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The viewpoints presented and discussed in this report are those of the authors and do not necessarily represent the official position of the U.S. Department of Labor.

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Public Policy Research,
Development,
and Evaluation

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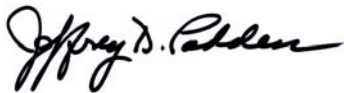
The evaluation of the demonstration projects has spanned several years, beginning in mid-2001 when representatives from the 19 demonstration sites met in Washington, D.C. at a kick-off meeting sponsored by the U.S. Department of Labor (DOL). Since that time, the flexibility, determination, and commitment of the grantees have been tested by national events such as the 9/11 tragedy, the resulting economic downturn, and a range of technological innovations. All of these have accentuated the need for creative approaches to identifying and addressing existing and emerging skills shortages.

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Over the course of the three years of the demonstration (two initial years plus a one-year extension for most grantees), staff from DOL's national and regional offices have played a crucial role in helping the grantees deal with the many challenges they encountered along the way. Janice Sheelor, who served as DOL's overall project manager for the demonstration program, gave valuable assistance to the grantees and provided information and feedback about key aspects of the demonstration program that helped to shape the evaluation. Maurice Birch, DOL's program officer, offered a wealth of ideas and insights about the challenges of addressing regional skills shortages, and acted as a true collaborator in the design of the evaluation. Finally, the

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Skill Shortage II Demonstration Program Evaluation

Executive Summary

The U.S. Department of Labor's Incumbent/Dislocated Worker Skill Shortage II (SS2) Demonstration Program (SGA/DFA 00-113) was the fourth in a series of programs focused on supporting efforts to identify and respond to specific employer-identified skills shortages in targeted occupational areas in which technology was playing an increasingly important role. Both incumbent and dislocated workers could be served, with an emphasis on those facing multiple barriers to employment, including low-skilled workers, those with limited transportation to work, those with inadequate or obsolete skills, and those having skills in declining occupations.

Grantees were given considerable latitude in designing and implementing an approach that would be responsive to the needs of area employers, as long as participating firms that employed training completers committed to pay either the wage level set by an existing, applicable collective bargaining agreement or at a level at least equal to the lower living standard income level for a family of four (LLSIL4).

Nineteen sites were selected to participate in the SS2 Demonstration Program, with a total of \$32.4 million distributed among them. Individual grants ranged from \$448,900 to \$2,860,000. The period of performance for these grants was June 29, 2001 to June 30, 2003 with several extensions to June 30, 2004.

Some programs targeted various industries, while others focused on a wide variety of specific industry sectors including aerospace, manufacturing, health care, and information technology.

The SGA for the SS2 Demonstration Program required grantees to address three primary areas of outcomes: reduction of identified skill shortages in participating firms because of training, effect of training on participating firms' performance, and effect on participating workers including

skill gains, wage gains, and job satisfaction. In this final outcome area, the LLSIL4 wage standard was the primary goal for grantees.

Evaluation activities consisted of site visits to a subset of the 19 grantees, an analysis of labor market information for selected industry sectors in each grantee region, an analysis of training participant completion, placement, and wage data, and a review of administrative documents and final reports submitted by the grantees.

Given that the initial proposals were submitted before 9/11 and the resulting economic downturn, many grantees subsequently reduced their participant goals and/or shifted towards a focus on incumbent workers. The majority of grantees focused their training efforts on incumbent workers with four serving such workers exclusively. Only one site, Community Learning Center, trained dislocated workers exclusively.

One primary goal of the grant program was to develop “market-driven training” in which the grantees were to assess the economic and labor needs of the surrounding community. Based upon an analysis of labor market information (LMI) for each site, this appears to have happened in many, but not all locations.

Many of the grantees made an explicit effort to target industries that were experiencing skills shortages and also offered positions that were in range of the LLSIL4. Despite the requirements of the SGA, other sites appeared to abandon any intentions of targeting industries with jobs that offered LLSIL4 wages.

The majority of the sites serving incumbent workers included a mix of training programs including both basic and technical skills training.

- Training types included short term, long term, soft skills, basic skills, and technical skills. The majority of grantees offered short-term technical skills training. All involved employers in some way, and half included labor union partners, both of which helped to ensure that the training met industry standards.

- Various sources of data were used to determine the skills shortages in the region. LMI was used to identify high-wage occupations, skill needs, curriculum design, and individualized career ladders and career plans.
- The majority of grantees focused at least in part on incumbent workers, which led many employers to provide additional support services to help workers juggle home, work, and training responsibilities.
- The stated goals of the demonstration program included program completion, skill gains, dislocated worker placement, satisfactory wage-replacement rate for dislocated workers, wage gains for incumbent workers, and moving workers above the LLSIL4 wage level.

Measures of program completion and skill gains varied greatly, making cross-site direct comparisons difficult. However, most sites provided some information concerning completion or skill gains in either their data or their final report.

Many sites indicated that a proportion of trainees completed a training program or specific courses. Reported completion rates for an entire training program varied from a low of 42 percent to a high of 88 percent. Individual course completion rates were significantly higher, with some sites reporting that 100 percent of trainees completed at least one course.

Placement rates of dislocated workers varied from a minimum of 25 percent to a maximum of about 80 percent. The average placement rate was 58 percent among all sites that served dislocated workers.

The average wage-replacement rate of 100 percent did not ensure that training completers met the nonunion wage standard of LLSIL4. Dislocated workers, in particular, had more difficulty reaching the LLSIL4 than incumbent workers. Many dislocated workers were low-wage workers before dislocation and training alone was insufficient to move them into high-wage jobs.

Based on the data submitted, wage gains for incumbent workers varied among sites from less than 5 percent to just over 70 percent. The average wage gain across all sites was 15 percent.

More than half of the sites reported that 80 percent or more of their participants were receiving wages at or above the LLSIL4 wage standard. Four sites had less than 20 percent of their participants receiving wages at or above the LLSIL4 wage standard. Only four sites saw a decrease in the percentage of workers above the LLSIL4; the other fifteen sites stayed the same or experienced an increase in the number of individuals with wages at or above the LLSIL4. However, the extent of missing or otherwise unusable data for many sites makes it difficult to draw definitive conclusions about the effectiveness of the projects in terms of meeting the LLSIL4 requirement.

Information about the effect of the training programs on participating employers was anecdotal. Increased productivity, decreased machinery downtime, greater flexibility, fewer job vacancies and shortages, and increased earnings were mentioned as benefits of participation. However, the majority of sites did not systematically measure employer satisfaction.

Conclusions

Several research questions provided a framework for the evaluation. The responses provided below are based upon the findings of the study.

■ *To what extent did the demonstration program offerings affect the skill levels of incumbent and dislocated workers?*

The majority of incumbent workers received short-term, highly customized training that addressed a mix of soft, basic, and technical skills. In addition to improving basic communication skills, the focus on basic skills addressed a broader barrier to learning. Although several of the training programs provided longer-term training leading to completion of requirements for a specific technical occupation such as registered nursing, there was limited evidence of training actually resulting in industry-recognized certifications,

due, in part, to the fact that the training program extended beyond the period of the demonstration. There were limited efforts to assess the effectiveness of training on workers from the perspective of supervisory staff.

- *What approaches were most effective in providing incumbent and dislocated workers with the skills needed to enter or advance in employment in high-wage, high-demand occupations?*

The sites that were most effective in terms of increasing the proportion of trainees who met or exceeded the wage standard approached the task strategically. These programs were likely to have strong partnerships with the local workforce development system and employers. They identified high-wage industries and occupations and worked with employers to identify specific skill sets and create customized curricula. Sites that were less effective were not as strategic in their approaches to organizing training on a company and individual basis.

- *To what extent did the trainings affect the skills, employment, and advancement opportunities of incumbent and dislocated workers and earnings of low-income populations?*

The demonstrations shed light on the fact that many employers, particularly those in small and medium-sized businesses with limited human resources staff, have not identified clear career paths that link experience, training, and performance. There was also evidence that in order to successfully complete the intensive training programs required for entry into certain high-wage, high-skill occupations, it is not enough to simply identify training-program needs and suggested vendors. Ongoing case-management services, for both incumbent and dislocated workers, are needed to help individuals navigate the maze of training-program entry requirements and manage ongoing work schedule conflicts and family responsibilities that can put even the most committed trainees at risk of dropping out. Additionally, because of the high standard set by the LLSIL4 wage requirement, few grantees targeted dislocated and lower-income populations. Many grantees shifted their attention to incumbent workers that were within target of the LLSIL4, and as a result, focused on more moderate-income populations.

- *Were the skills shortages of the targeted industries and employers addressed to their satisfaction?*

Several sites reported anecdotally about employer satisfaction but there was a shortage of specific data. Some of the anecdotal information referred generally to increases in productivity, cost savings, and profitability due to training. Most of the anecdotal information related to changes in company behavior, primarily the continuation of training-related employee benefits and opportunities, which were a direct result of involvement in the demonstration grants. The few grantees that did collect employer-satisfaction data reported that most employers were very satisfied.

Implications

The LLSIL4 was a high standard that dramatically affected the strategies employed by grantee organizations. Primarily this meant targeting both higher-income industries such as health care and shifting focus away from dislocated workers towards incumbent workers, although not all sites were successful in meeting the LLSIL4 standard. This was a different use of the LLSIL4 than had been used in the past, which indicates a shift in thinking about how it might be used in conjunction with workforce training.

The short-term nature of the training provided through most of the demonstrations made it less likely that low-wage, low-skilled incumbent workers would gain sufficient skills to qualify for promotions. Several of the grantees used a combination of formal classroom instruction and on-the-job training for both incumbent and dislocated workers. However, there were very few examples of apprenticeship-type programs, despite a growing need among manufacturing employers to deal with the anticipated loss of highly experienced workers that are nearing retirement.

The idea of developing an incumbent worker career plan that was linked to specific advancement opportunities or anticipated staffing needs was seldom used. However, it is important to note

that two sites with the most sizeable increases in the proportion of trainees at or above the LLSIL4 made extensive use of a career-planning tool.

The most successful programs at job placement and wage gains tended to focus on a specific industry to target a specific goal or skill shortage, developed strong partnerships with employers, and fostered linkages to the workforce development system.

The experience with the SS2 Demonstration Program draws attention to the need for workforce boards to think and act strategically in responding to employer needs by supporting initiatives specifically designed to help low-wage workers successfully compete for high-demand *and* high-wage jobs.

The project also draws attention to the need to set clear data collection expectations for employers and other organizations engaged in publicly funded worker training programs. In addition to monitoring program expenditures, effective outcome measurement practices are essential for demonstrating program effectiveness for all stakeholder groups.

Section I: Introduction

This section serves as an introduction to an evaluation of the Incumbent/Dislocated Worker Skill Shortage II (SS2) Demonstration Program. It begins with a brief summary of the historical context in which the demonstration program is embedded and describes some of the unique requirements of the U.S. Department of Labor (USDOL) solicitation for grant proposals. This is followed by a description of the approach taken to conduct the evaluation.

Background

Since passage of the Workforce Investment Act (WIA) in 1998, workforce development organizations have taken significant steps to create the employer-focused workforce development system envisioned in the Act:

- Employer-led workforce investment boards (WIBs) have worked through the arduous process of establishing the policies necessary to implement key components of a new, market-based system for providing education and training to eligible adults and dislocated workers.
- One-Stop Career Centers make it possible for increased coordination and communication among the many different public and private agencies responsible for providing a range of services and supports for individuals needing assistance to find suitable employment.
- Training providers recognize the need to pay far more attention to the effectiveness of programs intended to prepare workers for well-paying jobs.

Much has been done to transform the nation's workforce development resources into a coherent network of local, state, and federal employment, education, and training services that provides workers with the skills that employers want. However, much remains to be accomplished if America is to remain competitive in the global marketplace:

- WIBs need to become more strategic in linking workforce and economic development and setting regional workforce investment priorities.

- One-Stops need to be smarter about understanding the staffing needs of businesses, the specific skills required, and the kind of education, training, and work experience needed to be competitive.

- Training providers need to ensure that curricula are aligned with industry standards and that instructional programs are offered in a manner that accommodates the busy schedules of adult learners.

The bulk of recent discussions about creating a more effective workforce system revolve around the idea of creating one that is demand-driven, i.e., a system that examines the full range of skill needs of high-growth, high-demand industries and actively prepares workers for those skills. The challenges involved in attaining this goal are substantial: rapidly changing economic conditions affect individual companies as well as entire industry sectors, data on the condition of the regional labor market may not reflect current conditions, new technologies are changing the nature of the workplace as well as the skill sets needed to be productive, employers do not necessarily have a clear understanding of their training needs, and training providers have outdated curricula. Furthermore, many employers have a history of exceedingly modest investments in education and training and a far greater concern about sales growth and profitability.

In order for the workforce system to become more demand-driven, many important questions inevitably arise. For example:

- What role should a local WIB play in developing a demand-driven system?

- Which employers should be included in programs funded in whole, or in part, with public workforce dollars?

- Under what conditions, and to what extent, should the public workforce system underwrite the incumbent worker training needs of area employers?
- What consideration should be given to wages and the availability or possibility of career ladders or lattices in firms as criteria for the use of public workforce dollars?
- What role should workforce system partners play in connecting employers with appropriate training resources?
- Whose responsibility is it to ensure that training programs are aligned with employer needs?
- Who should be responsible for identifying specific incumbent worker training needs?
- Where will the funds come from to support employer outreach and stakeholder partnerships?

These are just a few of the many strategic questions that lie at the foundation of building a demand-driven system from the ground up.

Over the past few years at several locations throughout the nation, strategic partnerships among workforce boards, economic development organizations, education and training providers, labor unions, and employers have been developed in an effort to make the workforce system more responsive to employer's needs. Earlier studies (Padden and Hewat, 2003) have identified some of the key characteristics of strategies that are effective in mobilizing community stakeholders.

The key characteristics include:

1. ***An initiating organization that uses its standing in the community to build connections among partners.*** The ability to play this role effectively is dependent upon several different factors, including standing in the community, connections to the workforce development system, alignment with state and regional priorities, employer involvement in the planning process, and flexibility and adaptability due to changing labor market conditions.

- 2. *Data to support the identification of strategic priorities for workforce development.***
Reaching consensus can be challenging when many different stakeholders are involved. Data provides a relatively objective starting point for identifying skills shortages and engaging stakeholders in discussions about the nature and extent of the problem.
- 3. *Engaged employers who share ownership and responsibility for the success of the initiative.*** Reaching out to employers is critical because it helps to ensure that programs and services are aligned with employer needs. In order to engage employers effectively, it is important to have a good understanding of the targeted industry, recruit appropriate organizational decision makers, and establish well-defined roles for employers.
- 4. *An organizational framework that supports collaboration.*** Whether an initiative is a regional effort to address the needs of multiple industry clusters, a community effort targeting the needs of a small industry sector, or a targeted strategy to create a pool of workers for a single employer, it is essential to provide an adequate organizational framework to support the effort. This entails strategic decisions about the scope of the project, project staffing, stakeholder roles and responsibilities, project management, and sustainability.
- 5. *Training programs aligned with the needs of employers and workers.*** One of the primary measures of success in addressing skills shortages is the delivery of training that provides workers with the skills needed by area companies. The ability to do this effectively is dependent upon identifying targeted occupations, utilizing occupational skill assessments, recruiting training participants, and identifying and addressing individual skill gaps.
- 6. *Focus on results.*** Effective sites focus on results in many forms, taking full responsibility for designing and executing an effective action plan, but recognizing the concurrent need to use performance information for internal management purposes, to create systems to manage performance data, and to document and share evidence of success.

Additional strategic decisions must be made about which sectors and occupations to target and how much emphasis to place on measurable outcomes for incumbent and dislocated workers. This report addresses these and other related issues within the context of a multisite evaluation.

Demonstration Program Overview

USDOL announced a Solicitation for Grant Applications (SGA) for the Incumbent/Dislocated Worker Skill Shortage II (SS2) Demonstration Program (SGA/DFA 00-113) in late 2000. The demonstration was the fourth in a series of programs focused on supporting efforts to identify and respond to specific employer-identified skills shortages in targeted occupational areas in which technology was playing an increasingly important role. Potential grantees were also encouraged to target regionally important businesses and specialized industrial areas such as plastics, telecommunications, and the environment.

Both incumbent and dislocated workers could be served, with an emphasis on those facing multiple barriers to employment, including low-skilled workers, those with limited means of transportation to work, those with inadequate or obsolete skills, and those having skills in declining occupations. There was also an expectation that any consortia established as a result of the demonstration program would become engaged in strategic planning efforts, working in conjunction with area WIBs.

Eligibility requirements for dislocated workers who would receive training were defined by WIA. Eligibility requirements for incumbent workers who would receive training were quite flexible. According to the SGA, any training that would help keep firms competitive, keep workers employed, avert layoffs, upgrade workers' skills, increase wages earned by employees, and/or keep workers' skills competitive was permitted.

Grantees were given considerable latitude in designing and implementing an approach that would be responsive to the needs of area employers. Participating firms were to guarantee the availability of jobs and employ training completers at either the wage level set by an existing,

applicable collective bargaining agreement or at a level at least equal to the lower living standard income level for a family of four (LLSIL4) as determined and adjusted by USDOL for various geographic areas of the United States. For 2001, the first year of operation of the SS2 Demonstration Program, the LLSIL4 ranged from \$25,300 in the non-Metro South to \$30,360 in the Metro Northeast. This level was higher in certain metropolitan areas and in Alaska and Hawaii.

The LLSIL itself, adjusted for family size and geographic area, is an income standard used under WIA as one method of identifying “low-income individuals.” Such individuals are deemed eligible for certain youth and adult worker services provided under WIA. Use of the LLSIL4 as a minimum expectation for wages was a unique aspect of this demonstration program.

Skill Shortage II Demonstration Sites

Ultimately, 19 sites were selected to participate in the SS2 Demonstration Program, with a total of \$32.4 million distributed among them. The period of performance for these grants was June 29, 2001 to June 30, 2003 with several extensions to June 30, 2004. The demonstration sites (shown with their total grant amount) included:

Antelope Valley College, Lancaster, CA

Grant amount: \$2,850,500

Connecticut Business & Industry Association, Hartford, CT

Grant amount: \$2,282,488

Georgia Job T.I.P.S., Columbus, GA

Grant amount: \$1,314,122

Central Iowa Employment and Training Consortium, Des Moines, IA

Grant amount: \$2,739,408

Plastics Technology Center/JobWorks, Angola, IN

Grant amount: \$514,550

Boston Private Industry Council, Boston, MA

Grant amount: \$1,490,456

Center for Workplace Learning, University of Southern Maine, Portland, ME

Grant amount: \$1,885,142

Gulf Coast Shipbuilding Partnership, Pascagoula, MS

Grant amount: \$1,512,598

Cuyahoga County Department of Workforce Development, Cleveland, OH

Grant amount: \$1,165,223

Worksystems, Inc., Portland, OR

Grant amount: \$1,454,390

Central Pennsylvania Workforce Development Corporation, Lewisburg, PA

Grant amount: \$2,765,397

Three Rivers Workforce Investment Board, Pittsburgh, PA

Grant amount: \$995,914

Alliance for Business and Training, Elizabethton, TN

Grant amount: \$2,810,000

Douglas Cherokee Economic Authority, Morristown, TN

Grant amount: \$548,293

Community Learning Center, Fort Worth, TX

Grant amount: \$2,860,000

Region 2000 Workforce Investment Board, Lynchburg, VA

Grant amount: \$2,534,404

Tidewater Community College, Norfolk, VA

Grant amount: \$1,699,894

Yakima Valley Opportunities Industrialization Center, Yakima, WA

Grant amount: \$550,000

Workforce Connections, Inc., LaCrosse, WI

Grant amount: \$448,900

Approach to Evaluation

This report summarizes the second phase of a multiyear evaluation of USDOL's Skill Shortage Demonstration Programs. The first phase of the evaluation focused on four grant programs encompassing 50 grantees in 29 states. The final report for phase one consisted of a cross-site analysis of organizational strategies and processes used to build stakeholder relationships and design training programs that were responsive to the expressed needs of employers.

The SS2 Demonstration Program was the fourth in the series of skills shortages grant programs conducted by USDOL. The evaluation reported on here focused primarily on the effect of training programs on participants along with a related interest in the effect that the training programs had on participating employers in the targeted industries.

