Shaping a Portal Web site: A Study of the Collaborative Online Workforce Education and Training Portal Demonstration Project

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ABOUT THE CENTER FOR WOMEN AND WORK

The Center for Women and Work (CWW) is an innovative leader in research and programs that promote gender equity, a high skill economy, and reconciliation of work and well-being for all. CWW is located in the School of Management and Labor Relations at Rutgers, The State University of New Jersey. As part of its multifaceted research and policy work, the Center:

- Addresses women's advancement in the workplace;
- Conducts cutting-edge research on successful public and workplace policies;
- Provides technical assistance and programs to educators, industry, and governments;
 and
- Engages issues that directly affect the living standards of New Jersey's and the nation's working families.

CWW's areas of work include: Education and Career Development, Innovative Training and Workforce Development, Women's Leadership and Advancement, and Working Families.

The Center is affiliated with the internationally recognized Rutgers Institute for Women's Leadership, an eight-unit consortium of research, instructional, and outreach units that includes, in addition to CWW, the Center for American Women and Politics, the Center for Women's Global Leadership, the Institute for Research on Women, the Women's & Gender Studies Department, Douglass College, the Institute for Women and Art, and the Office for the Promotion of Women in Science, Engineering and Mathematics.

For more information about the Center, please visit http://www.cww.rutgers.edu.

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EXECUTIVE SUMMARY

Online learning has become an important means of expanding education and training options for adult learners, including clients of states' workforce investment systems. In an effort to coordinate and tailor specific online training needs within and across states, the U.S. Department of Labor's Employment and Training Administration (ETA) awarded grants in 2008 to Colorado, Maine, Mississippi, and Pennsylvania to pilot a demonstration project called the *Collaborative Online Workforce Education and Training Portal*. This single Web portal, now best known by its acronym WOLIP (*Workforce Online Learning Information Portal*) project, was designed initially by Pennsylvania State University. The WOLIP project was conceived to test a nationwide portal for providing workforce system clients with easy access to certificate and degree programs relevant to high-demand and high-growth jobs in their local area. The final version of the portal was designed and hosted by the Southern Regional Education Board.

The idea for the WOLIP project was developed in 2007, and grants were awarded to the states in June 2008. The demonstration projects were scheduled to end in May 2010, but due to program delays, grants were extended for each state. Pennsylvania ended the WOLIP project in December 2010, and Colorado, Maine, and Mississippi closed out their WOLIP projects in June 2011. This report was written during 2011.

In an effort to evaluate the WOLIP project in the four states and to learn more about how best to implement online learning in state-driven workforce investment systems, ETA funded the Rutgers University CWW to conduct a formative evaluation of the WOLIP demonstration project and to provide technical assistance. This report summarizes the findings and observations from the evaluation research, which concluded September 2011.

As a result of varied state structures and cultures, Colorado, Maine, Mississippi, and Pennsylvania all implemented this project in different ways. Each state also had different goals for the project. Each was different in its budgets and funding strategies, in where the program was implemented geographically, and in intrastate collaboration styles and partnering strategies. There were also important differences in the range of industries and occupations targeted, in the types of stringency and eligibility requirements, and in the role played by industry in program implementation.

States also had unique strategies for program implementation, including staffing, client groups targeted and outreach to clients, training delivery, co-enrollment practices, and case management. Each state workforce systems adopted varied types of online education and a variety of curricula and assessment tools. Some also blended online education with classroom education to varying degrees.

Commonalities existed across states in the WOLIP project as well. All the states adhered closely to the grant guideline to use the program only to train for growth occupations and industries. All experienced some kind of delay in their start-up that complicated—but did not ultimately inhibit—their ability to compare notes and share experiences as a national demonstration project. All states appreciated a training design that allowed them to overcome past difficulties delivering education and training to rural areas. All reported difficulties evaluating the quality of the online coursework and credentialing programs that various vendors provided to them. All used the WOLIP project to reach out to incumbent workers needing additional skills as well as to unemployed workers, and all appreciated the opportunity to offer innovative training to both Workforce Investment Act (WIA) and non-WIA clients in a time of economic hardship in the United States.

Indeed, the WOLIP project—from planning to completion—was launched in all four states directly in the wake of the Great Recession 2008. The severe downturn in the economy challenged American Job Centers, formerly known as One-Stop Career Centers, across the country in their efforts to train and find work for clients. As a result, all four states saw the WOLIP project Web site as an important and very timely training resource; clients were seeking low-cost education and needed new credentials that could help them find jobs, hold on to their jobs, or change careers. Even with its attractions, however, the WOLIP project Web site was also viewed as problematic across states as it challenged workforce systems' staffing resources and state funding reserves.

Despite targeting a variety of groups seeking training, all of the states consistently ended up serving remarkably similar demographic groups regarding gender, age, race, and educational background. The WOLIP project Web site served more women (70 percent) than men (30 percent) from July of 2008 to June of 2011. The average student served across all states ranged from 40 to 59 years of age, and the majority of students were white/Caucasian. In Mississippi, 392 customers were trained through the e-Magnolia portal, 90 customers withdrew, and 151 were still enrolled at the completion of this evaluation. Maine enrolled 184 customers, of which 101 entirely completed training programs, 71 withdrew, and 12 were still in training at the evaluation's end early summer 2012. Pennsylvania trained 719 customers, and Colorado trained 257 customers. In total, the WOLIP project trained 1,552 people, with approximately 161 withdrawing before completion and 163 still training at the end of the evaluation.

The CWW conducted a formative evaluation of the project that began at the implementation of the demonstration project in June 1, 2008. The evaluation, which concluded September 30, 2011, assessed the development and implementation of the WOLIP project with the goals of 1) understanding whether the online portal was an effective way to connect adult workers with courses in high-demand areas; 2) identifying problems and solutions to those problems that the states and their stakeholders (i.e., state labor department personnel; workforce center officials and staff, including front-line staff, educational institution personnel, and vendors; and employers) needed to know about in their implementation process; and 3) generating a list of best practices and lessons learned that might help other states implement online learning nationally.

The evaluation focused on the following variables: processes followed in designing and operating the WOLIP project in each state; partnerships and collaborations among stakeholders; selection of growth industries; industry and employer involvement; selection of participants (outreach, recruitment, assessment, retention, etc.); staffing, staff buy-in, and staff training; coenrollment strategies; eligibility requirements; funding streams; delays, setbacks, and major changes or alterations; and the role of the WOLIP project Web site in special projects. The study was also designed to assess quantitative outcomes for individual adult learners who participated in it. Data to be examined included completion rates, job placements and advancement, and wage increases. This portion of the analysis was not able to be completed as planned because states did not provide Rutgers with all of the data that had been requested and because much of the wage data was not available at the time of this writing.

Rutgers used standard data collection methods across the four states. They included a total of eight site visits (two in each of the four states); frequent phone interviews with stakeholders; focus groups or individual interviews with state labor department personnel, workforce center officials and staff members (including front-line staff, educational institution personnel, and vendors) and, where possible, employers. The team also interviewed 142 individual program participants across the states either in focus groups, through in-person interviews, or by telephone. One online participant survey was also distributed to states, but this method was abandoned because response rates were low. A content analysis of all project transcripts, documents, and reports was also conducted.

Some important observations resulted from the evaluation. In terms of implementation and sustainability, evaluators observed that strong state leadership and ownership of the project from the outset made for a stronger program; that state cultures and structures could be decisive in the shape each program took; and that strong collaborations and partnerships were important to this project. In terms of using online learning as a training tool, it was clear that states had different levels of expertise and expectations. States encountered numerous problems in the process of implementing online learning, including locating and evaluating quality online training; assessing clients' capacity to be online learners, and dealing with the variance in quality of vendors and training providers, especially in terms of their ability to provide quality coursework and timely feedback to students.

Participants provided a range of both positive and negative feedback on the project. That feedback included a general positive response to online learning, a realization that online learning is not for everyone, and a belief that online learning offers important flexibilities in terms of work/life demands. Participants were less positive about the lack of networking opportunities with other students and with industry that is inherent to online learning. Qualitative data also suggested the important role that education and training can play in improving self-esteem and staving off boredom and depression for unemployed workers.

TABLE OF CONTENTS

ABOUT THE CENTER FOR WOMEN AND WORK	ii
ABOUT THE AUTHORS	iii
EXECUTIVE SUMMARY	4
Introduction	8
OVERVIEW OF STATE WOLIP PROJECTS	19
Pennsylvania	20
Maine	35
Colorado	57
Mississippi	76
AN ACROSS-STATE ANALYSIS OF THE WOLIP PROJECT: PARTICIPANTS' REACTIONS TO	
Online Learning	91
INCENTIVES FOR THE WOLIP PROJECT	101
Monetary and Nonmoentary Incentives	101
Online Learning: A New Tool in Education and Training	102
Online Learning: Strengthening Skills and Marketability via a High-Tech	
LEARNING EXPERIENCE	108
Online Learning: Affirmations and Contradictions	108
Emerging Issues and Hypotheses for Online Learning Research	117
CONCLUSIONS ON PARTICIPANTS' EXPERIENCES	119
CONCLUSIONS	121
SUSTAINABILITY OF THE WOLIP PROJECT	121

INTRODUCTION

The Collaborative Online Workforce Education and Training Portal was a demonstration project funded in 2008 by the U.S. Department of Labor's Employment and Training Administration (ETA) and the Alfred P. Sloan Foundation to test the idea that online and hybrid training options offered through a state's workforce investment system could be centralized on a single portal.

Online learning is increasingly thought of as a new tool for the workforce investment system because it expands the availability of education and training options for clients. While geography previously limited the kinds of training and educational institutions that workforce system clients could access, online learning may help break down this barrier. However, the vast array of training available online can be daunting and difficult for users to navigate. A method to organize online programming was sought that would allow states to offer effective online training options from across the country. For this reason, the Collaborative Online Workforce and Education Training Portal demonstration project was developed through the creation of the *Workforce Online Learning Information Portal* (WOLIP). The WOLIP project Web site was designed to help organize and consolidate online certificate programs on a single Webbased portal. The project goals were to provide easy access to training options for clients and workforce staff and to foster sharing of knowledge between states about online certificate programming.

While the centerpiece of this demonstration project was to be the WOLIP project Web site, the demonstration also evolved as a vehicle for participating states to introduce and test the use of online learning as a training option within their respective workforce investment systems and among different client populations.

This demonstration project was a broad collaboration between the ETA; Southern Regional Education Board (SREB), The Pennsylvania State University, the Colorado Department of Labor and Employment, the Maine Department of Labor, the Mississippi Department of Employment Security, and the Pennsylvania Department of Labor and Industry. ETA awarded funding in the amount of \$500,000 to each state; each state also was required to invest state dollars. Rutgers University's Center for Women and Work (CWW) served as the evaluator for this project and provided technical assistance to states throughout implementation of the project. ETA awarded \$300,000 in funds to Rutgers CWW.

The idea for the WOLIP demonstration project was developed in 2007, and grants were awarded in June 1, 2008. Demonstration projects were scheduled to end in May 31, 2010, but due to program delays, grants were extended for all states. As a result, Pennsylvania ended the program in December 2010, and Colorado, Maine, and Mississippi closed their grants out in June 2011. This report was written in 2011.

ONLINE LEARNING IN THE PUBLIC WORKFORCE INVESTMENT SYSTEM

While the history of online learning in the public workforce investment system is not long, the knowledge gained from previous initiatives led to many of the partnerships that allowed the creation and delivery of the WOLIP project Web site. Previous evaluations conducted by Rutgers University demonstrated how online learning could help to improve computer literacy and job skills for low-income, working single mothers and how technology-based learning could help offenders complete educational programs in their path through the corrections system.

In 2001, the U.S. Department of Labor's Women's Bureau awarded the New Jersey Department of Labor and Workforce Development a \$500,000 grant to implement a pilot workforce program geared toward low-income, working single mothers. The program tested online learning as a training tool for this population. More than 100 low-wage-earning mothers were invited to participate in the program. Program participants were introduced to computer technology and provided with a computer and Internet connection. Upon completion of the program, participants were allowed to keep the computers, introducing a new form of technology into their home lives. ² The program was successful in that many participants experienced wage gains and were placed into better jobs.

A second program focused on computer learning in the prison setting. Offenders are likely to enter the prison system with minimal educational backgrounds, a history that significantly depletes their opportunities for reliable employment and financial stability upon reentry. A pilot program in New Jersey provided online training options for female inmates in their transitions through the corrections system. Access to technology-based learning was provided to the women as they served their sentences and continued as they transferred into an assessment center and halfway house.³

Online learning has also been used in the public workforce investment system through the American Recovery and Reinvestment Act of 2009 (ARRA) and recently has been a focus of the Trade Adjustment Assistance Community College and Career Training Grant Program.

THE WOLIP PROJECT WEB SITE

The WOLIP demonstration project was created to ensure that clients in a state's public workforce investment system have access to online certificate and degree programs that are relevant to the state's labor market needs and employment opportunities.⁴ The Web-based portal hosted information on online-learning programming that was customized to individual states' needs and aligned with identifiable high-demand occupations in those states. The Pennsylvania State University contracted with the SREB to design and host the portal from 2008 until the close of the demonstration project in June 2011.⁵ Due to the delays in the project, SREB continued to host and manage the portal for about one year longer than their original contract at no further cost to the project.

The initial vision for the WOLIP project Web site was created by The Pennsylvania State University. It was developed as a demonstration project to test the portal and to allow for changes and improvements to be made within the four pilot states. Once tested in these states, the idea was then to expand the portal nationwide. Project creators envisioned a Web site that would be tailored specifically to the needs of participating states. For each state, the portal was to include a list of high-demand industries and available online programs that met the workforce education and training needs for those jobs. The Web site would also provide information on financial aid available for those programs.

Students were to be connected to available coursework through links to institutional Web sites for each online program. These links would lead them to information about the different programs offered through various institutions and allow them to enroll directly with a vendor. It was also initially envisioned that the Web site would draw on the existing programs listed in the well-regarded Sloan-Consortium Member Catalog of Online Courses (Sloan-C Catalogue).⁶ The creators of the WOLIP project hoped that other features would be developed for the portal throughout the duration of the demonstration project. It was thought that these other features could include online career development workshops, information on additional sources of financial aid for working adult students, and information on online learning.

The reality of the portal as it materialized in the four states was different from its original conception. While the portal did provide states with a Web site in which to collect and list training opportunities in high-demand areas, it was not as vast a project as first intended. In the end, it primarily served as a place where states could list online courses related to high-demand industries in their area.

The final portal model was decided on by the state partners and the National Workforce Portal Steering Committee. In discussions with representatives from SREB, it was noted that the final design of the portal may not have been the one they would have selected but that it was important for states to have leadership over that aspect of the project. In addition to providing input about the overall design of the portal, states were also given the opportunity to customize their portal; however, such customization was minimal. For the most part, customization

simply meant that some states developed a branded page from which to enter the main portal. The best example of this was Mississippi's Web site, which was branded as *e-Magnolia*; it contained a Mississippi-specific page that clients entered before viewing the main page of the WOLIP project Web site. Maine also had a specific landing page for clients to view before entering the main page of the WOLIP project Web site. Other states chose not to customize the Web site in any way, so users in those states directly entered the main page of the WOLIP project Web site.

The WOLIP project Web site deviated from the initial vision of its developers in other ways as well. One important difference was that it was not pre-populated with coursework, so states had the challenging job of finding education and training courses that fit their needs.

The initial conception of the project assumed that each state had a process for approving workforce education programs. The demonstration project, however, was not effectively connected to those processes. Selection of online training sources for the WOLIP project did not fall under the same constraints that a state is required to use to add training providers to their existing eligible training provider lists (ETPL). Additionally, given that many states lacked experience with online learning, it was difficult for them to institute measures by which to evaluate the quality or efficiency of the portal's programming. As discussed later in this report, states found this task difficult and struggled with identifying a way to understand whether training options were of a high quality. Once training was listed on the portal, states also encountered the demanding task of keeping information up to date. Questions emerged about whose responsibility this was. In the end, many state partners argued that listing coursework on the portal was not as useful as originally envisioned because of the frequent changes in course listings each semester. Many state partners noted that it was simply easier to get current and timely course listings directly from vendors and educational institutions rather than having a separate state-managed listing. In the end, many states chose to list programs instead of listing individual courses.

State partners noted that they did not have a good understanding of the purpose of the WOLIP project Web site. They remarked on the difficulty they encountered explaining the function and value of the WOLIP project Web site to their own colleges and training institutions. It became clear during Rutgers' site visits that no definition of the portal was widely known and accepted, and the states found the concept of the WOLIP project Web site very confusing. State partners did not understand the role that the portal was supposed to play in their existing workforce investment efforts.

Another feature of the portal that differed from the initial vision of its creators concerned its intended audience—i.e., how it was to be used and by whom. States originally thought that the portal would be used by clients in choosing coursework, but it was not always employed in this way. Some clients in Mississippi, Pennsylvania, and Maine did connect directly to the WOLIP project Web site to view and choose coursework on their own, but many workforce clients never saw or used the WOLIP project Web site or even knew that it existed. Instead, in some cases, the WOLIP project Web site was used only by case managers as a tool to find training for

their clients. In other cases, clients and case managers would use the WOLIP project Web site together in counseling sessions. Finally, in other instances, the WOLIP project Web site was not used by either clients or case managers. Courses were selected from a Web site or other materials describing the course offerings offered by colleges, universities or training vendors.

In sum, while the WOLIP project Web site did provide some value to states, it was not developed in a way that followed through with the initial vision. No additional resources, such as financial aid or other information, were added to the portal by any state, and it was not taken over by the states at the close of the project as initially envisioned. In a final focus group, all four participating states noted that they had neither the resources nor the staff to take over the management of a state WOLIP project Web site. As such, the WOLIP project Web site will no longer be used in any of the participating states. However, two states, Pennsylvania and Mississippi, do plan to use an off-shoot of the portal concept in their future work. In an effort to enhance degree completion, these two states are both connected to a demonstration project run by the Rutgers University Center for Women and Work (CWW) and the National Association of Workforce Boards (NAWB), with funding provided by the Lumina Foundation for Education. These states will be using a portal for adult degree completion called adultlearner.org, which is run by the SREB, to connect clients to coursework options and to provide them with information on degree completion. Colorado has also joined project, but it will employ the state's well-regarded e-Colorado portal and its Connecting Colorado Web site, both of which are discussed below in greater detail.

