school.
- A major challenge for colleges in establishing worker training programs is that the traditional semester-based schedule does not fit with the short-term, intensive training that employers want and need. A number of regions funded training providers to offer post-secondary programs on a more flexible schedule. In Maine (I), for example, the Boat School responded to this incentive, and, after becoming accredited through the American Boat and Yacht Council, rolled out a 12-week master training program to fast-track students into composite careers.
- In Pennsylvania (I), the Lehigh Valley WIB led the region's effort to bring together the region's five local WIBs with the state Department of Education, four business education partnerships, and over 65 school superintendents to achieve common goals in curriculum, career exploration, and career pathways.

### **Developing Curricula**

■ The California Corridor (I) supported a program at El Camino College to provide preengineering training to high school students who were concurrently enrolled in the college's technical programs. The region also developed a mechatronics<sup>20</sup> degree program at six community colleges.

- Minnesota's (III) Minnesota West Community and Technical College developed curricula and career pathway programs in wind energy technology and worked with a number of other educational institutions in the area to promote wind energy, talent development, and entrepreneurship.
- Virginia (III) developed curricula in modeling and simulation at the high school and postsecondary levels to train technicians and technologists.
- In Ohio (II), a Kent State University extension campus developed a career pathway program in basic and advanced IT that college faculty taught to high schools students. This region also sponsored the development of an entrepreneurship program for IT at Hocking College. Through this innovative program, students gained first-hand experience providing IT services and Web site development for area businesses. This enabled participating companies to use the Internet to market their products nationally and internationally.

### **Leveraging Support**

In many regions, community colleges worked with the workforce development system prior to the grant. The Initiative encouraged regions to build on those relationships and create new ones to leverage available academic and workforce training resources.

For example, as mentioned earlier, the regions' four-year colleges and universities had limited working relationships with either the workforce development system (representing horizontal alignment) or the community colleges (representing vertical alignment) prior to the Initiative. Over the course of the grants, however, universities in several regions provided in-kind resources, including the research, analytical, and instructional expertise of faculty and staff.

- Mid-Michigan (I) linked Michigan State University researchers with its programs to develop the biofuels industry.
- Purdue University managed NCI (I), while the Heldrich Center at Rutgers University was the managing organization for C. New Jersey (III). In both cases, the universities provided extensive resources in addition to project management, such as support for technology transfer and workforce research and analysis.
- The University of Alabama (UA) and Mississippi State University provided significant support to WAEM (I), assisting with asset mapping and program development, and facilitating the implementation of educational programs. As the grant ended, UA continued to assist with the WAEM's town planning and leadership development program, and the MSU Community Action Team partnered with Mississippi Main Street to continue WAEM's community development efforts in the state's small towns.
- Montana's (I) Montana State University-Northern (MSU-N) is the site of the Bio-Energy Center, which tests and certifies biofuels, a vital component in developing a world-class bio-products industry. The Center received funding to cover operating costs, including

<sup>&</sup>lt;sup>20</sup> Mechatronics is the combination of mechanical engineering, electronic engineering, computer engineering, software engineering, control engineering, and systems design engineering in order to design, and manufacture useful products.

salaries for three staff members hired through with the region's funds, and received an additional Federal contract for \$2.25 million to complete the installation of key components of its existing research facility.

### **Remaining Challenges**

The Initiative's goal of improving American competitiveness in the global economy meant that partnerships between workforce development and educational institutions were increasingly important in designing curricula that are aligned with the needs of the 21st Century workforce. The extent to which the goals, policies, and metrics of the overall education system are brought into alignment with those of the workforce development system is critical to the effectiveness of such partnerships.

Due to the time, resources, political, and organizational constraints of the Initiative, all of the regions found that bringing the two systems into alignment was extremely challenging. In many regions, partners had little history of collaboration and had to invest significant time and resources to establish and strengthen collaborative relationships that would serve as a foundation for future work together. Despite this difficulty, most regions were at least partly successful in bringing the workforce development and education systems together in a coordinated fashion. Although no region was able to completely meld these disparate systems, most were able to improve coordination, flexibility, and responsiveness.

The regions relied on community colleges to provide many types of technical training, project management, and support. The regions also expanded their concept of where business and industry fit into the partnership with workforce and education, and worked hard to bring all partners together to improve the quality and relevance of worker training and education.

## **C. Using Data to Support Strategic Decisions**

ETA encouraged the regions to use data from multiple sources to support and guide decision making. In particular, if grantees did not have a recent economic analysis and resource mapping of their regions, ETA required this to be the first task in their implementation plans. Some regions used existing data while others collected relevant data as part of their initiative's scope of work. Others eagerly sought data about their regions, using a combination of employer surveys, sector studies, and other sources to recruit employers, document available training programs offered by post-secondary facilities within the region, identify gaps in incumbent worker training, and collect data on current business conditions from small business owners.

While many regions used data strategically, others did not. In most cases, it was not an issue of having access to data that could help stakeholders weigh regional needs and strategic options. Instead, political, organizational, economic, and social relationships exerted considerable influence in the decision-making process. After discussing initiatives that did not use data, this section describes the best examples of how regions used data in implementing their workforce and economic development strategies.

## **Decision-Making Approaches**

Strategic use of data was not universal among the initiatives. In some regions, factors such as pre-existing workforce development approaches, politics, or the opinions or preferences of stakeholder groups or major regional players (e.g., universities or the WIA system) had a stronger influence on the initiative's strategies than data did. The approaches that regional leaders chose without using an empirical, data-driven process may have been the most appropriate course for their regions, however, the potential added power of information was lost. These regions often treated ETA's requirement for basic data collection and analysis as a hurdle to overcome, without intrinsic value.

In most cases, decisions made without the benefit of research resulted in notable problems. For example, one Generation II region targeted an emerging industry primarily because several of the region's universities already housed unique programs to develop the industry's workforce, and because several existing local businesses initially voiced support for the effort. The strategy was in trouble from the start, however, because the region's leaders had not assessed the economic feasibility of developing a regional cluster for the sector. Although the selected target sector area was high tech, transformative, and drew upon some existing assets, regional leaders lacked the evidence necessary to convince a majority of stakeholders that the proposed target industry was either appropriate for the region or an obtainable goal.

A lack of data to support decision-making was not the only reason regions did not use information, however. A Generation III region collected substantial data but simply did not use it in the developing strategies for their initiative. Another region completed a very comprehensive study that included an assessment of the region's projected occupational requirements based on state workforce 2006-2016 forecasts, a detailed assessment of nine industry clusters in the region, and a description of the region's manufacturing talent pipeline. Despite the potential usefulness of the research, regional leaders viewed the study as an ETA requirement rather than data that could inform their decisions, and disregarded the findings. Instead, they used stakeholder knowledge and political considerations as a basis for their initiative's design. As a result, the cost of the research was squandered and the region may have missed opportunities because of political considerations.

Finally, the time requirements of the data collection process sometimes hampered data use. In one region, the preparation of an asset map stood out as being a major challenge for the region to complete. The region moved ahead with its implementation plan and program activities, while still struggling to complete the asset map before the grant period expired. In doing so, the region made the decisions necessary for project implementation without the benefit of the asset map data.

## Strategic Data Use

Regions relied on data from labor market projections of growth industries, employer surveys about worker training needs, scans of existing training programs, reports generated by state workforce agencies, Chambers of Commerce, and economic development offices, asset maps, and other sources to gauge the extent and types of programs and services that were needed Typically, regional leaders and members of task-oriented work groups used data to 1) identify the extent of the need for specific types of training or other services, and/or 2) set priorities for the allocation of resources.

The Delaware (II) region, for example, identified life sciences as a regionally important industry based in part on a gap analysis that had been done in early 2009.<sup>21</sup> The report provided regional leaders with information that assisted in making the strategic decision to allocate resources for more than 30 specific education and outreach programs and human capital development initiatives for the life sciences sector.

A research project called the CT-NY Talent for Growth regional workforce plan provided Connecticut (II) with an assessment of current and projected workforce skills needs. The region used the report to validate their selection of targeted industry sectors industries as well as to select other sectors to receive further funding.

In contrast, the New York initiative originally planned to focus on the region's dominant industries (i.e., optics, advanced manufacturing, information technology). The region sponsored a study that revealed the relative stability of the regional economy and a more urgent need for identifying overlapping competencies applicable in multiple industries.<sup>22</sup> As a result, the region shifted its emphasis from developing sector initiatives to training common competencies across industries and developing entrepreneurs.

In all of these regions, data highlighted needs or industries that otherwise might not have been central to the initiative had the information not been available.

## Data for Building Partnerships and Regional Identity

Several of the larger and more diverse regions found that statistical analyses were beneficial to help stakeholders gain a better understanding of the complex economic structure of their area and the interrelationships among the sub-components that constituted the regional economy. The projects that used this approach gained a deeper understanding of local economic characteristics – such as the strength and performance of individual industries, patterns of growth or decline, distribution of supplier firms or shared industry sectors that tied the region together. Together, this approach made it possible for these regions to make decisions with an understanding of shared economic strengths, weaknesses, and potential implications across the region.

For many regions, one unique outcome of using detailed economic data was the ability to uncover strengths or weaknesses that partners in the region might not have recognized. For example, the Kentucky (III) region used a report on the economic characteristics of its large 26county area as a tool for both attracting regional partners and establishing a set of priorities for strategic action. Before the completion of the study, stakeholders reported that parts of the large region did not share a common interest; however, the data illustrated the region's broader strengths and weaknesses. With that in mind, the region created a two-tier implementation plan that divided activities between those that had the potential to impact the entire region and those that had potentially important sub-regional impacts.

<sup>&</sup>lt;sup>21</sup>The Talent Gap Analysis Report: Preparing Our Workforce for the Evolving Life Science Industry, January 2009. <sup>22</sup> Growing the Economy in the Greater Rochester Region: Drawing on the Competencies of the Finger Lakes.

## **Recession Mitigation**

Perhaps the most common use of data was to change course or respond to increasing economic pressures, whether positive or negative. For example, as the national economy quickly weakened, once-promising industry clusters lost their potential to generate employment opportunities, while other previously ignored industrial sectors displayed relative stability and appeared to have potential for growth.

In response to the dramatically changing economic environment, some regions reacted by preparing new statistical reports that re-examined the current strategies and identified alternative courses of action. These regions used data from these reports to rapidly identify and implement new ways of approaching workforce development that would better fit the altered economic landscape during the recession. In contrast, other regions decided to stay on course with their original strategy; convinced, like the Mississippi (III) region, that employment in the targeted sector was so central to the nation's defense strategy and so central to the region's economy, that hiring would eventually return to pre-recession levels. As discussed later in this report, some regions seemed compelled to take action but others were not deterred by changing economic conditions, and continued on without any further analysis.

## **Guidance for Both Decisions and Process**

Observation of the ways that the regions used data and research suggests that the regions derived two primary benefits from using data in the development of a workforce development strategy.

- Regions used data most often as a way of informing decisions about important elements of the overall strategy. Data-driven studies informed the selection of industry sectors, types of demand occupations, and emerging areas of the economy that could drive future growth.
- The other main use of data was as a builder of collaboration. In addition to providing evidence about the importance of a workforce need or a regional resource, the process of studying the region and collecting data was also sometimes an avenue for building buy-in from stakeholders and partners.

## **D.** Engaging Employers in Workforce Development

Employers have so many competing demands on their time that it is difficult to engage them in discussions about workforce development needs, particularly those that go beyond the issues of their particular company. The regions invited employers to participate as members of governance groups, as providers of information about trends affecting their industries, as participants in group discussions about the skill needs and gaps in targeted occupations, and as members of virtual groups of individuals that shared an interest in the economic future of the region. All of the 39 WIRED regions yielded important lessons through their efforts to engage employers.

## **Two Recurring Themes**

Overall, two themes emerged from the evaluations:

- *Theme One:* Employers were more likely to become engaged when they were treated as both strategic partners and customers:
- Partners who understood business characteristics and industry trends had a strategic advantage in the initial phase of engaging employers in the initiative because they understood business opportunities and barriers to industry growth.
- Employers appeared more willing to participate when the benefits of their participation were articulated, although the perceived benefits of involvement were not universal. Smaller companies often had more specific, short-term expectations while larger firms tended to have a longer-term perspective that included both industry and community benefits. Employers were more likely to participate when leaders of the initiatives showed that they valued the employers' contributions to the project and meetings were managed in a way that respected employer time constraints.
- *Theme Two:* Trust was the critical factor in forming and maintaining partnerships:
- Employers with little or no previous contact or who were dissatisfied with their previous contact with the workforce development system were more reluctant to participate in the initiatives.
- Using established industry, professional, and social networks made it easier for core leaders and early partners in the grants to open a dialogue with area employers and to set the stage for participation in more substantive discussions about industry needs and trends.
- The success of early efforts to address workforce development needs encouraged the partners to tackle more difficult and complex issues later.

## **Four Essential Steps**

Four essential steps for establishing and fostering relationships with employers emerged from the regions. They were 1) identifying employer needs and preparing plans to address them; 2) assuring the inclusive recruitment of employers; 3) building and strengthening relationships through collaborative activities; and 4) keeping employers engaged.

#### **Identifying Employer Needs and Preparing Plans**

In most, but not all regions, business partners were involved in the leadership and governance, and, contributed to the design of the training curricula in regions that made that a strategic action priority. Typically, regions formed high-level advisory groups (North Carolina [I]<sup>23</sup>), industry roundtables (Florida [I]), steering committees (Delaware [II]), leadership groups (Connecticut [II]), and industry councils (Wisconsin [II]). These forums engaged business leaders in strategic discussions that served a variety of purposes, ranging from setting regional priorities to designing and overseeing implementation of specific activities.

<sup>&</sup>lt;sup>23</sup> The Roman numeral n indicates the Generation in which the grant was made.

Some of the more fruitful discussions resulted by applying the idea of collaboration and networking to the form and function of regional leadership teams. For example, in Connecticut (II), the region's leadership group included representatives of Business Councils, the three area WIBs, educational institutions, and public agencies. The collaborative approach, which included an independent facilitator, reached across jurisdictional and organizational boundaries and helped to break down silos that had previously made collaboration difficult. In contrast, Wisconsin (II) established industry councils within a governance structure that sharply distinguished between the "Demand Side" (business) and the "Supply Side" (workforce development and K-16 education). This approach seemed to reinforce rather than break down siloed ways of thinking. Within a short time, the region revised its governance structure to create a more collaborative approach.

One factor that made it easier facilitated engaging employers was to provide specific information about the type of activities they would be involved in and the requisite time commitment. Employers were most willing to participate in projects when their assignments were industry-specific, provided detailed information on the tasks to accomplish, and had a definite beginning and end date.

#### Assuring the Inclusive Recruitment of Employers

Regions that were successful in recruiting employers used multiple methods to locate potential business partners. Professional networks were key to finding employers interested in the region's work, and tapping a variety of organizations that either served or maintained information about existing companies, including American Job Center (AJC, formerly One-Stop Career Center) business clients, economic development agencies, Chambers of Commerce, and other community organizations.

Companies and business leaders with stature in the community proved to be very influential in bringing credibility to a region's work. In Puerto Rico (II), the leader of the Puerto Rico Manufacturers Association was among several key leaders who were instrumental in bringing credibility to the region. In Ohio (II), a prominent employer initiated, tracked, and managed a regional campaign to obtain and invest employer funds in school improvement strategies that complemented the partnerships that the local college and area school districts established through the initiative. In North Carolina (I), the Piedmont's roundtable directors researched their targeted industries, identified executives known to have the respect of the community, and invited them to participate in industry roundtables early in the grant process. Other regions, including West Michigan (I), SE Michigan (II), and Idaho (III) were more focused on cultivating a new generation of leaders, even though the governing boards of all three regions included employers with long-standing reputations as community leaders.