Research Questions

The research questions presented below guided the development of protocols that were used during evaluation site visits. The questions also guided the design of the analysis plans for the participant data submitted by the grantees.

- To what extent did the demonstration program offerings affect the skill levels of incumbent and dislocated workers?
- What approaches were most effective in providing incumbent and dislocated workers with the skills needed to enter or advance in employment in high-wage, high-demand occupations?
- To what extent did the trainings effect the skills, employment, and advancement opportunities of incumbent and dislocated workers and earnings of low-income populations?
- Were the skills shortages of the targeted industries and employers addressed to their satisfaction?
- How do project costs compare with projected and actual performance outcomes?

Data Sources

The data sources for the evaluation include the following:

- Site-profile information developed through the first phase of the evaluation
- Field notes obtained during the second round of site visits to a subset of grantees
- Analysis of the regional labor market of each demonstration site
- Data on participants collected by grantees for administrative purposes
- Final reports submitted by grantees

A more detailed description of data sources and the approach to conducting the analysis of training participant data is provided in Appendix A of this report.

Organization of Report

This report is organized as follows:

Section One, this section, provides an overview of the grant program and the approach used to conduct the evaluation.

Section Two describes the approaches used at each demonstration site and examines similarities and differences among the sites.

Section Three is a comparative analysis of the participant data submitted by the demonstrations.

Section Four is a discussion of lessons learned.

Section Five is a discussion of conclusions and implications.

The report includes several appendices:

Appendix A describes the research methods that were used to conduct the evaluation and analyze participant data.

Appendix B consists of site profiles that describe the strategies and stakeholders involved in each demonstration.

Appendix C consists of labor market information analysis reports for each site.

Section II: Demonstration Sites

This section provides an overview of the demonstration sites. It begins with a brief description of the basic strategy used at each of the sites. This is followed by an examination of the similarities and differences among the sites using several different characteristics as points of comparison.

Introduction

The Incumbent/Dislocated Worker Skill Shortage II (SS2) Demonstration Program consisted of 19 grants that were made to a variety of organizations across the nation. While all of the grants addressed local skills shortages, each of them differed in industry and occupational focus, program strategy, and approach to the design and delivery of training. A brief overview of each of the grant sites is provided in Table 1.

Table 1: Overview of Demonstration Sites

Site	State	Description
Antelope Valley College \$2,850,500	CA	Antelope Valley College sought to reestablish itself as a trusted source of training for aerospace companies throughout the Greater Antelope Valley area. The college aimed to prove through the demonstration that employer partners could count on the college to design and deliver programs that were responsive to employer and employee needs. Training offered through the grant was expected to help avert layoffs by upgrading skills of incumbent workers, increasing productivity, improving competitiveness, and enhancing job security. Total Workers Served: 661
Connecticut Business & Industry Association \$2,282,488	CT	The Connecticut Business & Industry Association's project was designed to demonstrate the efficacy of an employer-led approach. Adopting a model advocated by the National Alliance of Business and the National Association of Manufacturers, project partners wanted to ensure that participating companies were actively involved in assessing training needs and creating training programs tailored to those needs and aligned with national industry standards. Total Workers Served: 1,091
Georgia Job T.I.P.S. \$1,314,122	GA	Georgia Job T.I.P.S. focused on creating an effective and balanced on-the-job training program with employers that would create a solid working relationship of mutual benefit to employers and new employees and would allow dislocated workers to access long-term employment. The grantee also wanted to provide incumbent worker training services to area employers. Total Workers Served: 183

Table 1: Overview of Demonstration Sites

Site	State	Description
Central Iowa Employment and Training Consortium \$2,739,408	IA	The Central Iowa Employment and Training Consortium's project aimed to help Iowa's manufacturing industry maintain its competitiveness by upgrading skills of incumbent workers of suppliers and sub-tier suppliers, thereby avoiding worker dislocation. The program was based on an assumption that a workforce skilled in lean manufacturing would enable companies to become more efficient and competitive. Total Workers Served: 5,250
JobWorks/Plastics Technology Center \$514,550	IN	The Plastics Technology Center involves a strategic partnership between a training center and a local workforce board for the purpose of implementing a training system envisioned by the Center's board. The partners attempted to combine their strengths to establish the Center as a recognized, centralized source of high-quality training for small and medium-sized plastics manufacturers, hoping to support continued prosperity and growth within the region. Total Workers Served: 975
Boston Private Industry Council \$1,490,456	MA	The Boston Private Industry Council (PIC) used its grant to establish the Health Care Technology Skills Shortages Consortium, designed to address shortages of technically skilled workers at three acute-care facilities in Boston, all of which compete for a relative small pool of qualified applicants. A strategic goal of the project was to develop stronger linkages among employers, educational institutions, and public workforce development agencies. Total Workers Served: 99
Univ. of Southern Maine/Center for Workplace Learning \$1,885,142	ME	The Center for Workplace Learning sought to create a stream of workers to enter and advance in careers in metal trades. The Center proposed to accomplish this through a training system and industry-based curriculum providing multiple points of access for workers of varying experience and preparation, including incumbent and dislocated workers as well as others new to the metal trades. Total Workers Served: 685
Gulf Coast Shipbuilding Partnership \$1,512,598	MS	Building on a pilot project, the Gulf Coast Shipbuilding Partnership focused on expanding partnerships with local industry employers using systematic job profiling to create a true career-ladder approach, along with associated training, that could be institutionalized within partner companies. Total Workers Served: 1,840
Cuyahoga County Department of Workforce Development \$1,165,223	OH	The Cuyahoga County Department of Workforce Development saw the growing sector of IT/telecommunications offering promising career opportunities for skilled entry-level employees. They also saw an industry with a career ladder that was dependent upon advanced technical training and certifications. Advanced skills would lead to increased job retention, higher-paying jobs, and continued industry growth within the region. Total Workers Served: 169
Worksystems, Inc. \$1,454,390	OR	Worksystems, Inc. planned to demonstrate how innovative partnerships among community stakeholders would meet the critical workforce needs in the metals industry. The strategy included development of common tools for One-Stops to use in connecting dislocated workers with the metals industry, providing intensive training to connect these workers with jobs in growing sectors of the metals workforce, and creating curricula and delivering training for incumbents working for two major metals industry employers in the area. Total Workers Served: 887

Table 1: Overview of Demonstration Sites

Site	State	Description
Central Pennsylvania Workforce Development Corporation \$2,765,397	PA	The Central Pennsylvania Workforce Development Corporation's goal was to create a system to identify and address specific skills needs of area employers in manufacturing, an industry sector that had been identified as a priority in the WIB's strategic plan. The corporation recognized that maintaining the region's industrial base was vital to the economic growth and stability of the area. The project model featured the development of a Regional Skills Network of training providers. Total Workers Served: 1,432
Three Rivers Workforce Investment Board \$995,914	PA	The Three Rivers Workforce Investment Board (WIB) partnered with several different teaching hospitals in the area to offer training that would address skills shortages in patient-care and technical occupations. In an effort to increase training completion rates, the project advisory board identified the need for strong support services, including case management, which would enable incumbent workers to balance part-time employment, the rigorous academic curriculum, and family responsibilities. Total Workers Served: 40
Alliance for Business and Training \$2,810,000	TN	The Alliance for Business and Training, with and through partners—notably the region's chambers of commerce—identified regional employers' needs for incumbent worker training and then organized interested employers into an industry consortium. The grantee attempted to engage major stakeholders in framing a partnership with the WIB and the public employment and training system. Historically, most consortium members had never had a connection with the regional workforce development system and operating agencies. Total Workers Served: 1,348
Douglas Cherokee Economic Authority \$548,293	TN	The Douglas Cherokee Economic Authority was faced with the challenge of responding to large manufacturing plant closures and massive layoffs of low-skilled and unskilled workers. Initially focused on a single industry and small number of targeted companies, the changing economy forced the grantee to attempt to identify alternative industries and occupations for which dislocated workers could be trained. Total Workers Served: 618
Community Learning Center \$2,860,000	TX	The Community Learning Center hoped to maintain the position of the Fort Worth area as a major center of aircraft manufacturing. The project focused on addressing current and expected shortages of qualified airframe workers by increasing skills of dislocated workers and at-risk incumbents. This was done by creating training designed to the specifications of employers, recruiting and screening candidates with the potential to succeed, and orienting trainees to the expectations of employers. Total Workers Served: 1,128
Region 2000 Workforce Investment Board \$2,534,404	VA	The Region 2000 WIB's project grew out of a maturing economic development infrastructure in central Virginia. The region has witnessed increasing collaboration and coordination among economic development and workforce development agencies and industry associations. The WIB and Virginia's Region 2000 economic development association invited area companies to submit detailed proposals for addressing skills shortages. Employers were required to perform a training-needs self-assessment that specified their current and planned commitments to employee development. Total Workers Served: 1,390

Table 1: Overview of Demonstration Sites

Site	State	Description
Tidewater Community College \$1,699,894	VA	Tidewater Community College wanted to use the grant to attract new workers to the shipbuilding and related manufacturing industries in the region. An employer association that had been organized through the Chesapeake Economic Development Agency worked in collaboration with the grantee to develop a proposal to provide training for incumbent workers. The regional WIB embraced the program and strategy as one that could further its emerging interest in providing leadership on major economic and workforce development strategy in the region. Total Workers Served: 269
Yakima Valley Opportunities Industrialization Center \$550,000	WA	The Yakima Valley Opportunities Industrialization Center worked in collaboration with a single employer that was experiencing problems due to the large proportion of low-skilled workers it employed. The plant managers had a strong commitment to training. The grantee worked to create a model that would lend itself to replication in other food processing firms. Total Workers Served: 163
Workforce Connections, Inc. \$448,900	WI	While some manufacturing companies experienced significant layoffs, employers in information technology were experiencing marked growth. Regional leaders recognized the need for an economic development strategy that continued to enlarge the region's base of high-skill, high-wage jobs, particularly in technology sectors. Workforce Connections, Inc., in partnership with a regional technology business alliance, attempted to upgrade the skills of workers in the IT sector, focusing primarily on one technology-based company. Total Workers Served: 261

Site Characteristics

There was considerable variation among the grants in terms of their leadership, industry focus, partnerships with employers and labor unions, and types of training offered to incumbent and dislocated workers. Table 2 shows the variations among the sites in regard to these characteristics.

Table 2: Matrix of Demonstration Site Characteristics

Site	Lead Organization	Targeted Industry	Employers	Labor Union Involvement	Type of Training				
					Short-Term	Long-Term	Soft Skills	Basic Skills	Technical Skills
Antelope Valley College (AVC)	Training provider	Aerospace	11	LU	ST		SS		Tech
Connecticut Business & Industry Association (CBIA)	Employer association	Manufacturing	23		ST		SS		Tech
Georgia Job T.I.P.S. (GTIPS)	Training provider	Multiple	5		ST				Tech
Central Iowa Employment and Training Consortium (CIETC)	Training provider	Manufacturing	72		ST				Tech
JobWorks/ Plastics Technology Center (JWPTC)	Training provider	Plastics manufacturing	97		ST			BS	Tech
Boston Private Industry Council (BPIC)	WIB	Health care	3		ST	LT			Tech
University of S. Maine/ Center for Workplace Learning (USMCWL)	Training provider	Metals manufacturing	77		ST		SS	BS	Tech
Gulf Coast Shipbuild. Partnership (GCSP)	Labor-management	Shipbuilding	1	LU	ST			BS	Tech
Cuyahoga Co. Department of Workforce Development (CDWD)	WIB	Tele-communications	3	LU	ST		SS		Tech
Worksystems, Inc. (WINC)	WIB	Metals manufacturing	3	LU	ST		SS	BS	Tech
Central Pennsylvania Workforce Development Corporation (CPWDC)	WIB	Manufacturing	68	LU	ST		SS		Tech
Three Rivers Workforce Investment Board (TRWIB)	WIB	Health care	3		ST	LT	SS		Tech
Alliance for Business and Training (ABT)	WIB	Multiple	22	LU	ST			BS	Tech
Douglas Cherokee Economic Authority (DCEA)	Economic development	Multiple	7		ST		SS	BS	Tech
Community Learning Center (CLC)	Nonprofit intermediary organization	Aircraft manufacturing	2	LU	ST		SS	BS	Tech
Region 2000 Workforce Investment Board (R2000)	WIB	Multiple	14		ST			BS	Tech
Tidewater Community College (TCC)	Training provider	Shipbuilding	20	LU	ST		SS	BS	Tech
Yakima Valley Opportunities Industrialization Center (YVOIC)	Training provider	Food processing	1		ST			BS	Tech
Workforce Connections, Inc. (WCI)	WIB	Information technology	1		ST				Tech

Lead Organization

Grantees included several different kinds of organizations, including workforce boards, training providers, an employer association, an economic development organization, an intermediary group, and a labor-management group. The projects conducted by the workforce boards had the advantage of linking project goals to existing regional workforce development strategic priorities. For example, Workforce Connections, Inc., working in conjunction with the Western Wisconsin Workforce Development Board and the Technology Business Alliance, viewed the demonstration as a pilot project that was part of a larger strategic plan to increase the availability of workers in the region with highly technical skills. For projects involving dislocated workers, the connection with the workforce board helped the projects take advantage of the recruiting, assessment, and case management services available through area One-Stops. Most of the grantees made a concerted effort to link with the workforce boards in some manner. However, efforts to link the One-Stops with projects serving incumbent workers proved to be difficult from a logistical point of view.

In instances where the projects were led by training providers, the demonstrations were typically used to build or strengthen existing networks of connections with employers through the development and delivery of customized curriculum. The projects led by the employer association and the economic development organization were also able to capitalize upon existing employer connections. For example, the Connecticut Business and Industry Association launched an employer-driven training initiative to address the needs of member manufacturing companies using a model advocated by the National Alliance of Business and the National Association of Manufacturers.

Targeted Industries

In most cases, the grantees based the selection of a target industry upon labor market research indicating the industries with a documented demand for skilled workers. Manufacturing, including metals, plastics, shipbuilding, and aerospace, proved to be the most popular sector among the grantees. A few of the grantees recognized and responded to the downturn in the economy by shifting industry focus to areas where there was a greater demand for skilled

workers. However, despite the downturn the Community Learning Center maintained its focus on the aerospace industry, which historically experiences significant swings in employment. Even though the short-term employment situation was hurt by slowdowns, the longer-term prospects for work—due to receipt of several large-scale defense-industry contracts—seemed promising.

Employer Participation

There was considerable variation among the sites in regard to the number and size of the employers that participated. The numbers served ranged from single employer sites to several serving 50 or more companies. In most cases, employers were small and medium-sized companies. In some cases, the smaller companies worked together to set up combined training classes. Several sites addressed the needs of larger employers, including hospital systems in Pittsburgh, Pennsylvania; aerospace industry corporations in Fort Worth, Texas; and a shipbuilding firm in Pascagoula, Mississippi.

In addition to being the beneficiaries of training programs offered to employees, employers provided opportunities for assessments of company and individual training needs, were involved in discussions around curriculum development, and subsidized training through the provision of training facilities and release time.

Labor Union Involvement

Although just one project was led by a labor-management group, labor unions were partners in several demonstration projects. At some sites, the unions served in an advisory capacity, including informing the development of curriculum and helping to recruit incumbent workers into training. In a few sites, the union was central to the design and implementation of the project strategy. For example, the consortium partners for the Gulf Coast Shipbuilding Partnership included the local community college, a business services organization, the local workforce board, and the International Association of Machinists and Aerospace Workers Union (IAM) and IAM CARES, the human resources arm of the union, which acts as the managing partner of the consortium. At the Antelope Valley site, union representatives served as members

of the advisory board, helped to identify specific technical training needs, and assisted in recruiting incumbent workers for training that would keep them competitive for jobs requiring the ability to use innovative production techniques.

Length of Training

The vast majority of demonstration sites relied upon short-term training (defined as less than a year in duration) to address skill needs. The two sites that offered long-term training did so because the targeted health care occupations required extensive study in order to gain certification.

Types of Training Programs

While most sites offered a mix of training programs, projects that focused on incumbent worker training tended to emphasize standards-based, technical skills training, although a mix of basic skills, soft skills, and technical training was frequently offered. In most instances, training was aimed at upgrading the skills of individual workers, which at three sites included supervisors who needed better communication and management skills. However, two sites (the Central Iowa Employment Training Consortium and the Connecticut Business and Industry Association) provided lean manufacturing training that is delivered to work teams and is designed to increase production efficiency.

This section has provided a brief overview of the sites that participated in the SS2 Demonstration Program. More detailed descriptions of the strategies used by each site are included in Appendix B. Additional labor market information pertinent to each site's industry focus and occupational targets are provided in Appendix C.

Section III: Participant Data Analysis

This section consists of a cross-cutting analysis of the participant data submitted by the grantees. Throughout the discussion, observations about the experiences of selected sites are included for illustrative purposes.

The SGA for the SS2 Demonstration Program required grantees to address three types of outcomes in their proposals and to identify:

“ . . . the performance measures that would be used in assessing the attainment of those goals in regard to the following outcomes:

- 1) The reduction of identified shortages in participating firms as a result of the training/services provided.
- 2) The effect of reduced shortages on one or more dimensions of the participating firms' performance (e.g., productivity, sales, profitability, on-time delivery).
- 3) The effect on participating workers including skill gains, utilization of the new skills learned, wages, wage gains, and job satisfaction.”

In addition, grantees were permitted to include other performance goals and measures as applicable. This section begins with an analysis of data submitted for individual training participants, and then turns to a discussion of the effect of the demonstration projects on participating firms.

Cross-Cutting Analysis

Training Goals

In their proposals, each of the grantees provided specific numerical goals for the number of individual participants, including both incumbent and dislocated workers, who would receive training through the demonstration grant. Over the course of the demonstrations, these numerical goals changed due to a number of different factors including changes in the economy,

in employer participation, and in industry and occupational focus. Several of the sites that anticipated substantial difficulties meeting their proposed training goals sought and received formal modifications from their federal project officers.

Table 3 shows, for each site, the number of incumbent and dislocated workers for whom training was proposed and actually delivered. Training goals show a strong incumbent-worker focus among the grantees, with 80 percent of total service goals allocated to incumbents. As a group, the grantees served 1,843 more incumbent workers and 842 fewer dislocated workers than anticipated under their (modified) project plans; incumbent workers comprised 87 percent of all trainees. As the table shows, there was wide variation in the number of workers trained, ranging from 40 workers trained by the Three Rivers WIB to over 5,000 workers trained by the Central Iowa Training and Employment Consortium. The emphasis on incumbent-worker training largely reflects the nature of employer demand by the participating employers in the industry sectors targeted by the grantees.

Table 3: Training Goals and Actual Participants Served

Site	Incumbent Workers			Dislocated Workers			All Workers		
	Goal ¹	Actual	+/-	Goal	Actual	+/-	Goal	Actual	+/-
Gulf Coast Shipbuilding Partnership (MS)	2,100	1,591	-509	400	249	-151	2,500	1,840	-660
Alliance for Business & Training (TN, multiple industries)	1,622	1,348	-274	0	0	0	1,622	1,348	-274
Three Rivers WIB (PA, health care)	297	40	-257	0	0	0	297	40	-257
Community Learning Center (TX, aircraft manufacturing)	250	0	-250	1,250	1,128	-122	1,500	1,128	-372
Cuyahoga Co. Dept. of Workforce Devel. (OH, telecommunications)	200	66	-134	144	103	-41	344	169	-175
Workforce Connections, Inc. (WI, information technology)	300	200	-100	50	61	11	350	261	-89
Tidewater Community College (VA, shipbuilding)	360	269	-91	48	0	-48	408	269	-139
Boston Private Industry Council (health care)	93	87	-6	10	12	2	103	99	-4
Douglas Cherokee Econ. Auth. (TN, multiple industries)	570	570 ²	0	45	48	3	615	618	3
Yakima Valley Opportunities Industrialization Center (WA, food processing)	150	163	13	0	0	0	150	163	13
JobWorks/Plastics Technology Center (IN)	900	921	21	100	54	-46	1,000	975	-25
Worksystems, Inc. (OR, metals manufacturing)	725	772	47	72	115	43	797	887	90
Georgia Job T.I.P.S. (multiple industries)	50	153	103	200	30	-170	250	183	-67
Antelope Valley College (CA, aerospace)	450	661	211	0	0	0	450	661	211
University of S. Maine/Center for Workplace Learning (metals manufacturing)	250	469	219	350	216	-134	600	685	85
Connecticut Business & Industry Association (manufacturing)	700	1,063	363	30	28	-2	730	1,091	361
Region 2000 WIB (VA, multiple industries)	747	1,146	399	325	244	-81	1,072	1,390	318
Central PA Workforce Development Corp. (manufacturing)	400	1,407	1,007	100	25	-75	500	1,432	932
Central Iowa Employment & Training Consortium (manufacturing)	4,000	5,081	1,081	200	169	-31	4,200	5,250	1,050
Totals	14,164	16,007	1,843	3,324	2,482	-842	17,488	18,489	1,001

¹Where grantees sought and received a formal modification to their project goals, the modified goal is used to assess the grantee's success in reaching the training target. Site-specific information about training target modifications can be found in the individual site profiles contained in Appendix B.