COLLABORATION AND PARTNERSHIPS

The WOLIP project was led by the National Workforce Portal Steering Committee, which was created to serve as an advisory committee for the project. This committee was formed to guide implementation, respond to program selection and promotion issues, and ensure that problems were identified and resolved. The Steering Committee was also responsible for developing a national implementation plan, but committee members did not complete that task. The committee met once in person in Washington, D.C., and communicated virtually through telephone calls until the end of the project. Communications occurred on a monthly basis at the start of the project and tapered off over the lifetime of the grant. Members of the committee included representatives from ETA, ETA grantees or partner states (Pennsylvania, Colorado, Maine, and Mississippi), Pennsylvania State University, and the Corporation for a Skilled Workforce. Representatives from the Rutgers evaluation team also participated in meetings.

FORMATIVE EVALUATION

CWW conducted a formative evaluation to study this demonstration project. The formative evaluation documented and analyzed the development and implementation of the program. The goal of the evaluation was to assess how the demonstration project was being implemented, if it was proceeding as planned, and whether the expected outcomes were produced. The evaluation concluded in September 2011. The Rutgers team provided

continuous feedback to project implementers so that changes to the project could be made as needed.

For this formative evaluation, the Rutgers research team looked closely at the program environment through site visits and frequent contact with state stakeholders, including state labor department personnel and local workforce center officials and staff, including front-line staff. The team's efforts included examining the design and implementation process for the project in each state, identifying project differences across states, tracking changes that were made throughout the lifetime of the demonstration project, and working to recognize and understand intervening events that may have affected implementation and outcomes. Rutgers evaluators also analyzed all demonstration project documents, including project reports, outreach and recruiting materials, training and course information, and development documents.

Both quantitative and qualitative data were collected. All quantitative data were generated and provided by the states. Data requested by Rutgers were aimed at better measuring the demonstration project's success and included employment and wage data, course completion data, and demographic data. Not all states could provide every piece of requested data. Reasons for this included failure to collect participant-level data and delays in data reporting. It should also be noted that participant completion data in this report is not extensive. The lack of completion data results from the fact that most states were enrolling students into the program up until the last day of the grant extension in June 2011, and many students were therefore still engaged in training at the close of the project. Time delays in wage data also played a role in data being unavailable.

The qualitative data collected for this project was extensive. The Rutgers research team made two extended site visits to each state. These visits involved private briefings from top- and midlevel staff on program development and implementation as well as focus groups or individual interviews with a total of 142 program participants, relevant state officials, and staff at all levels, including local workforce staff, employers, members of the business community, and training providers. Information for the evaluation was also gathered through participation on advisory committee telephone calls with participating states and partnering organizations, and through telephone and e-mail communications with state implementers throughout the life of the demonstration project.

THE ECONOMIC CONTEXT FOR THE WOLIP PROJECT

From December 2007 through the first half of 2009, the United States was in the grips of what economists and journalists call the Great Recession.⁷ The WOLIP project was instituted at the height of these economic challenges. This recession and the ongoing recovery have posed important challenges for the network of American Job Centers (AJCs), formerly known as One-Stop Career Centers⁸ that served participants of the WOLIP project throughout the four states. Many of the workforce clients interviewed by the Rutgers research team were directly affected by the economic downturn and by different recovery efforts.

According to the Bureau of Labor Statistics, during this time U.S. workers and those looking for work experienced an economy fraught with problems, including plant closings, layoffs, involuntarily reduced workweeks and work hours, and involuntary shifts from full-time to part-time or even per diem or hourly employment. While inflation remained low and essentially manageable, families and individuals experienced mortgage defaults and foreclosures, huge increases in credit card debt, and big hikes in gas prices and in educational tuition, and small business owners suffered a serious credit famine.

The Bureau of Labor Statistics also reports that workers in the United States were confronted with severely reduced job benefits ranging from reductions in voluntary overtime and cutbacks in vacation time and pension benefits to diminished work/family benefits, such as access to flex time. Workers lucky enough to keep jobs providing employer-based health care were in many cases expected to share a greater portion of the cost of coverage premiums.

The initial development of the WOLIP project followed in the immediate wake of this difficult economic time—first in its planning and startup, which began July 1, 2008, and then in its actual launch and in the first stages of its implementation. Much of the program's later execution took place in the post-recessionary months from June 2009 until June 31, 2011. Thus, the implementation period, from enrollment to program completion, were years of very slow economic recovery in which workers continued to face problems regaining a footing in the labor market. The effects of the recession were mitigated by some policy steps taken by a new administration in Washington; signed by President Obama in February 2009, ARRA authorized \$787 billion into the U.S. economy via tax relief, direct aid to individuals, national infrastructure projects, and projects aimed at industries of the future. As a result, by June of 2009 an economic recovery was slowly under way across the United States, but many of the problems described above continued through the official end of the WOLIP project in mid-2011.

The following pages summarize some of the more important indicators of the troubled U.S. economy as they relate to context for the WOLIP project. They also illustrate the challenges faced by the agencies and individuals who were part of the demonstration project's implementation. These indicators include unemployment rates for the period of the WOLIP project's existence; industries and sectors hardest hit; and certain demographics of recession-affected workers, especially in so far as these groups were representative of the WOLIP project

participants.

Unemployment

Although hiring had already begun to decline as early as 2007, the U.S. unemployment rate was a mere 5.5 percent when the WOLIP project officially began in June of 2008. By the time the program was fully operational in June of 2009—only one year later—the unemployment rate had increased to 9.5 percent. At that point, 14.7 million Americans were unemployed. The share of workers who had been jobless for over six months went from 17.6 percent in the first half of 2007 to 29.3 percent by June 2009, and then to a staggering 45.6 percent by the spring of 2010, the WOLIP project's second year of operation. Even in the recovery that followed starting mid-2009, job growth continued to be quite weak. According to *The Economist*, as late as July 2011, despite the resumption of growth, there were "more than six unemployed Americans for every job opening," and competition for what job openings existed was intense. 12

Hard-Hit Industries and Sectors

The recession hit certain industries and sectors particularly hard. Declines in construction, manufacturing, and financial employment represented about half of the jobs lost in the midst of the recession, ¹³ and it was from these very sectors that many workforce clients came to local job centers within their respective states seeking retraining programs available through the WOLIP project Web site.

The construction industry suffered very large declines due to the housing bubble of 2006–2007, with its glut of homebuilding and the financial credit debacle. Employment in construction shrank about 25 percent between December 2007 and 2010.¹⁴ According to *U.S. News and World Report*, as of July 2011, the construction industry had nearly 2.2 million fewer jobs than it did at its prerecession peak in 2006.¹⁵

Manufacturing job losses affected more than \$2 million employees, equating to 15 percent of the manufacturing workforce during the 18-month period. Durable goods manufacturing, where men hold the preponderance of jobs, accounted for fully 75 percent of factory job losses. Job losses were concentrated in transportation equipment, including, in order of magnitude, motor vehicles, fabricated metal products, machinery, wood products and furniture, and related projects.

Non-durable goods manufacturing (food manufacturing, printing, textile and textile-product mills, apparel, paper and paper products, plastics, and rubber products) lost nearly half a million jobs during the 2007–2009 recession. This subsector, which is generally female-dominated, accounted for about one-fourth of the total decline in manufacturing employment—with plastics and rubber products suffering the highest proportion of job loss. Only petroleum and coal-product manufacturing avoided a decline in employment.¹⁶

Jobs were also lost in key areas of the service sector—itself the growth engine of the American economy for the last fifty years and the source of 69 percent of U.S. jobs.¹⁷ Financial services, including insurance and real estate, were particularly impacted by the recession due to the crisis in the banking industry, which tied it to credit markets and the global economy. According to one source, job openings in this industry slumped as much as 55 percent by mid-2009—at that point, they finally began an upward climb thanks to an infusion of money from the Troubled Asset Relief Program and other forms of assistance.¹⁸

For many participants in the WOLIP project who were laid off—as well as for their advisors in job centers—the health care industry was a key place to look for job opportunities during the economic downturn.

Some 430,000 public sector jobs were after the official end of the recession in June 2009. Many of these jobs were in service occupations, including a large number of jobs in education.¹⁹

Certain areas of the service economy in both the public and private sectors have ridden out the recession better than others. The health care industry (including a vast number of social service jobs) has been more or less the steady flagship of the service sector; due to the demand for more and better health care created by an aging populace and a profusion of new high-tech treatments and pharmaceuticals, it has continued to grow throughout the recession and is robust now in the economic recovery. Indeed, for many WOLIP project participants who were laid off—as well as for their advisors in job centers—the health care industry was a key place to look for job opportunities during the economic downturn.

Small business, which employs over half of all private-sector employees and accounts for many service-sector jobs, was also affected negatively by the Great Recession. According to the Intuit Small Business Employment Index (which measures the number of people working at businesses with 19 or fewer positions that use Intuit's payroll service), between November 2007 and July of 2011, some 1.3 million fewer people were employed in the smallest U.S. businesses. A traditional driver of job growth in other U.S. economic recoveries, this sector has been slower to respond in the recent recovery due to the serious credit crunch bred by the banking crisis of 2008. Nevertheless, small business is now responding, if cautiously: The same Intuit Index reports that since February 2010, when the lowest point of employment in the small business sector was reached, the smallest companies have added some 624,000 positions.²⁰

Effect of the Great Recession on Different Groups

Employment and unemployment of groups important to the WOLIP project's participant population were affected in different ways by the economic downturn, i.e., men and women; different family types; racial/ethnic groups; and blue-collar and white-collar workers. These are demographic and occupational categories that have historically had different relationships to education and training.

Gender and Family Structure

The U.S. labor force has almost reached parity in its balance of working men and women: It is 53.3 percent male and 46.7 percent female. While the majority of the WOLIP project's participants were female, the gender mix in programs across the states was similar. Both sexes have been affected in different ways by the economic downturn.

Men bore the early brunt of unemployment in the recession. Unemployment rates for men reached a peak of 11.4 percent in October of 2009, with women's unemployment rate at that time hitting 8.7 percent.²¹ From December 2007 to June 2009, men lost some 5.4 million jobs, and women lost 2.1 million jobs. Including the post-recessionary period, the share of employed men has declined 6.4 percent between January 2007 and March 2011. During that same period, women's employment declined only 3.3 percent.²²

Since the mid-1970s, stagnant wages—wage levels that have stood still or barely increased—have been a significant problem in the United States for middle- and working-class families. Whatever relief has occurred in the form of rising median family income is because of the increase in two-earner families since 1970, when women began entering the paid labor force in large numbers. Such dual-earning families have been the norm for decades, and these second earners, whether wives or female household members, have become an important safety net for household units in the recession.

Indeed, unemployment within families has increased severely in the years since the recession began. Even in September 2009, as the official recession technically ebbed, an Economic Policy Institute (EPI) survey found that almost one in four families reported having been burdened by a job loss since September of 2008. Moreover, EPI reported that 44 percent of families had suffered either the loss of a job or a reduction in wages or hours worked.²⁴ By 2010, according to the U.S. Department of Labor, 12.4 percent of families had at least one unemployed member, nearly doubling the 6.3 percent rate experienced in 2007.²⁵

Given their access to and occupational fit with jobs available in the service sector (health care in particular) and their reduced vulnerability to job loss in manufacturing, more women than ever became the sole bread winner in U.S. families during this recession.²⁶ By 2010, according to the Labor Department, the wife was the sole earner in fully 19.6 percent of married-couple families with children, as compared to only 13.9 percent of similar families in prerecession 2007.²⁷

Women, however, have had a far harder time than men as the country begins to recover from the recession. Women's unemployment, which peaked at 8.9 percent in November of 2010, was still far lower than men's unemployment that month, but since that time, women's rate of unemployment has declined at a far slower pace than men's rate of unemployment.²⁸

Racial and Ethnic Minorities

Racial and ethnic minorities have suffered greatly in the economic downturn. At the official end of the recession in June 2009, the unemployment rate for white Americans was 8.7 percent; the unemployment rate for Hispanics was 12.2 percent; and the unemployment rate for black or African American workers was 14.9 percent. The black or African American unemployment rate peaked at 16.5 percent in March 2010. Long-term unemployment (27 weeks or more) affected a significant share of the unemployed, with variation by race/ethnicity (i.e., 41.9 percent of whites, 39.3 percent of Hispanics, and 48.4 percent of blacks or African Americans).²⁹

Blue-Collar and White-Collar Unemployment

Job prospects played out differently for workers with varying levels of education, as reflected by differential rates of unemployment for blue-collar workers, who typically have lower levels of educational attainment, and white-collar workers, who typically have more years of education. At the start of the recession, blue-collar workers had an unemployment rate of 6.7 percent. After 16 months of the recession, that rate had climbed to 14.4 percent. White collar workers, on the other hand, started the recession with an unemployment rate of 3 percent; after 16 months, that rate had gone up to only 5.6 percent.³⁰

While the deterioration of key sectors, especially manufacturing and construction, was at the crux of the blue-collar problem, it is widely held that lower levels of educational attainment also affected the employment and reemployment prospects of those workers during the recession.³¹ Using 2011 numbers, *Bloomberg Business Week* found that the unemployment rate for college graduates over 25 years of age³² was 4.3 percent versus 9.5 percent for high school graduates and 13.9 percent for those with less than a high school education.³³

Workforce centers in states using the WOLIP project Web site were all strikingly aware of the challenging economic context in which they began to implement the program. As is detailed below for each of the four states, the WOLIP project was seen as a useful tool for state employment and training officials as they struggled to respond to the recession and its aftermath by offering training and job options to their clients. The poor economy was also reflected strongly in the reasons participants gave for joining the program.

OVERVIEW OF STATE WOLIP PROJECTS

From the beginning, it was clear to evaluators that state WOLIP projects and implementation strategies were being driven by strong state cultures and many extenuating circumstances. Each state had different goals for the program as well as different budgets and funding strategies. Each was different in how they dispersed programs across geographic areas and in the collaboration styles and partnering strategies they embraced. There were also important differences in the range of industries and workers targeted, in the type and stringency of their eligibility requirements, and in the importance of the role taken by employers in program implementation.

States also had unique strategies for program implementation, including staffing, groups being targeted and outreach to clients, training delivery, co-enrollment practices, and case management. The local workforce systems also adopted varied types of online education, vendors' arrangements, and curricula and assessment tools. Some also blended online education with classroom education to varying degrees.

Commonalities existed across states. All the states adhered closely to the grant guideline to use the program only to train for current and future growth occupations and industries. The majority, as noted, experienced delays in their start-up implementation, which complicated—but did not ultimately impede—their ability to compare notes and share experiences as a national demonstration project. Most were interested in pursuing a training design that would help them overcome past difficulties they had encountered in delivering education and training to rural areas. The majority reported difficulties evaluating the quality of online coursework and credentialing programs provided to them by assorted vendors. Most used the WOLIP project to reach out to incumbent workers needing additional skills as well as to unemployed workers, and many took this opportunity to offer innovative training to both WIA and non-WIA clients.

Indeed, the WOLIP project—from planning to completion—was launched in all four states directly in the wake of the 2008 recession. The severe downturn in the economy challenged job centers across the country in their efforts to train and find work for clients. Although the WOLIP project created some additional challenges to workforce systems' staffing and funding reserves, all four states saw the project as an important and very timely training resource because clients were seeking low-cost education opportunities and needed new credentials in order to find jobs, hold on to their jobs, or change careers.

While states targeted a wide range of workers seeking training, all ended up serving remarkably similar demographic groups in terms of gender, age, race, and educational background. The WOLIP project served more women (70 percent) than men (30 percent) during the training period, and the average student served across all states ranged from 40 to 59 years of age. The majority of students were white/Caucasian.

What follows is a state-by-state overview of how the WOLIP project was introduced and used in each state and across local areas. It details the participants, partners, training foci, procedures, and processes (such as enrollment and case management strategies) for different permutations of the demonstration project, and, where data are available, results and outcomes such as completion rates and wages. Each section concludes with comments on the future of the online portal concept and of online learning in general in that state.

PENNSYLVANIA

The Commonwealth of Pennsylvania, the first state to complete the WOLIP project demonstration, participated in the project with the primary goal of bringing a broader range of education and training options and certifications to rural areas in the state. Pennsylvania sought to use the WOLIP project to ensure that both incumbent and dislocated workers in rural regions were prepared for jobs in local high-demand industries in connection with the state's well-established sector-strategy industry partnerships. Such partnerships were unique to Pennsylvania among participating states. The state invested its own funds in the demonstration project in three workforce areas. Its plan from the beginning was to work through industry partnerships and offer training through specific local workforce investment boards (LWIBs).

Although the start date for the project in Pennsylvania was delayed due to budget and election issues in the state capitol that compressed the funding period, Pennsylvania was able to greatly exceed its original training target of 400 participants, training 739 participants by the demonstration project's close. At the same time, it also improved the state's capacity to test online learning as a training tool while advancing the interests of a range of stakeholders—particularly employers who looked to the public workforce investment system for assistance. An overview of the state is below; it is followed by a description of the WOLIP project as it unfolded in Pennsylvania. The section concludes with a discussion of project results.

Project Context: Workers and the Economy

The execution of the WOLIP project in Pennsylvania differed greatly from its implementation in the other three project states primarily because much of the project was run through the state's well-established sector strategy.