Several regions conducted surveys to identify potential business partners and collect information about business sales volume, staffing plans, worker training needs, and a variety of other business topics. In Idaho (III), the survey was a face-to-face interview that involved extensive questions, including queries about business sales, profitability, investments, financing, job vacancies, skill needs, and hiring plans. Employer concerns about the confidentiality of business information, and the time needed to administer and document the survey responses contributed to a very low response rate that limited the value of the survey findings for regional planning purposes.

Regions also used surveys to raise awareness of the goals of the region and to describe opportunities for employers to become engaged in activities. Denver (I) surveyed employers in its four target industries (aerospace, bioscience, energy, and IT/software) to learn about their workforce needs and concerns and to augment the information that the WIBs used for identifying demand occupations with specific training needs.

Armed with good data and a list of potential partners, staff from Denver (I), NCI (I), and Maine (I), and other regions that used surveys, initiated contact with employers. The process typically involved a recruiter (e.g., grant staff, WIB/AJC staff, or another business partner) who arranged a meeting to explain the region's work to the employer, discussing its benefits, and encouraging the employer to get involved in a specific activity. To build interest in Minnesota's (III) alternative energy work, the region's leaders identified a business leader from the wind-turbine industry who thoroughly understood the details of the sector and was eager to recruit the leaders of other companies interested in the future of the sector in the area.

Another way that the regions promoted inclusiveness was to make sure that all interests were fairly represented (e.g., that steering committees had a balanced representation of small and large firms) and/or used agreements that described how conflicts would be handled. In Connecticut (II), several small companies were reluctant to allow employees to attend training because they feared their competitors would hire the trainees away. The project drafted an agreement by which the firms committed to not hire workers away from competitors who participated in the project's training. All of the firms signed and abided by this agreement.

Regions that successfully engaged employers made an effort to match business representatives from various levels in their companies with tasks that were appropriate for them. The Puerto Rico (II) grant was very purposeful in using the right level staff for the right roles. The project created an executive leadership group made up of CEOs from pharmaceutical companies (the initiative's targeted industry). The project manager then asked managerial staff in these companies to serve in workgroups assigned to a range of tasks, such as communicating with training providers and creating curriculum. Finally, project manager invited the companies' line supervisors to provide specific technical information about job skills and to give feedback on trainees' performance.

Together, this information helped regional partners design and deliver services that customized to meet the needs of pharmaceutical companies and their suppliers across the region.

#### **Building and Strengthening Relationships through Collaborative Activities**

Once business partners were on board, regions clarified how they would work together, including establishing rules of conduct and decision making, creating a common vision, providing opportunities to build trust, encouraging creative thinking, maintaining communications, acknowledging employer participation, and generally nurturing the growth of the collaborative over time. Some of the regions formalized their collaboratives by using a charter to ensure that each partner understood both individual and mutual expectations about roles, timelines, funding sources, and expected outcomes. NCI (I) and Maine (I) went further than a simple charter by creating "Partnership Principles" or similar rules of conduct. For example, NCI (I) created a collaborative framework called a "Regional Compact" that included a set of rules governing civic behavior, encouraging collaboration, and fostering trust between partners.

Creative approaches to addressing a region's goals also helped strengthen relationships with business partners. For example, a Mid-Michigan (I) WIB director met with local manufacturers to discuss the types of training that employers needed for incumbent workers. Using a combination of regional funds and dollars leveraged from other sources, the WIB was able to provide the worker training programs for a nominal fee of \$10 per worker annually.

Maintaining communications with businesses and other partners is essential to sustaining strong partnerships. The regions facilitated communication with and between partners through committee meetings, Web sites, newsletters, and conferences. Other activities—regional forums, annual meetings, outreach materials, and media releases—promoted the region to the general public. Many were also successful in using the local media to publicize their projects, and to publicly acknowledge the employers who contributed to their region's success.

#### Keeping Employers at the Table

The regions adopted a number of effective approaches to keep their business partners engaged once the initial phase of design and implementation was fully underway. Efforts to maintain employer engagement focused on giving employers specific responsibilities that involved making decisions, using professional management practices, and actively managing challenges to employer involvement.

Professional management practices, such as distributing written agendas before meetings, managing meeting timelines, facilitating discussions, documenting all decisions and task assignments, and preparing minutes, showed a respect for the region's partners and ensured that the businesses remained involved.

The Initiative provided many examples and lessons for creating strong partnerships between employers and workforce development partners. Each region used individual approaches to identify and engage employers in strategic discussions about workforce needs. The Initiative enhanced employers' recognition of the value of a highly-skilled workforce and offered opportunities for constructive interaction with local WIBs outside of traditional job order and placement contexts.

## **E.** Nurturing and Supporting Regional Networks

ETA provided the regions with a substantial amount of support because of the breadth of activities involved in implementing the Initiative model. In addition to providing mentors from within ETA, the agency anticipated the need to further support grantees and engaged a cadre of

experts to provide as-needed technical assistance (TA).<sup>24</sup> Also, ETA facilitated peer-to-peer interactions through regular conferences, a Web-based collaborative workspace, and Communities of Practice (COPs).

## **Role of the ETA Leads**

ETA assigned senior-level managers to each region to serve as advisors, or "leads", to serve as gatekeepers to the TA providers (Generation I only) and to help the grantees navigate the Federal requirements for the grant program. Because these were ETA executives and not project officers with a full knowledge of ETA regulations, their assistance sometimes created problems rather than solved them.

Overall, the ETA leads were committed to helping their assigned regions succeed. They met with regional partners to discuss program goals and to help them access the type of TA that they needed, either from ETA's TA team or from other local sources.<sup>25</sup> Respondents from all three Generations were grateful to have a specific contact person within ETA who would assist them in dealing with Federal government requirements. This was particularly important for regions that had limited experience with Federal government contracts (i.e., some Generation I regions) and/or weak partnerships with local WIBs; thus, lacking the resources needed to wade through the regulations on the use of the H1-B funds that financed the Initiative.

ETA required all regions to submit a detailed implementation plan to the agency for review and approval. In some cases, the regions had to make substantial changes to their goals, strategies, and planned expenditures in order to gain this approval. For example:

- Utah (II) submitted a proposal that focused on building a bioscience workforce. Originally, the region planned to enhance the quality of educational programs and experiences for students, starting in middle school and extending through college and university degree programs. After the grant was awarded, however, regional leaders learned that the funds could not be used to support middle-school educational programs. The region had to change its goals, plans, timeline, and budget before it was able to access the grant funds.
- ETA leads originally approved Maine's (I) implementation plan that included creating a loan fund for small businesses to upgrade their technology. Several months later, grantee staff discovered that H1-B regulations would not allow the loan fund, and they had to reallocate those funds to other activities. This put a damper on the emerging relationship between workforce and economic development from which the region never really recovered.

These and other misunderstandings were eventually resolved, but not before causing considerable delays, as well as confusion and frustration among grantee staff and their partners.

At times, regions called upon ETA leads to resolve contractual issues of various types. Disagreements over what constituted a "partner" and how that differed from a "subcontractor" created difficulties for some regions. Although some regions already had informal agreements

<sup>&</sup>lt;sup>24</sup> SGAs, Generations II and III, Technical Assistance Subsection, 7.

<sup>&</sup>lt;sup>25</sup> ETA allowed Generations II and III to use the TA funds allocated for their use to obtain local consulting services.

about the disposition of grant funds across anticipated partners, they learned that a competitive bidding process was required before they could launch their projects. The ETA leads provided helpful examples of solicitations that allowed the regions to expedite the proposal process, although some regions contended with extended posting requirements that delayed implementation.

Regions could use their grants to purchase equipment of various types. In some cases, the equipment was relatively inexpensive (e.g., laptop computers, cameras, and recorders). In these instances, Federal regulations required a relatively simple approval process. A number of regions sought to acquire equipment approval with varying levels of success. For example, a Generation II region requested funds to purchase advanced computers to outfit a highly specialized audio/video teaching lab. A Generation I region requested funds to buy specialized refining equipment used in the biofuels industry. The ETA leads assessed these requests and helped the regions understand and follow the appropriate procedures for gaining approval. In contrast, despite following all of the procedures for obtaining instructional equipment, another region had to wait almost a year to get some of their training equipment due to delays at the state level. In another region, subgrantees purchased certain equipment without the knowledge of the ETA lead, the region's fiscal agent, or the regional project manager. This placed the subgrantee at risk of having to absorb the equipment costs.

The regions called upon the ETA leads for assistance on a variety of other issues that required interpretations of Federal rules and regulations. Some of the most problematic situations arose during Generation I because the ETA leads were not prepared to address specific administrative and budgetary questions associated with the use of the H1-B funds. Some of the issues arose during Generation I. The ETA leads for this generation included ETA executives who were not prepared to address the specific administrative and budgetary questions associated with the use of the H1-B funds. Some of the issues arose of the H1-B funds that were used for the Initiative. By the time the regions in Generations II and III began to implement their initiatives, ETA had documented solutions to the common issues that arose during Generation I. ETA shared this information with its regional leads and disseminated it nationally through the Internet and during the Learning Academies that were offered for all grantees.

### **Technical Assistance**

ETA contracted with the Council on Competitiveness, New Economy Strategies (NES), and the Council for Adult and Experiential Learning (CAEL) to provide TA. The Council on Competitiveness created well-written, thoughtful guides and other information, including a guide on how to identify, document, and leverage regional assets.<sup>26</sup> While these were informative, the guides did not necessarily lead the regions to conduct their own analysis of regional assets as the material recommended. Instead, nearly half of the regions hired consultants to gather the data and prepare written reports. This approach prevented the regions from taking advantage of natural networking opportunities while collecting the necessary data and from easily raising the

<sup>&</sup>lt;sup>26</sup> Council on Competitiveness, *Asset Mapping Roadmap: A Guide to Assessing Regional Development Resources* (Washington, DC: Council on Competitiveness, 2006), 6.

topic of leveraging resources. Both topics would have been easier to address if regional leaders had been directly involved in the asset-mapping process.<sup>27</sup>

ETA also hired content experts to launch Communities of Practice (COPs). In addition to developing written materials about sector-specific challenges, strategies, and practices, the COPs facilitated networking between among partners from different regions. For example, the Boston Academy gave regional partners in the Bioscience, Clean Energy, and Logistics and Transportation industries opportunities to meet face to face, compare notes, and expand their professional networks.

ETA assigned a staff member from each of the TA organizations to each Generation I grantee and allowed the regions to access TA provider services for a total of 160 hours. The TA providers gave consultation on the role of the local WIBs in the regions and on developing implementation plans, developing economic development strategies, and addressing a range of start-up issues.

Due in part to communication and coordination issues, ETA changed its approach to TA for the Generation II and III grantees. The agency allocated \$60,000 to each region for TA, which they could use to purchase services from the three TA agencies that the Generation I grantees used, or other TA providers of their choice.

## **Learning Academies**

ETA invited grantees and their regional partners to attend national conferences, known as Learning Academies, several times each year. These academies gave regional partners an opportunity to discuss strategic and operational challenges, share possible solutions, and build and expand professional networks. For example, C. New Jersey (III) presented its balanced scorecard framework and dashboard at one academy and was invited to help other regions implement similar approaches. Participation in the academies was consistently high, with a total of 237<sup>28</sup> people registered for the Boston Academy in April 2008.<sup>29</sup> Attendance levels were similar for all seven academies.

Leaders from a cross-section of regions willingly assumed responsibility for planning the final academy after ETA cancelled it because of budget limitations. Rather than emphasizing the end of the grants, the agenda focused on the future and the strategic advantages of regionalism.

## **Peer-to-Peer Interaction**

Peer-to-peer exchanges were encouraged both in person and through a variety of communications channels. Launched in mid-2006 shortly after the Generation I grants were awarded, ETA created an online Collaborative Workspace (CWS)<sup>30</sup> to share information among

<sup>&</sup>lt;sup>27</sup> Ibid., 6.

<sup>&</sup>lt;sup>28</sup> This includes 20-30 ETA staff.

<sup>&</sup>lt;sup>29</sup> Boston Academy Registration Spreadsheet, April 2008.

<sup>&</sup>lt;sup>30</sup> "WIRED Collaborative Workspace," <u>http://wired.workforce3one.org/console/index.aspx</u>. Documents and other materials describing promising practices were incorporated into DOL's comprehensive Web-based clearinghouse [workforce3one.org.].

stakeholders within and across regions.<sup>31</sup> ETA posted regional quarterly reports on the CWS and developed an electronic newsletter with hyperlinks to these and other resources, such as promising practice documents.<sup>32</sup> The CWS allowed users to post reports, pictures, and other documents, but was not an effective tool for collaboration as only 173 of the 1,647 registered users visited the CWS at least once, and seven regions never used the space at all.<sup>33</sup> The California Corridor (I) used the collaborative workspace model to support communication and collaboration among members of the California Corridor (I) concluded that the approach was not an effective tool for use of the consortium. In its final report on the Consortium, California Corridor (I) concluded that the approach was not an effective tool for building collaboration and abandoned the effort.<sup>34</sup>

Overall, ETA showed its commitment to the WIRED Initiative, and its desire to help the regions be successful in this complex regional undertaking, by making a significant investment in technical assistance and other supports for all 39 grantees. The attendance at the Learning Academies and the follow-up among regional partners who made connections during those sessions showed the importance of encouraging and supporting active engagement and dialogue among those charged with implementing policy and program innovations, particularly when launching high-stakes and complex projects.

<sup>31 &</sup>quot;How the WIRED Collaborative Workspace Can Support Your Regional Initiative: The West Michigan Case Study," Webinar, ETA, January 11, 2007.

<sup>&</sup>lt;sup>32</sup>"The WIRED Learning Exchange: A Peer-to-Peer Network for WIRED Regions," Council on

Competitiveness, The WIRED Learning Exchange, January 23, 2008, http://tinyurl.com/3bgjacv.

<sup>&</sup>lt;sup>33</sup> WIRED Collaborative Workspace, last accessed in May 2011.

<sup>&</sup>lt;sup>34</sup> California Innovation Corridor, University-Industry Consortium Development Final Report, November 2008. http://www.innovatecalifornia.net/3.02/University-Industry-Consortium-Development.pdf

## F. Building Upon Existing Assets

In contrast with some other grant programs sponsored by ETA, the WIRED SGAs did not limit funding to projects that focused on predetermined industrial sectors.<sup>35</sup> Instead, these strategic decisions were a regional responsibility. Rather than aiming to attract new businesses from outside the region, most of the grantees built upon their existing assets by targeting industrial sectors that already represented a significant part of the local economy. The choice of which sector the Initiative should focus on reflected strategic decisions made at the local and regional level (with varying amounts of state agency influence) after a consideration of a combination of factors. These included the centrality of the sector, state and local economic development priorities, the industry's potential for growth, the needs of the region's workers, the desire to cultivate innovation, and the sufficiency of regional assets to support sector development. Each of these is discussed below.

## **Centrality of the Targeted Sector**

Several regions targeted industries that already played a key role in the regional economy and that needed to upgrade their existing and emerging workforce in order to thrive in the increasingly competitive global economy. For example, Utah (II) focused on the life sciences sector; which was an established and growing sector in the state, offered a wide range of employment and advancement opportunities, and had a continuing need for skilled workers with an interest in biological/life sciences. Both Maine (I) and Mississippi (III) focused on boat and ship-building, an industry that dominated these regions for decades and that required skills upgrades among its workforce to thrive. Kansas (III), California Corridor (I), and Florida (I) selected avionics and airplane manufacturing, which anchors the economy of each region. These and other regions chose sectors that already provided numerous jobs for area residents.