² According to the final report submitted by the Douglas Cherokee Economic Authority, 570 incumbent workers received training through the demonstration project. However, the grantee did not submit any information that documents this activity. Here and throughout the report, it is assumed that the services were rendered.

Seven grantees served more incumbent and fewer dislocated workers than planned, including four focused on manufacturing, a plastics program, and two multi-industry programs. Grantees report that some of the shift stemmed from a concern about meeting the LLSIL4 wage standard with dislocated workers. A second factor was the economic downturn beginning in late 2001, which brought significant layoffs, company buy-outs, and increased difficulty in placing trainees. Grantees modified their training goals in response to these factors, typically resulting in lower total training goals and a shift towards incumbent workers.

Some of the circumstances influencing training outputs were idiosyncratic to particular organizations and circumstances. The two grantees that exceeded their incumbent-worker targets by more than 1,000 participants delivered training in lean manufacturing, in which large groups of employees, representing business units or even entire companies, participate in a coordinated training activity designed to improve production efficiency. The most successful dislocated-worker programming occurred in Texas, where 14,000 people applied to a skills-shortage program training aircraft assemblers for employment with the largest and best-paying aerospace company in the area; nearly half of all dislocated workers served across all skills-shortage grants got their training through this program.

Participant Data

Grantees were asked to provide detailed information on training program participants, including enrollment statistics, completion statistics, pretraining and posttraining wages, whether the worker was incumbent or dislocated, and whether the worker belonged to a union. Despite numerous attempts to obtain complete data from each site (a full description of these efforts and the approach used to conduct the analysis is provided in Appendix A), much of the participant wage data submitted for evaluation purposes was incomplete.

Because the data-collection methods were not standardized, many grantees submitted final participant datasets with significant missing data, including missing wage information and/or zeros entered as values. In the analysis of the participant data, there are instances where missing data have a significant effect on the interpretation of outcome measures for training participants. The impact of this problem on the analysis is included in the discussion as relevant.

Training Program Completion and Skills Gains

As was expected given the diversity of training approaches in the demonstration, grantees did not use identical completion measures, nor did they use comparable measures of skills gains or credentialing. For example, the Central Pennsylvania Workforce Development Corporation measured individual program completion only, while the Region 2000 WIB in Virginia measured how many trainees completed their individual education plans, whether trainees earned credentials, and the degree to which skills assessments showed improvements. Due to these variations, it is not possible to draw direct comparisons among the sites. However, it is possible to get a general picture of the experience at each site. Table 4 summarizes this data.

Table 4: Demonstration Completion and Credentialing Rates*

Site	Industry and Occupations	Completion Measure	Skill Gains and Credentialing Measures
Community Learning Center (TX)	Aircraft manufacturing. Occupations: Composite fabrication technicians, aircraft assembler, material bonder	<ul style="list-style-type: none"> • 88 percent completed training • 12 percent left program 	<ul style="list-style-type: none"> • No data provided on credentials
Three Rivers WIB (PA)	Health care. Occupations: Registered nurses and licensed practical nurses	<ul style="list-style-type: none"> • 80 percent completed the program 	<ul style="list-style-type: none"> • No data provided on credentials
Tidewater Community College (VA)	Shipbuilding. Occupations: Shipfitters, machinists, electricians, mechanics	<ul style="list-style-type: none"> • 44 percent completed program and specialty courses 	<ul style="list-style-type: none"> • 70 percent completed supervision in ship repair certificate program
Central PA Workforce Devel. Corp.	Manufacturing. Occupations: Programmable logic control, welders, computerized process control, plastics technicians	<ul style="list-style-type: none"> • 68 percent completed the program • 1 percent did not complete 	<ul style="list-style-type: none"> • No data provided on credentials
Georgia Job T.I.P.S.	Multiple industries. Occupations: Machinists, data entry operators, tellers, word processors, image processing operators, environmental technicians, medical coding, imaging technicians, nursing, and other medical certification programs.	<ul style="list-style-type: none"> • 49 percent completed program • 20 percent partially completed program • 7 percent did not complete program 	<ul style="list-style-type: none"> • No data provided on credentials
Boston Private Industry Council	Health care. Occupations: Radiology technicians, EEG technicians, sleep center technicians, pharmacy technicians	<ul style="list-style-type: none"> • 42 percent completed program • 16 percent are still in school • 13 percent did not complete program 	<ul style="list-style-type: none"> • 25 percent of those completing a program earned a credential, most relevant to pharmacy technician positions
Connecticut Business & Industry Association	Manufacturing. Occupations: Metal machining, plastics technicians, electro-mechanical technicians, laser optics, welding	<ul style="list-style-type: none"> • 100 percent completed at least 1 course • 25 percent completed 2 courses • 15 percent completed 3+ courses 	<ul style="list-style-type: none"> • 11 earned a Fiber Optics Certificate (<1 percent)

Table 4: Demonstration Completion and Credentialing Rates*

Site	Industry and Occupations	Completion Measure	Skill Gains and Credentialing Measures
JobWorks/Plastics Technology Center (IN)	Plastics manufacturing. Occupations: Extrusion machine operators, injection molding press operators, blow mold operators, rotational molding processors	<ul style="list-style-type: none"> • 97 percent completed 1 or more classes 	<ul style="list-style-type: none"> • No data provided on credentials
Alliance for Business & Training (TN)	Multiple industries. Occupations: Over 60 different technical occupations	<ul style="list-style-type: none"> • Completion data not provided 	<ul style="list-style-type: none"> • 92 percent earned one or more certificates
Cuyahoga Co. Dept. of Workforce Devel. (OH)	Telecommunications. Occupations: Cable installation specialists and communication technicians	<ul style="list-style-type: none"> • 80 percent passed course • 7 percent failed course • 10 percent dropped course 	<ul style="list-style-type: none"> • 6 percent received industry-recognized “Installer Certifications”
Douglas Cherokee Econ. Auth. (TN)	Multiple industries. Occupations: HVAC-R mechanical technicians	<ul style="list-style-type: none"> • 78 percent passed course 	<ul style="list-style-type: none"> • 6 percent earned both a 608 Universal Certification and a Certificate in HVAC-R Training • 1 percent earned an Electrical Special Industry Certificate
Gulf Coast Shipbuilding Partnership (MS)	Shipbuilding. Occupations: Welders, pipefitters, marine drafters, marine electricians, electrical engineers, deckhands	<ul style="list-style-type: none"> • Completion data not provided 	<ul style="list-style-type: none"> • 60 percent received a certificate
Region 2000 WIB (VA)	Multiple industries. Occupations: Soldering operators, electro-mechanical technicians, in-process auditors, automation technicians, pack assemblers	<ul style="list-style-type: none"> • 41 percent completed their individual educational plans 	<ul style="list-style-type: none"> • 24.6 percent earned trade-specific credentials • 4 percent completed the Community College Career Studies Certificate • 32 percent showed an increase in knowledge as measured by content-specific assessments • Work Keys and Compass assessments did not show significant skill gains
Antelope Valley College (CA)	Aerospace. Occupations: Electrical, structures, and composite mechanics	<ul style="list-style-type: none"> • Completion data not provided 	<ul style="list-style-type: none"> • 29.6 percent earned an Occupational Skills Certificate • 3 earned an Occupational Skills License • 1 earned a bachelor’s degree

Table 4: Demonstration Completion and Credentialing Rates*

Site	Industry and Occupations	Completion Measure	Skill Gains and Credentialing Measures
University of S. Maine/Center for Workplace Learning	Metals manufacturing. Occupations: CNC machinists, welders, CAD/CAM operators, quality control technicians	<ul style="list-style-type: none"> • Completion data not provided 	<ul style="list-style-type: none"> • 98 percent of incumbent workers reported a skill gain with an average skill gain of 40 percent • 100 percent of dislocated workers reported a skill gain with an average gain of 27 percent • 1 earned a National Institute for Metalworking Skills (NIMS) credential
Workforce Connections, Inc. (WI)	Information technology. Occupations: Software developers and engineers, systems analysts and programmers	<ul style="list-style-type: none"> • Completion data not provided 	<ul style="list-style-type: none"> • No data provided on credentials
Central Iowa Emp. & Training Consortium	Manufacturing. Occupations: Manufacturing workers and supervisors	<ul style="list-style-type: none"> • Completion data not provided 	<ul style="list-style-type: none"> • No data provided on credentials
Worksystems, Inc. (OR)	Metals manufacturing. Occupations: Aerospace components machinists, welders, radiographers, inspectors, wax assemblers	<ul style="list-style-type: none"> • Completion data not provided 	<ul style="list-style-type: none"> • No data provided on credentials
Yakima Valley Opportunities Industrialization Center (WA)	Food processing. Occupations: Machine operators, production leads, maintenance, assistant team advisors	<ul style="list-style-type: none"> • Completion data not provided 	<ul style="list-style-type: none"> • No data provided on credentials

*Completion and credentialing rates are reported as provided by grantees in their final reports. In some instances, a percentage was calculated from whole numbers of participants and training completers as provided by grantees. However, all percentages that do not add to 100 percent are reported as provided by the grantee.

The most common measures of training completion were program completion and completing or passing a course. Of those measuring completion with reference to a program, completion rates varied substantially, ranging from 42 percent at the Boston PIC to 88 percent at Community Learning Centers in Texas. However, it is important to note that several trainees in the Boston PIC's program were still enrolled in the multiyear training program when the demonstration period ended. According to several employers involved in the Three Rivers WIB project, the completion rates were substantially higher than usual due, in large part, to the provision of

ongoing case-management services for low-income incumbent workers who were enrolled in multiyear training programs.

Grantees that defined completion as completing or passing a course submitted completion rates varying from 78 percent passing a course to 100 percent completing one course. Of the grantees submitting completion data, the Region 2000 WIB in Virginia was the only site that used individual education plan completion as an outcome measure,³ and the grantee reported that 41 percent of the trainees completed their individual education plans. Based on the limited data provided, it does appear that retaining students was an issue in several sites.

Skill gains and enhancements refer to the value-added from training in terms of the development of new skills and enhancement of existing skills. Grantees also used a variety of measures to document skill gains, but the most common was trainees earning some type of credential—which also appeared to substitute for a completion measure in some cases. Credentialing rates varied from less than 1 percent to 92 percent. Frequently, grantees also measured skill gains through classroom-based instructional assessments or assessments of individual progress made during on-the-job training (OJT) experiences, but these were typically not included in the participant database or in the final reports submitted by grantees. In addition, at some sites, technical training programs were designed to prepare trainees to take industry certification tests; however, the results of those tests are not available or were not quantified (e.g., “most welding graduates earned AWS certification for structural steel”).

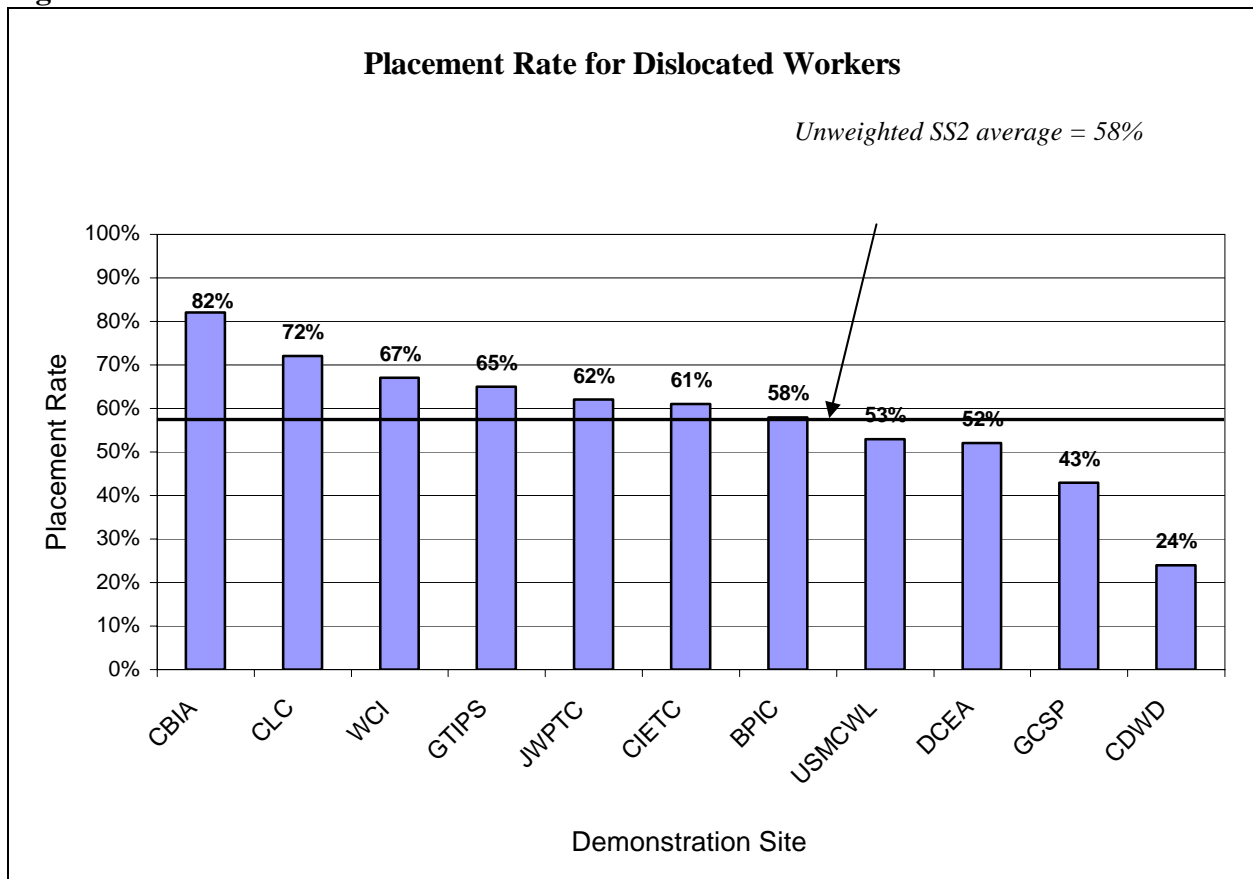
While many training participants earned industry-recognized certificates and/or participated in training programs aligned with industry standards, the majority of trainees completed very short-term training that did not lead to certification. This training was valuable in helping them to become more productive workers, but may have limited individual value in the open job market.

³ Worksystems, Inc. in Oregon did use training plans for individual workers to ensure that, when they completed training, they would possess the skills needed to fill the 200 general machinist jobs that were forecast by one area employer.

Job Placement

Figure 1 shows placement rates for programs serving dislocated workers at each site as well as the unweighted average⁴ for the SS2 demonstration. Dislocated workers with posttraining wages were treated as successful placements for the purpose of this analysis. Those without posttraining wages or with zeros in the posttraining wage field were treated as nonplacements.

Figure 1



Note: Sites not shown trained few, if any, dislocated workers or reported data that was organized in a way that dislocated workers could not be separated from incumbent workers for analysis.

As discussed in the training goals section of this report (see page 19), Community Learning Center in Texas (CLC) was the only demonstration that emphasized dislocated worker training. The Gulf Coast Shipbuilding Partnership (GCSP), the multi-industry Region 2000 WIB program (R2000), the Maine and Oregon metals-manufacturing programs (USMCWL and WINC), the

⁴ The “unweighted” average is a simple average across sites that treats each site equally regardless of number of participants.

Central Iowa manufacturing program (CIETC), and the Cuyahoga County telecommunications program (CDWD) all provided a modest amount of training for dislocated workers. All other grantees provided training to very limited numbers of this participant group.

Community Learning Center (CLC) provided training for over 1,000 dislocated workers, with a placement rate of 72 percent. In addition to focusing on a high-demand occupation, the grantee created a highly customized curriculum, established specific entry qualifications with associated assessments, provided remediation for individuals prior to entry into the occupational training program, and delivered training in a simulated work setting patterned after one of the primary employer partners. The overall approach prepared trainees for a smooth transition to employment. Despite these efforts, a substantial proportion (43 percent) of trainees that were placed were not placed in aircraft assembler jobs, as documented in the CLC labor market analysis in Appendix C. CLC launched an aggressive job search and development effort that was critical to its success in placing 366 trainees into 264 companies outside of the aerospace industry. The Connecticut Business and Industry Association also reported strong performance in placement of dislocated workers, but the grantee worked with only 28 dislocated workers.

In contrast, the Cuyahoga County grantee, providing training in telecommunications technician occupations, was successful in placing just less than 25 percent of dislocated workers, but it is not clear if these placements were training related. According to the grantee, the downturn in the telecommunications industry made placement difficult unless workers were willing to relocate to other states. Because of the low demand for workers with the type of training offered by the grantee, the demonstration ended after the first year of operation.

Most grantees placed between half and two-thirds of their dislocated workers. The difference between a 52 percent placement rate and a 67 percent placement rate is substantial, and a further exploration of the potential causes of these distinctions might help to identify practices worthy of emulation. However, the data quality issues in the SS2 program are too extensive to support such analysis: differences may reflect the impacts of missing or compromised data as much as true variation in success with placement. Accordingly, the reader should interpret these differences with caution.

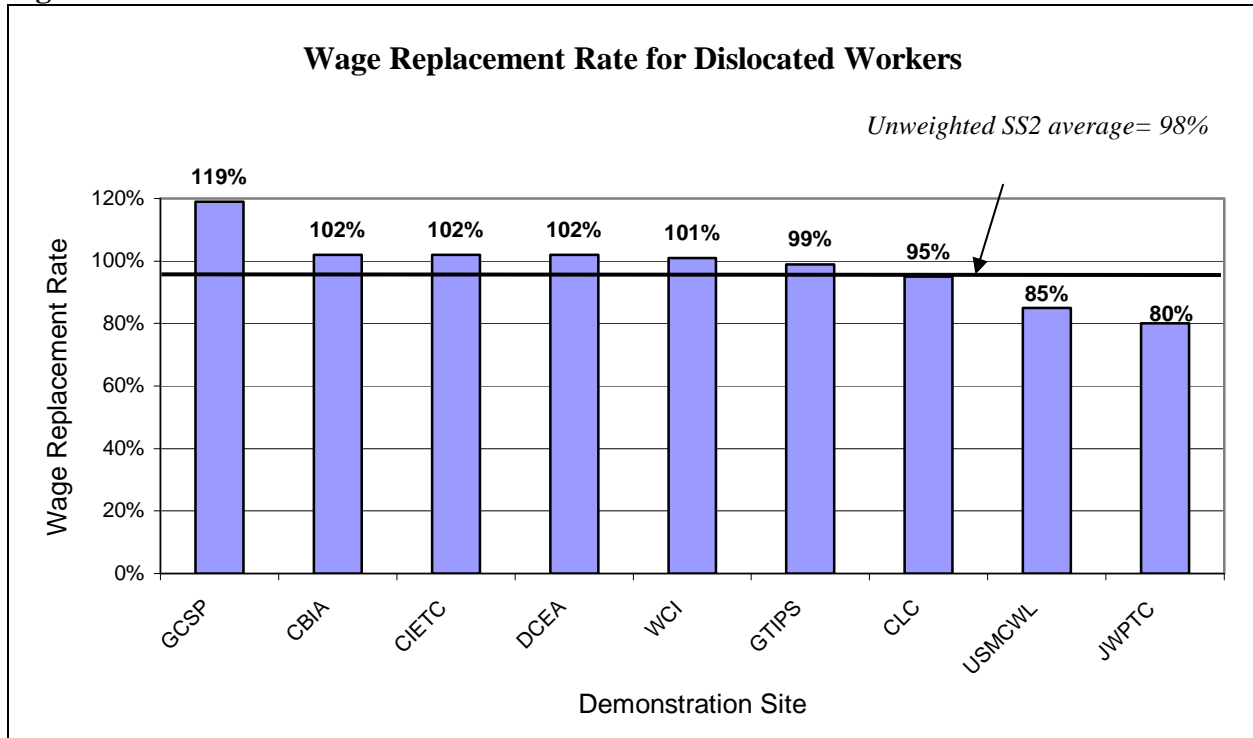
Wage Gains

The wage calculations provided in the sections that follow are based on all participants *with reported wage information both pretraining and posttraining*. Wage gains for dislocated workers were determined by calculating the wage replacement rates. Wage gains for incumbent workers were determined by using the pretraining and posttraining wages to compute the average percentage of wage increase. Overtime compensation is not included. A more detailed explanation for how these were computed can be found in Appendix A.