Pennsylvania is a state of varied demographic and geographic contexts. According to the 2010 U.S. Census, nearly 13 million people, including a working-age population of over 7.5 million, live in Pennsylvania. Overall the state has a lower poverty level than the national average, with 12.5 percent of residents living below the poverty line³⁴ despite low college completion rates, a fairly homogenous population in terms of race/ethnicity, a relatively older workforce and population than in other states, and high youth unemployment. Over three-quarters of Pennsylvanians are white, and 67 percent of residents are over 25; in fact the state's population, with a median age of 39,³⁵ is relatively older than that of other states, and Pennsylvania ranks fourth among all U.S. states in terms of its employed elderly population.³⁶ While these

demographics set Pennsylvania apart from other U.S. states, there are also important differences within the state. For example, rural and urban areas tend to differ in terms of education and employment status and in basic population demographics. In fact, Pennsylvania varies in striking ways in terms of its urban/rural population distribution throughout the state. Although it is home to two large cities—Philadelphia and Pittsburgh, both of which are densely populated—outside these two urban centers, much of the geographic area of the state is rural and much less populated.

Table 1: Demographic Profile of Pennsylvania

	Pennsylvania	Philadelphia county	Pittsburgh
Education Attainment (ove	r age 25)		
Less than HS Diploma (HSD)	13.2%	20.8%	12.1%
HSD or equivalent	38.1%	35.9%	31.4%
Some College	15.6%	15.8%	15.9%
Associate's Degree	7.2%	5.3%	7.3%
Bachelor's Degree	16.1%	12.9%	17.3%
Graduate Degree	9.9%	9.1%	15.9%
Age			
Under 19	25.5%	27.2%	22.3%
20–64	59.2%	60.1%	62.7%
Over 65	15.3%	12.7%	14.9%
Income Level			
Under \$14,999	13.3%	23.1%	22.4%
\$15,000–\$34,999	22.4%	25.2%	26.8%
\$35,000–\$74,999	33.6%	30.4%	30.0%
Over \$75,000	30.5%	21.3%	20.8%
Race/Ethnicity			
White	79.5%	36.9%	64.8%
Black/African American	10.4%	42.2%	25.8%
Hispanic	5.7%	12.3%	2.3%
American Indian/ Alaskan Native	0.1%	0.2%	0.2%
Asian	2.1%	6.3%	4.4%

Source: U.S. Census Bureau, American Community Survey, 2011

Pennsylvania has experienced unemployment and an economic downturn comparable to the rest of the nation since the start of the recent recession. The state's economy was notably unstable from 2007 to 2009, but it has shown signs of recovery since 2010. Pennsylvania lost over 130,000 non-farm jobs from December 2007 to June 2011, and receipt of unemployment benefits peaked between July 2009 and January 2010.³⁷

As of May 2011, Pennsylvania's unemployment rate was 7.4 percent, representing a drop of 1.3 percent since May 2010 at a time when the national rate was relatively stagnant. Philadelphia

County had one of the highest unemployment rates in the state (10.1 percent), exceeded in the state only in the northern, more rural Cameron County, which had a rate of 10.4 percent. On the other hand, unemployment in Allegheny County, home of Pittsburgh, was lower than the state average at 6.8 percent.³⁸ Pennsylvania's younger population suffered the most: Unemployment was 12 percent among those ages 16 to 19 and 11.7 percent for those 20 to 24 years of age, while the 55-and-older age group had the lowest unemployment rate in the state.

Educational level has an important relation to unemployment in Pennsylvania. Residents who have graduated from high school without attending college and those without a high school diploma are the single largest unemployed educational group. This group has a current unemployment rate of over 20 percent, while those who have earned some form of college degree have a strikingly low unemployment rate—below 5 percent.³⁹

The execution of the WOLIP project in Pennsylvania differed greatly from its implementation in the other three project states primarily because much of the project was run through the state's well-established sector strategy. The innovative Pennsylvania Industry Partnership (IP) Project in the Commonwealth was created in April 2004 by the Pennsylvania Department of Labor and Industry's Center for Workforce Information and Analysis. The program created industry clusters that bring together employers within the same industry to identify and address common workforce needs. The goal of Pennsylvania's industry partnerships is to make well-researched and industry-supported investments in human capital to help industries within the state grow. The development of the IP system in Pennsylvania has led to greater communication with educational partners and to the development of curricula geared toward increasing the state's ability to identify and serve industry needs. Aspects of this programming were used for the WOLIP project and are discussed further on in this section.

In January 2009, over 6,300 businesses were involved in over 80 industry partnerships across the state of Pennsylvania. Industries served include life sciences, including bio-medical and health care; business and financial services; education; energy; advanced materials and diversified manufacturing, including chemicals, rubber, and plastics; electronics; metals and metal fabrication; printing; vehicle and vehicle equipment; building and construction; agriculture and food production; information and communication services; logistics and transportation; and lumber, paper, and wood. Participants in these industry partnerships report that they are highly satisfied with the program and that the training initiatives through the partnerships have served to increase productivity for their companies.

The Introduction and Implementation of the WOLIP Project in Pennsylvania

The WOLIP project was deemed an important program in Pennsylvania due to the rural nature of a large portion of the state. Many of the state's rural communities are educationally underserved by the traditional education system, and online learning was seen as a potential solution to this problem. While the state does have a strong community college system, most schools are located closer to the larger population centers of the state. Rural regions of the state, like those areas that participated in the WOLIP project, are so geographically dispersed that

rural residents might need to drive up to 60 miles each way to access an educational institution. Time and travel costs, including the rising price of gasoline, can mean that accessing education is simply impossible for some. The WOLIP project provided an opportunity for the state to mitigate this geographic barrier to educational opportunity by improving access to online certificate and degree programs. It was also envisioned that the WOLIP project could enhance the menu of educational programming available and expand educational choices for both workers and employers.

As noted, the WOLIP project was developed to generate more opportunities for education within the workforce investment system in rural Pennsylvania. Overall, it was also designed to align with Governor Edward G. Rendell's *Strategy for Building a Skilled Workforce*. This strategy was built around three ideas: that the global economy has created the need for a workforce with strong academic, workplace, and technical skills; that Pennsylvania's workforce reform, Job Ready Pennsylvania, has a dual focus on businesses and job seekers; and that Pennsylvania needs a workforce with higher levels of education and marketable credentials in high-wage, high-demand occupations.

The Commonwealth of Pennsylvania was awarded \$500,000 by the U.S. Department of Labor's Employment and Training Administration for this demonstration project. These funds were divided equally among three rural workforce investment areas: the Central LWIA the North Central LWIA, and the Northern Tier LWIA, with each receiving \$150,000 for training and \$15,000 for administration costs. The Pennsylvania Department of Labor and Industry in Harrisburg also retained \$5,000 for administration costs. An initial state match was provided by Pennsylvania for the demonstration project to help offset participant costs where needed: The Central workforce area received \$100,000 and North Central LWIA and Northern Tier LWIA each received \$50,000 in state funds.

In addition to these funds, Pennsylvania invested significant additional dollars in the project to extend the program for two more years. This extra investment resulted from the positive feedback on the program that LWIAs and the state received from employers. Pennsylvania provided an additional \$820,000 in funding for online learning and an expansion of the WOLIP project in 2010 and 2011. The three LWIAs involved in the initial WOLIP project as well as two other areas received funds. The Central LWIA area received \$350,000, North Central LWIA received \$160,000, and Northern Tier LWIA received \$160,000. The additional LWIAs that became involved in the WOLIP project were the Northwest (\$75,000) and the Southern Alleghenies (\$75,000). As of December 2010, Pennsylvania had invested \$1,020,000 into the expansion and use of the WOLIP project Web site and into online learning as a training tool within the state.

The WOLIP project in Pennsylvania was designed primarily to serve incumbent workers, but the state also encouraged the inclusion of adult job seekers, underemployed individuals, dislocated workers, and veterans in its training. Pennsylvania stakeholders made it their initial goal to train at least 400 Pennsylvania workers within the grant period, but they were able to serve far more than that by the time the demonstration project concluded.

Enrollment for the WOLIP project in Pennsylvania began in February of 2009. Pennsylvania was the first state to finish the WOLIP project, expending all project funds by December 31, 2010. This demonstration program was viewed by stakeholders as an important asset to the state's workforce system because it expanded much needed access to education and training in rural Pennsylvania through online learning. The program in each of the three LWIAs is discussed later in this report.

The general direction and strategy for the WOLIP project was conceptualized and developed by the Department of Labor and Industry in the state capital, Harrisburg, under the direction of the Special Assistant to the Secretary of Labor and Industry. The program was executed primarily by the LWIBs in the three rural LWIAs named above.

Staffing of the WOLIP project in Pennsylvania involved a primary project point person in the Department of Labor and Industry in Harrisburg along with one or two local staff members in each participating workforce investment area. The local project contacts undertook a variety of tasks, including communicating with and reporting on the demonstration project to the state, reaching out to companies through the IP system, recruiting training providers, recruiting participants in the workforce system, answering technical support questions, assisting training providers in putting information onto the portal, processing payments to training providers, and solving problems as needed.

Uses of the WOLIP Project in LWIAs

The Commonwealth's goal, as noted, was to train 400 participants within Pennsylvania's identified High Priority Occupations by the end of the grant period. By the end of 2011, the project had almost doubled that goal, training 739 participants. It continues to provide training opportunities to both incumbent and dislocated workers within its three participating workforce investment areas. (Funding was provided by the state to extend the WOLIP project to two additional areas, but data on these were not available at the time of the writing of this report.)

Women made up the majority of those trained in Pennsylvania. In two LWIAs, more than three-fourths of the workers were women. Data reports on the age, education level, and racial/ethnic background of participants were inconsistent across LWIAs and individuals, as shown in Table 2. For the two LWIAs that did report on education, there were important differences in the attainment levels of trainees, with over half of trainees holding a postsecondary degree in the Central LWIA but less than 15 percent holding postsecondary degrees in the Northern Tier LWIA.

Table 2: Overview of Programs and Participants by Local Workforce Investment Area

	Central LWIA	Northern Tier	North Central			
		LWIA	LWIA			
Number trained	274	103 (23	342 (13 companies)			
		companies)				
Primary sectors or	Health care;	Health care	Health care,			
industries	Manufacturing,		Manufacturing			
	Building, and					
	Construction					
Target workers	Primary: Incumbent	Incumbent	Incumbent			
	Secondary: Unemployed					
	workers					
Gender						
Women	52.5%	79.4%	75%			
Men	47.5%	20.6%	25%			
Education attainment of workers						
High School Diploma		5.88%				
(HSD)						
HSD/General Educational	25%	58.8%				
Development certification			Not reported			
(GED)			Not reported			
Credential or some	22.5%	20.59%				
college						
Postsecondary Degree	52.5%	14.7%				
Age			·			
18–29	17.5%	26.5%				
30–39	20%	26.5%				
40–49	22.5%	26.5%	Not reported			
50–59	30%	17.7%				
Over 60	10%	2.9%				

Source: U.S. Census Bureau, American Community Survey, 2011

Project approaches differed across Pennsylvania LWIAs; the next sections examine how each LWIA developed the WOLIP project in terms of target groups, uses of online training, industry focus and employer involvement, and other factors.

Central Workforce Investment Area

The Central LWIA is a nine-county rural area. Here, the WOLIP project was initially used to train incumbent workers; eventually it was also used to train unemployed workers. As of December 2010, a total of 274 incumbent workers had been trained in this region.

Several companies were able to use the WOLIP to train large groups of employees. This training proved quite useful to the companies involved; it also provided workers with important and portable credentials.

Incumbent workers were recruited through the IP Project. Employers in two industry partnerships—health care and manufacturing, building, and construction—came forward to take advantage of online training through the WOLIP project Web site. In both of these industry partnerships, several companies were able to use the WOLIP project to train large groups of employees. This training proved useful to the companies involved; it also provided workers with important and portable credentials. In fact, the companies that enrolled groups of employees during the demonstration project have returned to the state asking for more funds to train others.

Within the health care IP, the focus of training was entirely on information technology (IT). Within the manufacturing, building, and construction IP, there was a strong uptake from the plastics manufacturing industry. Employers in that IP trained large numbers of employees for a portable credential called the Global Standards for Plastics Certification. This certification was offered through a local institution, Pennsylvania College of Technology, which is affiliated with The Pennsylvania State University. The course is a blended program with online and in-person components. It has three levels of training. This certification is used in over 500 companies worldwide, and over 29,000 certifications have been awarded. The certification costs the state \$1,500 per person, a figure reportedly far less expensive than typical training using Individual Training Accounts (ITAs), which averages around \$3,000 to \$4,000. It was noted, however, that this cost is comparable to typical IP project training costs.

Rutgers researchers were able to visit one company that was engaged in this training for the purpose of improving its employees' skills. The company has been transitioning its production set-up from making consumer products such as plastic nipples for baby bottles to making high-tech and highly sanitized medical supplies and devices. This new production agenda requires a much more highly skilled workforce than the company formerly required. To that end, the company used the WOLIP project to train and certify 45 employees with a Global Plastics Certification Level 1 credential. This was the first time the company had ever done this training, but they were very pleased with it and hope eventually to have all their employees production-certified.

To accomplish the training, the plastics company hired a training advisor who was trained to be a global plastics certification instructor by Pennsylvania College of Technology. This person also provided staff members with other types of training programs, including safety training. For the actual training, employees were removed from the production line during periods when their services were not needed. The floor manager would determine when people could leave and go to training. The online nature of the program allowed people to come back to their training throughout the day as production on the floor allowed. Typically, workers would

leave the production floor and go to an on-site classroom set up with computers to take the online portion of their training. When workers were needed back on the floor, they could easily return.

The course was blended in nature, so not all of the training occurred online. Workers were also expected to demonstrate precisely what they had learned to the training advisor on the production line. Employees taking this training also gathered together at different points in their training for on-site group sessions with the training advisor.

Rutgers researchers were able to view one of these sessions and observe its effectiveness. Workers were asked to use the knowledge they had gained in training to identify "waste" on the production line through a group activity. A substantial number of processes that generated waste were identified at various points in the line as a result of this activity. This information was duly noted by the employers. They made it clear to the Rutgers team that they would be reevaluating the results of the session, using any information gleaned to make changes in production that would eliminate further waste wherever possible.

Employees of the company reported to the evaluators that they enjoyed learning more about what they were doing on the production line. When asked if they would take more training like this if it were offered by the company, all employees in the focus group answered "yes." They also indicated that they greatly appreciated the opportunity to help make decisions within the company that affected their production work.

In addition to the incumbent-worker training, the Central LWIA also reported that they expanded the reach of the WOLIP project to include job seekers and dislocated workers using PA CareerLink® services to find employment. Staff from the Central LWIA stated that this provided them with a welcomed opportunity to expose some clients to short-term, online training—training that would normally not be found on the statewide eligible-training-provider list due to its short-term nature.

Participants in this workforce area were more evenly divided by gender than were participants in the other two LWIAs, with just over half being female. This was the only LWIA in PA to give data on race/ethnicity; most (80 percent) described themselves as white/Caucasian; 10 percent as black/African American; 5 percent as Asian; and 2.5 percent as Hispanic. 2.5 percent of respondents did not indicate their race or ethnicity.

Trainees in the Central LWIA had a relatively high level of education as compared to other workforce areas, with 52.5 percent holding a college degree or above (35 percent Bachelor's, 5 percent Master's, and 12.5 percent Associate's degrees) and 7.5 percent having some college credentials.

North Central Workforce Investment Area

The North Central LWIA is made up of six counties with a total population of 224,042. It is very rural in nature. The individuals living here who need to increase their education or skills training face substantial barriers. Long distances to training providers and the high cost of tuition were noted as being the two most prominent barriers to education. The region has no community colleges, but there are several four-year universities and assorted vocational schools located in the vicinity.

The focus of the WOLIP project in the North Central LWIA was on incumbent workers. The decision to focus on this group was a financial one. At the start of the WOLIP project there was an influx of training dollars, funded by the ARRA, available for dislocated workers; this gave rise to the fear that if more money from the WOLIP project was added to that pot, it would be difficult to spend down appropriately. Therefore, using the IP initiative as well as some unaffiliated companies, the WOLIP project in the North Central LWIA trained 342 incumbent workers representing some thirteen different companies as of December 2010. The majority of participants were trained in the health care and manufacturing sectors. Sector partners in this area were generally pleased with the WOLIP project and its online training activities. Many noted that it saved them from having to send workers out of the area to take training courses.

In the health care industry, the WOLIP project was used primarily as a way to train employees who needed continuing-education credits. Online training was seen as both a time saver and a money saver for these employers. In the manufacturing industry, employers used training in a variety of ways. One employer enrolled employees in Tooling University courses as an activity for workers who were unable to work due to injury. Employers and their employees commented on being pleased with this opportunity to learn new things during the downtime while simultaneously retaining old skills.

While there were industry partnerships in the area that took advantage of the training dollars in North Central, the uptake on the program and its dollars did not occur as quickly as the LWIA had expected. According to workforce staff, there were several reasons for this. First, online training was a new idea and unknown quantity for many industry partners and businesses; second, effective marketing for the WOLIP project was held back because of the unrealized expectation that it would be more popular than it was among IPs; and, finally, employers were short staffed, especially during the recession, and were reluctant to make arrangements for staff to take training courses during work hours.

Despite the fact that the program was not picked up as expected by all of the IPs in the region, the WOLIP project was deemed to be a moderate success. In fact, the LWIA continues to work with those companies interested in exploring online training options and has received additional requests from IP members who received training during the demonstration project.

Later in the implementation of the WOLIP project, the North Central LWIA reported that the WOLIP project and online learning were also introduced as an option within the PA

CareerLink® Web site. Outreach or recruitment fliers were developed and distributed to all regional PA CareerLink® staff by the Web site administrators in each of the job centers. To receive online training, customers must complete an application in coordination with and with assistance from PA CareerLink® staff. Applications are then submitted to the North Central LWIA for approval. Once approved, an award letter is sent to each job seeker, PA CareerLink® staff is made aware of the award, and the training provider is sent a copy of the application. The provider then contacts the job seeker to begin the process of enrolling in the training and sends the North Central LWIA an invoice for their services. This process is reported to be working well. A North Central workforce staff person reported that this demonstration project was very good for the region and was happy to have the option of using online learning as a training tool.