Some regions took a very different approach, focusing on sectors that were relatively new to the region. Minnesota (III) chose wind and other forms of alternative energy. Sector development was already underway in some areas of the region and stakeholders viewed it as a catalyst for additional rural economic development. Ohio (II) organized its strategic partnership around the economic potential of digital animation, a sector that was at an early stage of development but could build upon existing academic programs and research and development work that was underway at area colleges and universities. Montana (I)'s efforts concentrated on launching the biofuel and bio-lubricant industry in the state, literally from the ground up.

## **Alignment with Economic Development Priorities**

The SGAs encouraged WIRED applicants to consider aligning their efforts with existing Federal, state, and local priorities. For example, Minnesota's (III) emphasis on the alternative energy sector was consistent with the Minnesota Green Jobs Act (2007)<sup>36</sup> and the State's efforts to

<sup>&</sup>lt;sup>35</sup> Examples include <u>High Growth Job Training Initiative: Grants for Healthcare and Biotechnology Industries</u> (2005) (SGA/DFA 04-01); <u>Advanced Manufacturing (2007) (SGA/DFA PY 05-07)</u>; and <u>Long-Term Care Sector of</u> <u>the Health Care Industry (SGA-DFA PY-06-07)</u>.

<sup>&</sup>lt;sup>36</sup> "The Minnesota Green Jobs Act (2007),"accessed on June 28, 2011, http://www.greenforall.org/resources/summary-of-minnesota-green-jobs-act-2007.

promote the growth of the green economy. Given the geography and population patterns in the state, the Utah Governor's Office of Economic Development identified the Wasatch Range region as a natural starting point for designing and implementing program innovations that would have statewide implications. Utah (II) organized stakeholders around the life sciences sector with others to follow.<sup>37</sup> Mid-Michigan's (I) emphasis on biofuels resulted from the interplay between Michigan State University's interest in promoting technology transfer, the State's desire to position the green economy as a potential source of new jobs,<sup>38</sup> and the plentiful supply of raw materials (corn) that could be converted to biofuels.

Several regions chose their target industries based on previous research that identified key industries for economic development. In North Carolina (I), for example, stakeholders selected the region's target sector using a March 2005 report that summarized the strengths of several industry clusters and recommended the most important and promising industries for economic developers to pursue. Similarly, in choosing target industries, Denver (I) drew upon the Metro Denver Economic Development Corporation's analysis that identified nine industry clusters important to the region's economic base and in which the region had a marked competitive advantage. In Kansas City (I), a 2004 study had revealed the importance of the animal health corridor, now a critical focal point of regional economic development; this report provided valuable input for the region's choice of sector partners.

## **Potential for Growth**

Regional stakeholders considered industry sector trends, opportunities, and resources as they weighed various strategies for catalyzing economic growth and job creation. In Minnesota (III), state legislation established criteria and goals for alternative energy utilization that increased the demand for those sources. In Utah (II), regional leaders recognized that the state's existing biotech assets set the stage for diversification into the natural food supplements industry, a sector that was receiving increased attention nationally. In Arizona (III), the public sector border patrol and logistics industries were growing because of unique regional trends—i.e., the increasing trade in fresh produce from Mexico and growing concerns about the rise in illegal immigration. In Montana, the Governor's Office had completed the first phase of a strategic planning effort to support growth by conducting a SWOT analysis (i.e., analysis of strengths, weaknesses, opportunities, and threats) for the state's economy, and identified bioenergy as a target industry for growth in the state.

The anticipated growth in demand for products and services in these sectors provided additional support for the strategic choices that were made by regional leaders.

### Meeting the Needs of the Region's Workers

Instead of selecting sectors based on their importance to the region or their potential for strong growth, some regions focused on meeting the needs of the region's workers, but not necessarily

<sup>&</sup>lt;sup>37</sup> "State of Utah, Governor's Office of Economic Development," accessed on June 28, 2011, http://business.utah.gov/.

<sup>&</sup>lt;sup>38</sup> Michigan Department of Energy, Labor, and Economic Growth, *Michigan Green Jobs Report 2009: Occupations and Employment in the New Green Economy*, (Lansing: Bureau of Labor Market Information and Strategic Initiatives, Labor Market Analysis Section, May 2009), GJC\_GreenReport\_Print\_277833\_7.pdf.

limited to dominant industries. For example, Wisconsin (III) opted to develop additional training resources for sectors such as health care, utilities, and construction trades that previously had been overlooked in the region. Although none of the chosen sectors were particularly dominant, local stakeholders felt that these provided a consistent source of jobs across both the urban and rural areas of the region. In SE Michigan (II), large-scale layoffs and an increasing exodus of young professionals from Michigan to other states convinced regional leaders to promote entrepreneurial ventures among engineers who had lost their jobs and to help young college graduates connect with employers across the region. As the economic downturn set in and diminished prospects for former growth sectors, other regions shifted toward this approach as well.

## **Cultivating Innovation**

Regional innovation was a topic of great interest. Grantees from all three generations supported entrepreneurs, with projects ranging from supports for individual start-ups to training and technical assistance, business incubators, rural business assistance, youth entrepreneurship training, cluster initiatives, small business assistance, and help in accessing investment capital. A number of regions—e.g., New York (I), NCI (I), WAEM (I), and Arizona (III)—considered entrepreneurship to be the equivalent of a sector.

In the California Corridor (I), one of the region's key goals was to design a sustainable economic development model that ensured that the region's culture, environment, and systems were characterized and driven by robust innovation and flourishing entrepreneurship. Among its other activities, the region held entrepreneurship/venture capital forums that allowed entrepreneurs to pitch their ideas to investors, and developed guides such as *Holding a Venture Capital Pitching Event* or *Starting an Angel Investor Network* for local WIBs. Partners in the region also developed products such as an *Innovation Resources Guide* to help entrepreneurs access the wide range of agencies that can help support commercialization of innovation, and an *Innovation Asset Inventory* that profiled almost 300 Federal/military research facilities, academic/educational laboratories, and private industry technology research and development resources across the region. SE Michigan (II) used a similar approach, but within the context of a university-based seminar series that helped displaced automotive engineers launch technology-based entrepreneurial ventures. The seminars provided a forum for discussions with patent attorneys, accountants, bankers, angel investors, insurance representatives, and others that could assist in taking the products to market.

## Sufficiency of Regional Assets to Support Sector Development

Even though industry stakeholders might be highly interested in the Initiative, a sector's resources and assets might not be sufficient to drive regional development, let alone become a catalyst for regional economic growth or transformation.

Montana (I) had the support of several stakeholders in targeting biofuels and other bio-products but faced other challenges. Despite the influx of funds through the Initiative, financial resources in the region were insufficient to overcome the effects of the collapse of the nation's financial services sector in 2008, and the region's business partners were unable to secure the business loans they needed to build production facilities. In Mississippi (III), Arizona (III), and other states that sought to balance the involvement of large companies with representatives from small businesses in the targeted sectors, economic pressures, coupled with the lean approach to operating small businesses generally, made it increasingly difficult to engage small business owners and/or operators. These factors also made it more difficult for employees of these establishments to participate in training programs, particularly those that were scheduled during business hours.

In summary, aligning regional efforts with existing policy directives or economic development priorities was essential for leveraging resources and gaining critical state agency support. However, recognizing a sector-related asset or having a strong community interest in a sector was not enough to guarantee success on its own; both must be present and aligned. While targeting an established sector that already made a major contribution to the regional economy could help support the current and future health of that sector, multi-sector strategies could reduce the risks associated with focusing efforts on a single sector and could help diversify the economy. Combining existing regional assets in new and creative ways can help regions discover sector growth opportunities and market them in a manner that may attract business leaders and investors from both inside and outside the region.

## **G. Incumbent Worker Training**

All of the regions endeavored to improve their economic viability through developing a stronger workforce. The regions were particularly eager to offer training that improved work readiness, upgraded skill sets, provided credentials, and established competencies. Goals for the training included:

- Improving the match between employer need and worker skills,
- Providing career options,
- Developing advanced skills to facilitate career growth,
- Making training accessible for non-traditional students and those for whom English was a second language, and
- engaging those not currently in the labor force.

A number of regions had one or more programs that were specific to incumbent workers as part of their larger training agenda and three grantees trained only incumbent workers.<sup>39</sup> Overall, incumbent worker training was significant for several reasons:

- It satisfied businesses that needed to obtain qualified workers quickly.
- It was a crucial strategy for helping companies grow or stay in business.
- It supported the regions' targeted industries.

According to ETA, an incumbent worker is an individual who is currently on the payroll of an applicant employer; at least 18 years old; legally authorized to work in the United States; and in

<sup>&</sup>lt;sup>39</sup> NCI (I), SW Indiana (II), and Kentucky (III) trained only incumbent workers.

compliance with Selective Service provisions. Incumbent worker training curricula are often customized for a particular employer or industry.

ETA suggested that grantees report their total funding for incumbent worker training as part of their metrics, but did not ask the regions to report the number of incumbent workers trained. Therefore, not all grantees provided this information in a structured or consistent manner. Regions from Generations II and III, in particular, provided references to it in various narrative reports and other documents. As a result, the numbers available for the evaluation as a whole are estimates only; a total of at least 20,000 incumbent workers in all three generations received training. According to reports from Generation I regions, in total, approximately \$73,506,599 (or 38 percent of the total grant amount) was spent on services for these trainees.

## Examples

The regions provided incumbent worker training in order to address several needs:

- Need for Employees With High-Level Skills. Many regions targeted industries marked by rapid growth or evolving technology that required a better-prepared workforce to stay competitive and be successful. Employers in emerging or rapidly changing industries in particular can find themselves unable to fill positions. The regions found that shortages of skilled workers could limit a company's ability to grow, impact other businesses in the industry cluster, and even affect the quality and quantity of their products or services.
- Need for Employees With Specific Occupational Skills. In their local labor market analyses, many regions identified specific occupational needs that could best be met by upgrading the skills of currently employees to create a pool of qualified workers.
- Need for Increased Productivity. Employers without a complete and skilled workforce are unable to generate their products and services efficiently and cannot compete effectively in their markets. When a company does not use part of its facility or equipment because it lacks skilled workers, it cannot live up to its potential productivity and will not be able to grow. Upgrading current workers' skills to fill open positions is often a cost-effective way for companies to increase productivity and grow. SW Indiana (II), for example, provided short-term, modularized industrial maintenance training to manufacturing employees so that they could identify system problems before calling in specialists, thus reducing costs.

## **Types of Training**

The 39 regions used a variety of strategies to address the need for incumbent worker training, including customized training, e-learning/distance learning; career advancement and career ladder programs; and in two regions Lifelong Learning Accounts (LiLAs).

#### **Customized Training**

As defined in WIA legislation,<sup>40</sup> customized training is: 1) designed to meet the special requirements of an employer or group of employers; 2) conducted with a commitment by the employer to hire or retain individuals who successfully complete the training; and 3) funded so that the employer pays at least 50 percent of training costs. Many regions followed these basic

<sup>&</sup>lt;sup>40</sup> Section 101(8) of the Workforce Investment Act of 1998 (20 U.S.C. 9201).

outlines when developing their incumbent worker training programs as seen in the followng examples:

- Florida's (I) Incumbent Worker Training Grants Program funded more than a dozen businesses in the aerospace, construction, advanced manufacturing, and IT industries. Because of the economic downturn, the region also modified its Entrepreneurship Grants Program, originally intended to promote the hiring and training of new employees, to allow its sub-grantees to use the funds for incumbent worker training as a way to "re-purpose" some of their existing workers.
- To support the aviation and aeronautical industries, Kansas (III) partially funded incumbent worker training programs in composites fabrication and repair at the Wichita Area Technical Center, local community colleges, and the state university.
- Texas (II) established the Rio South Texas Manufacturing College Alliance as a regional customized training system for advanced manufacturing. At four advanced manufacturing institutes located on community college campuses, the Alliance trained new and incumbent workers in skills relevant for the region's targeted industries.
- New York (I) funded its business partners to provide workforce training and skills upgrades that helped both the companies and individual workers stay competitive. Businesses used grant funds as "scholarships" for short-term technical skills training and certification in highgrowth occupations. Small companies with limited training resources especially benefitted from the opportunity to upgrade technical skills of existing workers.
- In Mid-Michigan (I), the Greater Flint Health Coalition offered career exploration and advancement services for current health care workers.

#### **E-Learning/Distance Learning**

Several grantees took advantage of technology to increase access to training.<sup>41</sup> For example, WAEM (I) implemented the Amatrol Anytime Anywhere e-Learning System for virtual training in advanced manufacturing that would lead to the region's M3 Credential. This program is a customizable virtual online lab with over 500 training modules linked to national skills standards.

Wisconsin (III) was a 12-county, predominantly rural region that funded online training opportunities, leased mobile training units in health care and advanced manufacturing, and shared curriculum with the state's technical college system.

#### **Career Advancement and Career Ladder Programs**

Some incumbent worker programs teach a number of different skill levels through which participants can advance over time. Sometimes called "career ladders," these programs recognize that incumbent worker training can go beyond the next step to offer opportunities for lifelong learning and career advancement. In some regions, career advancement programs not only enabled employees to advance in their careers, they also provided employers with a cadre of workers able to perform specialized functions, such as training, within the company.

<sup>&</sup>lt;sup>41</sup> For example, Montana (I), Wisconsin (III), and WAEM (I) took advantage of technology to increase access to training.

- A number of regions—including California Corridor (I), West Michigan (I), Kansas City (I), and Denver (I)—helped develop formal career pathways for workers in their targeted industries. For example, a local WIB in Kansas City worked with hospital human resource staff to identify incumbent workers as candidates for moving up career ladders (e.g., certified nurse aide to licensed practical nurse to registered nurse).
- In Mid-Michigan (I), Lansing Community College used grant funds to provide scholarships to their Preceptor Program for practicing nurses to get a bachelor of arts degree; these graduates were then qualified to teach classes in the associate degree program. The college also offered an accelerated associate nursing degree to individuals with a bachelor of arts degree in any subject.
- In Maine (I), the Landing School established the "T3" (Train The Trainers) program to certify incumbent workers as trainers in both their core curriculum and their continuing education programs in boat building and composites. The goal was to have several dozen individuals able to teach on site and be available for regional presentations. The T3 training was, in most instances, offered on site at the existing workers' companies so as to minimize the disruption of the workers' lives and the companies' production schedules.

#### **Lifelong Learning Accounts**

LiLAs are employer-matched, portable accounts that workers use to finance their education and training, which may, or may not, be related to their current employment or industry. The accounts allow for co-investment in worker education and training by the workers themselves, their employers, and even third parties. Two grantees included LiLAs as part of their incumbent worker training programs. Maine (I) supplemented employer contributions to participant LiLAs,<sup>42</sup> while Kansas City (I) made third-party contributions to participant accounts. Kansas City (I) also developed a LiLA Web site and debit card system for participants to track and draw down funds. Kansas City (I) reported that 92 percent of its LiLA participants remained in their jobs through the end of the grant period, and that many participants had wage gains.<sup>43</sup>

#### **Challenges and Lessons**

Many businesses in the targeted industries viewed employee retention as an additional benefit of Initiative-funded incumbent worker training. Employee turnover is costly, as the process of hiring and training a replacement worker involves valuable time as well as money.