Dislocated Workers

Figure 2 shows the average wage-replacement rates for dislocated workers at each site. The data show that all of the sites that submitted useable data placed trainees in jobs with an average wage replacement rate of at least 80 percent, and in several instances, substantially higher than that.

Figure 2



Note: The Boston PIC and the Cuyahoga County Department of Workforce Development are not included because all of their dislocated workers are missing pretraining wage data. The Central Pennsylvania Workforce Development Corporation, the Region 2000 WIB, and Worksystems, Inc. average wage-replacement rates could not be calculated because of the way their data was organized. The Alliance for Business and Training, Antelope Valley College, the Three Rivers WIB, Tidewater Community College, and the Yakima Valley Opportunities Industrialization Council served few, if any, dislocated workers.

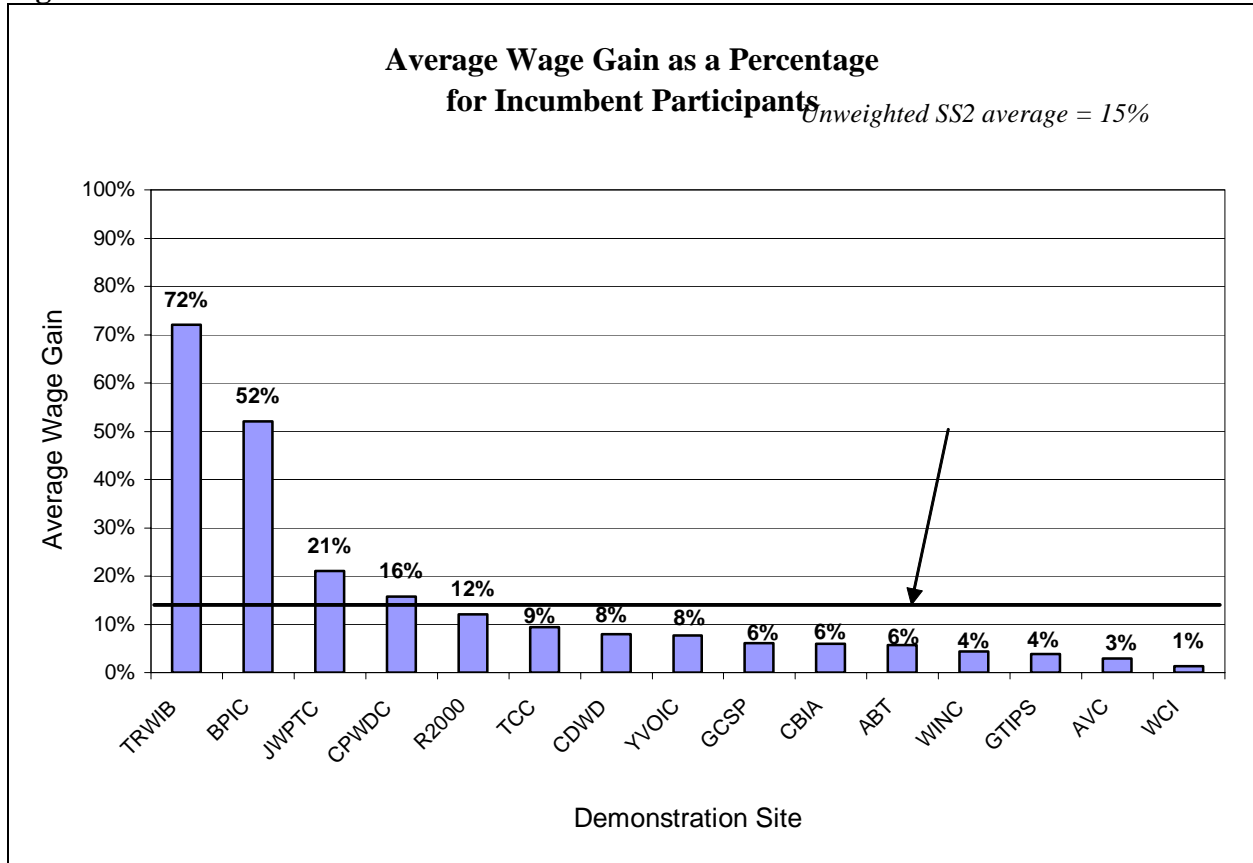
The Gulf Coast Shipbuilding Partnership (GCSP) reported an average wage-replacement rate of nearly 120 percent. The high wage-replacement rate is directly related to the grantee's decision to target the manufacturing sector, one of the highest-paying sectors in the Biloxi-Gulfport-Pascagoula, Mississippi, regional economy. While the wage-replacement rate was the highest of all grantees, the placement rate was relatively poor, with only 43 percent of trainees placed out of 249 dislocated participants. Georgia Job T.I.P.S (GTIPS), the Douglas Cherokee Economic Authority (DCEA), and the Wisconsin grantee (WCI, Workforce Connections, Inc.) also achieved relatively high wage-replacement rates, but all trained very small numbers of dislocated workers (less than 70) and reported placement rates in the 50 percent to 60 percent range. The Central Iowa grantee (CIETC) reported similar statistics while serving slightly more participants, at 169 dislocated workers.

While Community Learning Center (CLC) in Fort Worth, Texas, does not have the best numbers in either the placement or wage-replacement categories, it was one of the few to post impressive statistics for both placement *and* wage replacement. The program placed more than 70 percent of its 1,128 trainees in jobs with an average wage-replacement rate of greater than 90 percent. One smaller program also performed well on both the placement and wage-replacement dimensions: the Connecticut Business and Industry Association (CBIA) served only 28 dislocated workers, but placed over 80 percent of its trainees with an average wage-replacement rate of over 100 percent.

The University of South Maine/Center for Workforce Learning (USMCWL) metals manufacturing program and the JobWorks/Plastics Technology Center (JWPTC) program struggled most with wage replacement, and while their placement rates were not the lowest of the grantees, they were not particularly high. One possible explanation for this situation may be related to the demographics of trainees, i.e., older workers that previously earned high wages as a result of their job tenure might find it difficult to obtain comparable jobs with subsequent employers. Further analysis of the demographic characteristics of trainees would be necessary to confirm this hypothesis. Unfortunately, the data submitted does not permit this type of analysis.

Figure 3 shows the average percentage wage gain for incumbent workers at each demonstration site. The unweighted average wage gain (considering each site equally regardless of number served) was 15 percent, but this figure is strongly influenced by the two grantees reporting wage increases in excess of 50 percent—both of which focused on long-term health care training. Most grantees reported average wage gains of less than 10 percent for their incumbent worker trainees.

Figure 3



Note: Community Learning Center and the Douglas Cherokee Economic Authority only served dislocated workers. The University of Southern Maine/Center for Workplace Learning and the Central Iowa Employment and Training Consortium submitted disaggregated outcome data for dislocated workers only.

Average wage gains were often a function of the type of training offered. The Boston PIC's (BPIC) data shows an average percentage wage gain for incumbent workers of greater than 50 percent, a substantial achievement.⁵ The grantee targeted high-wage, high-demand occupations in the health care sector, including radiological technologists and diagnostic medical sonographers, both of which offered substantial opportunities for advancement for incumbent workers who completed the extended technical training program. The Three Rivers WIB (TRWIB) prepared its trainees to be registered nurses or licensed practical nurses and achieved

⁵A significant proportion of the total participants listed in the Boston PIC's database is missing posttraining wage data or have a reported income of zero. The wage gain statistic of 52% represents the wage gains for only those workers with both pretraining and posttraining wages. A significant proportion also did not complete the program and/or are missing from the completion statistics. Eleven out of 88 trainees dropped out, and 13 were still in school when the demonstration ended. This means there should be wage data for 64 participants. Wage data was provided for 44 participants, meaning that 31 percent of completer wage data is missing. This should be considered in interpreting the 52% wage gain, which could be an overestimate depending on what the missing wages are.

the highest average wage increase. However, like the BPIC, several trainees had not completed training at the time the demonstration ended. The JobWorks/Plastic Technology Center grantee (JWPTC) reported an average wage gain of 21%. Some of this gain may be attributed to the high-level training that the Center offered in response to specific employer requests.

Wage gains are considered an important measure of the effectiveness of workforce development investments. Yet, several grantees sought training to avert layoffs and plant closings and had low expectations for wage gains. Furthermore, for sites with wage gains, it is difficult to determine the extent to which training directly contributed to the gains. For example, Worksystems, Inc. reported that all wage gains were due to cost of living increases and that very few promotions occurred because the primary employer partners were experiencing layoffs. In contrast, at the Alliance for Business and Training in Tennessee, there was an average percentage wage gain of approximately 5 percent, and 10 percent of trainees received promotions.

Retention and Advancement

Training can serve many purposes in the workplace. Programs offered through the demonstration sites were intended to address a wide range of needs for the companies and individual workers who participated. Employers hoped to benefit from having a more productive workforce with higher-level basic, soft, and technical skills. A skilled workforce could help to position companies to be more efficient in completing existing contracts and more competitive for new ones. For some workers, the benefits of training might be reflected in increased wages. However, for other workers, training was a necessity to avoid layoffs or to position an employee for future career advancement. The retention and advancement data shown in Table 5 below are drawn primarily from the final project reports submitted by the grantees.

Table 5: Measures of Retention and Advancement

Grantee	Retention Measure	Advancement Measure
Connecticut Business & Industry Association (manufacturing)	<ul style="list-style-type: none"> Of those who participated in training, 83 percent are still employed 	<ul style="list-style-type: none"> Of those still employed, 14 percent received promotions
Region 2000 WIB (VA, multiple industries)	<ul style="list-style-type: none"> 92 percent of combined incumbent and dislocated “were hired or continue in employment” 	<ul style="list-style-type: none"> 19 percent of participants experienced a change in responsibility 6 percent of participants received promotions
Central Iowa Emp. & Training Consortium (manufacturing)	<ul style="list-style-type: none"> 55 percent (86 of 156) of dislocated workers placed in OJT remain employed with initial employer, 39 percent have moved to a different employer, and 6 percent report no income 	<ul style="list-style-type: none"> None provided
Community Learning Center (TX, aircraft manufacturing)	<ul style="list-style-type: none"> 94 percent of trainees hired by Employer #1 reached their 35th day of employment (the probationary period) and 89 percent were still working six months later 95 percent of those hired by other employers were still employed after 35 days and 78 percent were still working six months later 	<ul style="list-style-type: none"> None provided
Central PA Workforce Devel. Corp. (manufacturing)	<ul style="list-style-type: none"> 896 (95 percent) reached the six-month retention date 	<ul style="list-style-type: none"> None provided
Tidewater Community College (VA, shipbuilding)	<ul style="list-style-type: none"> 71 percent retained job or are currently employed 45 percent are continuing in associates’ degree program 	<ul style="list-style-type: none"> None provided
University of S. Maine/Center for Workplace Learning (metals manufacturing)	<ul style="list-style-type: none"> After one year, 98 percent of incumbent workers were still employed in jobs that matched/exceeded pretraining wages After one year, 56 percent of dislocated workers were still employed in jobs that matched/exceeded pretraining wages 	<ul style="list-style-type: none"> 23 percent of incumbent workers advanced to more highly skilled jobs
Yakima Valley Opportunities Industrialization Center (WA, food processing)	<ul style="list-style-type: none"> None provided 	<ul style="list-style-type: none"> Trainees advanced into the following slots as a result of training: 13 operator positions, 6 lead positions, and 1 assistant team advisor

Table 5: Measures of Retention and Advancement

Grantee	Retention Measure	Advancement Measure
Workforce Connections, Inc. (WI, info. technology)	<ul style="list-style-type: none"> None provided 	<ul style="list-style-type: none"> 67 percent of dislocated workers in the first training cohort and 38 percent in the second training cohort reported earnings advancement after one year 16 percent of incumbents received a wage or job upgrade
Alliance for Business & Training (TN, multiple industries)	<ul style="list-style-type: none"> None provided 	<ul style="list-style-type: none"> 10 percent of participants received a promotion
Worksystems, Inc. (OR, metals manufacturing)	<ul style="list-style-type: none"> None provided 	<ul style="list-style-type: none"> 4 percent of participants were promoted
Three Rivers WIB (PA, health care)	<ul style="list-style-type: none"> None provided 	<ul style="list-style-type: none"> “All students who completed the program were promoted to new positions at increased wages.”
Antelope Valley College (CA, aerospace)	<ul style="list-style-type: none"> Follow-up data not available 	<ul style="list-style-type: none"> Follow-up data not available
Douglas Cherokee Econ. Auth. (TN, multiple industries)	<ul style="list-style-type: none"> Follow-up data not available 	<ul style="list-style-type: none"> Follow-up data not available
Cuyahoga Co. Dept. of Workforce Devel. (OH, telecom)	<ul style="list-style-type: none"> Follow-up data not available 	<ul style="list-style-type: none"> Follow-up data not available
Gulf Coast Shipbuilding Partnership (MS)	<ul style="list-style-type: none"> Follow-up data not available 	<ul style="list-style-type: none"> Follow-up data not available
Georgia Job T.I.P.S. (multiple industries)	<ul style="list-style-type: none"> Follow-up data not available 	<ul style="list-style-type: none"> Follow-up data not available
JobWorks/Plastics Technology Center (IN)	<ul style="list-style-type: none"> Follow-up data not available 	<ul style="list-style-type: none"> Follow-up data not available
Boston Private Industry Council (health care)	<ul style="list-style-type: none"> Follow-up data not available 	<ul style="list-style-type: none"> Follow-up data not available

Grantees reported statistics varying between 71 percent and 98 percent employment retention, although in some cases the retention statistic monitored continuing employment at the postprogram placement site and in other cases the statistic focused on retention of any employment. Promotion rates ranged between 6 percent and 23 percent for those grantees reporting this data. In general, while some of the grantees monitored retention and advancement closely, the majority did not. Sites that placed a relatively higher emphasis on training and placing dislocated workers appeared to have done a better job of tracking these measures than those that focused on training for incumbents. The difficulties that some grantees experienced in

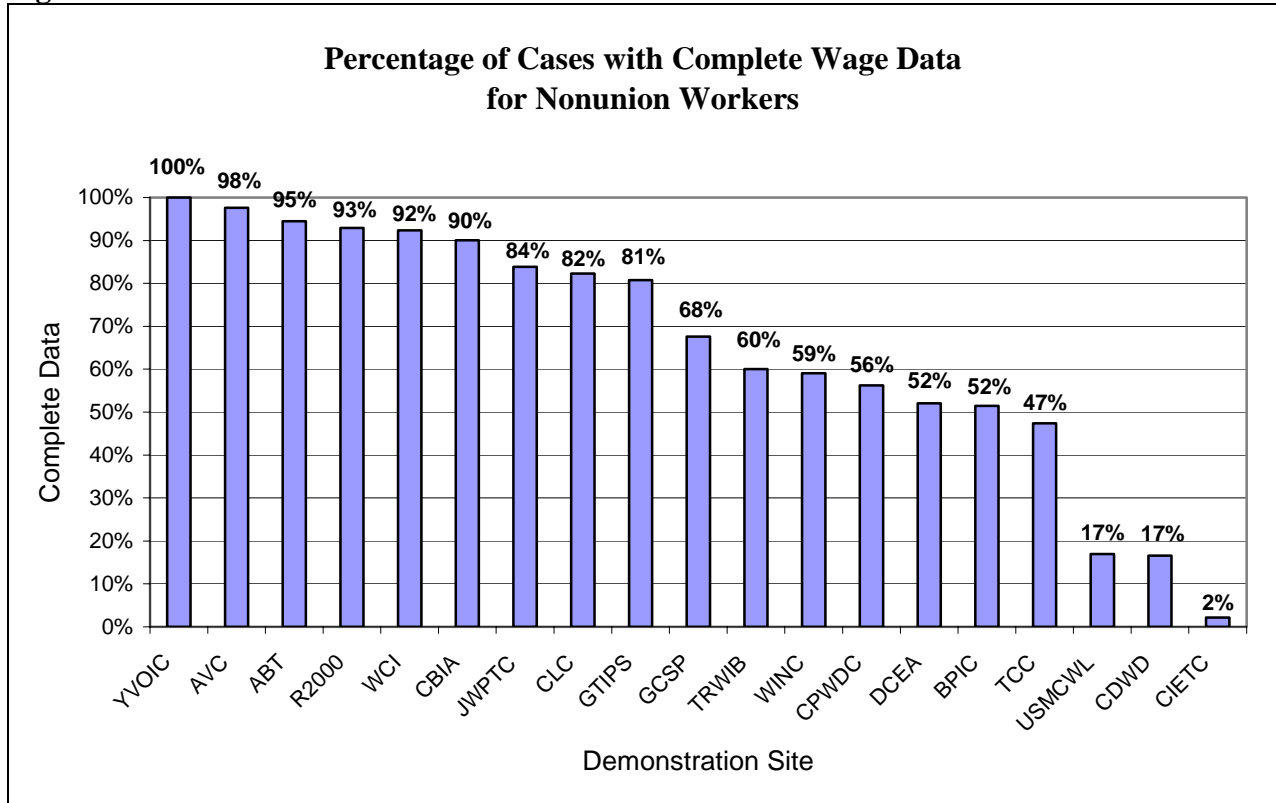
obtaining wage data for incumbent workers may have also contributed to the scarcity of data measuring the longer-term effects of training.

Income Level

As discussed in Section I of this report, demonstration sites were given considerable latitude in designing and implementing an approach that would be responsive to the needs of area employers, as long as participating firms that employed training completers committed to pay at or above the demonstration program's wage standard. That standard was either the wage level set by an existing, applicable collective bargaining agreement or the applicable lower living standard income level for a family of four in the demonstration area (LLSIL4). The LLSIL4 varied by region, by metropolitan and nonmetropolitan areas, and yet again for certain large metropolitan areas with high costs of living (e.g., New York City, San Francisco).

Calculation and analysis of this performance measure presented some problems due to the fact that many of the grantees submitted participant databases with incomplete or missing posttraining wage data. Figure 4 shows the percentage of cases for which complete data were available for analysis by site. In calculating the percentage of nonunion participants whose incomes are at or above the LLSIL4, in some instances it was not possible to clearly determine whether or not trainees were in union jobs. For the purpose of analysis, all trainees were treated as "nonunion" unless union status was specifically designated in the participant database. Because of the way the data were coded, it was also not possible to distinguish between participants who lost their jobs, did not experience a wage gain, or simply did not submit timely wage data. Because of the problems associated with interpretation, these cases have been excluded from the analysis.