Around 75 percent of workers trained in North Central were women, a far larger share than in the Central LWIA, where trainees were almost evenly divided.

Northern Tier Workforce Investment Area

The Northern Tier LWIA is the most rural and least populated workforce area in the state of Pennsylvania. The total population of the five-county region is about 180,000 people. For this reason, the WOLIP project there was run both through the IP to serve incumbent workers and through the network of AJCs to serve workforce clients. It was felt that offering the program only to the incumbent worker population would not generate enough of a response to expend the funds by the end of the grant period.

Staff in the Northern Tier LWIA was interested in the prospect of using online learning and implementing the WOLIP project in their area. Like other areas in PA, this area also lacks adult educational opportunities, with no community colleges and no higher education council within its boundaries. There are a few four-year universities in the region, but the focus of these schools is mostly academic rather than industry-related training. This lack of appropriate educational infrastructure in the area led LWIA staff to view online learning as a cost-effective and feasible way to train certain local clients.

Indeed, the WOLIP project was the first attempt at a large-scale online learning program in the area, and stakeholders were interested in having the opportunity to try online learning and to expand the available educational opportunities within the region. One workforce staff member said, "Now that we have done [online learning] we don't want it to go away. I would hate for it to go away."

Like the other LWIAs in Pennsylvania, the Northern Tier focused its efforts in the WOLIP project on reaching out to incumbent workers through their IP Program. Outreach for the project was conducted through the IP Program and through the local Business Retention and Expansion Program. As of December 2010, the region was able to train 103 employees at 23 different companies.

Most training in this area was offered through the region's health care IP and was concentrated on building IT skills. Regional stakeholders attribute the strong uptake of Web site offerings by the health care industry to the fact that it is the strongest IP in the region. The workforce system has good relationships with employers in this industry, and as a result, it was fairly easy to recruit interested companies. It was also noted that the health care industry is the largest employment base in the Northern Tier. As importantly, it was discovered that some high-quality online training courses had already earned visibility within the health care industry, and the local health care industry was interested in taking advantage of the available training.

Rutgers researchers were able to visit a hospital that used the WOLIP project to train human resource staff in recruiting techniques for high-skill positions at the hospital. The live online course was delivered over a few days. Essentially, the course could be described as a remote classroom experience. Students were pleased with the course and reported to the Rutgers interviewer that they had already successfully used some of the skills they had learned in their HR recruiting work. Two students who commented on the program said, "I thought it was fantastic" and "This [training] opened up a whole new world."

While there was clearly good uptake for the WOLIP project in the health care IP, other IPs and businesses in the region were not as eager to use the program. Workforce staff noted that the partnerships in these other industries were simply not as strong and that they had difficulty selling the idea of using online learning to those groups.

Another reason for lack of participation by some industries was the difficulty some partners had identifying available online training courses in their area of interest. Two industries that encountered this problem were the gas industry (a booming industrial sector in the area due to the existence of Marcellus Shale) and companies participating in the lumber, paper, and wood IP. Eventually, some safety training was identified as useful and picked up by the gas industry. Generally, however, the lack of interest in participating in the WOLIP project by several local industries was disappointing.

Some members of the local IPs simply found the online training offered through the WOLIP project to be unnecessary for their company. Large manufacturing companies in the Northern Tier informed workforce staff that they already owned and used online training in-house, so for them, the WOLIP project was not a great fit. There was an attempt made by workforce staff to try to engage smaller manufacturing companies that did not have any on-site resources for online learning. However, it was difficult to get the word out effectively to these smaller businesses, and when they did hear about the WOLIP project, too few companies could find an efficient way to move employees temporarily from their positions on the manufacturing floor to an on-site or other location to complete training during their work hours.

Still, the Northern Tier LWIA did find innovative ways to work with some very small businesses. One example is a dairy farmer who needed to acquire skills in Web design for his business and who became a willing and appreciative participant of the WOLIP project.

As noted, the Northern Tier LWIA worked with job seekers and dislocated workers as well as with incumbent workers through its IPs. As of December 2010, a total of 19 job-seeking customers and dislocated workers had received training from the program. Much of the training completed by this population was focused in health care and law.

Recruitment for the WOLIP project among this population was done by case managers who identified good candidates for online training. They sought people who were interested in training options that were not available locally or who wanted specific training but could not gain admission to an in-person class in a local school. There was also a focus on signing up people looking for short-term skills training. In this region, case managers reported that this funding was a great alternative to their traditional ITA training because ITAs were not necessarily short-term nor ready and available. Other ITA limitations were mentioned as well.

Regarding assessment and motivation, case managers reported that they determined whether someone was suited for online learning by trying to individually gauge their determination to succeed at it. They also required that clients sign a form noting that they had a computer and access to high-speed Internet as well as the required software for their training program.

To ensure that case management for the WOLIP project participants was strong and effective, job center staff tended to focus their recruitment efforts on WIA clients because of the traditionally strong case-management requirements for those individuals. It was standard for case managers here to follow up with their WOLIP project participants to make sure they were moving along with their training and were not encountering problems.

Staff in the Northern Tier LWIA did not believe that the WOLIP project provided a cost savings to the state in terms of support-services dollars. State workers commented on the fact that the Northern Tier is a tightly knit community and that people already have strong support structures to draw on. As a result, support-services dollars are not used as frequently in this area as they may be used in other areas. However, staff did note that online training was often cheaper than typical ITA training; while ITA training is capped at \$7,500, the average expense for online training in the WOLIP project for this area was said to be around \$3,000.

Over three-quarters of Northern Tier workers were women, as in the North Central LWIA. Most reported that they were white/non-Hispanic, as in other areas in Pennsylvania. Workers were fairly young, unlike the state's overall population; most trainees were between the ages of 18 and 39. At least 26 percent were between 18 and 29, 26 percent were between 30 and 39, 26 percent were between 40 and 49, 18 percent were between 50 and 59, and nearly 3 percent were over sixty.

The majority of workers participating in the Northern Tier program had lower educational attainment than the state average. Fully 53 percent had achieved only a high school diploma, and an additional 6 percent had earned only their GED. Only 9 percent held an Associate's degree, and only 6 percent had received their Bachelor's degree. An additional 9 percent had received various college credits, and 12 percent had some type of certification.

The IP has been described as valuable and has been lauded as a program that can support a population not currently being served with WIA or IP funds.

Overall, online learning was well received in rural Pennsylvania by employers and employees as a good option for skills training and education, and it looks to be sustainable in these areas in some significant ways. This positive view is clearly demonstrated by the continued financial investment made by the state. The Harrisburg staff in the Pennsylvania Department of Labor and Industry report to the Rutgers evaluators that LWIAs have expressed an eagerness to continue moving forward with this program. It has been described as valuable and lauded as a service that can support a population not currently being served with WIA or IP funds.

Moreover, Pennsylvania workforce staff report that the WOLIP project training has offered some significant benefits to local companies at a good point in time in the overall economy. They noted that while business has been slow for many companies, workers were able to use company downtime to effectively pick up more high-demand skills that, in turn, can serve business well as the economy picks up. It was also noted that this program was beneficial for workers because it was less stressful and often more cost-effective than traveling long distances to obtain training, especially in rural areas of the state.

Stakeholders in Pennsylvania did report some concerns about the need to identify high-quality training. This was particularly true for online training in those occupational areas workforce staff felt demanded considerable hands-on skills, such as heating, ventilation, & air conditioning (HVAC). For the most part, IPs and their companies chose the same educational training providers they were using in their current demonstration projects, many of which were locally based. While a few new vendors were chosen to serve the unemployed population, vendors and participants—similar to those in other states participating in the WOLIP project—noted that they were more comfortable with a local training institution they knew, whose educational product they trusted, and that was nearby and could be accessed in person if necessary. Some employers even stated that if training was brought in through an outside source and run through a local school, they would be more likely to have confidence in the education their employees would receive because that training would be vetted by the local institution.

Despite the preference for local educational institutions, not all training providers used in the WOLIP project in Pennsylvania were locally based. In fact, industry partners in manufacturing and health care chose to use vendors that were not local (e.g., Tooling University) workforce area staff expressed some concerns about this but noted that the approval of the vendors by employers and IPs served to ease their concerns.

Pennsylvania enforced some specific requirements in dealing with its vendors. The state required that all vendors provide certificates to students upon program completion. Administrators felt that this was important for clients because it would allow them to include proof of their training in their portfolios. They also believed that it was a measure of accountability ensuring that the workforce center could verify that its clients had completed their coursework.

As noted, postponements in the implementation process for the WOLIP project occurred in all four participating states. However, each state identified different reasons for the delay in implementation. In Pennsylvania, the LWIAs were made aware that the WOLIP project would be an item on their agenda from the time of the grant award in June of 2008. However, these LWIAs did not receive details on project implementation or funds for the demonstration project until much later due to a budget impasse in the legislature in 2008. Staff changes in Harrisburg followed the budget's passage, which led to yet further delays. The demonstration project finally landed in the hands of the current project leader in 2009 and then moved forward.

This series of delays, however unpredictable they may have been, did seriously influence program implementation. LWIAs received their funding for the WOLIP project much later than expected, and as a result, each region worked within a tight timeline to expend funds and complete the work. Nevertheless, efforts were made to roll out the program in the most efficient way possible for the Pennsylvania LWIAs involved through the Pennsylvania IP Project.⁴⁰

Portal and Online Issues

Computer and high-speed Internet access was noted as occasionally being a problem in Pennsylvania. One way in which Pennsylvania has addressed this problem is by setting up access points where workforce clients can use computers and the Internet. These Web sites are often located in libraries and senior centers that are easily accessible by public transportation. However, this removes some benefits in terms of the flexibility that online learning provides.

While online learning was well received in Pennsylvania, the WOLIP project Web site itself got a varied assessment from staff. The portal was primarily used in Pennsylvania by the staff member in charge of the demonstration project in each local area. Some staff members stated that the portal was a helpful tool to search for available coursework, but others found it difficult to navigate and search and did not understand its purpose. Many argued that they "didn't know what [the portal] was for." Others noted that it would have been a more useful tool had it been pre-populated with coursework. One LWIA director even commented that the portal seemed like "an unnecessary middleman" between the training provider and the workforce investment system.

In Pennsylvania, the WOLIP project Web site was first described as a clearinghouse. Stakeholders noted that they had assumed the portal was going to give them access to training providers they were unfamiliar with and were therefore surprised that, for the most part, local

providers were used to deliver training in this project. That is not to say that no new training was discovered in Pennsylvania as a result of the WOLIP project; training from groups such as Tooling University was first introduced to the workforce system through the WOLIP project.⁴¹

There was not only confusion among workforce staff about the purpose of the WOLIP project Web site, staff also found it difficult to convey the purpose of the portal to training providers. In fact, local workforce staff in Pennsylvania found that the lack of a clear message as to the proper role of the portal in the project made it difficult to convince training providers and vendors that the portal provided any real value added.

Assessment and Case Management

Assessment to determine whether clients would be good online learners proved not to be as significant a problem in Pennsylvania as it was in other states. This was primarily because recruitment was conducted through the IPs, and employers chose workers to participate who both needed training and who would also be likely to succeed. Although employers personally assessed the clients they referred to training, Pennsylvania employed an additional online assessment tool with the WOLIP project participants to see if they had familiarity with computers. This tool was provided by a local Pennsylvania educational institution, Bloomsburg University. The assessment includes seven questions that evaluate the capacity to be an online learner. Staff did not comment on whether this proved to be a useful tool.

In Pennsylvania, case management was of limited concern because the program was run through the IP Project. For the most part, all of the workforce areas were able to rely on well-known businesses and vendors to carry out the bulk of case management and to assist clients through their training courses.

There was one case-management concern that emerged in Pennsylvania regarding up-front payment for training in the WOLIP project. Unlike with traditional ITAs, where dollars are withheld until certain outcomes are achieved, training in the WOLIP project was paid for up front, which could be problematic and could affect retention in the program. Without a money trail, workforce staff found it difficult to follow through and see if clients had started classes, progressed through their coursework, and finished training.

This problem was dealt with in LWIAs responsible for serving dislocated, unemployed, and underemployed workers by mandating that clients keep in contact with their career advisor as they would typically be expected to do with other career training. To that end, they were asked to agree to and sign a basic customer agreement detailing their reporting requirements to their case manager. Such a contract was not needed for clients who received training through the IP Project because those businesses and vendors took the primary responsibility for making sure that the employees they referred to the program started and finished their training.

The Future of the WOLIP Project in Pennsylvania: Expansion with State Funds

The WOLIP project has continued in all of the original workforce areas and has been expanded to two new areas that are also rural in nature, the Southern Alleghenies region and the Northwest Area.

Online learning via the WOLIP project has continued to expand in the public workforce system of Pennsylvania since the close of the ETA-funded grant in December 2010. Pennsylvania was the only state that also continued to add training options to the WOLIP project after the close of funding. The demonstration project has continued in all of the original workforce areas and has been expanded to two new areas that are also rural in nature, the Southern Alleghenies region and the Northwest area. The portal itself was used as a tool in Pennsylvania's expansion of the project until it was taken down at the close of the demonstration.

Both the Southern Allegheny and Northwest LWIAs received state dollars to support online training and planning for the program in September 2010. Implementation has been steady and impressive. Staff in this region created outreach materials and application forms for online learning, developed an internal tracking database for participants, and prepared briefing materials for PA CareerLink® staff and educational providers. The initiative was introduced at IP Project meetings, and local education and training providers were given information on how to list their courses on the WOLIP project Web site. In addition, the workforce areas also hosted a training Webinar for PA CareerLink® staff in the region to discuss the details of the program, provide strategic guidance, and answer any policy questions. As of December 2010 (the end of the Pennsylvania grant period), 21 students were enrolled in training in the Southern Allegheny workforce area.

As in the Southern Allegheny area, the WOLIP project in Pennsylvania's Northwest LWIA was introduced to PA CareerLink® Web site administrators and at IP Project meetings. Staff members were identified to act as coordinators for the WOLIP project to carry out the day-to-day operations of the program, including giving orientations and introductions to the WOLIP portal, working one-on-one with job seekers to match candidates with courses that will help them to be successful, assist candidates in getting registered with state-approved training institutions, track student progress, and perform follow-up case-management services to assure students' completion of the program and subsequent employment. Local staff noted that there has been a great deal of excitement voiced about this project from PA CareerLink® Web site administrators, but as of December 2010, no one in the local area had yet been trained.

MAINE

Maine participated in the WOLIP project with the goal of ensuring that its workforce was prepared to fill positions needed by Maine businesses. The state sought to use the grant as an opportunity to identify useful online certificate and degree programs that would accomplish this larger goal. The implementation period for this demonstration project occurred from 2009

to 2011 under the administration of Governor John Elias Baldacci and was shaped to fit within his economic vision for Maine.

The WOLIP project in Maine was a learning experience for the state in terms of how best to use online learning within the workforce investment system. State stakeholders were adept problem solvers, and their hard work led to many important lessons on what works and what does not in the implementation of an online learning program. Maine is in the early stages of institutionalizing online learning within its public workforce system as a result of its experience with the WOLIP project and the increase in online course offerings from local colleges and universities.

Project Context: Workers and the Economy

Maine, home to about 1.4 million people, is the northeastern-most state in the United States. The population is homogenous in terms of racial and ethnic diversity, and its median age of 42.7 makes it the oldest U.S state.⁴² The state ranks above the national average for high school graduates over age 25 but below average in achievement of a bachelor's degree or above. Median household income in Maine is \$45,708, but 13 percent of residents live below the poverty level.⁴³ Much of the state, especially to the north, is rural and sparsely populated.

Table 3: Demographic Profile of Maine

	Maine	Kennebec County (Southern Maine)	Aroostook County (Northern Maine)
Education Levels (over 25)			
Less than HSD	10.7%	9.3%	17.3%
HSD or equivalent	35.5%	37.6%	39.5%
Some College	18.8%	18.8%	18.8%
Associate's Degree	8.9%	9.2%	8.7%
Bachelor's Degree	17.1%	15.7%	11.5%
Graduate Degree	9.0%	9.4%	4.1%
Age		•	
Under 19	24.1%	24.4%	23.2%
20–64	60.9%	60.8%	59.0%
Over 65	14.9%	14.8%	18.0%
Income		•	
Under \$14,999	14.0%	12.9%	20.8%
\$15,000–\$34,999	23.9%	25.2%	28.8%
\$35,000–\$74,999	36.1%	36.7%	34.8%
Over \$75,000	26.0%	25.1%	15.7%
Race/Ethnicity		•	
White	95.3%	96.8%	96.0%
Black/African American	1.2%	0.6%	0.7%
American Indian/Alaskan Native	0.5%	0.3%	1.2%
Asian	0.9%	0.9%	0.6%

Source: U.S. Census Bureau, American Community Survey, 2011

Before the WOLIP demonstration project began in 2007, Maine's unemployment rate was a low 4.7 percent. In 2008, the first year of planning for the WOLIP project, this figure rose to 5.4 percent. By 2009, the first year of program implementation, the unemployment rate had jumped to 8.2 percent. As of May 2011, Maine had about 700,000 workers and a 7.7 percent unemployment rate.

During the project implementation period, Maine's unemployment rate stayed just below the national average. Urban and suburban areas fared better than rural areas, with Maine's metropolitan regions of Portland-South Portland-Biddeford, Bangor, and Lewiston-Auburn all experiencing lower unemployment rates than the statewide average. More rural counties, such as Piscataquis and Somerset, reported significantly higher rates of unemployment during this time, at some points above 11 percent.⁴⁴

Despite Maine having had a lower unemployment rate than many states over the last few years, the state saw a rapid increase in unemployment throughout 2008, starting with just 4.7 percent unemployed in January and jumping to 6.9 percent in December.