No matter how good a worker training program is, it will not be completely successful unless workers who are employed are able to access it. The "accessibility" of a region's incumbent worker training programs was an important factor in their successful operation. Grantees identified several methods to increase accessibility, including:

- Expanding or shortening, as needed, the length of time for completing training.
- Dividing course content into small but meaningful modules.

<sup>&</sup>lt;sup>42</sup> "Maine's North Star Alliance Initiative," accessed June 27, 2011, http://www.maine.gov/wired/programs\_services/workforce\_development.html.

<sup>&</sup>lt;sup>43</sup> Public Policy Associates, Inc. conducted a separate evaluation of the Maine's efforts to launch a statewide LiLA program. That evaluation was done under a contract with ETA. See *Final Evaluation Report of the Maine Lifelong Learning Accounts Pilot Program*, DOLJ061A20377, April 2010.

Devising approaches that allowed participants to train effectively at home and in the workplace.<sup>44</sup>

In many regions, interdisciplinary skills and cross-training emerged as foundational issues in education and training. For instance, C. New Jersey (III) increasingly emphasized both science and business training. Similarly, Virginia (III) determined that STEM was a foundation for all their work, and across regions, businesses became increasingly interested in cross-training employees; e.g., Kansas (III).

## **H. Positioning Local Workforce Investment Boards as Strategic Partners**

Some stakeholders believed that local WIBs and AJCs were logical, if not essential, partners in the regions, although this viewpoint was not shared universally. The roles and responsibilities of the WIBs varied considerably across the three generations, as did ETA requirements:

- ETA did not require that WIBs play a central role in the Generation I regions and these regions relied less on WIBs as central partners than did the other generations.
- ETA designated WIBs as required partners for the Generation II regions.
- ETA required that WIBs be the lead agency for the Generation III regions.

Most regions covered geographic areas that included the jurisdictional boundaries of multiple local boards, with an average of four WIBs per region. In some instances, regions spanned multiple states and included multiple WIBs, while in other instances the region was in a state that had a single statewide WIB (Montana [I], Idaho [III], SW Indiana [II], Utah [II]) or was an urban area that included just one WIB (SE Michigan [II], Washington [III]). Some of the larger, predominantly-rural regions included the entire local workforce investment area of several WIBs and portions of other WIB service areas. Since ETA did not require that all local WIBs in a region be actively engaged, staff from each WIB within a region's boundaries had to decide whether to participate in the region and be involved in the region's leadership, and also had to weigh the potential future implications of that strategic decision.

The Initiative offered WIB staff an opportunity to play a variety of roles, ranging from leadership and governance to workgroup participation and recruiting and training workers with specific skill sets for projected job openings in emerging industries. Staff from some WIBs saw the Initiative as an opportunity to increase the visibility and relevance of their organizations, particularly in the regional economic development arena. Others questioned the degree to which the Initiative aligned with the purpose and goals of local WIB, and limited their involvement to their established roles.

<sup>&</sup>lt;sup>44</sup> For example, Mississippi's (III) Mississippi Gulf Coast Community College offered adult students and incumbent workers online trainings, flexible scheduling, and open-entry programs.

### The Barriers to WIB Engagement

The level of local WIB engagement varied considerably across the grantees, and in only about half of the sites were all of the local WIBs actively engaged with the region. Respondents from many regions described factors that contributed to this outcome.

#### **Time Demands**

WIBs with only a small part of their LWIAs included in a region were reluctant to make a potentially time-consuming commitment that would not benefit their entire service area.

#### **Competition for Scarce Resources**

Stakeholders from almost every Generation I region believed that the Initiative reduced the funds available for WIBs. This issue took a somewhat different form in Eastern Puerto Rico (II) where the subset of WIBs that opted out of the region were concerned that the collaborative wanted to gain access to the agency's WIA funds.

#### **Inclusion in Planning Process**

In a number of Generation I and II regions, stakeholders noted that the short period between the release of the SGA and the proposal due date limited the number of partners who could be involved in planning their regions. For example, WIB staff in North Carolina (I), Maine (I), and SE Michigan (II) were disappointed that they were not invited to contribute to their regions' proposals, creating a barrier to WIB participation in these regions that took up a year or more to overcome. On the other hand, active WIB engagement in grant planning and design created greater opportunities for an alignment between regional and WIB goals. In Florida (I), all six of the region's WIB directors were board members for the lead agency before the region started. They participated in developing the organization's strategic plan, which served as the basis for the region's grant proposal. Working collaboratively to identify strategic priorities enhanced the quality of interactions between WIBs and other partners.

#### **Disagreements about Strategy**

Delaware (II) included 13 local WIBs that took issue with the narrowness of the region's strategy. WIB staff believed that the region's selection of the bioscience industry sector (with entrepreneurs and highly-educated research scientists) conflicted with the WIB's mission of serving low- to moderately-skilled workers and technicians. Further, WIB staff thought that in addition to the region's core focus on training laboratory scientists and technicians, the region should have offered training in processing, manufacturing, and distributing pharmaceutical and biologicals.

#### **Decision Making**

Rigid decision making was one of the most common barriers to a WIB's participation. In some regions, local WIBs were so accustomed to following explicit rules and regulations that they were unable to make the decisions that called for independent judgment and innovative problem solving. This issue was particularly problematic in regions where entrepreneurship was a target sector, and in regions that chose innovative solutions to problems.

#### **Limited Outreach**

A final reason that WIBs did not engage in local regions was that a few of the regions did little outreach to their local boards. The California Corridor (I) covered 49 LWIAs ranging from the San Francisco Bay area to San Diego. The area was simply too big for the region to form close working relationships with all the WIBs. The region instead focused on actively engaging nine southern California local boards, and worked with the California Workforce Association<sup>45</sup> to create a curriculum on the Initiative's philosophy for local boards statewide. WAEM (I) also did little to involve WIBs in its grant, but for a very different reason than the California Corridor. In both Alabama and Mississippi, community colleges played a much larger role in workforce development than the WIBs. While many stakeholders in this region worked with AJCs, none worked with WIBs and few knew what the WIBs did.

### The Benefits to WIBs Participation in the Initiative

In some regions, WIB staff viewed the regional work as an opportunity to build, strengthen, and expand partnerships, while developing innovative solutions to shared workforce development issues. For example, one local board in Tennessee (II) took advantage of the region's career awareness strategies by including them in the WIB's strategic plan. In Mid-Michigan (I), Puerto Rico (II), and C. New Jersey (III), WIB directors and other regional partners held strategic priority discussions with local university staff about technology-transfer activities. A Mid-Michigan WIB director pointed out that these discussions gave his organization valuable information about the skill sets needed for future technical occupations, which helped case managers counsel dislocated workers about marketable skills and their related training needs. Participation also allowed this WIB director to serve as a strategic partner in local economic development discussions. The director's involvement in those discussions gave him access to stakeholders that ordinarily were outside his social and professional networks. These contacts allowed him to gain a broader perspective on the interrelationships among organizations and to better understand the role that the local WIBs could play in regional planning.

Involvement in local regions provided a way for WIBs with less than stellar reputations in their communities to improve their images. For example, the reputation of one WIB suffered because manufacturing employers were unhappy with the quality of referrals from AJC case managers, while another had a bad image because of poor administrative practices of a prior agency director. A third was criticized by employers because of procedural barriers that made it impossible for employers to obtain incumbent worker training funds. Through participation in the regional efforts, these WIBs had an opportunity to access new and expanded employer networks, promote economic growth and job creation, increase the number of potential job opportunities available to AJC customers, and, ultimately, earn a new reputation as a central player in regional workforce and economic development. Some WIBs recognized and took advantage of these opportunities while others opted to remain on the sidelines.

An important benefit that WIB directors and staff accrued from an involvement in the regions was building relationships with their peers. For example, the efforts undertaken during the grant period in N. New Jersey (II) persuaded the eight WIB directors to remain a consortium, pay dues, and adopt a new name and identity for their partnership. Similarly, local boards in New

<sup>&</sup>lt;sup>45</sup> The California Workforce Association is an industry organization for the state's WIBs.

York (I), North Carolina (I), and Pennsylvania (I) committed to continuing the WIB director groups formed through their local regions after the grants ended. With funds from the State of Michigan, the five WIBs in Mid-Michigan (I) convened their own work group to collaborate in incorporating 21<sup>st</sup> Century workforce development themes<sup>46</sup> into WIB and AJC activities. Included in these discussions was an examination of the strategic advantages of branding Michigan Works! Agency services across the region to increase employer recognition and expand employer utilization of their services.

In Delaware (II) and a number of other sites, the improved communication that occurred between the region's WIBs during the Initiative period may not have resulted in concrete changes in the short term, but helped shape future dialogue and ongoing regional collaboration.

## The Role of WIBs in Generation III Regions

The fact that the ETA required Generation III grantees to use WIBs to serve as the lead agency of their regions provided a formal recognition of the importance of these agencies to workforce system transformation. The SGA did not define the actual responsibilities of the lead agency, however. In regions like Arizona (III), where the Pima County WIB was known both locally and nationally as an effective and innovative leader of workforce development efforts, the agency was well positioned to lead a region. Indeed, with its leadership, a major university and outlying community colleges came together with employers to address the workforce needs in several different sectors.

In addition to Arizona (III), WIBs played an active leadership role in C. New Jersey (III), Oregon (III), and a handful of other regions. In C. New Jersey (III), the local WIB was particularly effective in its role as the convener of an array of organizations with many different interests. In addition to being involved in the governing board, the governance structure used in this region assured the WIB involvement throughout, as at least one representative of each of the WIBs was included within the six different strategy and implementation teams.

Other regions in Generation III—Mississippi (III) and Minnesota (III)—had local WIBs listed as the lead agency but they appeared to be far less engaged. In Minnesota, the strategic decisionmaking process was dominated by employers, and implemented by a project manager who had strong connections with a highly motivated employer that led the governing board of this region. In Mississippi, one highly motivated employer controlled the agenda for the region with the local WIB having a very secondary role in regional activities. Consequently, while designating local WIBs as required lead agencies cleared a pathway for their involvement in the regions, it was no guarantee that the WIBs would play a meaningful role. The strength of their relationships with the business community and the ability to add value to the decision-making process were equally important.

Innovation and transformation take on different meanings in different contexts. For local WIBs that participated in the Initiative, it meant transforming the WIB's role from a highly localized

<sup>&</sup>lt;sup>46</sup> The "21<sup>st</sup> Century Workforce Initiative" (funded by the Michigan Department of Labor and Economic Growth in 2007) included regional collaboration, business services, layoff-aversion/rapid response, and developing/attracting, and retaining talent.

service provider to a strategic partner with an important role to play in regional economic development. This new role carried with it the ability to have an effect on workforce development, economic development, and job creation that far exceeded the individual transactions handled each day by case managers in local AJCs. The Initiative underscored common challenges and identified new ideas about the role of local WIBs and AJCs and their ability to make valuable contributions to the success of future economic development efforts.

## I. Response to the Recession

## **Regional Experience of the Recession**

The extent to which the national recession impacted the regions varied according to their core industries and the proportion of their workers in the manufacturing, financial, and military industries. Regions hardest hit were located in older, traditional manufacturing centers; e.g., heavy industry and automobile manufacturing in the East and Midwest (see Table 5 for a summary of the relative effects of the recession on different regions). Regions that were more diverse in their industrial makeup, or had an agriculture-based economy—e.g., Idaho (III) and Minnesota (III)—were less affected.

A few regions experienced relatively minor effects from the recession. These regions were less dependent on heavy industry/traditional manufacturing, especially in the south and west, such as Arkansas (II). The presence of a military base or defense-related industry also appeared to ameliorate the impact of the recession, as in Denver (I).

Generation	Less Effect	Medium Effect	<b>Greater Effect</b>		
		WAEM, California			
		Corridor, Florida, Kansas			
		City, West Michigan, New	NCI, Maine, Mid-Michigan,		
Generation I	Denver	York, and North Carolina	Montana, and Pennsylvania		
			Puerto Rico, Delaware, N.		
	Arkansas, Tennessee,	Ohio, SW Indiana, and	California, N. New Jersey, SE		
Generation II	Utah, and Texas	Connecticut	Michigan, and SE Wisconsin		
	Kentucky, New Mexico,	Oregon, Washington,			
	Kansas, Mississippi,	Missouri, Virginia, and			
Generation III	Minnesota, and Idaho	Arizona	C. New Jersey and Wisconsin		

#### Table 5: Relative Effects of the Recession on the WIRED Regions\*

#### Disrupted Funding and Increased Uncertainty about Sustainability

One result of the recession was that money for business loans was drastically curtailed. This occurred in Maine (I) and, because of it, the region was unable to implement the program of revolving loan funds for businesses in their target industries. In Montana (I) business loans for biodiesel companies became impossible, thwarting efforts to grow an agro-energy program. In Florida (I), construction dollars vanished. Pennsylvania (I) lost outside funding for its plan to build a fiber optic cable network to allow synchronous back-up operations for financial companies in New York City. In Puerto Rico (II), efforts to establish much-needed rail

transportation between San Juan and Caguas, the capital of the Commonwealth, were delayed indefinitely. In addition to the loss of construction jobs, the railway would have opened the door to greater employment opportunities in the targeted sectors for Caguas residents.

Similarly, funding for training was subject to the recession-induced vagary of shifting industry demands. In some cases, as noted in NCI (I), firms turned away from investing in incumbent worker training in an effort to conserve resources. (The impact of such disruptions on the regions' strategies and training opportunities is discussed further in the following pages.)

Stakeholders in North Carolina (I) were particularly concerned about the impact of state budget cuts on the sustainability of the region beyond the grant period. Also, stakeholders in Mid-Michigan (I) noted that charitable giving to nonprofit organizations had dropped, further reducing potential funds for sustainability.

Some responded to the recession by making substantial changes in their strategies while others made little or no changes despite what short-term indicators suggested about employment in targeted sectors. For example, N. California (II) decided to abandon its original focus on information technology and the agribusiness sectors due to the changing economy. Using an economic reassessment of its assets, regional leaders decided to refocus the initiative's efforts on renewable energy and health care. Arizona (III) used a different approach, where over the course of less than three-years, the region shifted from facing a worker shortage amidst one of the hottest economies in the nation, to dealing with layoffs and rapidly rising unemployment. Because the core leadership of the region was located in the same building as the local AJC the impact of the recession on workforce needs was more visible and compelling. In response, the region shifted its focus from training the emerging workforce to retraining for displaced workers. Unlike N. California (II), however, Arizona's continued to work with its original target industries.

The recession had devastating effects on the Pennsylvania initiative since the financial companies that the region courted no longer had the resources to establish back-up, disaster recovery, and back-office operations in the area. The initiative's gap analysis revealed the need for better career awareness education during all four years of high school, and for a better prepared workforce overall. The region moved from developing curricula on financial services to working with high schools to develop business and school partnerships, implement structured career exploration models, and provide a regionalized career pathway awareness program in 64 school districts.

#### Impacts on Increasing Enrollment at Community Colleges

Many regions saw a dramatic increase in community college enrollments, which the colleges attributed to the slow economy driving both new and displaced workers to seek more marketable skills. At least 14 regions reported expanded enrollment in education and workforce training; including Florida (I),<sup>47</sup> North Carolina (I), SE Michigan (II), Tennessee (II),<sup>48</sup> Virginia (III),

<sup>&</sup>lt;sup>47</sup> Florida (I) local WIBs saw the number of job seekers increase by 35 percent from one year to the next.