Figure 4

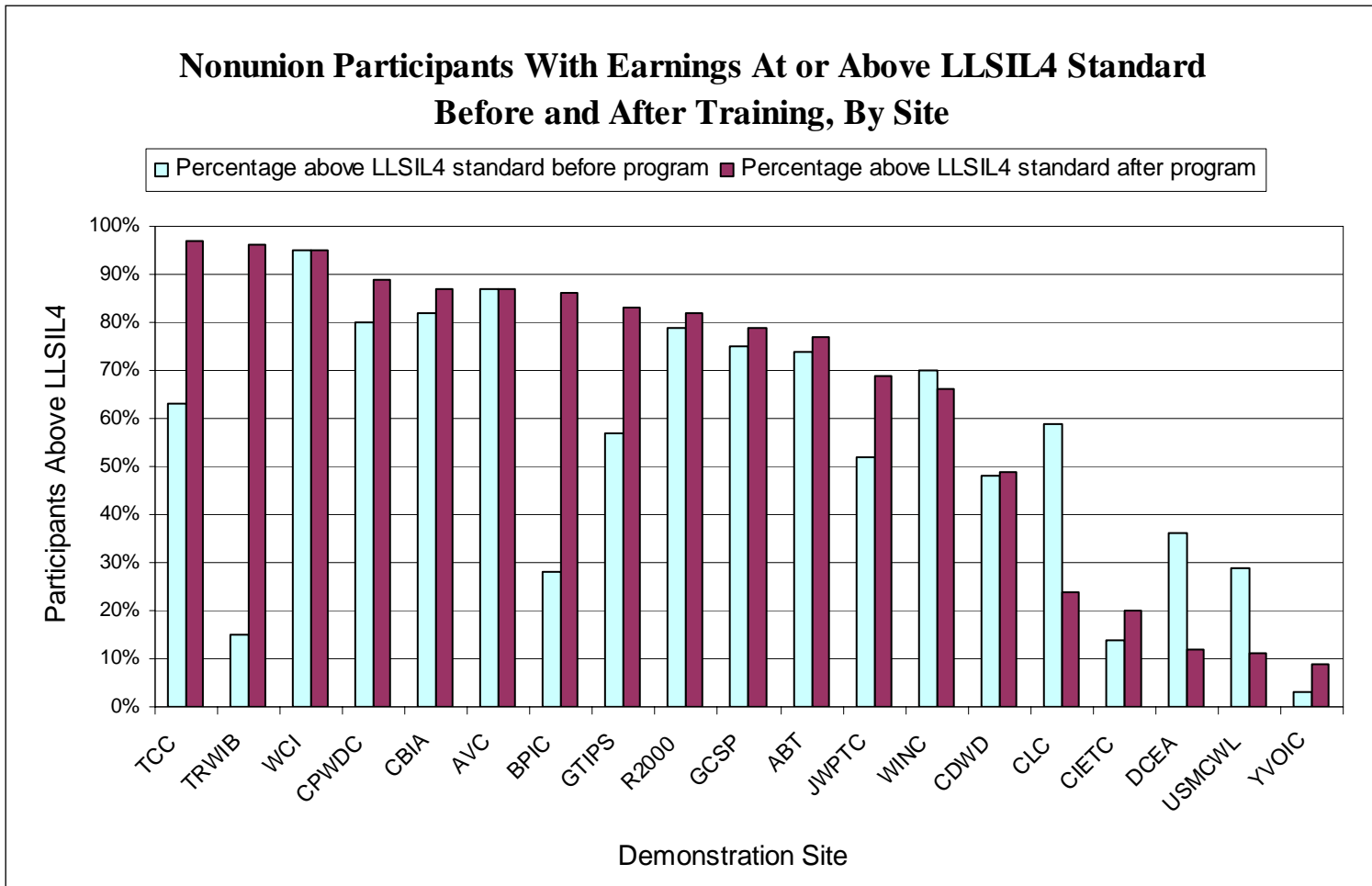


It is important to keep in mind that the outcome measures reported below are for varying proportions of the total number of dislocated and incumbent trainees at each site for which data were provided. They are not necessarily representative of the demonstration site trainees as a whole. For example, of the 5,000+ individuals who received training through the Central Iowa Employment and Training Consortium demonstration, posttraining wage data was submitted for dislocated workers only, which constitutes a very small fraction of the total number of workers trained through the project. Consequently, for this grantee the percentage reported in the sections below is actually the measure for nonunion, dislocated workers rather than for *all* trainees.

Overall Wage Levels in Relation to the LLSIL4

Figure 5 shows the percentage of all nonunion training participants (both incumbent and dislocated) earning at or above the LLSIL4 wage standard in the pretraining and posttraining periods.

Figure 5



Note: Percentages are those of only nonunion workers with one exception: Community Learning Center served only dislocated workers, some of which were placed into union jobs. Data were not available on whether previous jobs were unionized, so pretraining wages are treated as if all were nonunion. Workers with a labor union contract were not held to the LLSIL4 wage standard. University of Southern Maine/Center for Workplace Learning and the Central Iowa Employment and Training Consortium submitted disaggregated data for dislocated workers only. For these two cases, the calculations presented here are only for these dislocated workers.

Considering the change in percentage earning at or above the LLSIL4 between the pretraining and posttraining periods shown above, the grantees appear to fall into five categories. Table 5 below clusters grantees into groups and describes associated characteristics of each cluster of grantees.

Table 5: LLSIL4 Performance Categories

Significant increase in participants earning at or above LLSIL4 standard	
<ul style="list-style-type: none"> ■ Boston PIC (BPIC) ■ Georgia Job T.I.P.S. (GTIPS) ■ Three Rivers WIB (TRWIB, PA) ■ Tidewater Community College (TCC, VA) ■ JobWorks/Plastics Technology Center (JWPTC, IN) 	<p>With the exception of the JobWorks/Plastics Technology Center grantee (which had the lowest pre/post change in LLSIS4 earnings rates of the programs in this category), the programs in this category were relatively small and focused primarily on longer-term, and generally more expensive, training programs. All three grants focused on health care fall into this category.</p>
Modest increase in participants earning at or above LLSIL4 standard	
<ul style="list-style-type: none"> ■ Connecticut Business and Industry Association (CBIA) ■ Central Pennsylvania Workforce Development Corporation (CPWDC) 	<p>These mid-sized to large programs focused predominantly on incumbent workers in the manufacturing industry. Both grantees worked with relatively large employer pools.</p>
Little to no change in participants earning at or above LLSIL4 standard	
<ul style="list-style-type: none"> ■ Antelope Valley College (AVC, CA) ■ Workforce Connections, Inc. (WCI, WI) ■ Alliance for Business and Training (ABT, TN) ■ Region 2000 WIB (R2000, VA) ■ Gulf Coast Shipbuilding Partnership (GCSP, MS) ■ Worksystems, Inc. (WINC, OR) ■ Cuyahoga County Department of Workforce Development (CDWD, OH) 	<p>Two of the programs in this category focused exclusively on incumbent workers. There is no clear industry or occupational pattern in the category. Five of the programs were focused on occupations clearly offering pay at or above the LLSIL4 standard, while two of the programs were mixed in focus, with some occupational targets paying at or above the standard and other targets paying below the standard.</p>
Decline in participants earning at or above LLSIL4 standard	
<ul style="list-style-type: none"> ■ Community Learning Center (CLC, TX) ■ Douglas Cherokee Economic Authority (DCEA, TN) ■ University of S. Maine/Center for Workplace Learning (USMCWL, data represents dislocated workers only) 	<p>These mid-sized programs served a greater number and proportion of dislocated workers than average. All were manufacturing-oriented and all offered a basic-skills component.</p>
Limited opportunity for participants to reach LLSIL4 standard	
<ul style="list-style-type: none"> ■ Yakima Valley Opportunities Industrialization Center (YVOIC, WA) ■ Central Iowa Employment and Training Consortium (CIETC, data represents dislocated workers only) 	<p>Participants were more likely to meet the LLSIL4 standard after the program than before; however, the vast majority of participants' earnings were below the standard both before and after the program, and targeted occupations were below the LLSIL4 standard.</p>

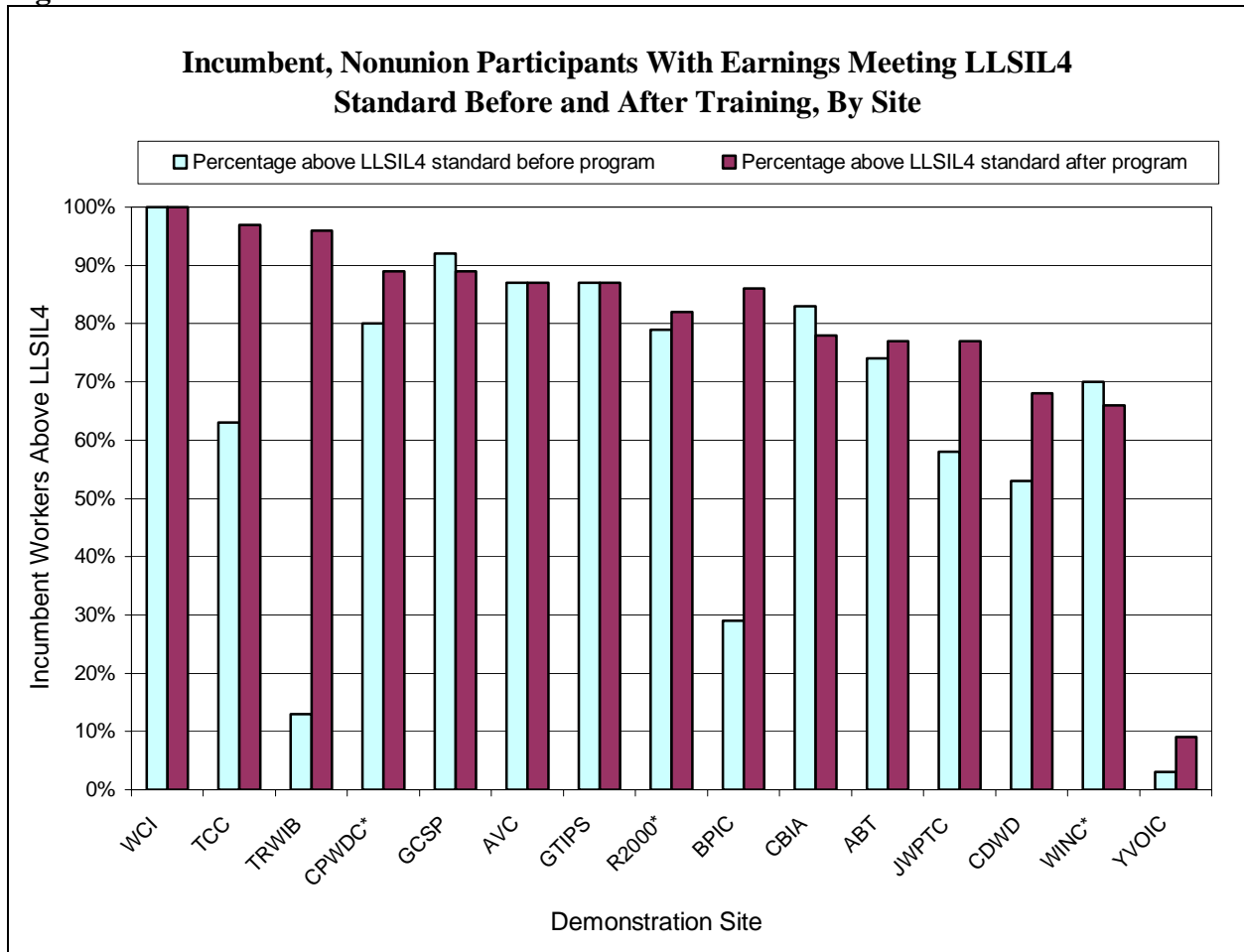
All but two grantees focused on industries that are relatively high paying in their regions. However, only eight grantees clearly focused on occupations within those industries that pay at or above the LLSIL4 standard (as reflected in labor market data). Four focused on occupations that were mixed with respect to the LLSIL4 standard—some target occupations clearly offering wages at or above the standard, and other target occupations clearly problematic with respect to starting pay. Five grantees targeted occupations that were unlikely to offer employment at or above the LLSIL4 standard.

The choice of targeted occupations clearly affected grantees' results for trainee earnings. However, selecting occupations associated with higher starting pay was not a foolproof mechanism, as some grantees selected occupations with strong earnings profiles yet struggled to meet the standard, and others made what would appear to be questionable selections yet performed comparatively well on the LLSIL4 indicator. The sections that follow explore results for incumbent and dislocated workers separately, with further discussion of the role of occupational selections in meeting LLSIL4 targets.

Incumbent Workers

Figure 6 shows the percentage of incumbent workers served at each site with posttraining earnings at or above the LLSIL4 standard.

Figure 6



Note: Community Learning Center and the Douglas Cherokee Economic Authority only served dislocated workers. The University of Southern Maine/Center for Workplace Learning and the Central Iowa Employment and Training Consortium only submitted disaggregated outcome data for dislocated workers.

*Wage data for sites labeled with an asterisk intermingle incumbent and dislocated workers served at the site (a maximum of 17% of participants at these sites were dislocated workers).

High performers. Three sites stand out as high performers for incumbent workers meeting the LLSIL4 standard. Workforce Connections, Inc. (WCI) in Wisconsin focused on high-end information technology workers, concentrating primarily on a single employer. Tidewater Community College (TCC) in Virginia targeted shipbuilding occupations, and while most of

these occupations were associated with average earnings at or above the LLSIL4 standard, several were not, including pipelayers, pipefitters, and electrical helpers. The majority of those served through the program were incumbent union workers and the program data had significant gaps, so the statistic in Figure 6 represents only a small fraction of the trainee pool. The relatively small program created by the Three Rivers WIB (TRWIB) in Pennsylvania targeted high-paying nursing occupations, but it should be noted that many participants' posttraining earnings were not available.

Moderate performers. Nine sites submitted statistics indicating that 77 percent to 89 percent of their incumbent worker trainees met the LLSIL4 standard in the posttraining period. Five of the nine focused on occupations clearly associated with wages appropriate for the LLSIL4 standard. The specific occupational focus of a sixth grantee, Georgia Job T.I.P.S. (GTIPS), was not clear, but the grantee made a mid-course correction to target health careers, so the targeted occupations likely met the LLSIL4 standard.

One grantee appears to have beaten the odds, although the data have quality issues that may result in higher estimated performance than was actually achieved. The Central Pennsylvania Workforce Development Corporation (CPWDC) targeted an industry with average wages only marginally above the LLSIL4, and of the multiple occupations targeted through the demonstration, only one was likely to surpass the LLSIL4 for the region. Data provided (for 56 percent of program participants) show that 89 percent of these workers were earning at or above the wage standard. This may be due to the demographic characteristics of the incumbent workers who received training since workers with greater years of experience with their current employer would be more likely to earn higher wages. An analysis of participant demographics would be needed to confirm this.

Two grantees achieving moderate performance for incumbent workers targeted a mix of occupations in which some were likely to result in positive LLSIL4 outcomes and others were not. The JobWorks/Plastics Technology Center grantee in Indiana (JWPTC) focused on the plastics industry, and within it, on a mix of occupations with substantial variation in starting wages. Seventy-seven percent of incumbent workers earned at or above the LLSIL4 standard in

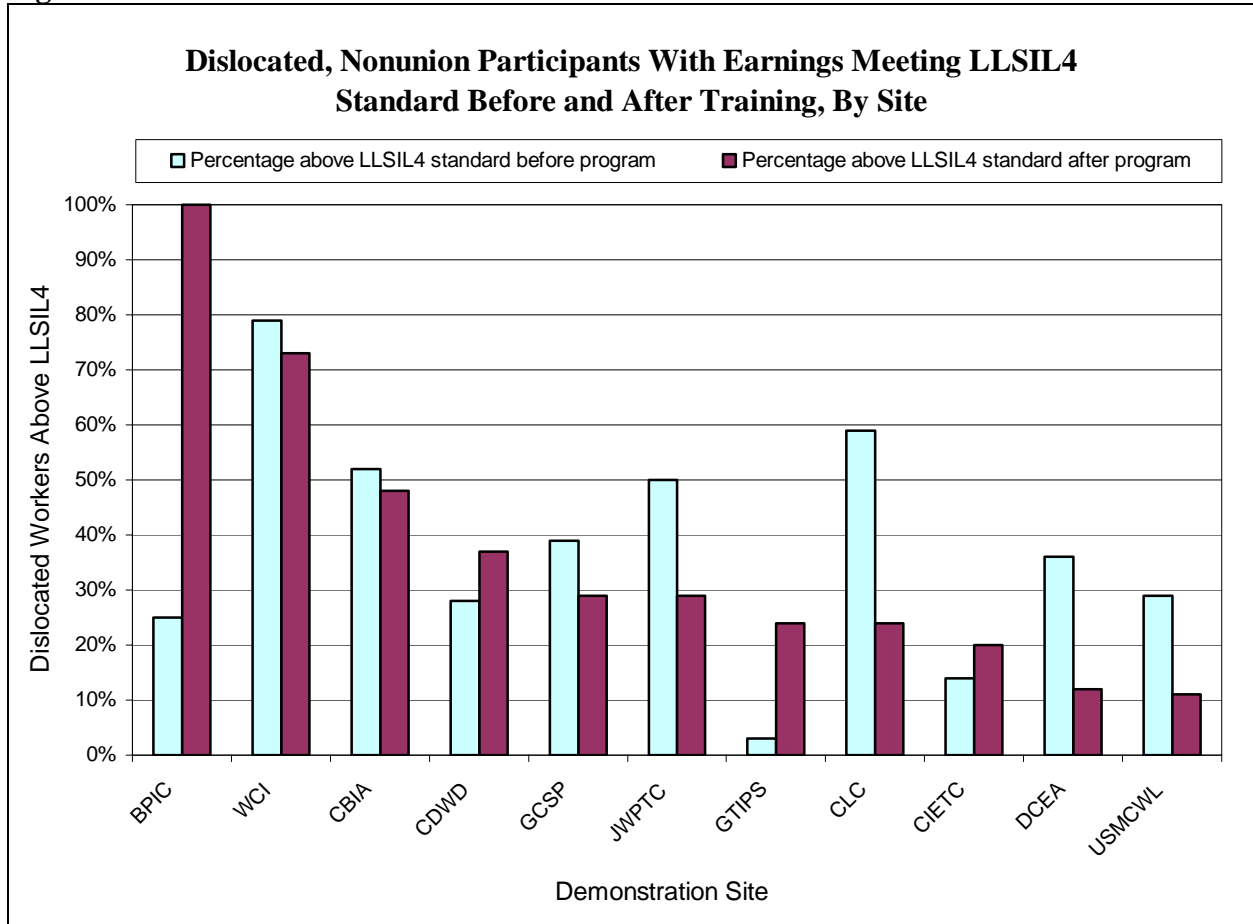
the posttraining period, representing a substantial improvement over the pretraining period. The grantee worked very closely with employers to provide specific requested skills upgrades. In this instance, the labor market data may fail to capture the upside potential for the occupations in question. The Region 2000 WIB (R2000) similarly performed moderately well despite targeting some occupations that appear questionable in terms of the LLSIL4 standard. This grantee worked particularly closely with employers and, like the Indiana grantee, found opportunities that labor market data alone could not reveal.

Sites that struggled. Three sites had relatively low fractions of their incumbent trainee pools with earnings at or above the LLSIL4 standard after training. The Cuyahoga County Workforce Development Corporation (CDWD) made a seemingly wise selection in its occupational targeting, focusing on high-paying occupations very likely to result in posttraining earnings at or above the LLSIL4 standard. However, economic forces in the region worked against the grantee: the regional unemployment rate doubled shortly after the project began, with negative impacts on the grantees' ability to meet its goals for both incumbent and dislocated workers. Worksystems, Inc. (WINC) in Oregon had a metals-manufacturing focus and worked with two area employers to create a customized curriculum for incumbent workers. The grantee's data include outcomes for 115 dislocated workers, as participant records did not identify which type of worker a trainee was. Of eight target occupations, six were associated with earnings below the LLSIL4 standard. Finally, the Yakima Valley Opportunities Industrialization Center (YVOIC) focused on the food-processing industry, offering wages only marginally above the LLSIL4, and within that industry, on occupations generally not associated with earnings at the standard. While incumbent trainees did average nearly an 8 percent earnings increase, the underlying pay scale in these occupations was not at the LLSIL4 level.

Dislocated Workers

Figure 7 shows the percentage of dislocated workers with posttraining wages at or above the LLSIL4 standard, by site. Even though 11 sites provided such training, just a few emphasized it.

Figure 7



Note: The Central Pennsylvania Workforce Development Corporation, the Region 2000 WIB, and Worksystems, Inc. percentages of dislocated workers above LLSIL4 could not be calculated because of the way the data were organized. Boston PIC had posttraining wage data for 7 of their 12 trainees, all of which were above the LLSIL4, but they did not provide pretraining wages for these workers. The Alliance for Business and Training, Antelope Valley College, Tidewater Community College, the Three Rivers WIB, and the Yakima Valley Opportunities Industrialization Center did not serve any dislocated workers.