While Maine's workforce, like that of all states, suffered during the recession, there are unique features to Maine's economic downturn that should be mentioned. The structure of employment in Maine is changing, and there has been a shift away from traditional manufacturing industries, such as textiles and footwear, fishing, and agricultural production. The construction industry has also experienced a downturn due to the burst in the housing bubble and decreased funding for infrastructure by state and local governments. As a result of the slowing down of these traditional industries, many workers have been displaced and have found that they lack the necessary knowledge, skills, and experience to be employable in Maine's more stable or growing industries, such as health care, business services, and finance. Location is also a factor affecting employment in Maine; declining industries are heavily concentrated in the western, northern, and eastern rim of the state, while growing industries are typically located in the southern coastal region. For many workers in Maine, this means that jobs may not be readily available in their local area.

In addition to the changing nature of industry, Maine is also facing a problem due the declining number of young adults entering the labor force. This phenomenon emerged as a result of declining birth rates in the state over the last several decades. As the economy begins to improve, there are concerns among state policy makers and workforce investment personnel that there will not be enough young adults to fill Maine's workforce needs as baby boomers retire. This combined reality may well hinder the state's economic growth.

The Introduction and Implementation of the WOLIP Project in Maine

As is clear from the above data, Maine's economic condition deteriorated during the recession that coincided with the implementation of the WOLIP demonstration project. As a result, the WOLIP project in Maine, titled the *Maine Online Learning Initiative* (MOLLI), became an important component in the state's response to the need for skills development among its workforce—particularly among the unemployed and underemployed.

MOLLI was to respond to the need for trained workers within the state and to support the economic mission of Governor Baldacci. The MOLLI program was a partnership between ETA, the Maine Department of Labor (MDOL), and the Maine Apprenticeship Program.

Goals, Vision, and Structure

The MOLLI program in Maine had three main goals:

 To provide additional access to training opportunities both within Maine and outside of Maine through online learning;

- To increase the capacity for Maine workers to obtain industry-recognized certifications, licenses, degrees, and diplomas for high-wage, high-demand jobs; and
- To support Maine workers in achieving higher wages and career advancement.

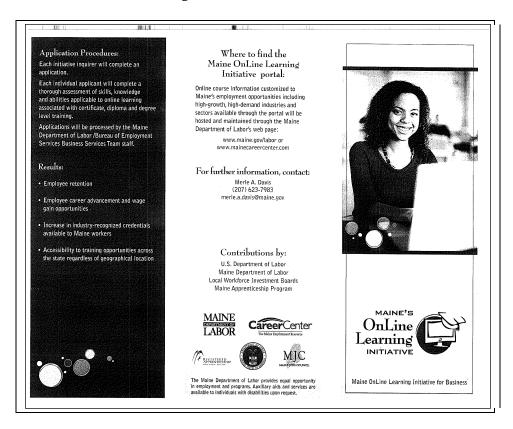


Figure 1: MOLLI Brochure

In addition to these goals, Maine also sought to develop a Web-based portal where Maine workers could learn about online opportunities available to them.

Maine was the first state in the WOLIP project to launch its program. The state began accepting applicants on July 1, 2009. Although Maine, like all states involved in the program, experienced some delays in implementation, its delays were primarily due to the later-than-expected launch of the WOLIP project Web site by the SREB.

MOLLI was hosted through the MDOL's Web site and could be accessed at www.maine.gov/labor or www.mainecareercenter.com; however, the MOLLI Web site is no longer active. The Web site was advertised as a place to find online course information customized to Maine's employment opportunities.

As is true with most demonstration projects, the final incarnation of MOLLI differed greatly from the early vision for it. When MOLLI was initially planned, it was to be delivered in two ways. The first involved strategically targeting Maine businesses to offer career advancement

opportunities to their workers. This was to be accomplished by partnering with the Maine business community and with Baldacci's Governor's Training Initiative, a program in which the state of Maine reimbursed businesses for enrolling employees in innovative training programs. It was envisioned that businesses would receive a 100 percent tuition reimbursement for fees up to \$3,000 for workers who successfully completed and demonstrated proof of attaining a certification, degree, or diploma from training in one of the grant's targeted industries. Maine hoped that results of the MOLLI program for business would include better retention for employers and better career advancement and wage-gain opportunities for employees.

The second focus of MOLLI was to offer online training as an option for clients of the Maine AJCs. MOLLI would serve as an alternative and addition to the other available workforce training programs through the WIA, Trade Adjustment Assistance, and Maine's Competitive Skills Scholarship Program.⁴⁵

When MOLLI was first planned, the state believed that the majority of the available training dollars would be used by businesses to train their employees. Thus, the program was initially implemented as a tool to serve the business community. The program concentrated on the business community for two reasons: First, the MDOL believed that businesses would benefit from providing employees with further training, and second, it was the desire of the MDOL not to overburden the job centers. In 2009, AJCs in Maine were extremely busy with other programs, including the ARRA. It was thought that the responsibility for implementing MOLLI could prove to be a cumbersome and overwhelming addition to the already considerable workload of job center staff.

In the end, however, MOLLI was mostly rolled out in Maine job centers. The primary reason for this was that despite the hard work of MDOL staff to inform the business community of this opportunity, Maine businesses did not demonstrate much interest in participating. In fact, only four businesses actually used the MOLLI program as a training vehicle.

While Rutgers was unable to interview businesses that did not use the program, job center staff expressed ideas as to why the business community may not have taken advantage of this opportunity. Staff stated that the reimbursement system may have been the primary reason for the lack of interest from business. The reimbursement system meant that there was a risk of the investment not paying off if workers did not actually complete their credential. They noted that such a risk may have been too great for many businesses operating during the economic downturn.

ETA had originally stipulated that states involved in the WOLIP project would be required to match the federal training dollars provided. However, due to the lack of available training dollars in Maine at the time of the award, the state was given a dispensation and was able to proceed with the demonstration project without matching funds. This meant that Maine had considerably fewer dollars set aside for training than other states. The state was granted \$500,000 by ETA and was able to use approximately \$375,000 for training. The MOLLI program dollars were managed at the state level by the primary MOLLI program staff person. As such,

program dollars were not run through the LWIBs in Maine. The money was allocated by the state on a first come, first served basis. While training was conducted in all local workforce areas in Maine, certain job centers used the program more than others.

In an attempt to make the limited training dollars for the demonstration project go further, Maine used co-enrollments with other workforce programs where possible. The most common example of this was that WIA-eligible clients were sometimes co-enrolled in MOLLI and WIA. For Maine, co-enrolling clients offered a number of benefits. The two benefits that were cited most often by workforce staff were that it allowed for courses over the \$3,000 limit imposed by WIA to be taken and that it served to alleviate some clients' out-of-pocket expenses for equipment and learning materials.

Maine focused the MOLLI program on the following high-demand, high-growth industries: advanced and precision manufacturing; energy, including green energy; financial services; IT; construction, including green construction; and health care. These industries were chosen because they were identified as stable or growth industries within the state and were also industries identified in Governor Baldacci's Economic Development Vision within Maine's Strategic Plan.

The focus on targeted industries resulted from the grant instructions set forth by the Department, but in Maine, stakeholders identified some specific benefits that emerged from this stipulation. One such benefit was that the target industries served to limit the type of training that could be offered. Staff noted that this was useful in the demonstration project because it helped to narrow the pool of appropriate clients and created parameters for the online coursework that was used. As will be discussed later, this was the first large-scale online learning demonstration project in Maine, and selecting high-quality and appropriate online coursework was one of the challenges encountered by the state.

Despite these benefits, working within target industries did pose some challenges in implementation for Maine. Job center staff found that they had difficulty explaining the focus on target industries to clients. Some case managers noted that the concentration on targeted industries was confusing for their clients. Many remarked that it was often a struggle to link occupations to the targeted industries and that this process was even further complicated due to the need to find appropriate, high-quality online training programs. In fact, there was a general feeling that it may have been better to focus on occupations rather than on industries. One staff person in Maine had the following to say about this challenge:

"I think if we can look at it globally, and have a concentrated effort at promoting workforce development in industry, that is great, but also if we recognize that there [are] a lot of supporting kind of occupations that are needed in those industries. . . I think as long as we have that dual conversation, it won't be limiting."

As is clear from this comment, staff found it difficult to identify the breadth of occupations within industries. Many argued that if they had been working from a list of possible

occupations, it would have made the process easier for case workers and clients to understand. The evaluators heard from other staff that it was often difficult to associate specific and available training with industries because many occupations fit into a variety of industries. While it is clear that a good portion of staff wished that the demonstration project parameters had been narrowed in this manner, others remarked that for many clients these industry categories meant that MOLLI's training options did not fit into their personal employment goals. As a result, clients in need of training were either forced to reshape these goals to fit within industry clusters or were unable to receive training through this demonstration project.

Overall the MOLLI portal was viewed as beneficial for the program in Maine. Maine staff expressed that it provided a good platform from which to organize training providers. It was also noted that the existence of the portal was enticing to training providers because they liked the idea of conducting outreach for their product across states. Case managers also stated that by viewing the variety of courses on the portal, clients were able to explore different career options.

Staffing

Staffing for MOLLI was primarily concentrated in Augusta at the MDOL's Bureau of Employment Services. Two staff members were assigned to work on the demonstration project, and one of them took the majority of responsibility in the daily operation of MOLLI. This individual worked with local employers to inform them about the program, attempted to recruit participants, identified training providers and helped them to place training options on the portal, trained job center staff in LWIAs, developed the policy guidelines around online learning requirements, made decisions on how training should be evaluated and what training providers were acceptable in Maine, solved problems as they arose, and managed the program budget.

In Maine, workforce staff found that it was important to have a single expert on MOLLI at the state level who case managers from the local level could call on with programmatic questions and problems. Having one point person created important consistency within MOLLI program administration statewide.

The project was, however, also staffed locally at the LWIAs throughout the state. Local staff was trained by the MDOL staff person in charge of implementing MOLLI. Initial training was done via a Webinar. The information provided in the training Webinar was also provided to other partners in the workforce system, including agencies involved in vocational rehabilitation, community-based organizations such as Goodwill, and others. Job centers were also given the opportunity to have the MDOL staff, who were responsible for the demonstration project, visit their locations to present on MOLLI.

Training Providers

As the first state to begin the WOLIP project, Maine was also the first state to populate the portal. This process proved to be difficult. Maine began by looking to local training providers, such as community colleges and universities, for online coursework. This initial focus resulted from the established connections and the familiarity existing between the workforce system and certain local training providers. These institutions had a history of delivering accredited, high-quality, and often industry-recognized education and training programs to the workforce system on a regular basis. Naturally, it was assumed that they would again be a great source of training for MOLLI.

However, in 2008 and 2009, when MDOL staff went out to speak to local colleges about providing training for MOLLI, they found that there was a dearth of community colleges and universities in Maine that had fully or even partially implemented online training courses targeting the high-demand industries outlined above. At that time, the local college system in Maine had not yet developed a vast online curriculum suitable for the MOLLI program. A notable exception was St. Joseph's College, a religiously affiliated institution located in Standish, Maine. St. Joseph's offered an extensive list of online course offerings that were loaded onto the WOLIP project Web site and offered to participants. The online courses offered by St. Joseph's were not known about on a wide scale in Maine until the MOLLI program called attention to them.

As a result of the lack of online training offered by traditional Maine institutions, state officials began to search for other online training options. MDOL staff struggled with the task of locating good training and determining whether it was high quality. Eventually it was discovered that relationships existed between for-profit companies such as Gatlin Education Services and some local community colleges. The courses offered through these partnerships were primarily noncredit courses, but they were industry specific and fit within the bounds of the high-demand industry needs outlined for MOLLI. For the most part, these courses were 100 percent online and thus fit within the eligibility regulations that the state had set for program listings on MOLLI. Gatlin was also able to bundle courses at MDOL's request to create certificates that fit into industry categories and that provided sufficient training to allow participants to earn industry-recognized credentials.

There was an added confidence in this approach for both Maine job center staff and clients because the training, while run by a vendor located outside of Maine, was officially connected to and offered through local colleges. Project stakeholders noted that local employers would likely appreciate that the training was tied to a local institution and felt that this connection would add value to the training. As one staff member noted:

"I've had many employers tell me this: 'who is this online university anyway? I don't know who they are. I don't care who they are. They don't mean anything to me. But if I see, you know, the University of Maine, Bath–Brunswick, I know what that is. I know

who they are. I can call them up.' That credential becomes so much more valued [because it comes from a local school]."

A variety of vendors provided coursework for MOLLI, but the majority of coursework was offered through Gatlin Education Services. Of the 184 MOLLI participants, 123 received their training through Gatlin. Other providers included Affinity Management; Allied Business School; Burgess Computers; Everest College; Fisher College; Kaplan; NTI; PrepLogic LLC (now LearnSmart Systems); St. Joseph's College; the American Academy of Case Management; Transcription Association; University of Maine, Machias; University of Maine, Augusta; and the University of Massachusetts, Boston.

Training providers played an important role in student success and retention. As a result of the majority of training having been offered through one vendor, it is impossible for this study to determine how training providers differed in terms of retaining students. Nor can training providers be compared and contrasted. Despite that, it should be noted that of the 123 students that enrolled in Gatlin Education Services training, 63 received certifications, 60 withdrew from coursework, and 2 are still in training. More research should be conducted to better understand why the dropout rate is so high among this group. All of the other vendors enrolled so few participants—on average one to two—that it is impossible to conclude anything substantive about their ability to retain students.

Important lessons were learned about locating training providers and the responsibilities that training providers should have. One problem that emerged was that some credentials required internships, and not all vendors had a good, direct link to these kinds of placements; the lack of this service often made it difficult for clients to get the internships necessary to complete their training. One example of this is the Pharmacy Technician Certification. While training providers sometimes advertised that they had relationships with national companies for the internship portion of certification, it often turned out that the responsibility for securing an internship was in the hands of the student. Liability for the internships emerged as a second issue and was not easily solved. A third issue that emerged concerned understanding and clearly outlining what the workforce system expected from out-of-state online training providers in terms of supporting industry-recognized credentials and certifications.

At the close of MOLLI, Maine staff noted their expectations of online training providers in the future. These included an up-to-date curriculum, particularly one that includes IT programming; an initial evaluation of student's suitability as an online learner that would take into account his or her educational background, technical knowledge, and access to computer equipment and software; and ready access to knowledgeable teachers who can promptly respond and provide feedback. They also felt it was important that online training providers add full course information to the WIA provider list and that they provide a free practice course to all students so that they can try out the training before it is purchased by the state.

Participants: Outreach, Recruitment, and Retention through Case Management

Case managers described MOLLI clients as being more interested, even aggressive, about getting access to training than were other job center clients.

Maine's MOLLI demonstration project enrolled 184 participants. About three-fourths were women. The largest age group, 37 percent, was between 40 and 49, while another quarter was between 50 and 59 (see Table 4). Participants were overwhelmingly white (94.5 percent), which closely mirrors the overall population in Maine. With regard to education levels, the largest group of MOLLI participants, 43 percent, had earned a high school diploma with no further education, and another 49 percent had completed a postsecondary degree. Others either had not completed high school, held other forms of high school certification, had completed high school and had some college, held a GED certification, had completed an Associate's degree and had additional college, or had obtained other forms of certification requiring two years of training.

Table 4: Demographic Profile of Maine Participants

Age		
18–29	11%	
30–39	19%	
40–49	37%	
50–59	26%	
Over 60	2%	
Sex		
Women	72%	
Men	28%	
Education		
HSD	43%	
Associate's Degree	17%	
Bachelor's Degree	24%	
Master's Degree	8%	

Gender distribution within targeted program industries denotes certain patterns. As elsewhere, a majority of women, over 67 percent, registered for health care related programs compared to less than 30 percent of men. Men were more likely than women to enroll in programs related to IT, energy or manufacturing. However, unlike in other states, a higher share of women than men took part in finance programs in Maine.

Figure 2: Difference in Industry of Training by Gender for Maine (Female)

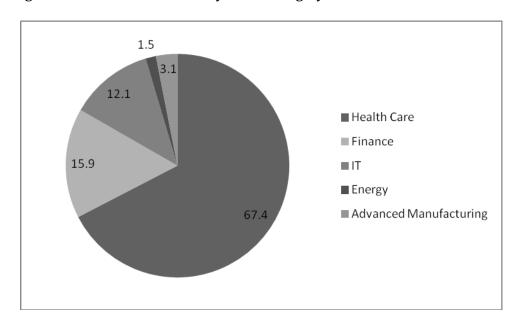
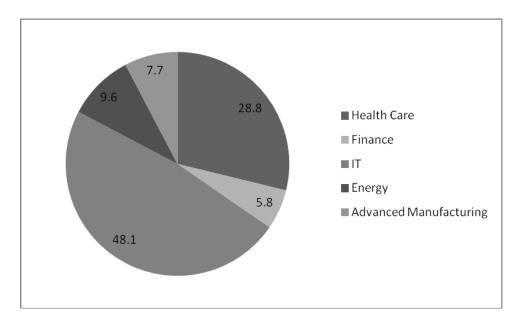


Figure 3: Difference in Industry of Training by Gender for Maine (Male)



Over half (54.9 percent) of the students had successfully completed their program by the close of the project in June 2011. For the most part, recruitment for MOLLI occurred at Maine's LWIAs and was done on a first-come, first-served basis. Clients were either referred to MOLLI by job center staff or came in looking specifically to enroll in MOLLI because they had seen it advertised on the MDOL Web site. The majority of participants found out about MOLLI via the Web site and thus self-selected into online learning. Case managers described MOLLI clients as being more interested, even aggressive, about getting access to training than were other job center clients.

In fact, Maine job centers reported that interest in the MOLLI program was very strong. At one point, walk-in demand for MOLLI was so large that some job centers set up specific MOLLI-orientation programs. MOLLI was also offered as an option by the job centers in the many other weekly training sessions they hosted for the unemployed.