<sup>&</sup>lt;sup>48</sup> In Tennessee (II), Calhoun Community College enrollment was up 16 percent over one year.

Arkansas (I),<sup>49</sup> Texas (II),<sup>50</sup> SE Wisconsin (II),<sup>51</sup> Wisconsin (III),<sup>52</sup> Oregon (III), Washington (III), Kentucky (III),<sup>53</sup> Idaho (III),<sup>54</sup> Arizona (III), and Southwest Minnesota (III).

#### Reduced Availability of WIB and AJC Staff in the Initiative

As the recession deepened, the flow of customers visiting AJC Career Centers became a flood. In late fall 2008, the Florida (I) region's AJC Centers saw a 35% increase in demand – workforce personnel noted the need to spend training money on preparing people for the jobs that were available at that time rather than for the high-skill, higher-paying jobs that require a longer term investment. As unemployment grew, the SW Indiana (II) AJC staff members who normally worked on employer outreach instead were assigned to work with unemployed individuals coming through the centers. Stakeholders in WAEM (I) reported that increased workloads strained the capacity of the AJC and were likely to limit the introduction of new forms of collaboration in the short term. Similarly, AJC and WIB staff in NCI (I) and Kansas City (I) also had to limit their participation in their region's collaborative activities.

### **Regional Responses to the Recession**

Some, but not all, regional leaders viewed the deteriorating economy as an opportunity to learn new ways of approaching complex problems. Responses to the recession fell into four broad types, which are not mutually exclusive::

- Changes in collaboration and creative problem solving among partners;
- Reconsideration of target industries, target populations, or regional activities;
- Research to better understand the recession and address data-driven needs; and
- Increased resources to address the needs of displaced workers

#### **Changes in Collaboration and Creative Problem Solving Among Partners**

A number of the regions increased their collaboration activities with partners and found creative solutions to their regional issues. Oregon (III), Arizona (III), and N. California (II), for instance, all experienced a greater intensity of collaboration during the recession than they had before it. Other regions attributed their creativity or flexibility in program strategies to the pressures generated by the recession.

Several of California Corridor's (I) stakeholders believed that the poor economy thwarted innovation. According to one stakeholder, the executive boards were not as willing to allow organizations to pursue innovative solutions, and were less supportive of collaboration.

<sup>&</sup>lt;sup>49</sup> In Arkansas (II), the Mid South Community College reported a 30 percent increase in its enrollment.

<sup>&</sup>lt;sup>50</sup> In Texas (II), South Texas Community College enrollment grew by 23 percent in a one-year period.

<sup>&</sup>lt;sup>51</sup> SE Wisconsin (II) reported a dramatic increase in secondary school and training institution enrollments.

<sup>&</sup>lt;sup>52</sup> In Wisconsin (III), Blackhawk Technical College enrollment more than tripled.

<sup>&</sup>lt;sup>53</sup> While some enrollment increase is due to increased unemployment in Kentucky (III), the region has undertaken an aggressive effort for the past five years to create a college-going culture.

<sup>&</sup>lt;sup>54</sup> Stakeholders reported dramatic increases in enrollment at CSI.

The recession influenced the very existence of some regional partnerships. For example, Texas (II) lost 11 partners from its collaborative when the businesses closed down, and had to bring in 11 new business partners. Other regions, such as N. California (II), gained partners when they added new industries. In both cases, regions invested substantial time and energy in establishing new relationships and addressing the training needs of new partners.

#### **Role of Local WIBs and AJCs in the Regions**

Despite the demands that the recession placed on their workforce systems, several regions noted that the experience strengthened their commitment to the Initiative. For example, in N. New Jersey (II), both local WIBs and AJCs were able to support the region's "integrated delivery system" by continuing with their roles in the Industry Advisory Councils throughout and after the grant ended. The Florida (I) initiative and its local WIBs agreed upon an arrangement to address the demands on AJC staff. The region's leaders told the workforce professionals that they should take care of customers' immediate needs, and that activities supported by the initiative would take care of the long-term. Despite the failing economy, some parts of the WAEM (I) region continued to grow with the relocation or expansion of advanced manufacturing employers in aerospace, steel, and automotive industries. According to WAEM staff, such disparities validated the Initiative's central tenet that the job pipeline must be regional, multi-skilled, and oriented to a broad base of identified growth industries.

#### **Reconsideration of Target Industries, Targeted Populations, and Regional Activities**

Regions that originally targeted industries hardest hit by the recession, such as housing construction and financial services, were the most likely to change course. Notable examples of dropping a target industry included:

- N. New Jersey (II), which chose not to include financial services as a targeted sector;
- SE Wisconsin (II), which decided not to establish their Financial Services Council; and
- Mississippi (III) and Florida (I), which dropped construction after the housing industry collapsed.

On the other hand, some regions expanded their industry focus in response to the recession. Pennsylvania (I) took on two new sectors: Information Technology (IT) and STEM-related industries. Montana (I) added construction as a target industry to take advantage of jobs generated by ARRA (American Reinvestment and Recovery Act) infrastructure grants in the area.

The grantees sometimes shifted targeted populations when they changed targeted sectors. Southwestern Connecticut abandoned its focus on the financial services industry and shifted to meeting the immediate needs of disadvantaged youth, via developing projects around entry-level health care, IT, and work-readiness skills. Idaho (III) reported that the recession moved their focus from training new workers in construction and manufacturing to providing short-term training to enhance incumbent worker skills in green building and health and safety. Some regions kept their existing goals or industries, and yet expanded the types of participants that they served or the resources set aside for target populations.<sup>55</sup>

Several regions had to change specific strategies as a result of the recession. For example, with a state budget deficit of nearly \$19 billion, the California Corridor (I) suspended a project that trained engineers to be teachers, pending decisions about how many math and science teacher positions would be cut from school district budgets. Private sector cutbacks affected the region as well, when a regional partnership between an aerospace manufacturer and a university dissolved because the manufacturer could not secure contracts for new rocket launches.

Florida (I) de-obligated and redistributed funds from its entrepreneurship project when tightening credit markets prevented participants from securing funds to support business start-ups.

#### Some Regions Made Little or No Changes in Strategy

In some cases, regions made little or no change in core goals or target industries. These included Denver (I), Kansas City (I), West Michigan (I), Utah (II), Virginia (III), Arizona (III), SE Michigan (II), and Mississippi (III). Several factors, including the nature of the partnership with local WIBs, contributed to these decisions. For example, Utah (II) was focused heavily on creating a pipeline of workers for bio-science-related companies throughout the area. Its focus was on the future workforce with an emphasis on increasing the integration of STEM knowledge in the education system and building instructional capacity. The WIB's<sup>56</sup> role was limited to serving as fiscal agent.

SE Michigan's (II) strategy focused on entrepreneurship and included efforts to link college graduates with internships with companies in the area. In a sense, this effort sought to counteract the perception that the recession was so severe that it had ruined most, if not all, job prospects for this target population. From the outset, the local WIB chose not to participate in the work.

As mentioned earlier, Mississippi (III) dropped the construction sector, and continued its emphasis on training more welders and metal workers for the shipbuilding sector that dominates its regional economy. The recession extended to both large-scale, government contractors as well as supplier firms in the sector and severely limited new hires. Nevertheless, training of future workers continued. The leaders of the region assumed that there would eventually be a demand for these workers. The composition of the board, dominated by a governor-appointed metals-manufacturing employer and with limited involvement of the local WIBs, influenced the strategic decisions that were made.

#### Research to Better Understand the Recession and Address Data-Driven Needs

Acknowledging that their labor markets and emerging industries were rapidly shifting, some regional leaders pursued new data to better understand their assets, labor market, training program needs, and emerging industries;<sup>57</sup> while others relied on informal assessments and other

<sup>&</sup>lt;sup>55</sup> Delaware (II) created a fund of \$1.3 million to serve dislocated workers, Missouri (III) focused on increasing the proportion of workers with GEDs, and Arizona (III) focused on short-term training for displaced workers.

<sup>&</sup>lt;sup>56</sup> The State of Utah has a single, state WIB.

<sup>&</sup>lt;sup>57</sup> Other examples of strategic uses of data can be found in SE Wisconsin (II), Arizona (III), Utah (II), Missouri (III), Indiana (II), and Minnesota (III).

means to gauge the current effects of the recession. A stakeholder in N. California (II) noted, "The recession has caused NoRTEC [The Northern Rural Training and Employment Consortium] to examine data more carefully than before. . . ." This region conducted market studies for specialty agriculture products, and updated its asset map and LMI data. These data appeared to be strategically valuable in gauging next steps and alternatives. Oregon (III) invested in a customized data system called the "WIRED Information Center"<sup>58</sup> to meet the area's needs. As mentioned earlier, Idaho (III) leaders made strategic and operational decisions based on the perceptions of need, and anticipated and hoped for benefits, but with minimal attention to data. Efforts to develop a detailed, regional data-collection system using Executive Pulse<sup>59</sup> faltered because of regional coordination issues.

#### Increased Resources to Address the Needs of Displaced Workers

With or without ARRA funds, regions developed and implemented an array of training to upgrade worker skills. For instance, toward the end of their grant, leaders in C. New Jersey (III) noted that much of the remaining \$257,077 in project funds would be allocated for retraining or other assistance for the growing ranks of unemployed workers. One stakeholder in Washington (III) noted that having training available through the grant helped AJCs direct individuals to a broader selection of programs.

In summary, the regions developed their goals and implementation plans prior to the change in the economy. As the recession spread across the country, regional leaders considered a variety of sources to determine the appropriate response for their regions. Entrepreneurship, knowledge, and capacity-building investments continued to be viable approaches under the circumstances, although funding for business development was limited. Some regional stakeholders believed that increasing training and improving work readiness would better situate the regional workforce for employment post-recession.

## J. Leveraged Funds

To successfully establish a growing regional economy around a targeted industry sector or cluster, the regions needed to join the Initiative funds with other resources from key stakeholder organizations within the region, and align those resources to pursue a set of common goals. The original SGAs encouraged the applicants to leverage the resources of all strategic partners whenever possible, but did not require applicants to secure matching funds or to propose costsharing or cost participation to be eligible to receive grant funds. As they implemented their regional work, however, grantees were aggressive in bringing to bear multiple resources from across their regions.

### **Definition of Leveraged Funds**

Fiscal monitoring in 2007 revealed that ETA used a different definition of leveraged funds than the grantees had been using, creating notable confusion and upheaval for grant management.

<sup>&</sup>lt;sup>58</sup> "Worksource Qualityinfo.org," last accessed July 21, 2011, http://www.qualityinfo.org.

<sup>&</sup>lt;sup>59</sup> Executive Pulse is a countywide and regionwide tool used primarily to organize and maintain business retention and expansion data. See http://www.e-pulse.net/Our-Focus.asp.

When ETA awarded the Generation I grants in 2006, the agency had made clear that the funds were to be considered seed money, and that regions should secure other sources of funding to cover the full range of activities needed to transform their local economies. ETA did not define "leveraged" for the regions at that time. ETA's summary of findings for its 2007 fiscal monitoring of the Generation I grants reported that eight out of ten failed to properly track and report leveraged resources.<sup>60</sup> In 2008, ETA clarified that OMB cost principles defined leveraged funds as non-grant funds that are used for costs that *are allowable* under the Federal grant. This was not how the regions had understood the term. Until 2008, ETA's tracking of leveraged funds included funds that the grantees used for costs that the H1-B legislation *did not allow*, which enabled many regions to support planned activities that could not be covered by the grant.

Ultimately, the regions did not use the OMB definition in tracking leveraged funds, and the regions continued to vary in how they reported leveraged resources. For example, at least one program manager stopped reporting leveraged funds to ETA because of a lack of clarity about the definition and reporting requirements. Other regions continued to omit in-kind resources from their tally of leveraged funds, even though ETA considered in-kind contributions to be part of leveraged resources.

### **Estimates of Leveraged Funds**

With the caveats about definitions noted, Table 6 presents the estimates of funds from sources other than the grant that the regions secured for their initiatives. Using a process separate from its usual monitoring, ETA collected and verified information on the grantees' leveraged funds through April 2008.<sup>61</sup> ETA's system provided detail on the source of the funds (e.g., Federal, state, local, foundation, industry, education, or multiple).

(as of April 2008)					
Source	Total	Generation I Generation II		Generation III	
Federal	29%	40%	17%	39%	
State	32%	14%	50%	45%	
Local	1%	2%	0%	9%	
Foundation	6%	10%	2%	1%	
Industry	26%	25%	27%	2%	
Education	4%	9%	0%	3%	
Multiple	3%	1%	4%	0%	
TOTAL Funds	\$596,854,262	\$294,492,057	\$296,548,563	\$5,813,642	

# Table 6: Estimated Leveraged Funds by Source, by Generation\*(as of April 2008)

\*Source: U.S. Department of Labor, Employment and Training Administration.

<sup>&</sup>lt;sup>60</sup> ETA, Summary of Categorical Findings, WIRED Generation I Fiscal Monitoring Reports as of January 15, 2008, (Washington DC: January 15, 2008).

<sup>&</sup>lt;sup>61</sup> The estimates were circulated in August 2008, but are assumed to summarize data collected by ETA through April 2008, since no ETA staff members were available to collect data on leveraged funds after that date.

As of the end of the ETA data-collection effort, Generation I grantees had secured almost \$295 million in leveraged resources, Generation II grantees reported over \$296 million, and Generation III grantees reported \$5.7 million. In sum, at that point in time, the Initiative grantees reported raising almost \$597 million in additional resources to support the goal of revitalizing their regional economies. This exceeds the total Initiative grant awards by \$272 million, and meant that the total funds invested in preparing the 39 regions for growth was at least \$922 million.

Federal grants (29 percent), state grants (32 percent), and funds from industry (26 percent) represented the largest proportion of leveraged funds across all of the grantees. Each Generation leveraged resources from a variety of regional partners. For example, leveraged funds for the Generation I regions appeared to come from more diverse sources than the other two groups of grantees, as Table 6, above, illustrates. The majority of Generation I leveraged resources came from Federal (40 percent) and industry (25 percent) sources, while Generation II grantees most frequently leveraged funds from state grants (50 percent) and industry (27 percent). Generation III regions most frequently raised leveraged resources from Federal (39 percent) and state (45 percent) grants. The relatively large percentage of state funds leveraged by Generation II grantees reflects the efforts that were made by several of these grantees to find alternative sources to pay for components in their original (Generation I) proposals that could not be covered because of the substantial decrease in the grant award (from \$15 million to \$5 million). As a result, several regions turned to their states for support. The relatively small amount leveraged by Generation III regions can be attributed to several factors, including the fact that Generation III grants started over a year after the Generation I and II regions began and had not had an opportunity to build relationships with employers or apply for funds from other sources.

The amounts presented in Table 6, above, are estimates at one point in time. Several factors contributed to this situation. For example, since all of the regions continued operations for at least two more years after ETA ceased collecting this data, it could be argued that the data most likely underestimated the total. However, in reporting funding sources other than the Initiative, some regions included grant applications they had submitted even though those grants had not yet been awarded, offering the possibility of overestimation. Third, changes in the economy led to swift changes in the amounts and uses of some of the projected leveraged funding; in some cases, the result was a decrease in available funds and in others, a redirection of funds within a region. For example, Montana (I) included private equity investments in their business partners' companies in their count of leveraged funds, since these companies had committed to hiring trained participants once the businesses were able to expand their facilities. The program also encouraged farmers to grow oilseed for bio-diesel production, however, the spike in oil prices during summer 2008 sparked a demand for corn to produce ethanol. The decline in the amount of corn on the market increased the demand for wheat, a complementary good. This increased wheat prices, which served as a disincentive to growing oilseed. The region's business partners were unable to expand because insufficient fuel stock was available. Similar dynamics affected Pennsylvania (I). The collapse of the financial services sector in 2008 meant that Pennsylvania (I) partners in the finance industry no longer had the resources to create synchronous back-up operations in the region for their main offices in New York City.