High performers. Three grantees were able to place a substantial portion of their dislocated workers in employment at or above the LLSIL4 standard. The Boston Private Industry Council (BPIC) trained its students to enter technical medical professions. While all of the grantees' dislocated worker trainees were placed in employment at or above the LLSIL4 standard, only 12 were served through the grant. Workforce Connections, Inc. of Wisconsin (WCI) served 61 dislocated workers and placed 73 percent in information-technology jobs paying at or above the standard; with a wage-replacement rate of approximately 100 percent, it is clear that most of these workers had earned at or above the LLSIL4 standard before dislocation. Finally, the Connecticut Business and Industry Association (CBIA) served 28 dislocated workers and placed

approximately half in manufacturing positions at or above the standard. All three grantees targeted occupations likely to result in placements with appropriate wages, but these small programs served only 4 percent of the dislocated workers trained in the SS2 Demonstration.

Sites that struggled. The remainder of the grantees struggled to meet the LLSIL4 standard for their dislocated trainees. The three sites that had the greatest difficulty began with populations that had not generally been earning at the LLSIL4 standard before dislocation and additionally targeted occupations that were unlikely to help their trainees reenter the workforce at wages higher than they previously earned. The Gulf Coast Shipbuilding Partnership (GCSP) served 249 dislocated workers and targeted occupations likely to provide a starting wage at or above the LLSIL4 standard. The program had positive wage-replacement rates for dislocated workers (112 percent on average), but the ability to meet the LLSIL4 standard among nonunion placements was limited (29 percent). The JobWorks/Plastics Technology Center grantee (JWPTC) also met the wage goal for 29 percent of its dislocated participants. As described on page 44, the grantee targeted a mix of occupations, some above the standard and others below. Overall, the grantee was one of only five to substantially increase the number of participants earning wages at the LLSIL4 standard, but this success appears to be a function of highly targeted services for incumbent workers. Dislocated workers did not fare as well. Both the Gulf Coast Shipbuilding Partnership and JobWorks/Plastics Technology Center served fewer dislocated workers than originally intended.

Community Learning Center (CLC) in Fort Worth, Texas, served nearly half of all dislocated workers served in the SS2 Demonstration Program. Of four occupations targeted by the grantee, two were likely to result in placements above the wage standard and two were likely to result in placements below the standard. While only 24 percent of the trainees placed in nonunion jobs earned at or above the wage standard, 63 percent of placements were in union positions and are thus not reflected in the statistic. Furthermore, 43 percent of the placements were outside the aircraft industry: after a downturn in hiring at the primary employer partner, the grantee mounted an aggressive job-development effort that placed these trainees with more than 250 alternate companies, and the quality of follow-up data is an issue for these placements. The grantee's wage-replacement statistics show better than 90 percent wage replacement, so it would appear

that the relatively poor showing on the LLSIL4 statistic represents outcomes for a small proportion of the trainee pool that could not be placed in union jobs and could not be placed with the primary employer.

Most of the grantees made a concerted effort to provide training in industries and occupations that had a reasonable likelihood of meeting the LLSIL4 wage standard. Programs that performed best in meeting the standard were one of two types. Some appear to fit a “cherry-picking” model, working with closely targeted industries and employers and with carefully recruited participants with a strong earnings history. Other strong performers worked with relatively few participants at very high cost but were successful in meeting the wage standard even when trainees had not previously earned at that level.

There was a substantial difference in grantees’ ability to meet the standard for incumbent and dislocated workers. The handful of programs that did reasonably well in placing dislocated workers in employment at or above the standard were so small as to contribute very little to the total count of dislocated workers served. Programs that worked more extensively with dislocated workers did well to place more than 25 percent of workers in jobs meeting the wage standard. The two sites with significantly poorer performance did not target occupations likely to result in starting wages at the standard. In many cases, there were substantial missing or otherwise unusable data, limiting the evaluator’s ability to draw further conclusions.

Summary Participant Statistics

In order to facilitate consideration of program performance across the range of measurements, Table 6 consolidates participant-related statistics. Given the considerable impact of service to dislocated workers on program achievements demonstrated throughout this report, programs were clustered into four categories based on the proportion of trainees that were dislocated. The definitions of the statistics in Table 6 are as follows:

- *Participants* is the total number of dislocated and incumbent workers served and *percentage dislocated* is the number dislocated divided by the total participant count.

- *Completion/credentialing rate* is the program, course, or other completion rate, expressed as a percentage of participants, as reported by the grantee or, where credentialing rates proxy program completion, the percentage of participants that earned a certificate or other credential, as reported by the grantee.
- *Placement rate* is the percentage of dislocated workers that were placed in employment.
- *Advancement/retention statistics* were gleaned from grantees' final reports.
- *Wage replacement* is the average of dislocated workers' wages at placement divided by their wages prior to dislocation.
- *Wage gains* is the average percentage increase in incumbent-worker wages in the posttraining period.
- *Posttraining LLSIL4* is the percentage of participants (incumbent and dislocated) in nonunion employment with earnings at or above the LLSIL4 standard in the posttraining period. In some instances, grantees placed the majority of participants in union positions and this statistic indicates outcomes for a relatively small percentage of the trainee pool.
- *+/- Change, LLSIL4 Earnings* is the percentage of nonunion participants earning at or above the LLSIL4 standard in the posttraining period minus the percentage of nonunion participants earning at or above the LLSIL4 standard in the pretraining period.

Table 6: Consolidated Demonstration Performance Statistics

All numbers, with the exception of “participants,” are percentages. See page 48-49 for definitions of statistics. Statistics in **bold** indicate strong performance in the category. Statistics in *italics* indicate that underlying data is problematic or potentially misleading. NA indicates missing or inapplicable data.

Site	Participants	Percent age Dislocated	Completion/ Credentialing Rate	Placement Rate	Advancement/Retention Statistics	Wage Replacement	Wage Gains	Posttraining LLSIL4	+/- Change, LLSIL4 Earnings
Incumbent Workers Only									
Tidewater Community College (VA)	269	0	70	NA	• 71 percent retained job/currently employed	NA	9	97	34
Three Rivers WIB (PA)	40	0	80	NA	• “All students who completed the program were promoted to new positions at increased wages.”	NA	72	96	81
Antelope Valley College (CA)	661	0	34	NA	NA	NA	3	87	0
Alliance for Business and Training (TN)	1,348	0	92	NA	• 10 percent promoted	NA	6	77	3
Yakima Valley Opportunities Industrialization Center (WA)	163	0	NA	NA	• 20 trainees advanced into higher-level jobs	NA	8	9	6
Incumbent Workers > 90 Percent									
Central PA Workforce Development Corp.	1,432	2	68	NA	• 95 percent retained at least six months	NA	16	89	9
Connecticut Business & Industry Association	1,091	3	100	82	• 83 percent retained; 14 percent promoted	102	6	87	5
JobWorks/Plastics Technology Center (IN)	975	6	97	62	NA	80	21	69	17
Central Iowa Emp. & Training Consortium	5,250	3	NA	61	• 55 percent of dislocated workers retained by initial employer, 39 percent are employed elsewhere, and 6 percent report no income	<i>102</i>	<i>NA</i>	<i>20</i>	<i>6</i>
Douglas Cherokee Economic Authority (TN)	618	8	78	52	NA	<i>102</i>	<i>NA</i>	<i>12</i>	<i>-24</i>
Incumbent Workers 80 Percent – 90 Percent									
Boston Private Industry Council	99	12	42	58	NA	NA	52	86	58
Georgia Job T.I.P.S.	183	16	49	65	NA	99	4	83	26

Table 6: Consolidated Demonstration Performance Statistics

All numbers, with the exception of “participants,” are percentages. See page 48-49 for definitions of statistics. Statistics in **bold** indicate strong performance in the category. Statistics in *italics* indicate that underlying data is problematic or potentially misleading. NA indicates missing or inapplicable data.

Site	Participants	Percent age Dislocated	Completion/ Credentialing Rate	Placement Rate	Advancement/Retention Statistics	Wage Replacement	Wage Gains	Posttraining LLSIL4	+/- Change, LLSIL4 Earnings
Region 2000 WIB (VA)	1,390	18	41	NA	<ul style="list-style-type: none"> • 92 percent hired/retained • 19 percent experienced a change in responsibility • 6 percent promoted 	NA	12	82	3
Gulf Coast Shipbuilding Partnership (MS)	1,840	14	60	43	NA	119	6	79	4
Worksystems, Inc. (OR)	887	13	NA	NA	• 4 percent of participants were promoted	NA	4	66	-4
Substantial Dislocated Workers Served (24 Percent – 100 Percent)									
Workforce Connections, Inc. (WI)	261	24	NA	67	<ul style="list-style-type: none"> • 67 percent of dislocated workers in the first training cohort and 38 percent in the second training cohort reported earnings advancement after one year 	101	<i>16⁶</i>	95	0
Cuyahoga Co. Dept. of Workforce Devel. (OH)	169	61	80	24	NA	NA	8	49	1
Community Learning Center (TX)	1,128	100	88	72	NA	95	NA	24	-35
University of S. Maine/Center for Workplace Learning	685	31	NA	53	<ul style="list-style-type: none"> • 98 percent retained at least one year with wages at or exceeding pretraining⁷ • 56 percent of dislocated workers retained at least one year with wages at or exceeding pretraining • 23 percent of incumbents advanced to more highly skilled jobs 	85	NA	<i>11</i>	<i>-18</i>

⁶ The grantee’s final report states that 16 percent of incumbent workers received a wage *or* job upgrade.

⁷ Although this language is taken from the grantee’s final report, the statistic must refer to incumbent workers only for the remaining figures to be mathematically possible.

As shown in Table 6, none of the grantees excelled in all categories. One of the apparent tradeoffs is placement versus wages for dislocated workers: from the statistics, it appears that grantees with stronger placement rates made compromises on starting wages, and vice versa. Another clear trend is that programs serving larger numbers of participants were less likely to report a substantial increase in the proportion of trainees earning at or above the LLSIL4 standard.

Outcomes for Employers

The SS2 Demonstration Program served two primary stakeholder groups. Thus far, this report has examined the impact that the demonstrations had on training participants. However, a demand-driven system is intended to be highly responsive to the needs of employers. Deciding how to measure the overall impact of the demonstrations on participating employers was left to the grantees. The majority of the sites did not directly measure business impact. Those that did, approached the task in a variety of ways.

Productivity Enhancements

The Region 2000 WIB developed fourteen company-productivity measures for use in tracking business impacts—the most substantial effort to measure business impacts of all grantees. Ten of the 14 measures showed improvements, including increases in products without defects, plant “up time,” man weeks of cross utilization, employee retention, percentage of goal for production orders, earnings before interest and taxes, production rates, and average sales-to-inventory ratio. In addition, the grantee reported that some companies noticed a reduced need to hire outside vendors, and that one company credited the training for helping to expand the global market for company products. Region 2000 is a maturing workforce/economic-development partnership that selected the companies it would work with by asking them to submit proposals describing their skills shortages.

Several other grantees reported specific business improvements, albeit without hard numbers. The Central Iowa Employment and Training Consortium, which provided lean-manufacturing training through its grant, reported that employers had sales increases of between 5 percent and

25 percent and that the size of the labor force at one company had increased by 31 percent. The Alliance for Business and Training in Tennessee also provided a general statement of positive outcomes achieved, including business and market expansion, increased customer satisfaction, decreased machinery downtime, reduced loss of manufacturing time, increased productivity and efficiency, reduced levels of scrap and waste products, and reduced or eliminated contract labor. At Antelope Valley College, one employer stated that the \$30,000 of training provided by the grant led to a \$150,000 savings to the contractor.

Some grantees working with a smaller number of employers (or only one) reported company-specific process improvements. The Boston PIC, working with a consortium of three health care employers, reported that a participating hospital's medical imaging unit calculated the revenue that would have been lost at units that would have gone unstaffed but for the program. The additional staff capacity provided by the training also allowed the organizations to reserve higher-level staff for more advanced patient interactions, thereby improving patient care. Worksystems, Inc. partnered with a single employer in need of trained information-technology professionals. The company noted an 85 percent internal vacancy reduction and improved its timeliness, with 59 percent of new products released early or on time. The company also increased its net earnings.

The remaining grantees did not report any measures of the effect of training on participating businesses, although several alluded to other benefits associated with employer investment in training, including improved employee morale and a general strengthening of the workforce that would enable an employer to respond quickly to a new contract and/or general upturn in the economy.

Employer Satisfaction

While many of the sites were conscious of the need to meet employer needs, just a few used a systematic approach to assessing employer satisfaction. Antelope Valley College conducted an employer survey, but did it was midway through the demonstration and used the findings as a tool for continuous improvement. The University of Southern Maine/Center for Workplace

Learning also conducted a survey of employers. Most respondents rated quality as either excellent or good. When asked if there were services they would like to see the grantee continue to provide, 78 percent said “yes” and identified specific skills-training needs. Employers who participated in an end-of-project meeting stated that the project allowed their companies to provide training that was badly needed by smaller firms, noting that these firms cannot afford to provide sufficient training, especially with a weak economy. Employers also observed that the training helped improve company productivity by training employees to run machinery that otherwise would have been idle due to a lack of knowledge about how it operated. Finally, employers were pleased with the high-level training provided through the grant that was not available anywhere else. Overall, the brokering function played by the grant helped to connect employers with a range of education and training resources that otherwise would have gone untapped.

Other evidence of employer satisfaction comes from observations regarding changes in employer behavior that can be attributed to participation in demonstration grant activities. For example:

- At the University of Southern Maine/Center for Workplace Learning, one company made plans to continue offering college courses for employees, having first done so through the grant.
- At Worksystems, Inc. in Oregon, two major aerospace companies plan to continue to use the customized curriculum developed through the project, allowing a wide range of incumbent workers to access training. One company (Boeing) has replicated some of the training at other plants.
- In response to continuing employer demand for higher-level training programs, following the conclusion of the Antelope Valley College demonstration, the college created an adult education center dedicated to meeting the needs of aerospace industry companies in the region.

- Because of the high demand for licensed practical nurses, registered nurses, and other allied health professionals, and based on the experience gained through the demonstration project, Three Rivers WIB health care employers continue to be interested in testing methods designed to help trainees complete training programs as quickly as possible.

One real test of employer satisfaction is whether employers are willing to pay for training following the completion of the grant period. The findings suggest that many employers are still in a relatively early phase of thinking about the impact that training may have on company profitability. However, employers at several demonstration sites took specific steps to institutionalize incumbent worker training policies and instituted new training programs. For example:

- As a result of the Boston PIC health care program, several member institutions in one hospital system combined several separate scholarship and incentive programs into one loan-forgiveness program with standard policies and a standard application process. In addition, the organization established a designated staff member, known as a sourcing specialist, to help coordinate the program.
- At Tidewater Community College in Virginia, as an outgrowth of the demonstration, one major employer contracted with the college to plan and facilitate a new apprenticeship program at the shipyard.
- Employers who experienced the benefits of the Gulf Coast Shipbuilding Partnership program are very enthusiastic about the quality of the training and expressed a willingness to subsidize subsequent training programs.
- One of the primary lessons for the Workforce Connections, Inc. staff was the discovery that technology companies are huge users of high-end training and are willing to invest in incumbent worker training. The area WIB will consider this lesson as it plans to take a broader sectoral view in subsequent training endeavors.

As described above, as a result of experience with the SS2 Demonstration, several employers are now thinking far more seriously about the value of investing in worker training. However, considering the scope of the demonstration and the hundreds of employers who were involved, it is clear that much remains to be done to help employers recognize the many ways individual companies and regions stand to benefit from continued investments in training for both incumbent and dislocated workers.

Program Costs

It is difficult to accurately calculate program costs and cost effectiveness for the demonstrations due to the variation in project goals and approaches. This task is made even more difficult because of the potential unknown numbers of incumbent workers who may have received training through the grants. A further complication in this calculation is the varying amounts of additional funds leveraged by grantees, such as state grants, employer in-kind contributions, etc.

Variations in Approach

The intensity of training at each site varied considerably. For example, the Central Pennsylvania Workforce Development Corporation offered a number of different training programs and allowed and encouraged trainees to enroll in multiple, short-term trainings. Similarly, with a lean-manufacturing focus, the Connecticut Business and Industry Association and the Central Iowa Employment Training Consortium could reach large numbers of trainees in participating firms for very short-term training. In contrast, both the Three Rivers WIB and the Boston PIC offered longer-term health care training.

Some grantees placed greater emphasis than others on the development of curriculum materials and other system-building initiatives. The Yakima Valley Opportunities Industrialization Center, working in the food processing industry, discovered that training manuals and the documentation for its production equipment were not available as anticipated. As a result, the grantee reconceived the entire curriculum before delivering training. In contrast, several other sites used grant funds to subsidize training that was delivered by equipment vendors and experts with established connections to participating companies.

The demonstrations also varied in the approach taken to serve individual participants, including a greater or lesser emphasis on individual assessments, basic and foundational skills training, and case management services. Furthermore, the cost of the training also varied, with higher-level technical skills training, basic skills training, Web-based learning modules, and OJT as part of the training mix.

Leveraged Funds

In many instances, grant funds were used to leverage investments from other sources. In some cases, the additional funds were used to support the grant-funded programs:

- At the University of Southern Maine/Center for Workplace Learning site, companies were asked to contribute what they could, with a guideline of \$100 per student. Companies participating in the program contributed over \$96,000 in in-kind contributions.
- The Three Rivers WIB used \$50,000 from the grant to leverage an additional \$140,000 from area funders to provide the remaining 47 percent of the funds needed to underwrite a customized supervisory curriculum offered by a community-based organization.
- At Worksystems, Inc., two companies underwrote the cost for four company instructors to assist in various aspects of the training program.
- The Connecticut Business and Industry Association calculated the in-kind match, defined as salaries of individuals while training on company time, at \$878,260. In addition, employers contributed training space, paid for training materials and books, contributed time to participate in monthly planning/advisory committee meetings, contributed time to serve on three request for proposal (RFP) selection committees, and spent countless hours on program development, implementation, and data collection on behalf of their employees.
- For JobWorks/Plastics Technology Center, a community foundation provided financial support covering virtually all facility costs, and the grant was used only to fund instructional activities. Companies contributed equipment to the Center with an estimated value of more

than \$35,000. (Following the conclusion of the grant, the Plastics Technology Center became associated with Tri-State University, which received a \$750,000 grant from the Lilly Endowment for developing and expanding internship and job-placement programs. A portion of the funds will be used to enhance and expand advanced training programs at the Center.)

In other cases, leveraged funds allowed grantees to continue the programs beyond the demonstration period:

- The Central Pennsylvania Workforce Development Corporation did not have resources to permanently implement the demonstration, but did receive a number of smaller state-funded and federally funded awards to begin building industry partnerships and respond to training needs.

- The performance of the Community Learning Center's Aerospace Industry Training Partnership was recognized and rewarded by USDOL in the form of a discretionary grant for enhancing and expanding the project.

As these examples illustrate, the grantees experienced varying levels of success in leveraging additional funds and resources during and following the demonstrations.

Summary

There was tremendous variation among the demonstration sites in what they sought to accomplish, how they approached the challenge of meeting project goals and objectives, and what they achieved in terms of the scope, intensity, and duration of training programs. Differences in program goals make direct comparisons of training participant outcomes difficult. As a result, frequently used measures such as wage gains, retention rates, and advancement may or may not be applicable to any given site.

Program or course completion and credentialing rates were variable and the diversity of measures used makes identification of high and low performers problematic. Sites struggled with placement, particularly into high-wage employment, for dislocated workers. While site-specific wage-replacement rates averaged nearly 100 percent, placement rates were significantly lower and many programs reported a drop in the percentage of trainees earning wages at the LLSIL4 standard between the pretraining and posttraining periods. Incumbent workers fared better: most received a modest raise, and the data suggest that most earned wages at the LLSIL4 standard in both the pretraining and posttraining periods. For the most part, the LLSIL4 wage standard was effective in focusing attention on higher-wage, higher-skill jobs and related training requirements. At many sites, considerable numbers of incumbent workers who already had relatively high incomes (in excess of \$40,000) received grant-funded training. Other sites complained that the wage standard resulted in denying training to low-wage workers who may have been most in need. Furthermore, many sites viewed the wage standard as problematic due to the many other factors that employers consider (e.g., seniority, performance, labor market conditions) in setting wages for individual workers. Most employers that participated were satisfied with the benefits they received through the demonstration program, opening the door for continued partnerships with project partners.

This section has provided a detailed examination of the participant data for the demonstration sites as well as a summary of promising practices and lessons learned. The next sections reflect on the lessons learned through the SS2 Demonstration and related policy implications.

Section IV: Lessons Learned

This section summarizes some of the strategic and operational lessons about working with employers that were learned through the demonstrations.