The eligibility requirements for the MOLLI program in Maine were much less stringent or circumscribed than were other available training opportunities in the state. Participants were required to be eligible to legally work in the United States and to furnish evidence that they met all Selective Service criteria. Computer proficiency was also an important factor in eligibility and will be discussed in a later section of this report.

The simplicity of these basic eligibility requirements meant that the program was opened up to job seekers that normally would not have been eligible for workforce training programs through the MDOL—in particular, to those previously ineligible due to income limits or due to the fact that they were already credentialed with a bachelor's degree. As one case manager said, "I was excited about [MOLLI] because it presented an opportunity to enroll people who did not fit into some of our other programs."

Streamlined eligibility was viewed as a clear benefit of this training program by job center staff. These basic eligibility requirements, especially the waived income requirements during the recession, allowed case workers to offer training to people who had been laid off but who had income levels or previous earnings that would exclude them from other training funding streams. As one case worker said, "I... think of people being laid off in the paper industry right now, and I think: 'Holy cow, if we looked at their earnings last year, there is no way they could be served under most of our other programs.'" MOLLI offered an important way to get training to previously high-income earners who needed new skills to compete in Maine's evolving labor market.

Client Assessment

One of the most significant lessons learned during the implementation of MOLLI was the importance of client assessment. Effectively determining whether a client was suited for online learning was viewed by staff and stakeholders as crucial to retention. Maine stakeholders identified three primary skills required to succeed: computer proficiency, determination, and

self-discipline. For the MOLLI program, a computer-based assessment tool, the Student Online Readiness Tool (SORT), was used to help identify whether a client possessed these skills.⁴⁷ The assessment included questions about computer applications and learning styles. In some job centers, case managers watched customers as they took this test. They noted if clients were able to use a mouse and search for a Web site. Other case managers allowed customers to take the SORT test at home and bring the results back to the job center. Those who allowed participants to take the SORT test at home later determined that this practice was a mistake; some questioned whether all the customers who returned with passing results were actually proficient. Case managers stated that the SORT test did not do a good job determining whether online learning was appropriate in terms of learning style; they felt such assessment was best accomplished through conversations with clients.

As a result of their experience with MOLLI, Maine staff and stakeholders, at the close of the demonstration, developed their own comprehensive list of criteria that would help to determine a client's suitability for online learning. These criteria include:

- access to necessary equipment;
- an understanding of how to use a computer and how to execute required applications;
- family support as well as rules established around home computer usage;
- self-motivation and the ability to work without group support;
- clear education and employment goals;
- a strong desire to succeed;
- the ability to problem-solve when minor technological issues arose;
- pre-identified places and times during the day to study free from distractions and interruptions; and
- literacy skills to complete the often text-heavy coursework.

In addition to verifying these criteria, some case managers felt that it would be helpful to have all potential online learners complete a short online course prior to enrolling in any long-term training program.

Project staff noted at the end of the program that good case management was a crucial component of retention and successful completion and that styles of case management varied widely by LWIA and counselor.

As a result of the MOLLI program, the issue of assessment for online learning has begun to be explored more carefully at the state level by workforce personnel. Maine is now searching for an effective and comprehensive computer-based assessment tool. In addition, the state is using the comprehensive set of identifiers discussed above to help case managers decide whether online learning itself is an appropriate form of training for clients. Many stakeholders believe that making these two changes—developing both a better assessment tool and a better assessment process—will improve retention rates in online programs.

Case Management

Another significant lesson learned from MOLLI was about the importance of case management for online learners. Project staff noted at the end of the program that good case management was a crucial component of retention and successful completion and that styles of case management varied widely by the job center and counselor.

Case management was identified as being important at all stages in the MOLLI program. As was noted earlier, case management played an important role in the assessment process. While many customers who were placed in the program self-selected into online learning, this did not always mean that they were successful online learners. In fact, those customers who were further assessed through in-depth conversations with case managers were more likely to complete their online training program than were those who did not receive additional assessment. Case management also proved to be an important part of the process throughout a customer's skills training. Customers who were in frequent communication with case managers were more likely to complete their program than were those who did not frequently communicate with case workers.

Maine case workers found that participants needed contact and personal reinforcement because online learning can be isolating. Contact was necessary to ensure that people stayed on track and that their training remained a priority in their busy lives. Another factor that led to a need for more contact with the students was the self-paced nature of the training process. For some students, this open structure was an additional benefit that allowed them flexibility; for others, a lack of a firm schedule and due dates for work completion often made it difficult for them to maintain their motivation.

Maine stakeholders at the state and local level worked together at the close of the MOLLI program to identify some best practices for case management. Many of these suggestions focused on streamlining and regulating the process of case management for online learners across the state. It was suggested that case managers themselves go through an assessment like the one listed above. It was deemed important that case managers not be permitted to enroll people in online learning if they are not themselves familiar with the relevant technology. Managers should know the details of the training program that their clients enter, including industry requirements, training program requirements, and the duration of training. Some project staff even felt that case managers should be required to complete some form of online training themselves before managing customers through the process. It was also seen as

important that case managers have weekly e-mail contact with their clients and create an agreement with each client for a precise number of hours to be spent on training per week.

Stakeholders also came up with some best practices for the case-management process as online education is implemented across different LWIAs. They determined that a standardized checklist for case managers—not just clients—should be created that would include information on available programming, course requirements, necessary prerequisites for training, and technology requirements. This checklist would serve as a tool to help streamline case-management processes across LWIAs. It was also noted that case managers should have their clients conduct research on their desired field, coursework, and occupation and wage prospects. Such a process would help case managers better understand their clients' technical and educational abilities. It also would serve as a good exercise for clients to gain confidence in the coursework in which they choose to enroll, to improve their suitability for online learning, and to better understand the occupational prospects resulting from the training.

Finally, stakeholders strongly suggested that case managers should establish a good working relationship with training providers. They should be aware of all training costs for specific courses, including course enhancements, certifications, and technology requirements. Additionally, reporting on client's progress in coursework should be made mandatory, and training providers should report contact hours to case managers on a monthly basis.

Successes and Challenges in Maine

MOLLI was the first large-scale experience with online learning within the Maine workforce system. 48 State workforce officials believed that adding online learning as an option for training in Maine was an important step because it would help to reduce geographical barriers to educational opportunities. As one case manager in Maine said:

"I think [online learning] is good . . . in Maine particularly because people live far away. A lot of people who are in that sort of geographically limited area have expressed a lot of excitement about being able to do [their training] online and not have to drive long miles every day [to get to class]."

Online Learning

A benefit expressed by Maine Department of Labor staff about the introduction of online learning was that it expanded the breadth of available educational opportunities in Maine.

A number of benefits of and positive reactions to online learning were noted, some relating to administrative issues. For example, specific cost savings to the state were not documented in Maine, but staff was confident that online learning provided a significant cost savings to the system. Most of this savings came in the form of not having to pay for support services, such as travel and child care. However, as noted earlier, it was difficult to find online training

providers. It was also challenging, as discussed in greater detail below, to retain students once they were enrolled in the program.

A benefit noted by MDOL staff about the introduction of online learning was that it expanded the breadth of available educational opportunities in Maine. As a result, staff noted that Maine would be better able to secure the necessary educational and training opportunities needed for its workers to be competitive within the global marketplace. Staff also noted that online learning is a cost-saving tool for new residents in Maine who would otherwise have to pay out-of-state tuition and fees to receive training.

Stakeholders also commented that online learning offered flexibility in time and space. It was noted that customers could fit their training into their work and family lives. One project staff member commented that a customer who needed to leave the country for a family emergency was able to avoid having her training interrupted.

Open-entry-and-exit programming by educational vendors was also noted as being a helpful tool for the workforce system. Many vendors allowed customers to begin training at any time, and therefore, unlike in traditional programming, customers did not have to wait weeks or months for a semester to begin after claiming their unemployment insurance.

One of the most prominent setbacks for online learning as a training option in Maine was the lack of statewide broadband capability. Maine has many areas throughout the state that are not wired for high-speed Internet use. As one staff member stated:

"[T]he biggest stumbling block that I ran into . . . is that we don't have statewide Internet broadband capability. [In] a lot of places in Maine people just don't have Internet access, and if they do, it is dial-up, and it won't work for online learning."

As is clear from this quote, online learning was not an option for all clients due to the Internet access available to them in their local area. There were a few clients who enrolled in MOLLI despite only having dial-up Internet access. Rutgers was not able to speak with any of these clients to better understand their experience.⁴⁹

Retention and Student Experiences

Retention was identified by Maine workforce staff as one of the most difficult challenges for MOLLI. As has been mentioned above, as of June 2011, 101 customers (54.9 percent) completed their coursework, 12 customers (6.5 percent) were still in training, and 71 customers (38.6 percent) had withdrawn from their training program. While over half of the customers in MOLLI completed their training, Maine workforce staffs were not pleased with what they considered to be a high drop-out rate in the program. Reasons for dropping out of the program were numerous and were examined by stakeholders in a focus group conducted by Rutgers evaluators near the end of the demonstration project.

Staff members noted that drop-outs often occurred because "life got in the way." As one stated:

"One of the reasons people drop out [is that] people get behind. They start out all gungho, life happens, they're at home, the kids need to go to soccer games, somebody falls down and gets hurt . . . whatever. Things happen. They put if off for a day, then they put it off for a couple of days, and then they put it off for a week. And then they go back, and they're so far behind they're overwhelmed."

Clients became involved with other aspects of life—such as work and family demands—and for some, training got pushed to the back burner.

Others noted financial issues and how the lump-sum initial payment to vendors was a problem for retention. Case managers felt that the system of paying for coursework in one lump sum at the beginning took away an important incentive, perhaps best thought of as sequential progress, for some learners to complete their coursework. As one stakeholder explained:

"I think across the board, whenever you do a lump-sum initial payment, the follow-through is totally with the customer. In a semester environment, there is an incentive for the customer to get done and get good grades because they want to get to the next semester. [With] short-term online [coursework, there isn't]. Maybe a mid-course follow-up would help."

Another problem case managers encountered in keeping clients engaged was that they were unaware of how clients were doing in their coursework and where they were in their curriculum. Training providers were not required to give case managers information on clients' progress or on how many hours of training they were engaged in per week. As a result, there was very little accountability. Case managers discussed wanting to have reports from training providers to keep track of their clients' progress. Some case managers dealt with this problem by insisting that clients log in for a certain number of hours a week, and then they checked in with them to see that they had done so. Case managers also found that frequent contact by e-mail helped clients stay enrolled and led to higher completion rates.

Extensive interviews were completed with job center staff throughout the MOLLI program to better understand how MOLLI was perceived in local areas and by case managers. Despite the many challenges, the overwhelming view on the demonstration project within Maine was very positive. Case managers were pleased to be able to offer online learning as a training option to their clients. As one case manager stated:

[F]or me personally, the idea of having online learning as an option for folks was a long time coming. It was really good that this is where the state was heading in terms of resources."

Despite the interest among some staff about offering online learning, there was also some apprehension. In fact, some case managers were surprised that it ended up working.

"I was extremely apprehensive about the idea of online learning. I was kind of dragged into it kicking and screaming. . . . Well my experiences in the past [with online learning] haven't been that good. I think the assessment part has to be good so that people have the skills to do well in it. And I think it is an option for some learners, but I don't think it is an option for all learners."

Several staff noted that their clients had not been in an educational environment for many years and that there was a great fear for many about returning to the classroom. Others discussed how many of their customers had previously had bad learning experiences. Online learning provided an interesting alternative learning environment for all these clients, and there was a lot of excitement about the opportunity. As one case manager stated,

"A lot of people expressed this excitement that they might have finally found a learning style that would work for them. They were sort of like, 'Oh neat!'"

For the most part, stakeholders in Maine really enjoyed MOLLI. As one said, "The program itself is great."

Training, Wages, and Employment Outcomes in MOLLI

Maine's MOLLI program closed on June 30, 2011. At that time, 184 participants had gone through training. Of those, a total of 75 students (40.7 percent) had completed their training and were working, 22 (11.9 percent) completed their training and were not working, 2 (0.01 percent) completed their training and moved out of state, and 2 (0.01 percent) had completed their training and were self-employed. At the time of closure, 12 participants (6.5 percent) were still in training and stated that they planned to finish. In total, 71 participants (38.6 percent) withdrew from training. Of those, 27 (14.7 percent) were reported as not working, 38 (20.6 percent) were reported as working, and 2 (0.01 percent) were reported as being self-employed. Additionally, one person withdrew for health reasons, and three participants moved out of state. However, these numbers should not be used to determine the value of MOLLI. The recession and the post-recession job market must be taken into account when looking at these numbers. Maine's unemployment, as pointed out earlier, rose precipitously from 5.4 percent in 2008 to 8.2 percent at the time of MOLLI implementation in 2009. In the fall of 2011, the unemployment rate was still around 7 percent.

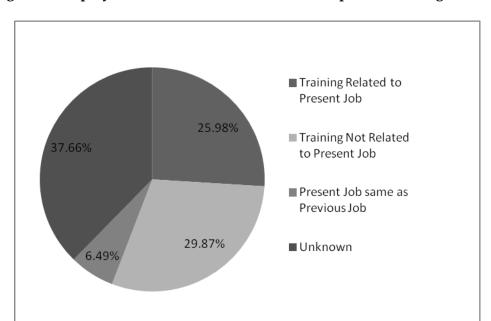
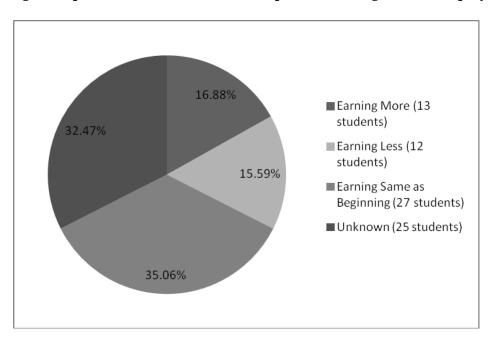


Figure 4: Employment Status of Students who Completed Training (Maine)

Figure 5: Wage Comparison of Students Who Completed Training and are Employed(Maine)



Additionally, there are some very positive success stories from the MOLLI program that are instructive. One example is a white female, age 21, who was a child care worker prior to joining MOLLI and completing her pharmacy technician certification. In her new position as a pharmacy technician, she was making \$7 more per hour than in her previous job.

Hourly wage data were available for 52 of the 77 people who completed training and are working. In total, 17 people experienced a wage gain, 16 people experienced a wage decrease, and 19 had the same wage as was reported prior to training. While it is not clear exactly how many MOLLI participants who are now working received certifications that directly relate to their new position, it can be noted that, based on data provided by the state, this is clearly the case for at least 27 people. And of those, eight experienced a wage gain. Unfortunately, data for all MOLLI participants are not currently available, and more changes will certainly emerge in the quarterly wage report following the writing of this report.

Special Project: Credential Assistance for Mental Health Specialists

Like the other states in the project, Maine concentrated a small portion of its overall training dollars for MOLLI to a project targeting a group of mental health specialists in need of a credentials upgrade within the state. This target group was identified in collaboration with the MDOL's Bureau of Rehabilitation Services (BRS) and the Maine Department of Health and Human Services (DHHS). It was discovered that many nonprofit service providers working with BRS and DHHS had mental health specialists on staff that would no longer be able to work in the field unless they acquired a new credential recently required by the state. With limited budgets, many nonprofit service providers did not have the resources for their employees to complete the training required to earn this certification; without the credential, these workers would lose their jobs, and the agencies—and their clients—would suffer.

It was determined that the MOLLI program would be a good vehicle to support the required Mental Health Rehabilitation Technician/Community Certification (MHRT/C). A blended curriculum was put together by the University of Maine, Augusta, through its noncredit division. The certification was created in conjunction with BRS and DHHS and consisted of a series of ten courses delivered in a combination of online and offline instruction. It was developed to fit within the lives of working professionals.

MOLLI was able to pay for the first five courses; once those courses were completed, students would receive a provisional certificate that allowed them to continue working in the field.⁵⁰ The entire ten-course program was created to fit into one year; this was able to be accomplished because material was put online. In total, 25 students enrolled in the program from a variety of geographic areas in the state. As of March 2011, two students had withdrawn from instruction, and the rest had either completed their five courses or were still enrolled. Students were required to have access to high-speed Internet and to be current mental health specialists as put forward by their nonprofit organization. They did not have to go through the university's application process to enroll. Each course had set start and end dates and was conducted over a seven-week period involving a total of 30 hours of work. The program was designed as a blended model so that students who were not totally comfortable with online learning also had the opportunity to spend some time in a classroom. Students could choose to attend class lectures in person or could access recordings of those lectures online.⁵¹ There was also an online-study portion of the course which was offered through Blackboard[™]. Students were required to interact with one another on this Web site through postings, working together in groups, and

undertaking numerous written assignments. Although this course was not credit-bearing, challenge exams are currently being developed by the university so that students can acquire credit for their work.

Administrators at the university noted that this course had a direct benefit to students because it would help them to retain their jobs. They also argued that the applied nature of the course fit in well with many adults' learning styles, noting that students could see the tangible benefit of what they were learning. It was also believed that the high program retention and completion rates resulted from the formally scheduled nature of the curriculum (e.g., the emphasis on due dates to keep students engaged in the work) and from the support made available to students by the university.

Students who received the MOLLI scholarship for this training course were "extremely dedicated and thankful," according to school administrators. It was noted that individuals working in these careers do not earn high salaries; they earned only \$8 to \$10 dollars an hour. As such, administrators felt that many students could not have afforded the training and would have lost their jobs without the tuition assistance from MOLLI.

The Future of MOLLI and Online Learning in Maine

Maine is no longer using the MOLLI portal, but online learning is being used within the state workforce system. Mainers coming to the job centers are enrolling in online learning, though workforce staff has noticed that much of the training being requested is not entirely online but a blended model of online and classroom coursework. MDOL staff has also remarked that the programs being requested most often are those provided by local colleges and universities—not those of the vendors used in the MOLLI program. Stakeholders are unsure if this reliance on training from local schools has been pushed more by clients or by staff at job centers, but most agree that the familiarity with these providers was the paramount reason that the majority of enrollments are occurring there. This may also result from the greater number of online training courses being offered by local schools in 2011 as compared with the number of online courses those same schools offered in 2009. Stakeholders hope that this local connection with schools will help to improve retention in online learning programs.