More recent data on leveraged funds were available for Generation I grantees, since they continued to provide this information in their quarterly reports after 2008 (although ETA did not verify the amounts that the grantees reported). The Generation I final progress reports, covering their entire grant period through January 2010, stated that they had raised a total of \$235,547,067 in leveraged resources for their regions. This amount demonstrates the inherent difficulties of documenting leveraged funds. It is lower than the verified estimate in 2008 (Table 6, above). Some grantees stopped reporting leveraged funds when the definition of the term became an issue. Some regions did not receive all of the grant funds that they had anticipated, and, in some instances, business partners were unable to provide all of the resources that they had promised.

## **Uses of Leveraged Funds**

The Initiative grantees used leveraged funds for several different purposes. A few examples are provided below:

- *Cost sharing for various training programs*. A number of regions—including North Carolina (I) and Florida (I)—required sub-grant applicants to match Initiative funds in order to receive funding.
- Creating specialized facilities for training or to attract businesses from the targeted sector. Maine (I) used \$3 million in leveraged funds from a DOL training grant and a local economic development agency to establish a facility for training workers in advanced composite techniques.
- Helping to cover changes in regional budgets. One region used such funds to cover the cost of a program that had been discussed in their proposal (for Generation I) but was not included in their eventual budget for their WIRED Generation II grant. In another case, Utah's (II) original pipeline strategy for the biosciences included extending STEM instruction through the middle schools, which could not be covered under restrictions for the use of WIRED funds. Ultimately, the State found other ways to cover those costs.

## **Capacity of Organizations to Generate Leveraged Funds**

The amount of leveraged funds that a grantee was able to raise depended on several factors. These included the number of regional partners eligible to apply for various types of grants (particularly, colleges and universities); the capacity of partners and stakeholders to share their resources; the target population for grant activities; the length of time that the regional initiative had been in operation; and limitations on the uses of grant funds from other sources. More malleable factors include the degree to which stakeholders valued a region's mission; partners' perceived benefits from their participation in the collaborative; availability of skilled grantwriters; and the Initiative's requirements for matching funds or consortium dues.

The amounts, sources, and the nature of the activities to which leveraged funds were applied are important indicators of partner engagement. At the most basic level, leveraged funds added value because they helped pay for project activities (e.g., the design and delivery of a training program); however, they served several other purposes. They demonstrated the partner's belief that the region was moving in the right direction and served as an indicator of the depth of belief that the collaborative was of value to others and to the region as a whole. Thus, they demonstrated how regions used the grants' relatively modest investment (compared to the size of the regional economy) as a catalyst for additional regional economic development and economic transformation.

## **K.** Accountability and Performance Measures

ETA developed the Initiative's Accountability Framework<sup>62</sup> early in 2007 to ensure that the grantees systematically captured their region's results and outcomes as well as any information that would help demonstrate their achievements and the value of their regional strategies to stakeholders. In addition to the evaluation effort, of which this report is a part, the Accountability Framework provided the regions with a set of metrics specific to the Initiative and asked the grantees to report on these measures quarterly. The metrics included:

- A breakout by industry of participants who: enrolled in and completed training; earned a degree, certificate, or credential; or entered employment.
- Measures focused on capacity-building activities, including the number of new curricula, work-based strategies, and career guidance strategies developed through the grant, the number of teachers trained to use industry-relevant curricula, and the total grant funds spent on instructional equipment. The capacity-building metrics also asked grantees to estimate the number of students to be affected by each of these measures.
- A third group of measures consisting of economic indicators which ETA asked the grantees to report annually.

As ETA introduced the Initiative's metrics, the agency also directed grantees to work with their local WIB partners to enter information on participants' characteristics, service use, and outcomes into the Workforce Investment Act Standard Record Data (WIASRD), ETA's national database on WIA program participants. This allowed the agency and/or the evaluation teams to both describe the regional participants, and calculate the Common Measures for regions, grantee generations, and the Initiative as a whole. The grantees did not enter data for all participants into the WIASRD, however. Depending upon the region, the projects did not collect WIASRD data on many different types of participants, such as those whose only service was a WorkKeys certification; high school students; incumbent workers; entrepreneurs; those who did not find work in a new job that the region helped create; or those who were not co-enrolled in regular WIA services. A discussion of regional achievements, including education and training outcomes and other measures, can be found in an earlier part of this report. Because ETA suggested, rather than required, that the grantees use the Initiative's metrics, the regions adopted the measures to varying degrees, and added others to capture region-specific progress and outcomes as described earlier.<sup>63</sup> Table 7 illustrates the variation in region-specific measures, many of which fell into categories such as career path development, business supports, outreach, leveraged funds, entrepreneurship, and increasing capacity.

<sup>&</sup>lt;sup>62</sup> ETA, WIRED Performance Reporting – Implementing Your Regional Accountability Framework (Generation I and II Grantees), Memorandum to WIRED Regions, (Washington DC: April 27, 2007).

<sup>&</sup>lt;sup>63</sup> Grantees identified their performance measures as they developed their regional implementation plans.

Table 7: Examples of Region-Specific Metrics					
Regions	Туре	Measure			
Arkansas (II)	Career Paths	Career pathway developed			
C. New Jersey (III)	Capacity-Building	Number of educator consortia formed			
California Corridor (I)	Business Supports	Develop/disseminate training resource matrix to 1000 supply chain stakeholders			
Delaware (II)	Capacity-Building	Number of teachers in LSERN collaborative			
Kansas (III)	Business Supports	Create online composites firm directory			
Maine (I)	Leveraged Funds	Amount private industry/individual match to training funds invested			
North Carolina (I)	Entrepreneurship	Number of rural investors participating in angel networks			
Ohio (II)	Business Supports/ Job Retention	Number of incumbent workers retained in the target industry			
Puerto Rico (II)	Business Supports	Number of business training programs created			
WAEM (I)	Outreach	Number of community leader contacts by community college staff			

#### **Table 7: Examples of Region-Specific Metrics**

ETA introduced the Initiative's metrics over a year after the award of the Generation I grants, which primarily went to economic development and community-based organizations that were not accustomed to ETA regulations. Many grantees had difficulty reconciling the lack of alignment between the outcome measures and their understanding of the Initiative's larger goals and purpose. This complicated the task of communicating regional goals to their partners.

All but two of the Generation II and III regions had performance measures capturing the number of different types of partnerships that their regions had developed (e.g., employers, economic development agencies, WIBs, etc.). In contrast, only two Generation I grantees used similar metrics, and both tracked only their region's total number of new partnerships.<sup>64</sup>

Less than half of the 39 regions adopted metrics that targeted a specific group for training, beyond their sector partners. For example, nine grantees had performance measures for training incumbent workers, and four regions tracked services to dislocated workers. Only one region specifically targeted services to low-income workers.

A common challenge across all three generations of grantees was the difficulty in arriving at a set of metrics that would capture the broad mission of achieving regional economic transformation through new kinds of partnerships, collaborative agenda setting and program delivery, and leveraged assets. Few regions developed a comprehensive set of measures regarding such collaboration, though many captured individual data elements, including, for example, numbers of:

<sup>&</sup>lt;sup>64</sup> These differences may be due to changes in reporting requirements instituted by ETA. If so, it demonstrates ETA's growing interest in the diversity of the partnerships that were developed and in the extent to which a smaller grant amount influenced the characteristics of the regional partnership.

- Leaders engaged in the regional action agenda (North Carolina [I]),
- Inter-institutional collaborative research projects/innovation initiatives (North Carolina [I]),
- Patents filed and patents granted (Pennsylvania [I], Maine [I]),
- High school juniors and seniors introduced to entrepreneurship (Mid-Michigan [I]),
- Potential local investors attending angel investor training (Mid-Michigan [I]),
- New seed and venture capital investments (Pennsylvania [I]), and
- Regional leaders trained in regionalism (Kentucky [III]).

One region attempted to create a more comprehensive way of documenting grant activities that was featured at two of the Initiative's national Learning Academies. C. New Jersey (III), along with the Heldrich Center at Rutgers University, invested considerable thought and effort into developing a performance measurement system that captured some aspects of regional transformation beyond the Common Measures. The design criteria for the metrics framework included:

- Developing a set of metrics (including Common Measures) that met ETA's reporting requirements,
- Creating a metrics dashboard that leadership could use to monitor performance and inform decision-making,
- Using existing data sources to minimize the data-collection burden on partners,
- Using a balanced-scorecard approach to measure a comprehensive set of indicators, and
- Measuring leading, as well as lagging, indicators

C. New Jersey's (III) performance measurement strategy was designed to be a cyclical, cumulative, and ongoing process that used four categories of measures: capability-building; education and training; employment/further education; and economy/innovation.

Efforts to capture the regional economic benefits of the projects were challenging. The WIRED grants were relatively large in comparison to many grant programs conducted by ETA, but even the \$15 million grants were small in comparison to the regional economy. The three-year duration of the grants also made it difficult to detect changes in the regional economy, particularly in light of the impact of the nation-wide recession. For these and other reasons, even if positive trends in the regional economy were identified, it would be difficult to attribute them to the work conducted in the WIRED projects during the grant period. However, if those efforts address the workforce needs of targeted sectors, and are consistent with regional priorities for economic development and aligned with work of partner organizations, it could be argued that the regional initiatives did make an important contribution to economic growth.

Very few of the grantees (for example, three out of 13 for Generation I) included the Common Measures in their quarterly reports. Several factors may have contributed to this lack of data:

 Calculating the measures required the grantee and/or partners to collect Social Security Numbers (SSNs) from participants so that the region could use Unemployment Insurance (UI) wage records to calculate the measures;

- Because employers may have submitted wage records up to three months after the end of a quarter, a significant time lag was involved in accessing the UI wage records. Several of the regions noted that this was the reason that they had not provided data on the Common Measures in their quarterly reports; and
- State workforce agencies calculated the Common Measures for the state as a whole, while local WIBs calculated these metrics for their local workforce area. Most of the regions had a footprint that was larger than a single LWIA. In either case, calculating the Common Measures for the region was a separate step from the workforce agency's usual practice.

As discussed here and earlier in this report, the WIRED Initiative's objectives were far more complex than could be measured via straightforward employment outcomes, and the Common Measures did not capture the Initiative's effect on the regional economy, on regions' networking strategies, or on training for entrepreneurs.

The WIRED projects' goals also had social and cultural dimensions, in addition to economic development and workforce development system changes. ETA's Accountability Framework was an important first step in recognizing the limitations of the Common Measures in capturing the many different contributions of the WIRED initiatives. As efforts to encourage regionalism continue, measures that capture progress in the formation of regionalism and systems change will require further consideration.

## L. Leadership and Governance

Forging coherent and effective decision-making, oversight, and implementation structures were essential to carrying out the WIRED projects' plans. The ability of regional leaders to recognize changing needs and respond to lessons learned through collaborative governance was essential to the overall success of the regions and their ability to build a case for continuing efforts.

## **Role of the State**

Both of the WIRED SGAs designated state governors as the only eligible applicants. In each of the 39 regions, however, the governor delegated grant oversight responsibilities to the state's workforce investment agency. Governors played a more active role in a few of the regions. For example, the Governors of Alabama and Mississippi were co-leaders of WAEM (I), and the proposal for the Mississippi (III) region was authored by staff from the Governor's office. The Pennsylvania Governor's Office planned to contribute over \$8 million for fiber optic cable infrastructure supporting the Pennsylvania (I) region. Maine's (I) governing committee included representatives from the governor's office and the state commissioners of Labor and of Economic and Community Development.

The Initiative's SGAs also allowed applicant states to designate a fiscal agent. As Table 8, below, shows, the state workforce investment agency was responsible for fiscal oversight in less than half of the regions. In 23 of the 39 regions, other types of organizations, such as local WIBs, colleges/universities, or economic development organizations, served as fiscal agents. A

number of governors also chose to streamline the operations of their grants by designating the same organization to be both fiscal agent and grant manager.

and Regional Management Roles, by Generation								
	Т	OTAL	Gen	neration I	Generation II		Generation III	
Organization Type	Fiscal Agent	Managing Organization	Fiscal Agent	Managing Organization	Fiscal Agent <sup>a</sup>	Managing Organization	Fiscal Agent <sup>a</sup>	Managing Organization
State Workforce Investment Agency	16	2	6	1	5	0	5	1
Local Workforce Investment Board	13	15	1	1	6	4	6	10
College/ University	5	4	3	1	1	3	1	0
Economic Development	5	13	2	6	3	5	0	2
Industry	0	2	0	1	0	1	0	0
Civic or Planning Nonprofit	1	2	1	2	0	0	0	0
Other Government <sup>b</sup>	2	1	0	1	0	0	2	0

# Table 8: Type of Organizations in Fiscal Agentand Regional Management Roles, by Generation

Source: Grantee implementation plans and evaluation team interviews.

<sup>a</sup> Total number of grants does not equal 13 because two organizations shared fiscal agency for at least one region.

<sup>b</sup> "Other government" includes two counties acting as fiscal agents for Generation III sites, and the Governor's Office managing one Generation I region.

The relationship between the state and the region was an important issue in the early stages of development for several grants. In Minnesota (III), the state appointed a six-person interim executive committee to handle some preliminary decisions related to the region. Initially, the composition of this group created some controversy, since it was dominated by state government and college/university leaders, did not include any representation from the private sector, and was perceived as being disconnected from the needs and interests of the region. Subsequently, steps were taken to transfer planning and operations to regional stakeholders. In Wisconsin (III), the state played a critical role in resolving a conflict that arose between urban and rural areas that comprised the region. These stakeholders had a long history of conflict that, without intervention by the state, threatened the future of the collaborative.

### **Collaboration and Governance**

In most regions, groups of local partners developed governance structures to oversee the design and implementation process, and were responsible for governing, overseeing, or setting overall direction for the regions' work. As the Wisconsin (III) project demonstrates, the ability of regions to establish these structures may have been influenced by the prior history of disagreement and conflict.

While some of the regions created governance groups made up of members who had little history of working together, many built on prior collaborative efforts at least to some degree. The

results of a partner survey that was conducted by the national evaluators showed that 59 percent of Generation I partners, 58 percent of Generation II partners and 72 percent of Generation III respondents reported a prior history of successful collaboration.

Partners in many of the regional collaboratives reported that the relationships that they had established through their involvement in the WIRED grant were some of the most highly valued outcomes of their entire effort.

The manner in which the initial decisions about governance were handled set the stage for the decision-making processes that followed. Individual regions used a variety of names for their decision-making groups: governing board, executive committee, leadership team, governing commission, and policy council. These governance groups were composed of representatives from workforce development, education, economic development, business leaders, and other stakeholders. The size of governance groups ranged from 15 to 70 members, depending upon the specific function of the group and the number of partners and stakeholders represented in the group. Executive groups, ranging in size from five to 20, included core leaders from the governing boards and were used to expedite decision making.