Strategic Lessons

- Flexibility is a necessity in responding to changing labor market demand. The dynamics of the economy make it difficult to anticipate changes that may decrease the demand for workers with a particular skill set or open up an entirely new area where training is needed.
- Large companies that are major employers in local communities may be attractive targets for workforce development because of the contribution they make to stabilizing or improving the local economy. However, they may not necessarily offer high-wage jobs. Targeting regionally important companies that offer opportunities for high-wage jobs creates a win-win situation for employers and employees.
- Single-employer projects are attractive because they increase the ability to get a sharper focus on the needs of the targeted employer. However, if economic conditions change, there is an increased risk that dislocated worker trainees will not have marketable skills.
- There is a need to think strategically and be clear about outcome expectations and how they will be measured when investing public dollars. For example, incumbent worker training may not have a measurable effect on employee wages but might make a difference in helping an important regional employer remain competitive.
- Wage gains are considered an important measure of the effectiveness of workforce development investments. Yet, several grantees sought training to avert layoffs and plant closings and had low expectations for wage gains. Furthermore, for sites with wage gains, it is difficult to determine the extent to which training directly contributed to the gains.

- Labor market data is important, but not necessarily a definitive source of information about local conditions. By working closely with employers, it is possible to find opportunities that labor market data alone may not reveal.
- Training that is overly narrow may benefit an employer but provides employees with little of value in terms of future career advancement.
- The brokering function played by intermediary organizations helps to connect employers with a range of education and training resources that otherwise may go untapped.
- Employer hiring decisions are driven primarily by business conditions, which overshadow other considerations, including previous declarations of intent to hire workers with designated skills training. As a result, it is wise to have alternative plans for placing trainees in the event that anticipated employer demand fails to materialize.
- Many employers are still in a relatively early phase of thinking about the impact that training may have on company profitability. In order for employers to see the value of investing in employee training, they must see how that investment will directly improve the company's competitiveness and profitability. Thus wage increases may be of interest to the workforce system not necessarily to employers, making it even more difficult to obtain wage data for reporting purposes.
- Short-term training may be valuable in helping employees to become more productive workers, but may have limited individual value in the open job market. A longer-term view of education, training, and career development positions adult workers for future career opportunities. Training leading to industry-recognized certifications provides benefits to employers as well as participants.
- Decisions about targeted occupations are likely to affect trainee earnings. However, selecting occupations associated with higher starting pay is not a foolproof mechanism. For example, employers may not be willing to pay relatively high starting wages for employees

with limited job experience or limited tenure with an employer. Technical skills alone may not be sufficient to make dislocated workers competitive for available positions unless they also have the requisite experience and soft skills needed to be an effective team member.

- Manufacturing employers may be aware of the impending need to replace their aging workforce, but may not view investments in training as a strategy for making that transition. Alternative strategies for knowledge transfer within these companies need to be actively promoted.
- One of the apparent tradeoffs is placement versus wages for dislocated workers. Funding more intensive training programs required for certain high-wage, high-demand occupations such as those in health care, may result in higher placement rates, but will reduce the total number of individuals who can be served with available funds.
- Despite their willingness to take advantage of publicly funded training, much remains to be done to help employers recognize the many ways individual companies and regions stand to benefit from continued investments in training for both incumbent and dislocated workers.

Operational Lessons

- Having a designated employee (manager, union member, human resources staff person) serve as an on-site champion for incumbent worker training can improve the quality of information about training needs, hence the ability to target training to meet employer needs.
- For longer-term training programs such as those in health care that have specific entry requirements and academic prerequisites, providing information and funds for training and related expenses may not be sufficient, particularly for incumbent workers who are trying to juggle work, family, and school. Case management-type services can provide a welcome source of support that may also improve program completion rates. Due to the intensity of employer demand for trainees with highly technical skills, employers may be willing to absorb some of these added costs, particularly if measurable improvements are shown.

- The use of career and training plans for individual incumbent workers helps to ensure that, when they complete training, they will possess the skills needed to advance in a chosen career direction.
- Effective project management techniques are essential in order to build and maintain working relationships with employers and other community partners.
- Creating an evaluation plan, including measures, data collection tools, timelines, data sources, and an electronic database (e.g., MS Excel) in the earliest stages of an initiative helps to ensure that the necessary data is collected and will be available on a regular basis to inform continuous-improvement discussions.
- Employers need to have a clear understanding of the data needed to measure the effectiveness of training and the impact of training on their firms. If these measures include wages, plans must be made to share that data in a manner that protects the confidentiality of individual workers.

Section V: Conclusions and Implications

This section provides a synthesis and interpretation of the overall findings of the multisite evaluation of the SS2 Demonstration Program. It begins with a review of the research questions and moves to an examination of several themes that arose through the cross-site analysis of the case study and participant data.

Research Questions

This report began with a set of research questions that were used to frame the evaluation. The data provide a foundation for reflecting on those questions and identifying lessons learned through the study. The questions are presented and discussed below.

To what extent did the demonstration program offerings affect the skill levels of incumbent and dislocated workers?

Incumbent workers were the primary focus of the SS2 Demonstration, and this emphasis became more pronounced over the course of the demonstration. Factors that contributed to this shift included a downturn in the economy, increasing unemployment, and difficulties getting employers to agree to meet the LLSIL4 wage standard for new hires. The majority of incumbent workers received short-term, highly customized training that addressed a mix of soft, basic, and technical skills. There was limited evidence of training leading to industry-recognized certifications and limited efforts to assess the effectiveness of training on workers from the perspective of supervisory staff. Thus, there is little quantifiable evidence available with which to render judgment of the effect of the programs on worker skills.

It is important to note that dislocated workers comprised only 13 percent of the participant pool. While dislocated workers' experiences in the SS2 Demonstration often varied substantially from those of incumbent workers, in a discussion of skill gains there is little distinction between the two participant types. Data limitations also prevent any firm conclusions on how dislocated workers' skills were affected by their participation in the program.

What approaches were most effective in providing incumbent and dislocated workers with the skills needed to enter or advance in employment in high-wage, high-demand occupations?

Most grantees found that it was difficult to place dislocated workers into high-wage, high-demand occupations, so much so that they submitted project modifications that shifted emphasis to training incumbent workers. Although the SGA required grantees to submit letters from employers documenting the demand for training and the intent to meet the wage standard, the evidence shows that most grantees were unable to fully meet the wage standard, and a few grantees appeared to ignore the requirement. There was also evidence that, despite efforts to target specific industry sectors and occupations, the dislocated workers who completed training programs were not necessarily placed into industry-related jobs.

Because of the targeted, short-term nature of much of the training offered at most sites, there were limited data showing incumbent worker training leading to promotions. Furthermore, it appears that significant numbers of incumbent workers had several years of tenure with their employers and were already at or above the LLSIL4 prior to training. The sites that were most effective in terms of increasing the proportion of trainees who met or exceeded the wage standard approached the task strategically. They identified high-wage industries and occupations, worked with employers to identify specific skill sets, created customized curricula, and, in some cases, worked with employees to develop and implement specific, individualized career plans. Sites that were less effective were not as strategic in their approaches to organizing training on a company and individual basis. Some of the key correlates of achievement in this category, accordingly, were program size and cost: the attention successful grantees paid to developing a tailored skill-development process for specific employers meant that fewer individuals received training, and on a dollar-for-dollar basis, the programs that were most successful in moving trainees from low-wage positions into LLSIL4 employment were several times more costly than those that were less successful.

To what extent did the trainings affect the skills, employment, and advancement opportunities of incumbent and dislocated workers and earnings of low-income populations?

A handful of sites concentrated their efforts on a relatively small training pool, and in these instances, many individual participants gained new skills, credentials, and positions, with

substantial improvement in earning power. However, most sites focused on short-term training, and there was limited evidence that the training provided employees with industry-specific certifications or other documented assets that would provide low-wage workers with credentials needed for career progression at current and future employers. The average incumbent worker served in the program experienced a 6 percent wage increase, a respectable increase given the form and duration of most training programs. While the limited data available suggests that most dislocated workers who were placed in employment came close to replacing their predislocation wages, placement was a challenge and several placements were not training-related. Most grantees were effective in targeting at least some occupations that were likely to permit earnings at or above the LLSIL4 standard, although in many cases, labor market data alone was inadequate to identify promising occupational paths.

Relatively few low-income workers participated in the program; most sites targeted and served workers with a history of high-wage employment. While the successes of a handful of sites demonstrate that it is possible to transition low-wage employees into high-wage, high-demand employment through a demonstration program, multiple barriers to addressing the needs of low-income populations emerged in the SS2 Demonstration. Employers identified factors that come into play in making placement and advancement decisions that training cannot address, such as seniority and proven performance. The demonstrations further shed light on the fact that many employers, particularly those in small and medium-sized businesses with limited human resources staff capacity, have not identified clear career paths that link experience, training, and performance. This suggests that there is a need to help employers recognize the need for and advantages associated with this approach, and to offer them implementation assistance.

Were the skills shortages of the targeted industries and employers addressed to their satisfaction?

The grantees that collected data on employer satisfaction reported that most employers were very satisfied. In addition to addressing specific skills shortages, several employers recognized the value of establishing connections with workforce development system partners and planned to continue tapping into networks of training providers that were established during the grant period.

There was a considerable amount of anecdotal evidence of employer satisfaction, most related to changes in company behavior, such as the coordination of training-related employee benefits and identification of career ladders, both of which were a direct result of involvement in the demonstrations.

There was also limited evidence of actual business impact, such as production efficiency, company profitability, timeliness of product delivery, and product quality. This is not to say that the trainings failed to influence these measures, only that it was seldom measured or used to document the effectiveness of the overall approach. However, it is important to remember that some training (e.g., lean manufacturing) is more conducive to these types of measures than others (e.g., supervisory skills). Nevertheless, it is clear that greater emphasis needs to be placed on measuring, monitoring, and disseminating information about the advantage of including workforce development as a component in sector-focused initiatives.

How do project costs compare with projected and actual performance outcomes?

At most sites, the goals for serving dislocated workers were revised downward due to changes in business conditions that made it difficult to find employers willing to hire trainees. Usually, the grantees attempted to compensate for this shortfall by increasing the overall targets for the number of incumbent worker participants. Most sites subsequently met or exceeded their incumbent worker training goals and fell short of goals for training dislocated workers.

The level of intensity of training varied considerably both within and across sites, making direct comparisons of costs versus outcomes difficult. It was also difficult to make direct comparisons of costs because of variations in investment in building employer consortia and in the amount of funds and other resources that were leveraged, including state and local grant dollars, foundation funds, and employer in-kind and cash contributions.

Several themes related to the strategic goals of the Demonstration emerged through the evaluation. These are discussed below.

Use of the LLSIL4 Wage Standard

The LLSIL4 was a high standard that drove many aspects of employer recruiting, curriculum design, and employee training. Most sites took the LLSIL4 requirement very seriously. The evaluation findings suggest that the LLSIL4 influenced project strategy in numerous ways. From the outset, the wage requirement affected which employers were involved and, in conjunction with the economic downturn, tended to shift the emphasis in many projects from dislocated to incumbent workers. Based upon the labor market analysis that was conducted for each site, most targeted industry sectors and occupations with average wages at or above the LLSIL4, but the LLSIL4 strategy varied. At some sites, the LLSIL4 served as the criteria for identifying occupations that offered dislocated workers an opportunity to be placed in jobs at or above the LLSIL4. However, several grantees quickly learned that skills training alone was not sufficient to guarantee dislocated workers placement in jobs with wages high enough to meet the wage requirement. Feedback from employers made it clear that workers receiving that level of pay had several years of tenure with their employers and had a proven track record of productivity with the employing firm. Moreover, with the downturn in the economy, and growing levels of unemployment, there was little incentive for employers to pay premium wages for new employees.

Several sites demonstrated great effectiveness in moving workers into higher-paying jobs that met the wage criteria. Two or three sites were particularly noteworthy, experiencing substantial success in positioning the vast majority of those trained to receive wage increases to levels at or above the standard. The two sites that provided long-term training leading to occupations in the health care sector also demonstrated success in this regard. The exceedingly high demand for allied health professionals, coupled with the high-level training needed to qualify for licensure, resulted in wages well above the wage standard.

In other instances, the LLSIL4 appeared to be used as a qualification for program participation for incumbent workers. At several sites, the majority of the trainees, who were primarily incumbent workers, were already at or above the LLSIL4 before participating in any of the

training offered through the demonstrations. At these sites, there was little or no change in wages following training.

There were also a few sites where the grantees appeared to pay minimal attention to the LLSIL4 standard, targeting occupations with a low likelihood of meeting the wage standard. In several cases, the broad industry sector that was targeted was relatively high paying in comparison to other regional industries, while the occupations targeted for training were comparatively low-wage jobs, suggesting that the grantees may not have done sufficient labor market research prior to identifying targeted occupations that were consistent with the requirements of the SS2 Demonstration Program. Even with relatively high wage-replacement rates or significant average wage increases, these sites were still considered low performers from an LLSIL4 perspective.

In summary, the LLSIL4 wage requirement drew attention to the need to address the broad range of skill sets required for high-wage, high-demand occupations in targeted industries and occupations. From a strategic perspective, the standard could be a useful tool for selecting industries, employers, and occupations for investment in technical training that would support the stability and growth of the industry and position individual employees to make a self-sustaining wage. Since the LLSIL has a history of being used in the workforce system as a wage ceiling for eligibility for services, the notion of using a multiplier of the LLSIL as a standard to be met or exceeded regardless of family size represents a significant shift in thinking. By focusing resources on addressing higher-level skill needs, the value of workforce system partners to employers increases and broadens. The demonstrations suggest that this is relatively new territory from a strategic point of view, offering many different strategic options from a leveraging perspective. As increased emphasis is placed on incumbent worker training under WIA, it will be important to encourage workforce boards to think and act strategically in regard to the reasons for targeting specific industries, the rationale for serving specific employers, and the anticipated effect of investments in training on short- and longer-term retention, advancement, wages, and other expected outcomes.

Meeting the Needs of Low-Wage Workers

One of the direct outgrowths of the wage standard was a shift in emphasis to incumbent workers. While it required some effort, all sites were able to identify firms that faced employee skills shortages and recognized the strategic advantage of engaging in workforce training. Economic pressures, internal concerns about productivity and efficiency, technological innovations, and the growing emphasis on work teams and cross training have raised expectations for individual skills and performance at all levels of organization. These trends put low-skilled, low-wage workers at risk of losing their jobs. One consequence of this situation is that participation in training is not necessarily linked to wage increases. To the contrary, from the perspective of several employers, continued employment was one of the primary benefits for those who completed training.

The short-term nature of the training provided through most of the demonstrations made it less likely that low-wage, low-skilled incumbent workers would gain sufficient skills to qualify for promotions. One telltale sign of this fact was that very few grantees used promotions as an outcome measure. Furthermore, only a small proportion of grantees appeared to have offered training programs leading to industry-linked certifications. Some grantees tracked benefits to employers in the sense of improved efficiency, quality, and timeliness. However, the lack of certifications raises serious questions about the longer-term value of the training to workers hoping to compete for higher-paying jobs with more responsibility in current or future companies.

The wage requirement seemed to amplify the fact that training alone was not sufficient to guarantee high-wage placements for dislocated workers. However, there were very few examples of apprenticeship-type programs, despite a growing need among manufacturing employers to deal with the anticipated loss of highly experienced workers that are nearing retirement. There is no doubt that in order for the low-wage, low-skill workers to advance quickly enough to meet the needs of employers, a greater emphasis on the apprenticeship concept is needed. The experience of several participating employers suggests that employers are at risk of completely losing use of specific production machinery, along with the associated negative effects on company productivity and competitiveness. Employers need to

institutionalize organizational knowledge transfer while continuing to infuse more advanced technical skills through external training vendors.

Another lesson that emerged from the demonstrations is related to the broader challenges facing low-income workers who must balance work and family responsibilities with classroom schedules and assignments. Even though funds may be available to pay the costs of tuition and related training expenses, these other responsibilities are sources of additional stress that must be managed in order to successfully complete training programs. Efforts to address the need for other social supports, particularly case management services, were critical to completing the longer-term training programs offered by two of the demonstrations that targeted high-demand, health care occupations. For employers experiencing acute skills shortages, this approach may be necessary to ensure the continued quality of products and services.

While few of the projects served significant numbers of dislocated workers, the establishment of connections with employers through incumbent worker training programs should open the door to other placement opportunities when the economy rebounds. In several sites, employers had only a weak understanding of the services available through the workforce system and even weaker connections with local training providers. Because of their experience with the demonstrations, many employers are now more inclined to work through project partners to address workforce development needs.

Expectations for Upward Mobility

Employers, particularly those involved only in incumbent worker training, were the fortunate recipients of training underwritten with public tax dollars. There was a consensus among employers that without the demonstration grant funds, training would have been undertaken on a much smaller scale and slower pace, if at all. According to interviews conducted with incumbent workers at several sites, they had no illusions about the benefits of participation. They recognized that the short-term nature of the training programs would enhance their skills but would be unlikely to lead to immediate, significant changes in job title or salary.

It is unclear how many of the trainees made conscious efforts to pursue subsequent training designed to prepare them for specific advancement opportunities, with the exception of Tidewater Community College, where the development and use of a career plan was used as a performance measure. Overall, TCC reported that 45 percent of participants pursued additional training following the grant period. Given the continuing need to learn and adapt to new technologies in the workplace, the approach to designing and using career plans to help low-wage workers identify the specific steps needed to qualify for higher-level jobs should be studied in greater detail. The ability to see how specific education and training will lead to better outcomes for both employers and individual workers is very likely to be an effective method of motivating workers to pursue lifelong learning opportunities.

Challenges in Measuring Program Impact

Because of the relatively small scale of the demonstrations, it is difficult to measure the impact of the demonstrations on regional skills shortages. Indeed, none of the grantees made any effort to do so. Variations among regional economies, targeted industries, project goals and scope, program objectives, employer types, and training goals also make it impossible to draw direct comparisons among sites. It is also difficult to measure the impact of short-term training on individual participants, particularly when the training is not expected to result in immediate wage increases or promotions. Measuring the impact of the training programs on employers is problematic, since the effects of some types of training (e.g., lean manufacturing) are more easily measured than others (e.g., soft-skills training). Whatever the approach taken to training, it is important to establish specific project goals and measures and monitor progress towards achieving them.

In examining the participant data reported by the SS2 Demonstration Program grantees, it was very clear that there was not a consistently strong emphasis on using data to track performance for continuous improvement purposes. Indeed, at some sites, there even appeared to be little emphasis on tracking data for accountability. The experience with the SS2 Demonstration

Program demonstration sites draws attention to the need to set clear expectations for employers and grantees engaged in worker training programs. Additionally, grantees need technical assistance in constructing effective data management systems: many participant databases were poorly constructed, limiting grantees' ability to quantify their impacts even when efforts had been made to collect some data. Effective data collection practices are essential for demonstrating the value of continued investment in training for all stakeholder groups and for monitoring ongoing program performance. In order to be effective, these measurement systems need to:

1. Include measures that are meaningful and useful for purposes of determining how training benefited individual training participants. Sites offering different types and styles of training will need appropriately differing types of measures to adequately capture these benefits.
2. Have clear standards and examples for developing and maintaining participant data systems including how to define key variables, where the data sources are located, how frequently data will be collected, who is responsible for collecting the data.
3. Have clear, formal agreements among project partners for data collection, guarantees of confidentiality, and reporting.
4. Include quantitative and qualitative measures of program impact, such as the institutionalization of program components, such as moving from dependence upon outside funding sources to reallocation of existing resources to pursue continued training.
5. Place a greater emphasis on measuring the benefits for employers, including operating efficiency, timeliness, product quality, and competitiveness.
6. Place greater emphasis on using evaluation as a program management tool.

Many of the potential lessons learned from the demonstrations were lost due to inadequate or ill-conceived participant databases. Unfortunately, data quality concerns are most profound among some of the grantees reporting the greatest success on paper.

Summary

From a regional perspective, it is important to work with employers in targeted industries to identify and address workforce needs. The increasing influence of technology in the workplace, and the pressures of global competition have created a far more competitive environment for American companies, one that makes the development of a highly skilled workforce essential. To stay competitive in a rapidly changing global economy, employers need a workforce that recognizes the importance of lifelong learning. Until recently, employers were reluctant to invest in ongoing education and training due to concerns about budget constraints and company profitability. However, it is becoming increasingly clear that employers that forego training may lose their competitive edge. The challenge of the workforce system is to help employers understand the importance of investing in workforce development programs designed to address specific skill gaps and increase company productivity, while ensuring that the programs provide employees with opportunities for individual growth and advancement. The SS2 Demonstration Program underscores the need for intermediary organizations to assist employers in identifying workforce development needs and developing innovative strategies to address them.