It has been reported to Rutgers that since the MOLLI program ended, there has been a significant increase in the number of requests from workforce clients for industry-recognized certifications online, as well as a noticeable increase in demand for online educational opportunities leading to a degree—especially an Associate's degree. Many of the lessons learned and technical assistance provided during the MOLLI program in terms of choosing coursework and working with vendors are being used in the Maine LWIAs today, enhancing local training relationships that already exist between these educational providers and the Maine workforce system.

COLORADO

Colorado had been using technology as a workforce system resource for many years prior to the WOLIP project, and state officials viewed this demonstration as an opportunity to extend those efforts and test the use of online learning on a wider scale.

The state of Colorado participated in the WOLIP project with the goal of testing online learning as a workforce system tool across many different client populations and in all local workforce areas. Colorado had been using technology as a workforce system resource for many years prior to the WOLIP project, and state officials viewed this demonstration as an opportunity to extend those efforts and to test the use of online learning on a wider scale.

Project Context: Workers and the Economy

Colorado is primarily a rural state with a population of a little more than 5 million people. Over the last ten years, the state has experienced a population boom that resulted in a population increase of 17 percent. There is some racial and ethnic diversity, with about 70% of people identifying as white, non-Hispanic; 20 percent as Hispanic; 4 percent as black or African American; and 3 percent as Asian.⁵²

Educational levels in Colorado are generally high. The state has a higher percentage of people earning college degrees—almost 35.5 percent of Coloradans hold a college degree versus a national average of 27.5 percent. Only 10 percent of Colorado residents over the age of 25 have not obtained a high school diploma or its equivalent.⁵³ The median household income is \$55,785, with about 13 percent of people living below the poverty line.⁵⁴

While Colorado is primarily a large rural state, the bulk of the population is grouped in the urban and suburban areas of its north central region. In fact, over half of the state's population resides in the following nine counties: Denver, El Paso, Arapahoe, Jefferson, Adams, Boulder, Larimer, Douglas, and Weld. Education levels also vary significantly by county. Primarily suburban and urban counties, such as Denver County, boast higher education levels than do rural counties. For example, at least 62 percent of Denver County residents have some college education, including the 39 percent that has earned a Bachelor's degree or higher. Comparably, among the only 6,500 residents of Bent County, a rural county located in the southeast corner of Colorado, just over 14 percent have earned a Bachelor's degree or higher.

According to the most recent census, there are nearly 3 million civilian working adults in Colorado. At the close of the WOLIP project in July 2011, Colorado's unemployment rate was around 8.7 percent.⁵⁶ While the unemployment rate for the state of Colorado has been improving of late, it should be noted that, like the unemployment rates in many states, it has doubled since 2006. In that year, not long before the WOLIP project began, Colorado's unemployment rate was a low 4.3 percent. The figure was even lower in 2007, with just 3.7

percent of the labor force unemployed. After 2008, during the implementation of the WOLIP project, the unemployment rate jumped to 8.3 percent, as a result of the recession.⁵⁷

Colorado's workforce system is organized around nine workforce regions, including the Rural Consortium that consists of thirteen sub-regions. All nine regions operate under the auspices of the Colorado Department of Labor and Employment (CDLE), and each are experiencing levels of unemployment that mirror Colorado's statewide average.⁵⁸ Since the WOLIP project began in 2008, unemployment rates in almost all workforce regions in the state have at least doubled. Denver County's unemployment rate was 4.1 percent in 2007 and reached levels as high as 9.7 percent during the recession.⁵⁹ The Southwest Workforce Development Region, a rural example, had an unemployment rate of 3.2 percent in 2007, but by the summer of 2011 this rate had reached 8.3 percent. As is the case with all states, the unemployment rates in all of the Colorado workforce regions have risen significantly in the last four years.⁶⁰

Since the end of the recession, the CDLE has noted that the employment situation in the state is improving. Employers throughout the state added 4,200 jobs between April and May 2011. Most of these positions were created by the private sector, but a small percentage was made up of government positions. Job creation has primarily occurred in the following industries: education, leisure and hospitality, health services, trade, transportation, and utilities. Other industries, such as construction, IT, finance, and government, have not fared as well.⁶¹

The Introduction and Implementation of the WOLIP Project in Colorado

Colorado was the only state in the WOLIP project that had extensively used online learning within their workforce investment system prior to the implementation of the WOLIP project. Colorado is viewed by many in the workforce community as being at the forefront of creating and using technological innovations in their workforce efforts. In fact, state officials in Colorado have been involved in learning about and undertaking technology-based workforce efforts since at least 2002. The state has developed interesting innovations, such as simulation-based medical training, a state portal (*e-Colorado*), and virtual job fairs, all of which are now being used within its workforce system. Two of these innovations—the state portal, *e-Colorado*, and the virtual job fair—have been adopted by other states. The staff of the CDLE is currently designing and implementing a Virtual Training Institute, an entrepreneurial resource section, and smart forms to enhance the *e-Colorado* portal. The state has made and continues to pursue some interesting and important technological accomplishments that they intend to share with workforce entities nationwide.

Project Vision and Implementation: Partners and Industries

Funding for the WOLIP project was directed to all LWIBs from the CDLE. A total of \$375,000 in training funds was allocated. The funding for the WOLIP project was distributed among local areas based on the existing allocation formula used to distribute WIA dollars in Colorado. As a result of using this formula, the funding varied greatly between local areas, with some workforce areas receiving enough funds to serve upwards of 100 people and others only able to

serve a few individuals. At first the funding allocation resulted in some backlash from local areas, especially those that had only received a small amount of funding. Some local area staff argued that if there was only money to train a few individuals, it was not worth allocating time and other resources to the demonstration project. Some areas even attempted to refuse the funds or return them to the CDLE. In the end, however, viewpoints changed, and all local areas trained people through the WOLIP project.

Local areas were given a number of instructions from the CDLE on project spending. Areas were asked to co-enroll clients in the WOLIP project and other funding streams wherever possible. CDLE staff believed that co-enrolling would make the available project funds go further. They particularly encouraged staff to co-enroll the WOLIP participants in the Microsoft Elevate America program.⁶² This program served as the state match for Colorado's project dollars for the WOLIP project. Co-enrolling made sense because the focus of both programs was online learning. Providing clients with Microsoft skills and certifications through the Microsoft Elevate America program was viewed by the CDLE as a way to enhance and compliment the training that clients were receiving through the WOLIP project. Co-enrollment was possible because both projects occurred around the same time frame, and many LWIBs could plan for both projects in unison. Co-enrollment also occurred in some local areas using WIA dollars. The overall message from the CDLE was that LWIAs should bundle funding streams and programs as much as possible to seamlessly assist clients in obtaining the skills they would need to get a job. Scholarship funds were given to 257 statewide participants and were matched by Colorado with 6,191 e-Learning vouchers from the Microsoft Elevate America project and with other state and federal funds. These other funds included WIA and state Displaced Homemakers Program funds along with workforce regions' funding. All of these sources combined for a total in-kind value of \$429,346. Colorado also provided a project match for administration through leveraged cash, in-kind, and other federal funds totaling \$500,000.

Although Colorado has been at the forefront of using technology-based learning in their workforce investment systems, not all local areas had been involved in efforts to incorporate online learning as a training tool into the system. Use of online learning and other technologies varies greatly by workforce area in Colorado. For some regions, the WOLIP project was a first attempt at using online learning, while other areas had tried it in previous demonstration projects, and some had even used it as a tool for WIA clients. As a result, the WOLIP project provided the state with its first opportunity to test the use of online learning across all workforce areas.

In addition to using the WOLIP project to expand the use of online learning throughout the state, Colorado designed small pilots within the WOLIP project initiative to examine how online learning worked as a training method for a variety of special populations, including exoffenders and military spouses. Some of these special efforts will be discussed in depth below.

Colorado focused their online learning delivery in the WOLIP project on the following high-demand industries: health care, energy, IT, and transportation. To be eligible for the WOLIP project in Colorado, workforce clients had to be 18 years or older, U.S. citizens, and registered

on *Connecting Colorado*, CDLE's statewide client-services Web site. For male participants, registration for Selective Service was also a criterion.

In interviews with stakeholders in Colorado, the Rutgers research team was often told how important partnerships were to the delivery of the WOLIP project. The Denver workforce area discussed its need to forge key partnerships with the local library system and the Community College of Denver to deliver the WOLIP project and the Microsoft *Elevate America* program. In Pueblo there were partnerships between the workforce area, local industry, and the community college that led to a valuable training program for incumbent workers. In one of the more rural areas of Colorado, Alamosa, workforce staff reported developing a great partnership with Adams State College. These partnerships were lauded by all stakeholders, and many talked about trying to maintain these relationships after the close of the program.

The WOLIP project experienced some significant program delays in Colorado, as it did in all participating states. The primary reason for delays in Colorado was the timing of the demonstration project. Because the WOLIP project was instituted at the height of the Great Recession, workforce centers in Colorado and throughout the country were extremely busy with both increased customer demand and numerous federal and state projects designed to stimulate the economy and put Americans back to work. As such, workforce center staff in Colorado was managing and implementing a number of important projects with tight deadlines, including large ARRA projects, the SECTORS Academy, Hire Colorado, the Career Readiness Certificate program, and the disbursement of Microsoft *Elevate America* training funds. Some of these programs had to take precedence over the WOLIP project due to strict timelines and regulations. As a result, in some local areas, the funding for the WOLIP project was not allocated until workforce staff could turn their attention from these other programs and give full attention to the WOLIP project.

The Portal Issue in Colorado

Many case managers viewed the step of involving the client in the process of finding and choosing training as an important activity that helped in selecting clients who would make good online learners.

In Colorado, the WOLIP project Web site was not used extensively by local areas. Generally, local staff did not seem to know much at all about the portal, and no clients that were interviewed by Rutgers had visited the WOLIP project Web site to help them choose and locate coursework.

That does not mean that workforce clients in local areas were not exposed to online learning. For some time, Colorado has used major online resources and tools in its workforce system, including a workforce Web site portal—www.e-Colorado.org—that is designed for use by employers, participants, students, and workforce staff. Indeed, as noted earlier, clients who

participated in the WOLIP project were required to co-enroll in the Connecting Colorado section of the e-Colorado.org portal.

This ongoing portal serves a different purpose from the WOLIP project Web site and is used extensively. It provides clients with a variety of information about the Colorado workforce system along with skill assessments, jobs, and other resources. It is also used as a tool to collect data. It includes a space for online discussion, virtual job fairs, and an area for online collaboration, but it does not list or function as a clearinghouse for available online coursework.

Workforce staff in Colorado described to evaluators why the WOLIP project Web site was not used: They simply did not find the tool to be as helpful to their initiative as they had hoped. Indeed, it became apparent to the Rutgers research team that prior to the start of the project, stakeholders had formed a variety of preconceived ideas about what the WOLIP project Web site would look like and what kind of information it would contain. For example, state officials in Colorado were counting on the portal being populated with the entire Sloan-C catalogue, which was not the case when the project was implemented. Some of the universities in Colorado that participated in the demonstration project also thought that the WOLIP project Web site would be linked to the Sloan-C catalogue and expressed disappointment that their online programming did not include courses from that catalogue.

Despite the fact that use of the WOLIP project Web site was not extensive in Colorado, some schools did add course options to this portal; in fact, 211 course options were loaded onto it by Adams State College and Regis University. Many of the courses provided through Adams State College were managed by Gatlin Education Services. Training options were also listed by Pikes Peak Community College and a few others.

Regis University loaded a large number of courses onto the portal but ended up having only a handful of the participants from the WOLIP project enroll in these classes. Not all of the courses used by participants in Colorado were listed on the WOLIP project Web site.

Rutgers researchers spoke with staff at the colleges that had loaded coursework onto the WOLIP project Web site and found that they did not understand the purpose or value of putting their coursework onto the portal. There was concern about the design of the portal and curiosity as to why it simply did not connect to the schools' existing online program listings. Some worried that the portal was just another Web site that would have to be maintained and kept updated. Despite the general confusion as to the purpose of the portal, those interviewed reported a good experience in working with the staff of the SREB to upload their coursework onto the portal.

Colorado's Transition to Online Training

Methods of locating appropriate and timely online coursework for clients varied significantly by LWIA. In some instances, case managers located and researched training for their clients as had been done in other states. To do this, many looked to local training providers, while others

found training through Internet searches. Sometimes clients came in with their own ideas for training options, and case managers evaluated those suggestions.

In other instances, case managers had clients do extensive research on training providers and then present them with options, an exercise that is common for many WIA clients receiving training. Many case managers viewed the step of involving the client in the process of finding and choosing training as an important activity that helped in selecting clients who would make good online learners. They argued that it helped clients invest in their training and showed case managers how much initiative and self-determination clients had.

Unlike in other states, workforce staff in Colorado generally reported few problems in finding coursework that they thought was good and reliable. One of the reasons for this was their partnership with the Western Interstate Consortium on Higher Education's Internet Course Exchange. This partnership allowed Colorado to offer courses from 14 state higher education institutions outside of its own boundaries.

Originally Colorado required students to take classes that were 100 percent online. This ethos changed during the advisory group calls. After hearing that other states were using a blended model, they adopted that position. By doing this they found that more training options were available in certain fields, specifically in energy. Eventually they adopted a looser system with the idea that about 75 percent of the training needed to be online.

Description of Program Participants

Colorado reported demographic data for 257 participants, of which well over half were women and white/Non-Hispanic (see Table 5). Nearly a fifth of participants did not report their race or ethnicity. Participants tended to be middle-aged; 50 percent were between the ages of 40 and 59. Levels of education for Colorado's participants varied, but they tended to fall in line with the overall education levels in the state; about a third had a Bachelor's degree, and nearly a quarter had an Associate's degree. (Some in both categories also had additional coursework beyond their degrees.) Approximately a fifth of participants had a high school diploma or GED certification. The majority of participants in the Colorado WOLIP project were not on public assistance, but about half were receiving unemployment insurance as illustrated in Figure 6.

Table 5 - Demographic Profile of Colorado Participants

Age		
18–29	14%	
30–39	30%	
40–49	27%	
50–59	23%	
Over 60	4%	
Not reported	2%	
Sex		
Women	61%	
Men	39%	
Education		
HSD/GED	20%	
Some college	9%	
Associate's Degree	24%	
Bachelor's Degree	37%	
Master's Degree	9%	
Race/Ethnicity		
White/Non-Hispanic	62%	
Hispanic	8%	
Black/African American	5.5%	
American Indian and	2%	
White		
Other	1%	
Not reported	19%	

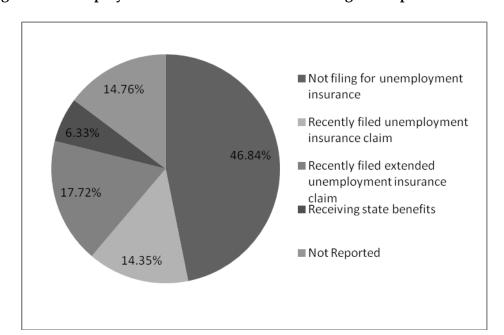


Figure 6: Unemployment Insurance Status of Training Participants in Colorado

To date, little can be reported on program completion rates in Colorado due to the fact that most participants were still enrolled in their training programs at the time this report was written. Indeed, only 9 percent of students had completed their coursework by the end of the evaluation in September 2011.

Training by Gender

A predictable finding in Colorado was the gender divide in much of the training. For the most part, participants enrolled in training courses that were typical for their gender. For example, of the 134 people who enrolled in health care training, only 27 were men. On the other hand, only one woman was enrolled in training in the transportation industry, and two women were enrolled in training in the energy field. A greater percentage of men than women pursued IT training.

Figure 7: Difference in Industry of Training by Gender in Colorado (Female)

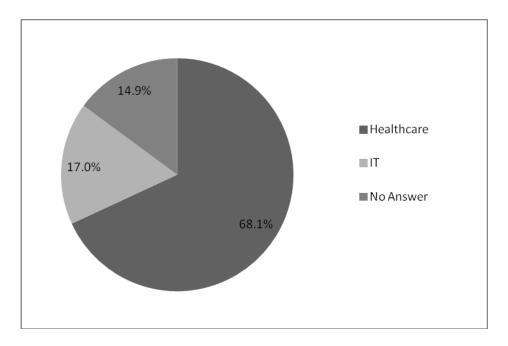
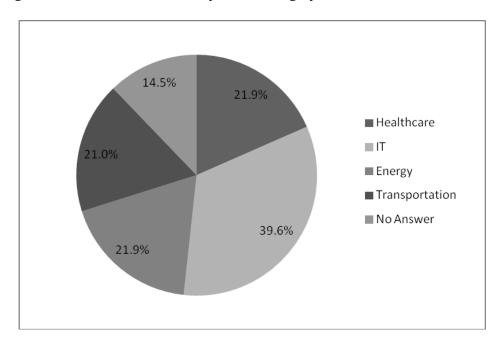


Figure 8: Difference in Industry of Training by Gender in Colorado (Male)



Recruitment, Assessment, Training, and Retention Strategies

Recruitment of participants for the Colorado WOLIP project varied depending on the LWIA. The most common method of recruiting participants was through word of mouth. Some LWIAs also provided information on the program in local AJCs' newsletters. Some Colorado LWIAs did their recruiting primarily through employers and industries. This method worked well in the more urban areas, but rural regions had more difficulty engaging employers.

Assessment strategies for acceptance into the program also depended on LWIAs. Besides going through typical WIA assessments, the most prevalent method of assessment in Colorado was the use of one-on-one interviews between clients and case managers to make decisions about the clients' suitability for the program. Another method frequently used in some local workforce areas was to give clients computer-based homework assignments. Case managers who employed this method felt that it provided them with good insight into a client's motivation and his or her computer skills.