Several of the regions had governance structures that enabled individuals who served in leadership positions in other public and private entities and implementation groups to share information about the goals and activities underway through the region. These interrelationships created a pattern of interlocking leadership that facilitated communication across groups and organizational levels, supported greater alignment of partner goals, and may also have contributed to the development of a shared regional vision.<sup>65</sup> Of the 26 regions in Generations II and III, eight had interlocking leadership and six of those (75 percent) had a vision shared by their partners. An additional 17 had a lesser degree of interlocking leadership and only three of them (18 percent) shared a common vision across the partners.<sup>66</sup>

Many regions had a single oversight group, although a number used working groups or subcommittees to oversee specific types of activities, as well as industry advisory councils to solicit input from their region's target sectors. For instance, NCI (I) had three partner teams to support its region: first, the Policy Advisory Team acted as the region's Board of Directors; second, the Core Team, composed of NCI partner managers, acted as a tactical group; and, finally, the region convened an advisory group of representatives from the local economic development organizations.

The governing bodies approached their duties in several different ways, categorized as staffdominant models, partner-dominant models, and partner-leadership models with staff support.<sup>67</sup>

■ *Staff-Dominant Models*. In this model, project staff were the main decision-drivers, with limited input from regional leadership. Governing bodies were concerned more with the policy and the overall direction than with strategy. They served in important advisory

<sup>&</sup>lt;sup>65</sup> Terminology drawn from: John B. Miner, *Organizational Behavior 1: Essential Theories of Motivation and Leadership* (M.E. Sharpe, Inc., 2005).

<sup>&</sup>lt;sup>66</sup> One of the region's degree of shared vision could not be categorized.

<sup>&</sup>lt;sup>67</sup> Two of the Generation II and III regions could not be categorized.

roles, but were not directly in the "chain of command." Across the three Generations, 17 projects (44 percent) appeared to fit this model.

- Partner-Dominant Models. Five of the 39 regions (13 percent) used this model. Governing bodies—made up of various partners and stakeholders—were the main decision makers, with limited staff contribution. The governing bodies assumed ultimate responsibility for achieving their region's goals and were the leaders to whom the staff reported.
- Partner-Leadership Models with Staff Support. Here the staff identified emerging issues, developed options and recommendations, and briefed the governing bodies, who then made the decisions. The governing bodies set the direction for their regions, and were important sources of leadership, creative ideas, problem-solving skills, and accountability. They developed policies or rules governing their region's operations, but did not play a direct role in project management or operations. A total of 14 regions (36 percent) fit this model.

Respondents in several regions noted that as their regions moved from the design and start-up phases to steady-state operations, their governing bodies became less active and assumed more of a "big picture" policy oversight role than when the grants began. For example, WAEM (I) discontinued its Goal Committees since the region did not need a complicated structure once the projects relevant to each goal were underway.

All but a few of the regions added and subtracted subcommittees and implementation teams as the functional needs of their regions shifted. Some added advisory groups to expand their input from stakeholders, while others created subcommittees to explore strategies for sustainability. These changes often reflected the lessons that staff and partners learned over time.

Successful governance consists of more than just a common vision and shared leadership. The willingness to collaborate, make changes in response to identified needs, and maintain the integrity of the decision-making process are also key factors.

## **Integrity of the Decision-Making Process**

Establishing and maintaining the involvement of regional partners (including small business partners, in particular) required that they could see the mechanisms in place to ensure that all interests were represented fairly. A clear and fair process for making decisions was an excellent example of such a mechanism. Several elements contribute to decision-making integrity, including transparency and equity and inclusiveness, as discussed below..

## Transparency

Having a clear, organized, and easily-understood approach for making decisions is important to maintaining an effective regional collaboration. C. New Jersey (III), SE Michigan (II), Minnesota (III), and other regions made decisions about sub-grant funding using a planned and carefully structured process. Clear communication across the governance structure helped to support understanding.

The process and rationale for decisions were not so clear to stakeholders at some other sites. For instance in some regions, including Mid-Michigan (I), decisions about the projects that would be

funded were made by a small group of core leaders who met as the original proposal was being developed. Other partners felt left out of the process because of this approach, and the region was restricted in its flexibility to respond to emerging training needs. Moreover, the region lost the opportunity for team- and trust-building that jointly creating a system to allocate grant funds would have offered.

Overall, the regions were reasonably transparent and the complaints noted above were quite rare; positive comments about leadership and decision-making were more common.

## **Decision-Making Equity and Inclusiveness**

Governance involves many individuals, and finding the right roles for each can be challenging. If every decision in a complex region have to be vetted with every stakeholder, few decisions would have been made; yet, if every decision was made by only a small core of leaders, the rest of the stakeholders would have felt alienated.

Most regions struck a functional balance between the imperative for action and the need for inclusion. For instance, in Central Kansas (III), all of the needed stakeholders from education, workforce, and economic development participated in the region's leadership group, and they appeared pleased with the degree of inclusion. For them, effective inclusion meant that key stakeholders were involved appropriately in decisions relevant to them.

In some regions, decision-making authority was concentrated in one or very few core leaders, sometimes resulting in discontent among the other partners with the decision process. In many regions, the core leaders played a more facilitative role, and governing bodies tended to make decisions by consensus. In these cases, the core leaders drove implementation without directing it, which seems more in keeping with a collaborative structure.

## M. Sustainability

Sustainability is a concern for all Federally-funded grant programs, especially larger projects intended to be transformative or catalytic in nature. Many regions built sustainability into their project designs from the outset rather than waiting until the end of the grant to address this important program component. For example, West Michigan (I), Florida (I), Minnesota (III), C. New Jersey (III) required sub-grantees to include a plan for post-grant funding in their applications. Other regions established committees that explored different ways to continue program activities beyond the grant period or documented successful strategies to use in securing continued funding.

The discussion that follows examines the types of sustainability that occurred and the factors that contributed to the continuation of the region's work, either in whole or in part.

## **Types of Sustainability**

The meaning of "sustainability" is best understood contextually; it has multiple definitions when applied to the goals and activities conducted during the Initiative. From one perspective, it

means the diffusion of the Initiative's overarching vision of systems integration and economic revitalization. It also can be understood in more traditional terms as the continuation of specific activities and programs. Because there are several ways to think about this concept, a typology will be used to organize the information. It includes four levels -- philosophical, relational, programmatic, and institutional, each reflecting the ways in which stakeholders had been engaged during the grant period.

#### **Philosophical Sustainability**

The WIRED Initiative introduced a new way of thinking about economic competitiveness that considered human capital as a necessary element of regional development. One component of sustainability would therefore be evidence that this philosophy had become a part of the ethos of stakeholders concerned about the economic vitality of their communities. This level of sustainability is the least concrete but the most diffuse. Kansas City (I), for example, redefined sustainability for its target industries using "reduce-reuse-recycle" as shorthand for the ways that workforce development can assist employees. The number of workers in a declining industry is "reduced" so workers either needed to be assisted to find employment where their existing skills could be "reused," or retrained (i.e., "recycled") with new skills for growing or emerging industries. In Utah (II), the original focus on introducing and strengthening instruction in science, technology, engineering, and mathematics (STEM) began as an effort in selected public schools and became a statewide campaign to improve public school curriculum and instruction.

#### **Relational Sustainability**

Partners in all of the regions established and strengthened relationships with representatives from many different kinds of organizations. In virtually every region, respondents reported that the relationships that were formed through their regional initiatives were a valuable outcome. Even in Idaho (III), where the core organizational leaders and stakeholders thought they already had a strong network of regional partners, stakeholders expressed considerable surprise about the difference between those informal networks and the power of collaboration that was established through the region's work.

In many regions, the interactions among regional partners continued and expanded into new forums. For example, the WIBs and AJCs in N. New Jersey (II) continued to participate in the region's industry advisory councils beyond the end of the grant. In Puerto Rico (II), the forum for industry dialogue that was created by INTECO, the economic development organization that played a convener role for the region, became a model for ongoing work to address the workforce needs of the health care sector. In Utah (III) the sector development strategy developed through the initiative became the model for addressing the needs of other key industries. In SE Wisconsin (II), Minnesota (III), and several other regions, the efforts undertaken through their region established new forums and opportunities for extending the reach of the work. For example, leaders in Minnesota (III) created a forum for engaging state-level policy makers and agency leaders in discussions about the impact of legislation on industry growth in the rural areas of the state.

SE Wisconsin (II) helped establish the Water Resources Council to promote technology and workforce development around fresh water resources and technology. With the help of the

regional economic development consortium, the Council continued to promote dialogue about these issues.

### **Programmatic Sustainability**

Programmatic sustainability ensures that particular regional activities continue beyond the grant period. Regions adopted many strategies to ensure the continuity of their training, support, and outreach programs, including embedding their programs and curricula in established college and university units, or tailoring activities to be eligible for state and other funding. For example, the Purdue Center for Regional Development managed NCI (I). After the grant ended, the Center planned to continue supporting community and economic development efforts; Ivy Tech (a community technical college partner) continued the STEM career training program; and the local WIB continued its grant-initiated business services. Also in another example, the increased training capacity resulting from Maine's (I) train-the-trainer program will remain in the region, regardless of where the peer trainers are working.

Regions also sought to ensure programmatic sustainability by collecting fees for services and membership dues for activities that the grant had previously funded. In West Michigan (I), several of the region's activities derived ongoing revenue from employer or participant fees that enabled the projects to become self-sustaining. The director of the West Michigan TEAM reported that companies liked the program because the companies funded it themselves and therefore were assured, as one employer explained, that "it won't expire when the political winds change." Another self-sustaining product in this region was a grant-funded innovation curriculum made up of three learning modules on key entrepreneurial skills. As the grant ended, 12 community colleges were paying to use this curriculum.

## **Institutional Sustainability**

This type of sustainability was a priority for regions that wanted to maintain the existing management structure, partnerships, and regional activities after the grant was over. To that end, several regions chose as their managing organization a well-established entity with goals similar to the Initiative. For example, in both West Michigan (I) and Florida (I), partners chose existing regional economic development agencies to manage their grants, and these organizations looked forward to continuing WIRED-related activities. The Montana (I) State WIB rolled the grant's transformative processes into its own regular functions, and created a new bureau within the state's labor department (the grant's managing organization) specifically to coordinate with the state's education agency, thus formalizing the link between agencies. In Virginia (III), after demonstrating the potential for using modeling and simulation for workforce development training, developers accepted a new challenge of applying the technology to address workforce needs at Innovate! Hampton Roads, the technology arm of the Hampton Roads Partnership (a public-private regional development organization involving business, industry, government, and education).

A few regions formed new organizations to oversee their continuing work. As a result, funding for continuing their role was a significant sustainability issue. Although it came into being apart from the Mid-Michigan (I) application for grant funds, the Prima Civitas Foundation (PCF)—established on the same day that ETA awarded the Generation I grants—took on the management of the new grant as its primary function. PCF evolved into an organization that

served as a platform not only for the WIRED grant's work, but also for other regional collaborative efforts promoting economic and workforce development. The region's partners agreed that PCF should continue to manage such regional efforts once the grant ended, but that did not resolve the organization's financial challenges. Eventually, PCF became a statewide organization dedicated to serving as a bridge between cities, companies, and entrepreneurs looking to lay the groundwork for a new economy in conjunction with institutions with the expertise and intellectual capital to help them do so.<sup>68</sup> Leaders in Utah (II) and other regions avoided this type of situation by keeping program staff on the existing payroll rather than using the regional grant funds to cover employee wages and salaries.

Most of the Generation II and III regions reported that a governing or coordinating structure would continue at least a portion of the regional activities that the WIRED grant originated. Examples included councils that brought together businesses in a specific industry to address common workforce needs (e.g., Florida [I] and Idaho [III]) or alliances of local WIBs collaborating to provide workforce resources for an emerging industry (e.g., SE Wisconsin [II]). WAEM (I) created the WAEM Alliance, a group of community college presidents that had been involved in the region, to serve as a permanent oversight and credentialing body for the region. Mississippi (III) assembled a small group of employers to play a similar role to ensure the quality of occupational instruction for workers in the ship-building industry. Other regions created separate governing bodies to manage ongoing projects beyond the end of the grant.

## Sources of Sustainability

Three factors influenced the ability of regions to sustain their efforts when the grant period ended: resources, relationships, and resonance, as discussed below.

## Resources

Ongoing support was critical in maintaining staffing, programs, and activities. Grantees sought, or positioned themselves, to share in post-Initiative funding from ARRA grants, other Federal and state grants, foundation grants, contracts to provide services to other organizations, and inkind contributions such as office space or "loaned" staff.

## Relationships

Communication, trust, and shared goals are key aspects of collaboration among partners working to achieve mutually beneficial goals. Strong relationships can last even as individuals move from one organization to another, and as leadership and governing structures evolve over time. The North American Advanced Manufacturing Research and Education Initiative (NAAMREI) of Texas (II) remained the talent development partner for the Rio South Texas Economic Council with all of the same member institutions and organizations, including several community colleges and the University of Texas-Pan American. Montana (I) partners stated that one of the biggest accomplishments of the region was that local Job Service staff established close relationships with both the tribal colleges and Montana State University. As one stakeholder said, "We are now a lifetime partnership."

<sup>&</sup>lt;sup>68</sup> Primas Civitas Foundation, "Press Release," (2011).

#### Resonance

The alignment of WIRED with other regional and/or statewide efforts was a third strategy for sustaining activities created under the grants. Some states incorporated the goals of the Initiative into a larger effort. One example of this was the Florida legislature's mandate that school districts throughout the state replicate the model career academies for high school students that Florida (I) developed. Similarly, as the grant ended, Ohio's (II) Kent State/Tuscarawas Information Technology Career Pathways program was moving towards wider adoption in that state. In other cases, the aligning of grant activities with existing state or regional programs provided a means to further the WIRED project's agenda and sustain its momentum when the funding ended. The WIRED New Mexico (III) project operated in parallel to a statewide green jobs/alternative energy program when it began and these initially uncoordinated efforts wer eventually joined to create a new state program promoting alternative energy and green jobs.

In summary, the typology of sustainability offers a means of capturing the components of the collaborative process that each region sustained. In some cases, regions brought all three contributing factors—resources, relationships, and resonance (sometimes coupled with evidence of effectiveness)—into play when deciding to sustain key aspects of their programs. As the Initiative ended, virtually every region sustained some program, product, activity, and/or collaborative structure from their grants.

## N. Summary

The 39 regions that participated in the WIRED Initiative devoted a considerable amount of time and effort to making their regional efforts successful. Their commitment to working regionally resulted in a multi-faceted strategy to engage partners in meaningful discussions designed to open the lines of communication, establish shared goals, and set regional priorities. They accepted the challenge of working across institutional and jurisdictional boundaries to increase the integration of education, workforce, and economic development. Along the way, they encountered an array of barriers and came up with innovative solutions that enabled their regions to move forward, as discussed above.

# **IV. Lessons from the WIRED Initiative**

An analysis and synthesis of the evaluation findings yielded insights that may be of value to practitioners and policy makers, particularly those who are interested in the benefits and challenges associated with regional approaches and those who seek to better understand the barriers to integration of workforce-education-economic development systems in a regional context.

The WIRED Initiative challenged the partners in the regions of all three generations to create an integrated workforce development, education, and economic development infrastructure that could support economic development and job creation in targeted industry sectors. The 39 projects that accepted this challenge engaged their regional leaders from the public and private sectors in discussions that led to the identification of regional priorities and the design and implementation of multi-faceted strategic action plans. Along the way, important lessons were learned about the challenges they encountered and the strategies used to address them. A summary of these lessons and insights is provided below.

Need for a Shared Vision. Regional strategies offered considerable benefits because of the opportunity to align organizational resources to pursue shared goals that had the potential to have a considerable effect on regional economies.