Appendix A: Technical Appendix

This appendix includes a description of the methods used for structuring the evaluation, data collection, and analysis. It includes a review of the research questions that were used as a guide for the evaluation. These questions focused on the factors that contributed to the overall outcomes of the demonstration program.

Research Questions

The list of research questions provided below served as a basis for developing protocols for site visits and analyzing individual outcome data.

Questions Related to the Strategic Goals of the Demonstrations

- To what extent did the demonstration program offerings affect the skill levels of incumbent and dislocated workers?
- What approaches were most effective in providing incumbent and dislocated workers with the skills needed to enter or advance in employment in high-wage, high-demand occupations?
- To what extent did the trainings affect the skills, employment, and advancement opportunities of incumbent and dislocated workers and earnings of low-income populations?
- Were the skills shortages of the targeted industries and employers addressed to their satisfaction?
- How do project costs compare with projected and actual performance outcomes?

Measuring Project Outcomes

The SGA for this demonstration program (SGA/DFA 00-113) provided grantees with some guidance as to performance goals, measures, and outcomes. The SGA instructed grantees to describe the performance goals to be met by the project, justify the goals, and describe the performance measures to be used in assessing the attainment of those goals in regard to the following outcomes:

- The reduction of identified shortages in participating firms as a result of the training/services provided
- The effect of reduced shortages on one or more dimensions of the participating firm's performance (e.g., productivity, sales, profitability, on-time deliveries)
- The effect on participating workers including skill gains, utilization of new skills learned, wages, wage gains, and job satisfaction

The SGA also provided grantees with the option of including other performance goals and measures for other outcomes as applicable. The flexibility built into the outcome reporting requirements for the demonstration grants allowed the organizations to customize their outcome measures in a way that was sensitive to the context of activities at each demonstration site. The drawback of this flexibility is that it resulted in substantial variation in the outcome measures as well as the type of data collected. Without comparable outcome measures, a valid and reliable cross-site analysis and evaluation becomes very difficult.

Because of the variation in project goals, industry/employer partners, and training provided, a cross-site analysis of the effect that the demonstrations had on participating firms was assumed to be deeply context dependent, making direct comparisons impossible. However, obtaining consistent measures for the effect of training on individual training participants seemed a more viable approach. In an attempt to increase the potential of obtaining comparable measures for training participants, PPA had regular and consistent contact with each grantee, encouraging

them to collect basic outcome data for training participants such as pretraining and posttraining wages⁸, program enrollment and completion, status as a dislocated or incumbent worker, status as a member of a labor union, etc. Each grantee was also provided with a detailed written summary of the type of training participant outcome data that would be useful for the evaluation. It should be noted, however, that despite providing this information to the grantees, there remained a considerable amount of variation in the final datasets that were submitted by each site.

Data Collection

The approach focused on obtaining data related to factors that contributed to outcomes for training participants. Some of the information was qualitative in nature, obtained from key informant interviews, on-site discussions, focus groups, and observations. These data were obtained through two rounds of site visits. The first round was conducted during a previous evaluation of four grant programs, including the Incumbent Dislocated Worker Skill Shortage II (SS2) Demonstration Program. A second round of site visits was conducted to nine of the 19 sites that participated in the SS2 Demonstration Program.

The quantitative data used in this report comes from a variety of sources provided by the grantees. The primary source is the trainee database collected by the grantee. These data typically arrived in the form of an MS Excel worksheet or MS Access database. In addition to basic outcome data, many sites provided more specific course enrollment information and certification measures. The final reports submitted by grantees were helpful in providing additional quantitative and qualitative information.

⁸ Often it is a challenge to obtain incumbent worker wages from employers. Some grantees anticipated potential problems and had employers sign letters of agreement to provide these data. Other grantees did not do this, had difficulty obtaining participant data for their final reports, and made last minute attempts to get it from individual employers.

Together, these data sources were used to conduct an analysis of the extent to which the grantees attained the performance goals stated in their project proposals as well as to gain insight into the possible reasons for variations among sites in the extent to which they reached their stated goals.

Field Protocols

As mentioned earlier, nine grantees in the SS2 Demonstration Program received two site visits. The first was conducted during a previous evaluation and provided insights into the strategic-planning processes used to construct regional skills shortages programs, the roles played by various partners in the planning process, and commonly identified keys to success or barriers encountered. These findings allowed the research team to select sites for a second round of visits to sites that represented the greatest opportunities for further discovery and insight into the effectiveness of service-delivery strategies.

The second round of site visits included nine sites that varied considerably in their industry focus, program strategy, and project partners. The reasons for selecting the sites also varied. In some cases, the sites had not sufficiently developed at the time of the initial site visit, making a return visit necessary to fully understand project design, implementation, challenges, and lessons learned. In other cases, grantees had encountered considerable challenges in early stages of program implementation or may have revised their program strategy in response to changes in the economy and/or employer demand.

Data Analysis

As stated above, the data sources were provided by the grantee organization in the form of a quantitative database. These data were used to create individual site summaries as well as for comparative purposes in Section II of the report. To ensure clarity, the general decision making rules for data analysis of each comparison measure are specified below. Additionally, because of a variety of ways to calculate statistics, the calculations occasionally are inconsistent with those provided by the grantees in their final reports. The calculations reported here are based on the specified decision making rules and data provided by the grantee organization. There were two

sites, *Worksystems, Inc.* and Virginia's *Region 2000 WIB* that had one and two individuals with outlier pretraining wages, respectively. These outlier cases were dropped from the analysis.

Site Summaries

The site summaries contained in Appendix B of this report are an attempt to organize information about each project to facilitate cross-site comparison. Each of the site summaries provided in Appendix B includes an analysis of several measures of program performance. The outcome measures that were selected focus on the extent to which services were provided to train participants and the contribution that training had on participant outcomes. Any problems encountered with respect to a specific site's outcome data are noted on the relevant summary.

Incumbent Workers

Incumbent worker is defined as the total number of previously employed individuals (both union and nonunion) who participated in training. In some sites, it was not indicated for all cases whether a participant was incumbent or dislocated. The reported numbers in these sections of the site summaries are for those participants that were explicitly coded incumbent or dislocated. As a result, in these cases, the sum of incumbent and dislocated workers does not necessarily equal the total number of participants included in the wage analysis. These missing data do not influence the interpretation of any wage analysis.

Service Goals

Service goals were changed through grant modification. The original service goal is shown in parenthesis.

Average Percentage Wage Gain of Incumbent Workers

The average percentage wage gain of incumbent workers is calculated by taking the difference between the pretraining and posttraining hourly wages and dividing that by the pretraining hourly wage. If the worker experienced wage loss, the percentage is negative. This statistic was calculated only when there were data for both pretraining and posttraining wages. In most cases,

there were significant missing data, which were not included. The minimum and maximum wage changes are included to provide the range of wage changes.

Dislocated Workers

Dislocated worker is defined as a participant that was unemployed at the beginning of the training program.

Placement Rate

The placement rate of dislocated workers was calculated by dividing the number of participants with posttraining wage data by the total number of dislocated participants in the program.

Average Wage Replacement Rate of Dislocated Workers

The average wage replacement rate captures what portion of a dislocated worker's original hourly wage is earned in a new job. To calculate this, the dislocated hourly wage is subtracted from the posttraining hourly wage, divided by the dislocated hourly wage (percentage wage change), and then added to 100. The result is a percentage that indicates how the new wage compares to the dislocated wage. If the number is 100, this indicates that the new and old wages are the same. If the number is less than 100, this indicates a wage loss; if it is greater than 100 it indicates a wage gain.

In the same manner as the percentage wage change of incumbent workers, this statistic was calculated only for participants that had data on both dislocated and posttraining wages. The minimum and maximum wage replacement rates are also provided for comparative purposes.

Lower Living Standard Income Level (LLSIL)

This SGA included a specific requirement that “all participating firms that employ successful training completers committed to pay wages to these completers at the wage level set by any collective bargaining agreement, which covers positions to be filled by the project participants, or, if no such agreement existed, to pay at a level at least equal to meeting the lower living standard income level as defined in Section 101(23) of the Workforce Investment Act.” As

discussed in earlier sections of this evaluation report, there was some confusion surrounding the interpretation of the wage standard. Ultimately, this matter was clarified, establishing the LLSIL for a family of four as the wage requirement. The annual salary was calculated by taking the hourly wage and multiplying it by 52 weeks per year, and 40 hours per week (wage x 52 x 40).

In some cases, there were significant numbers of participants that either did not have a reported posttraining wage or had a zero entered in the database. These individuals were not included in the calculations of percentage above the LLSIL4, nor were they included in the graphical depiction of posttraining wages compared to the LLSIL4 standard. This was done because it was not possible to determine the meaning of a missing or “zero” value. As a result, the percentage at or above the LLSIL4 should be understood as the percentage of individuals *for whom pretraining and posttraining wages were reported*, that were at or above the LLSIL4. One possible implication of this is that individuals who participated in training, but lost their jobs, are not included. This means that our calculations may overestimate the proportion of participants earning incomes at or above the LLSIL4, particularly for sites that were missing a lot of data. The percentage of participants at or above the LLSIL4 was also calculated for dislocated and incumbent workers separately in cases where both were served. In a few cases, due to the organization of the data, it was not possible to calculate wages for incumbent and dislocated workers separately. This is indicated in the site summaries where applicable in a footnote.

Site Visit Interview Protocols

A. Project Director/Manager

1. Who made the decisions regarding what employers and occupations would be targeted for training?

2. Were specific occupations identified for training?

What criteria were used to make these decisions?

What sources of data were used?

What occupations were selected?

3. How did the LLSIL4 come into play in making decisions about which employers and occupations to target? Were occupational wage levels reviewed? How?

4. What role have employers played in supporting the training programs?

Have they contributed to the cost of the training through cash payments? Donations of materials or space for training? Paid time off for training participants? Paid overtime for other employees to cover for participants while they are in training? Paid for contractors to cover for those in training? Other?

5. What is your understanding with employers regarding the status of employees who received training through the demonstration grant?

For incumbent workers, was the training intended to make employees more competitive for promotions and increases in wages?

For dislocated workers, what commitments did employers make to hire training participants? Did they follow through on these commitments? If no, why not?

How will employers handle employees who received OJT once the grant funds expire?

6. To what extent have employers continued to be involved in the demonstration?

What specific roles have they played? Has their role changed since the beginning of the project? If yes, explain.

7. Have you made plans with these employers to continue offering this or other training for current and future employees? If yes, explain. If no, why not?

8. Were any other sources of funds used to support the work of the project?

If so, what were the sources and approximate dollar amounts? How was the funding used to supplement DOL grant funds (admin, training, etc.)? [We should have this in advance.]

9. What feedback have you gotten from EMPLOYERS regarding the quality of the training programs that have been offered?

How was the feedback obtained?

What, specifically, have employers reported regarding their satisfaction with the outcomes of the project?

How has the feedback been used for quality-improvement purposes?

10. How were participants recruited for training? Was training linked to any specific job placement or advancement opportunity? Explain.

11. What feedback have you gotten from EMPLOYEES regarding the quality of the training programs in which they enrolled?

How was the feedback obtained?

What, specifically, have employees reported regarding their satisfaction with the training?

How has the feedback been used for quality-improvement purposes?

- 12. Have you conducted any follow-up with employees to assess what, if any, impact their training has had on wages and job responsibilities?**
If yes, what trends have you seen? If no, why not?
- 13. In your opinion, what benefits have employers received through their involvement in the demonstration?**
- 14. In your opinion, to what extent has the project contributed to economic development in your area?**
- 15. What are your plans for working with these employers once the demonstration project ends?** Do you have specific plans? What is the timeline for these activities? Explain.
- 16. How is this project connected to the Workforce Investment System? To the One-Stop?** How was the connection made? Has it changed since the beginning of the project? If yes, explain.
- 17. How is the project connected to education and training providers in the area?** Did your relationship with these providers change since the beginning of the project? If yes, explain.
- 18. Do you have any plans to continue working with these providers on other projects?**
If yes, explain. If no, why not?
- 19. What other types of measures were developed to assess the impact of the project on participating employers? (Check SGA)**
How were the measures identified?
Who was involved in identifying the performance measures?
What are the sources for the data?
How is the information collected?

What does the data indicate?

Have the findings been used to improve the program? If yes, give an example. If no, why not?

20. What were the most significant barriers that you encountered in conducting this demonstration project? How did you address these barriers?

21. Did you hire an evaluator to conduct an evaluation of your project? If yes, when will the report be available? How can we get a copy?

Documents to Obtain

For Each Participating Employer

- Total number of employees
- Grant dollars allocated
- Grant dollars spent
- Total number of incumbent and dislocated workers served
- Types/number of training programs offered
- Total number of trainings offered

Summary reports of any satisfaction surveys conducted of employers and employees

Participant database: Confirm arrangements to obtain final participant dataset (form, content, timeline)

B. Employers

- 1. What factors did you consider in making a decision to participate in the project?**

- 2. (For employers conducting incumbent worker training) What type of training programs were you providing for incumbent workers prior to this initiative? What type of education and training benefits do you provide to employees? To what extent do you promote continuing education and training? To what extent are the benefits actually used? By whom (level within organization)?**

- 3. Beyond individual education and training benefits, to what extent does your company invest in incumbent worker training? Is this training targeted for any specific employee groups (technical, managerial/supervisory, executive)? What type of training is offered?**

- 4. (For employers hiring newly trained dislocated workers) Prior to this project, how did you recruit new employees? What sources did you use to find potential candidates for employment? Was additional training provided once they were hired? Explain.**

- 5. What were your expectations regarding your company's participation in this initiative?**
Time commitment? Type of involvement?

- 6. What impact did you expect this training to have on your company?**

- 7. How were specific occupations/individuals identified for training through the DOL grant?**
What information did you consider?
What criteria were used to make decisions?
Was wage level a factor?
Who was involved in making the decisions?

What occupations were selected?

Were **labor union** representatives involved at any point in these discussions?

8. How did you communicate with your employees regarding your expectations for their participation in training? Was training linked to any job advancement, promotion, etc.? Has this occurred as you originally intended? If no, why not?

9. In your opinion, what motivated employees to participate in training?

Did your company provide any incentives to encourage participation? Explain. Did your company pay for time off to participate in training?

10. What feedback have you gotten from employees regarding the quality of the training programs in which they enrolled?

How has the feedback been obtained?

What, specifically, have employees reported regarding their satisfaction with the training program?

11. Over the course of the demonstration, have you had any concerns about the quality of the training programs that have been offered? If yes, how have your concerns been addressed? Have your concerns been addressed to your satisfaction?

12. In your opinion, what impact has the training had on your employees?

13. In your opinion, what impact has the program had on your company? (Skills development? Productivity? Morale? Employee retention? Innovation/organizational development? Other?) Have you developed any methods to measure these benefits?

14. Have you experienced any other benefits through your involvement in the initiative?

15. Do you intend to continue your involvement with project partners? If yes, in what ways? If no, why not?

16. **Do you intend to continue investing in incumbent worker training programs?** If no, why not?
17. **Overall, did this initiative meet your expectations?** If no, why not?

C. WIB/One-Stop

1. **How did you learn about and get involved in this project?**
2. **What were your expectations regarding the WIB/One-Stop's role in this initiative?**
3. **What role did you play in the project?** Has that role changed over time? Explain.
4. **What specific employers were involved in the DOL project?** Had the WIB/One-Stop dealt with these employers before? Explain.
5. **What are your plans for working with these employers once the demonstration project ends?** Do you have specific plans? What is the timeline for these activities? Explain.
6. **(For projects offering incumbent worker training) Prior to this project, to what extent did the WIB support incumbent worker training?** Did the WIB allocate WIA funds for incumbent worker training? Are there any plans to do so in the future?
7. **(For projects offering dislocated worker training) Were specific occupations identified for training?**
What criteria were used to make these decisions?
What sources of data were used?
What occupations were selected?
8. **How did the LLSIL4 come into play in making decisions about which employers and occupations to target? Were occupational wage levels reviewed? How?**

9. What is your understanding with employers regarding the status of employees who received training through the demonstration grant?

For incumbent workers, was the training intended to make employees more competitive for promotions and increases in wages?

For dislocated workers, what commitments did employers make to hire training participants? Did they follow through on these commitments? If no, why not?

How will employees who received OJT be handled once the grant funds expire?

10. How were participants recruited for training? Was training linked to any specific job placement or advancement opportunity? Explain.

11. How is the project connected to education and training providers in the area? Were community colleges involved? Private providers? Did your relationship with these providers change since the beginning of the project? If yes, explain.

12. Do you have any plans to continue working with these providers on other projects? If yes, explain. If no, why not?

13. (For projects offering dislocated worker training) Were any other sources of funds used to support the training program? Supplementary funds for tuition and fees? Case management? Support services?

14. What feedback have you gotten from participants regarding the quality of the training programs in which they enrolled?

How was the feedback obtained?

What, specifically, have employees reported regarding their satisfaction with the training?

How has the feedback been used for quality-improvement purposes?

- 15. Have you conducted any follow-up with employees to assess what, if any, impact their training has had on wages and job responsibilities?**
If yes, what trends have you seen? If not, why not?
- 16. What benefits has the WIB/One-Stop received through its involvement in the demonstration?**
- 17. In your opinion, what benefits have employers received through their involvement in the demonstration?** Have you developed any methods to measure these benefits?
- 18. In your opinion, to what extent has the project contributed to economic development in your area?**

D. Training Participants

- 1. Please introduce yourself, giving first name, employer, tenure with employer, and current occupation.**
- 2. (For incumbent workers) Prior to this training, had you previously participated in any other training offered through your employer?**
- 3. What motivated you to participate in this training?**
Did your company provide any incentives to encourage participation? Explain.
- 4. (For dislocated workers) What was your understanding about what would happen to you once you completed the training program?**
- 5. Does your employer offer education and training as an employee benefit? If so, to what extent have you used this benefit? If you have not used the benefit, why not?**
- 6. What kind of information did you receive about this training program prior to enrolling in it?**
- 7. What factors did you consider in making a decision whether or not to participate in the training?**
- 8. How did you expect to benefit from the training?**
- 9. What type of training did you receive? How was it delivered? How long was the training program? [weeks/hours]**
- 10. Were you and others in your class able to attend all of the training sessions?**
If no, why not? How were any missed sessions made up?

- 11. Did the content of your training program meet your expectations? Explain.**
- 12. How useful would you say your training was in relationship to your current job?**
Did it focus on the right topics and skills?
- 13. How has the training contributed to your career, overall?** (Certifications, career advancement, avoid layoff, more marketable skills, etc.)
- 14. Do you expect to pursue more training in the future?** If so, what type of training, timeline, source of funding? Has the DOL training program had any influence on this decision?

E. Training Providers

- 1. What factors did you consider in making a decision to participate in the project?**
- 2. What type of training programs were you providing for incumbent workers prior to this initiative? How were these programs financed?**
- 3. (For incumbent worker training) What companies did you work with in connection with this demonstration? Did you have prior experience working with these employers?**
- 4. Have you made plans with these employers to continue offering this or other training for current and future employees? If yes, explain. If no, why not?**
- 5. How many other training providers were involved in this project? What is the history of your relationship with them? Has your relationship changed over the course of this initiative?**
- 6. (For incumbent and dislocated worker training) How was the curriculum developed? Who was involved? What role did employers play?**
- 7. What feedback have you gotten from participants regarding the quality of the training programs in which they enrolled?**

How was the feedback obtained?

What, specifically, have participants reported regarding their satisfaction with the training?

Has the feedback been used for quality-improvement purposes? If yes, how?
- 8. Have you conducted any follow-up with employees to assess what, if any, impact their training has had on wages and job responsibilities?**

If yes, what trends have you seen? If no, why not?

- 9. What benefits has your institution received through involvement in the demonstration?**

- 10. In your opinion, what benefits have employers received through their involvement in the demonstration? Have you developed any methods to measure these benefits?**

- 11. Through this project, what lessons have you learned about working with employers and other project partners?**

Appendix B: Site Profiles

Appendix C: Labor Market Profiles

Appendix D: Grantee Directory