When regions are not organized according to traditional jurisdictional boundaries, but instead are based on economic synergies, issues may arise in regard to regional identity, jurisdictional authority, funding authority, and governance. These issues can become barriers to collaboration. A shared vision and common goals for the future regional economy can help regions overcome these barriers.

Local WIBs are important partners in regions that seek to integrate economic, education, and workforce development systems; although, in many cases, local WIBs are in an early stage of understanding how to incorporate this role into their organization's mission.

• Convener Organizations. Regions needed the help of a civic organization or political leader, workforce development agency, or other organization to initiate and nurture partnerships. The choice of the organization to play this role depended upon the community context.

In many regions, the local WIB is uniquely positioned to play the role of convener because of its interconnections with many different partner organizations which can maximize opportunities for aligning and leveraging joint resources.

Many of the leadership and management skills needed to manage the work of local WIBs and AJCs may be transferrable to coordinating the work of regional collaboratives, although additional peer support and training may be needed to enhance those skills.

However, not all local WIBs were positioned to play this role. Doing so effectively may require additional training and support in leadership skills, strategic planning, data-driven decision making, and management skills in collaborative settings.

## • Sector Focus. Sector-based strategies help to develop strong relationships with key employers.

Insightful intelligence about workforce trends and the challenges that specific industries face is vital to preparing workers to meet the evolving workforce needs of companies in targeted industry sector(s). Analyses of demographic and industry data, opportunities for regional supply chains, and possibilities for synergy among firms are essential for planning purposes and can give WIBs an opportunity to learn from and show employers how external factors may effect industry work while at the same time helping both entities gain insights into future workforce skill needs and training requirements.

■ **Data Utilization**. One of the keys to regional success is having sufficient data to assess the local workforce development landscape and resources, to understand industry trends that have workforce development implications, and to coordinate workforce development activities with economic development activities.

Sharing data enables stakeholders gain a better understanding of the needs of the region as a whole. While it is possible to make strategic decisions without such data, its lack increases the likelihood of missing emerging trends and identifying employers that are growing contributors to the regional economy. Additionally, data can play an important strategic role in focusing discussions on regional trends as opposed to the individual needs of a single, dominant employer.

Local WIBs can play an important role in this regard because of their access to and use of an array of data sources. As a result, they have the potential to carve out a unique position in providing data from many different, relevant sources. This would supplement their basic projections of occupational needs with background research and analysis about regionally important industries and trends in their regional economies.

Local workforce agency staff may benefit from becoming more highly skilled at analyzing trends and working with employers and other stakeholders to explain the data and its significance for workforce, education, and economic development planning.

• *Leadership.* Strong leadership at the executive level is essential to establish an institutional commitment to regional collaboration.

High-level executives of partner organizations must make clear to their staff that collaboration is a priority. The ability to quantify the benefits of collaboration (e.g., leveraging additional resources) can be of great help in gaining organizational support for continuing joint efforts.

• Culture of Collaboration. A culture of regional collaboration makes it possible to work across jurisdictional boundaries and overcome institutional barriers, although efforts to build this culture can reveal cultural and attitudinal differences that pose barriers to moving ahead.

Approaches to regional governance need to recognize how differences in defining and addressing organizational and institutional problems can make it difficult for entrepreneurial business development experts and public sector administrators to work collaboratively. Collaborative relationships are easier to maintain when governance structures anticipate these challenges.

• **Collaboration among local WIBs**. Even when local WIBs do not play a central convener role, they continue to be important strategic partners in efforts to revitalize a regional economy.

Local WIBs, like community colleges, face challenges in working across the boundaries of their service areas. Competing priorities, longstanding personal disputes, competition for funds, and other trust issues can make it difficult for these organizations to establish a meaningful partnership. Federal support, clear guidance, and innovative funding may provide incentives for their collaboration.

■ **Performance Measures.** The current array of performance measures used to assess the effectiveness of local WIBs and AJCs are a disincentive for local WIBs to become fully engaged as strategic partners in regional efforts. The existing AJC performance measures do not acknowledge capacity-building and systems-building achievements.

The ability to develop and use project-related performance measures as a supplement to the Common Measures could act as an incentive for greater participation among local WIBs. In addition to the very legitimate and important Common Measures required by the Department of Labor for the programs it funds, additional measures are needed to capture the collaborative processes, activities, and accomplishments associated with regional efforts to better integrate the workforce, education, and economic development systems.

In conclusion, the WIRED Initiative yielded a substantial collection of lessons about how the diverse economies across the nation dealt with the everyday challenges of adapting and, in more and more cases, reinventing their core economic activities. It has provided insights into how regionally anchored workforce development and economic development organizations deal with these challenges and how differences in industrial legacies, jurisdictional boundaries, regional histories, and organizational culture affect how changes are made. In addition, it has provided insights into how the workforce development in a more direct way, incorporating sector strategy to be more comprehensive in its services, and engaging in new program delivery partnerships and alliances in order to leverage Federal dollars and regional education and training assets.

# Bibliography

This bibliography provides a glimpse of the cross-section of sources that were reviewed over the course of the evaluations of WIRED Generations I, II, and III. It is not intended to be a comprehensive list but rather to give readers a sense of the origins of the Initiative and the continuing interest in regional economic development strategies and cross-systems integration.

- Agranoff, Robert. Leveraging Networks: A Guide for Public Managers Working across Organizations. Bloomington: Indiana University, 2003.
- Asset Mapping Roadmap: A Guide to Assessing Regional Development Resources. Washington, DC: Council on Competitiveness, 2006, 2009. Accessed August 5, 2011. http://www.doleta.gov/wired/files/Asset\_mappingroadmap.pdf.
- Autor, David H., Frank Levy, and Richard J. Murnane. "The Skill Content of Recent Technological Change: An Empirical Exploration." *Quarterly Journal of Economics* 118,
- Breschi, Stephano and Franco Malerba, *Clusters, Networks and Innovation*, Oxford: Oxford University Press, 2005, no. 4 (2003): 1279-1333.
- Bureau Of Labor Market Information And Strategic Initiatives. *Michigan Green Jobs Report* 2009. Lansing: Michigan Department of Energy, Labor & Economic Gr, 2009. Accessed August 11, 2011. http://www.michigan.gov/documents/nwlb/ GJC\_GreenReport\_Print\_277833\_7.pdf.
- Business Roundtable. "Tapping America's Potential: The Education for Innovation Initiative." Accessed August 5, 2011. http://www.businessroundtable.org.
- Corbett, Thomas, James Dimas, James Fong, and Jennifer Noyes. "The Challenge of Institutional "Milieu" to Cross-Systems Integration." *Focus* 24, no. 1 (2005): 28-35. Accessed August 5, 2011. http://www.irp.wisc.edu/publications/focus/pdfs/foc241e.pdf.
- Council on Competitiveness. "A Peer-to-Peer Network for WIRED Regions." Accessed August 11, 2011. http://www.compete.org/images/uploads/File/RII% 20PDF% 20Files/ The% 20WIRED% 20Learning% 20Exchange% 20Issue% 20No.% 203% 20.pdf.
- Dabson, Brian. *Perspectives on Regional Collaboration*. Vol. 2. Columbia, MO: Rural Policy Research Institute, 2010. Accessed August 5, 2011. http://www.rupri.org/Forms/Regional\_Collaboration\_Final.pdf.
- Dunning, John H. *Regions, Globalization, and the Knowledge-Based Economy*. New York: Oxford University Press, 2002.
- Employment and Training Administration. *Summary of Categorical Findings, WIRED Generation I Fiscal Monitoring Reports as of January 15, 2008.* Washington, DC: U.S. Department of Labor, 2008.
- Feldman, Maryann P. and Albert N. Link, *Innovation Policy in the Knowledge-Based Economy*, Norwell, MA: Kluwer Academic Publishers, 2001.

- Ferren, Ann S., and Wilbur W. Stanton. *Leadership Through Collaboration*. Westport, CT: Praeger Publishers, 2004.
- Foremski, Tom. "Are Angel Investors in Trouble?" Silicon Valley Watcher, April 2008
- Friedman, Thomas L. *The World is Flat: A Brief History of the 21st Century*. New York: Farrar, Strauss, and Giroux, 2005.
- Glor, Eleanor. "Managing Innovation." Innovation Journal: The Public Sector Innovation Journal 9, no. 2 (2004)
- Granovetter, Mark. "The Impact of Social Structure on Economic Outcomes." *Journal of Economic Perspectives* 19, no. 1 (2004): 33-50. Accessed August 5, 2011. http://www.leader-values.com/Content/detail.asp?ContentDetailID=990.
- Heijke, Hans, and Joy Muysken. *Education and Training in A Knowledge Based Economy*. New York: Palgrave Macmillan, 2000.
- Heim, Kristin. "Recession Squeezes Even Philanthropies of Gates, Allen." *The Seattle Times*, January 14, 2009. Accessed August 5, 2011. http://seattletimes.nwsource.com/html/localnews/2008625511\_philanthropy140.html.
- Innes, Judith, and Jane Rongerude. *Collaborative Regional Initiatives: Civic Entrepreneurs Work to Fill the Governance Gap.* Berkley: University of California at Berkeley, 2005.
- Innovation America, Investing in Innovation. Washington, DC: National Governors Association. Accessed August 5, 2011. http://www.pewtrusts.org/pdf/NGA\_Report.pdf.
- Kao, John. Innovation Nation: How America Is Losing Its Innovation Edge, Why It Matters, and What We Can Do to Get It Back. New York: Free Press, 2007.
- Kotter, John. A Sense of Urgency. Boston: Harvard Business Press, 2008.
- Kraut, Robert E., Robert S. Fish, Robert W. Root, and Barbara L. Chalfonte. "Informal Communication in Organizations: Form, Function, and Technology." In *Human Reactions* to Technology: The Claremont Symposium on Applies Social Psychology, Oskamp S. I and Spacapan S, Beverly Hills: Sage Publications, 1990. Accessed August 5, 2011. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.59.9721&rep=rep1&type=pdf.
- Llerena, Patrick, and Matt Mireille. *Innovation Policy in a Knowledge-Based Economy: Theory and Practice*. Berlin: Springer, 2005.
- Mattessich, Paul W. *Collaboration: What Makes It Work?* Presentation. Saint Paul: Amherst H. Wilder Foundation, 2004.
- Metro Denver Economic Development Corporation. "Uses of the H-1B funding revenue." Accessed August 11, 2011. http://www.metrodenver.org/files/documents/workforceprofiles/wired/H1B.pdf.
- Miner, John B. Organizational Behavior 1: Essential Theories of Motivation and Leadership. Armonk, NY: Sharpe, Inc., 2005.

- Nambisan, Satish. *Transforming Government Through Collaborative Innovation*. Troy, NY: Rensselaer Polytechnic Institute, 2008.
- National Academies. *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future*. Washington, DC: National Academy Press, 2005.
- National Association of Manufacturers. Looming Workforce Crisis: Preparing American Workers for 21st Century Competition. 2005.
- National Prosperity/Regional Leadership. Washington, DC: Council on Competitiveness, 2011. Accessed August 5, 2011. http://www.wmalliance.org/documents/publications/National\_Prosperity\_Regional\_Leadership\_Report.pdf
- National Research Council Committee on Workforce Needs in Information Technology. *Building a Workforce for the Information Economy*. Washington, DC: National Academies Press, 2001.
- Pepitone, Julianne. "Bloody Monday: Over 65,500 Jobs Lost." CNN Money. Accessed August 11, 2011. http://money.cnn.com/2009/01/26/news/economy/job\_cuts/.
- Phan, Phillip H., and Donald S. Siegel. The Effectiveness of University Technology Transfer: Lessons Learned from Quantitative and Qualitative Research in U.S. and U.K. Troy, NY: Rensselaer Working Papers in Economics, 2006. Accessed August 11, 2011. http://www.economics.rpi.edu/workingpapers/rpi0609.pdf.
- Pisano, Gary P., and Roberto Verganti. "Which Kind of Collaboration Is Right for You?" Harvard Business Review. Accessed August 11, 2011. http://hbr.org/2008/12/which-kindof-collaboration-is-right-for-you/ar/1.
- Porter, Michael. *Clusters of Innovation: Regional Foundations of U.S. Competitiveness*. Washington, DC: Council on Competitiveness, 2001. Accessed August 11, 2011. http://www.compete.org/images/uploads/File/PDF%20Files/CoC\_Reg\_Found\_national\_cluster.pdf.
- Porter, Michael. *Workforce Development in the Global Economy*. Presentation. 2002. Washington, D.C.: InterAmerican Development Bank.
- Public Policy Associates, Inc. *Evaluation of the Skills Shortages Demonstration Programs, Final Report*. Washington, DC: U.S. Department of Labor, 2003.
- Public Policy Associates, Inc. *Final Evaluation Report of the Maine Lifelong Learning Accounts Pilot Program.* Washington, DC: U.S. Department of Labor, 2010.
- Public Policy Associates, Inc. *Skills Partnership Self Assessment Tool*. Washington, DC: U.S. Department of Labor, 2003.
- "Rethinking the WIB." (PowerPoint presentation). National Association of Workforce Boards Annual Conference, Worksystems, Inc., February 2006.

- Russo, Edward J., and Paul J. Schoemaker. *Winning Decisions*. New York: Random House, 2002.
- Rutten, Roel, ed. *The Learning Region: Foundations, State of the Art, Future*. Northampton, MA: Edward Elgar Publishing, 2007.
- Salaman, Graeme, ed. Decision Making for Business. London: Sage Publications, 2002.
- Smith, Bruce L. Public Policy and Public Participation: Engaging Citizens and Community in the Development of Public Policy. Halifax, Canada: Population and Public Health Branch, 2003. Accessed August 11, 2011. http://www.phacaspc.gc.ca/canada/regions/atlantic/pdf/pub\_policy\_partic\_e.pdf.
- Taylor-Powell, Ellen, Boyd Rossing, and Jean Geran. *Evaluating Collaboratives: Reaching the Potential*. Madison, WI: University of Wisconsin Cooperative Extension, 1998.
- Thomas, John Clayton. *Public Participation in Public Decisions*. San Francisco: Jossey-Bass, 1995.
- U.S. Department of Education. *Meeting the Challenge of a Changing World: Strengthening Education for the 21st Century*, 2006. Accessed August 11, 2011. http://www.doleta.gov/wired/files/Meeting\_The\_Challenge\_of\_a\_Changing\_World.pdf.
- U.S. Department of Labor. "Work Authorization for Non-US Citizens: Workers in Professional and Specialty Occupations, Employment Law." Accessed August 11, 2011. http://www.dol.gov/compliance/guide/h1b.htm.
- Weiss, Carol. *Evaluation Research: Methods for Assessing Program Effectiveness*. Englewood Cliffs, NJ: Prentice Hall, 1972.
- Weiss, Carol. "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, James P. Connell, Washington, DC: Aspen Institute, 1995.
- Weiss, Carol. "Research for Policy's Sake: The Enlightenment Function of Social Research." *Policy Analysis* 3, no. 4 (1977): 531-545.
- Weiss, Jeff, and Jonathan Hughes. "Want Collaboration? Accept--and Actively Manage--Conflict." *Harvard Business Review* (2005) Accessed August 11, 2011. http://hbr.org/product/want-collaboration-accept-and-actively-manage-conf/an/R0503F-PDF-ENG.
- "WIRED Performance Reporting: Implementing Your Regional Accountability Framework." *Office of the Assistant Secretary of Labor*, April 2007.
- "WIRED to the Innovation Economy," (PowerPoint presentation), Washington, DC: ETA, http://www.doleta.gov/wired/files/WIREDToInnovatoinEconomy.ppt#302,1,WIRED to the Innovation Economy.