Case managers used many strategies to retain students in the program. Many kept students engaged by staying in touch via e-mail and phone. As in other participating states, retention was highest when case managers had strong relationships with clients and kept in touch with them about their progress.

Other LWIAs had training providers or schools provide one-on-one counseling to keep students engaged in their coursework. This was especially likely to be the case in those workforce areas that worked through community colleges with which they had close ties.

In areas where the demonstration project was closely linked to businesses or incumbent worker training, responsibility for retaining participants was placed on employers. These employers sought to recruit or keep their participants interested and engaged by offering incentives, such as flexible work hours as necessary.

Successes and Challenges in Colorado

While Colorado did not systematically document the cost savings the state experienced as a result of using online learning, case managers in two local areas remarked that for some programs there appears to have been a tuition savings. These local areas reported there were also savings in support services. State officials noted that cost savings may have occurred in some LWIAs because regions were able to train more people than they had originally anticipated.

As noted earlier, while the CDLE used technology within the workforce system previous to the WOLIP demonstration project, online learning was a new method of training for many LWIAs. It was generally received as a favorable option, but some problems were identified. Case managers discussed the pros and cons of flexibility in great detail. Many noted that the flexible

nature of online training was helpful for their clients; others pointed out that this flexibility meant that self-discipline was paramount to successful completion. Some local officials noted that clients who enrolled in more structured programs that incorporated due dates experienced more successful outcomes than did clients who enrolled in programs that were entirely self-paced.

One surprising finding in Colorado was the mixed views case managers expressed on the continued use of online learning as a training device beyond the WOLIP project. There were case managers who noted some difficulty in understanding how online training could be used with WIA clients, and some said that they would probably not use it again. Other case managers said that they wanted to see employment results before committing to offer online training as a standard option. Still others were glad to have a chance to offer online learning in their local area; for example, case managers in rural areas often saw online learning as an aid to expanding the training options they could offer clients.

Special Colorado Test Groups

Colorado dedicated \$75,000 to the creation of five different test groups in which they implemented the WOLIP project with the goal of testing online learning as a training tool. Rutgers University researchers were able to more closely examine the project in all five of these test groups, and their findings are discussed in detail in the sections that follow.

South Central Workforce Center: A Rural Test Group

The South Central LWIA is part of the Rural Consortium in the state of Colorado. Employment in the area is primarily focused on agriculture, though energy and health care are growing industry sectors in the area.

Placing a test group in a rural area was important to the CDLE because state officials felt that online learning would be a helpful tool for clients living in rural areas. CDLE staff noted that providing online training in rural Colorado would expand available options and would offer an alternative to traveling long distances for training.

The South Central LWIA partnered with Adams State College in Alamosa, CO, for this initiative. Because Adams State College is a local institution that had worked with the workforce system before, many of the necessary systems for partnership were already in place. The school uses online learning extensively throughout the state, country, and internationally. Many of the programs offered to participants of the WOLIP project by Adams State College were provided through Gatlin Education Services. The LWIA staff was very pleased with the partnership with Adams State College because it ran smoothly; students seemed to be happy with the training, the low cost, and the fact that the price of books and certifications were included. The online training courses were offered through the college's Extended Studies Department; they were a mix of credit-bearing and non-credit-bearing courses. One positive

result of this demonstration project that was noted by all parties was that the partnership between the college and the workforce system was strengthened.

In total, 19 students in this test group were trained through Adams State College. Courses taken by participants in the WOLIP project included an administrative professional course, bookkeeping, and a course designed to train pharmacy technicians. Students who completed courses through Adams State College received an official certificate from the school that was signed by school administrators.

The South Central Workforce test group served both WIA and non-WIA clients. Clients outside of the WIA program were able to be served due to the project's less rigid eligibility requirements, and LWIA staff was pleased to assist a group that they normally could not have helped. The local area followed guidelines from the CDLE, and the participants in the WOLIP project were co-enrolled with WIA and other funding streams wherever possible.

One common remark was that the WOLIP project and online learning were good because they allowed students to complete their work at their own pace.

Much of the recruitment in this area was done through word of mouth. This rural community is sparsely populated, and community and family connections helped people to hear about the program. Rutgers researchers interviewed two sisters who had both participated in the WOLIP project; one sister heard about the program from the other. Advertising efforts occurred through Adams State College and in job centers, and the program was presented at meetings for other local social service agencies.

The South Central workforce area required all participants to take the computer assessment provided by Adams State College discussed above. Although workforce staff noted that most clients easily passed this computer assessment, many felt that it alone should not be relied upon to assess a client's suitability to online learning. As a result, case managers also asked clients questions to assess their familiarity with computers and their interest in training. Computer ownership was not a requirement to participate, but clients had to demonstrate that they had access to a computer. In many cases, this involved making sure that the client could get to his or her local library or workforce center. High-speed Internet access was not viewed by stakeholders or the participants as being a particular problem in this region.

Clients in this area for the most part were pleased with the program, praising many of the same features of online learning that members of other populations noted and which will be addressed in great detail later in this report. One common remark was that the WOLIP project and online learning were good because they allowed students to complete their work at their own pace. Others noted that due to its online nature they were able to fit their education into their parenting and work responsibilities. While some in this region were employed, those who took the course and were not working noted that online learning also helped them to continue their job search activities.

Many participants commented on the financial savings that they experienced from participating in this online learning program. Clients were quick to point out that distances in the area were expansive and that they were saving significant sums on gas and parking by not having to travel to a class. The LWIA staff also noted, as was discussed in other states, that they saw savings to the system in that they did not have to provide customers with as many supportive services.

Stakeholders appreciated the ability to offer online training through the WOLIP project. This demonstration project and Microsoft's *Elevate America* were the first two programs in the area to test the use of online learning as a training method for client learning. One stakeholder noted that in this region there had already been a demand for online learning emerging within the workforce system. He stated that in the last few years the digital divide in the region had lessoned, and now that rural families in many areas had access to hardware and high-speed Internet options, online learning had become a potential answer to the problem of finding appropriate and varied training programs. He noted that transportation is a huge issue in rural Colorado and that there are great difficulties in getting people to typical brick-and-mortar classrooms.

One official interviewed noted that the WOLIP project had helped to move familiarization with online learning forward. He said he hoped that use of online training would expand and argued that to accomplish this, workforce staff would have to become more familiar with the medium and with the process of integrating online learning into regular training offerings. It was noted that this might be helped along by the frequent requests from local employers for technologically literate staff. The same official argued that this might be just the push that the LWIA needs to institutionalize online learning programming. Finally, some LWIA staff reported that their experience with the WOLIP project had made them aware that local employers had become more accepting of online learning as a training tool than they may have been previously.

Despite a generally positive reaction to the WOLIP project in the South Central area, workforce staff and other stakeholders here identified a few drawbacks to online learning. One problem was trust; case managers and workforce staff worried that they could not be sure whether their clients were completing their work on their own. Staff identified some problems with completion rates and, like those in other states, pointed to the need for better assessment prior to enrollment. They noted that dedication and commitment were paramount to completing an online course and suggested that these factors should be precisely assessed before enrolling someone in online training. One workforce official noted that online training was not a good fit for everyone but also stated that school was also not always suitable for everyone. A clear conclusion of workforce staff in this region was that learning styles and interests are important factors to understand if job centers are to help their enrollees succeed.

While the South Central LWIA, as of the spring of 2011, was not using online learning regularly in their other programs, many stakeholders reported to Rutgers that the use of online learning

will likely expand there. Indeed, when referencing online learning and the WOLIP project, one staff member said simply: "I don't want to see it go away."

Ex-Offender Test Groups

The second and third test groups examined by Rutgers were the ex-offender test groups. These groups tested online learning as a training tool in two existing offender programs in Colorado: *Stop the Revolving Door* and *The Motherhood Project*. The *Stop the Revolving Door* project worked with both male and female young offenders exiting prison; its purpose was to prepare them for the workforce and to address other barriers they were likely to face upon reentry. *The Motherhood Project* was a program for female ex-offenders with dependents that addressed employment needs and other challenges to community reintegration that those women were likely face upon reentry. Both of these programs have been lauded for their excellence in working with offenders and are very successful in their own right. The WOLIP project provided an opportunity for the CDLE to try online learning as a tool with these target groups.

Simply learning how to use new technology and to deal with computers was cited as a plus to ex-offenders. It was seen by staff as giving them a sense of self-efficacy and competency, which in turn could have a great influence on their successful reintegration.

The ex-offender test groups provided a way in which to understand how online learning works for this population. While the use of online learning with this population has been studied to some degree, there is not an extensive body of literature on the topic. As such, these test groups in Colorado offered useful insights into how online learning can serve a vulnerable group upon release from prison. While both programs enrolled participants into online learning, the majority of participants that comprised the test groups of the WOLIP project were also taking part in *The Motherhood Project*. Because Rutgers was only able to speak to participants who were co-enrolled in *The Motherhood Project*, they are the focus of this section.

The CDLE was particularly interested in how online learning would work for ex-offenders because of the myriad problems they confront upon their release, including readjustments with families and employment. In Colorado, women serve an average of four to five years behind bars, so this adjustment period is important and can be very challenging. Offenders are often very busy when they reenter the community; they not only have to deal with the shocks of reintegration and the pressures of a job search but also are faced with numerous post-release obligations that may include substance abuse classes, traffic court classes, victim's services, parenting classes, or court visits. Many released offenders also have strict reporting duties to parole or probation officers and may have to undergo drug tests on a frequent basis. These post-release requirements are often stringent and time consuming and can inhibit a person's ability to attend regular job training classes with specific hours. Given these challenges, the great flexibility offered by online learning was viewed by the CDLE as a good way to get clients the training they need within a timeframe that would also allow them to attend to their other responsibilities.

Workforce staff felt that online learning is particularly important for ex-offenders who are custodial parents. They noted that the reality of being away from one's children for so long means that upon reentry, parents who have had to leave their children in foster care or custodial care need time to reestablish a bond with their children. They made the point that with work and other post-release obligations, it is very helpful for parents to be able to be at home with their children while completing their studies. While there is no concrete evidence to support this idea, case managers and program officials suggested that ex-offenders may be more dedicated to completing their education if they do not feel that their studies are taking them away from their most important priority—their children.

Stakeholders in Colorado also described the effects of online learning on families. In her book *Not Just Getting By,* Mary Gatta found that completing an online learning program in one's home can improve family literacy overall.⁶³ Workforce staff working with offenders in this project noted similar effects. They discussed the benefit of parents completing their coursework at home, noting that it created a positive view of education in the household and provided a good example for kids to study.

A participant in the Colorado WOLIP project commented on the positive effect that her online studies at home were having on her children: "We get home about 6 and we all study together. I take little breaks and make dinner. I actually have this hat I wear, and my kids know that when I have it on I am studying." Another participant commented: "I think one thing this has taught [my children] is to do it right the first time, so that they are not [older] and trying to raise a family while going to college."

Colorado workforce staff also noted other 'family effects' of online learning. They commented on the fact that online learning not only allows an ex-offender parent to stay near their children in the home after years or months away but also can keep their kids from worrying that their parent is reoffending if they are out of the house. One staff member noted that for kids of ex-offenders, having one less obligation that takes a parent away from the house can provide peace of mind:

"[Online learning] keeps them home, [and] it keeps them with their children. Even if their children are sleeping, the children will wake up and know that mom is home and not out doing drugs or hanging out with the wrong [crowd]."

As with all online learning populations, assessment was an important part of the process for selecting program participants. Workforce staff talked about the importance of matching a person's skills and educational level with their training course. And as is true with the other populations discussed in this evaluation, staff noted how important self-section—as reflected in attitude and commitment—were to the assessment process. One program director said, "Usually if someone says they want to do online training, that's your key."

Stakeholders talked about the importance of understanding a client's learning style before enrolling them in an online learning class. They noted that the traditional classroom setting

does not always work well for offenders and viewed the online option as a good alternative for some. One staff person noted that many ex-offenders do not do well in a classroom setting for a variety of reasons, including learning disabilities, difficulty paying attention in a classroom or lecture setting, and memories of previous negative classroom experiences. Online training delivered privately and at a client's own pace—and featuring some interactive strategies—was singled out as a potentially more effective training tool. As one workforce staff professional stated:

"I see value in the whole idea where they can get up and they can move and they can come back. A lot of times their attention span is short . . . so [with online learning] they could do it for a few minutes, get up, and come back."

Workforce staff also referred to the issue of self-discipline, important to all online learning populations, as perhaps doubly crucial for ex-offenders. They noted that with ex-offenders, the necessary self-discipline may simply come from the fact that they, at last, have a learning mode that gives them control over the learning experience. One staff person commented:

"I know you have to be disciplined to do online training . . . and most of our offenders have the discipline to do it. [It helps] that it's their choice."

One of the ex-offenders Rutgers spoke with confirmed the importance of self-discipline to success. She made the argument that many offenders do not have the necessary self-discipline to succeed straight out of prison and suggested that it is a better tool for those who have learned these skills through wraparound service programs offered to offenders post-release.

Simply learning how to use new technology and deal with computers was cited as a plus to exoffenders. It was seen by staff as giving them a sense of self-efficacy and competency, which in turn could have an influence on their successful reintegration. One program coordinator summed up her feelings about computer literacy and how it builds confidence this way:

"Now remember [the ex-offender population has] had many failures. They've failed their children because they went to prison and left them, they failed their parents because they didn't bring up their children, they failed their friends because they got caught . . . they failed with school because they dropped out. They have all this, a whole list of failures. So if we can get them one success [like learning to use a computer], that is what's important."

One staff member commented that this online training program helped participants by allowing them to see themselves as something "other than an offender":

"When they log on, and they're on there with other students [and they all are] asking questions, that helps [them improve] their view of themselves. They're now seeing themselves as a student."

Program officials discussed the importance of new online learners being introduced to up-todate computers and software that will keep them current with what they are likely to encounter on job sites.

Workforce staff noted that in order for clients to succeed in online learning, simply teaching them computer skills was not enough. They argued that it was also important to bridge the digital divide through computer ownership and access. Colorado ensured that ex-offender participants had access to equipment by using support dollars from a variety of funds to provide them with a computer and software. While many might see great risk in providing former offenders with expensive equipment, Colorado program personnel argued that there was very little risk. They noted that for the most part, ex-offenders in their program were proud to own a computer and took good care of their equipment. As one stakeholder said, "They'll pawn their bikes, [but] they won't pawn their computer."

The ex-offender initiative has had some significant successes. One woman participating in *The Motherhood Project* used the WOLIP project to take a paralegal course. She successfully completed the course and is now employed at a law firm. She is enrolled in a local college and has plans to finish her Bachelor's degree and pursue her law degree. She has also connected to a program for home ownership and recently closed on a home for herself and her children.

Online learning proved to be a significant benefit to this woman due to the flexibility it offered her. With her work schedule, dealing with reporting requirements for parole, and as a custodial parent to her children, online learning fit into her busy life. She described the difficulty she experienced attending classes and stated that while she would not be able to learn all subjects online, it had worked for her in this instance. She noted that the coursework was difficult and commented on the fact that studying took a lot of time. She discussed how she studied frequently at night, saying, "[T]here are a lot of nights that I'm up until 11, 12, 1 o'clock in the morning studying."

Overall she was very pleased with the training she received from the WOLIP project:

"I am just grateful for it. It's awesome. I really believe that if more people felt they had the opportunity or had hope that they could reenter society, not as a knucklehead and not as a felon, but reenter society as somebody, you know, it gives them . . . hope."

Military Women in Information Technology

The fourth test group attempted in Colorado was composed of military wives studying IT. Military families are often in need of a second income, and focusing on this test group was an effort to provide military women with the skills they need to obtain good jobs that pay well. The theory behind the creation of this test group was based on the idea that military wives are transient, often staying in one place for only two years at a time. This reality makes it difficult for them to pursue educational opportunities that can help them get the skills they need to get good jobs. It also means that even when women are able to gain employment, they have to

leave that job when their family moves to another base. This could mean the loss of very important family income and the challenge of seeking new employment that may not be easily found.

The rationale behind implementing an online project was to provide these women with coursework that could travel with them as well as the opportunity to gain a skill that was important, marketable, and could eventually help them find a job that they could do remotely. Having such a job would mean not having to lose income when a husband's posting was changed. These factors, along with a link with a Colorado technology employer, led the CDLE to pursue training in the IT field. It should be noted that this program was not created for the WOLIP project but that the courses from the WOLIP project were offered to participants in this program as a second round of training. The CDLE works very hard to combine funds in effective ways, and adding coursework from the WOLIP project Web site as an option in this program was another attempt to do that.

The program and curriculum of study for the first phase of this demonstration project was developed by the CLDE, the local technology employer, and Pikes Peak Community College. Twenty-one women enrolled in this initial six-week program, with all but two participants completing. (One participant did not finish due to a transfer, and a second participant had other life responsibilities that took priority.) After the six weeks of training, the participants were encouraged to continue their training online through the WOLIP project Web site.

The aspect of the program related to the WOLIP project was presented to the women on the last day of their six-week training program. It was replete with problems. There was very little interest among the women in continuing their studies online. The primary reason for this, as identified by program officials, was that the women needed employment and did not believe they could afford to go without supplemental income, nor did they think they had the time to continue their education even if it was online. These women were often parenting alone and trying to bring in supplemental income for their families.

Access to computers was another barrier that prevented these military wives from continuing as participants in the WOLIP project. Many did not have access to computers and Internet in their homes, and even for those who did have 'on base' Internet access, there were problems getting through restrictive security firewalls to their coursework.

In an attempt to solve some aspects of the problem, the CDLE provided participants with computers. However, the purchased computers could not be put onto military bases without first going through security clearance; this was described as being a long and arduous process. Finally, a lab was set up in the community college to serve the women. Some problems were solved by making the coursework available in the lab, but having to access training from a site outside the home took away from the flexibility of online learning and meant that the women needed transportation to and from the lab site. The CDLE did try to provide supportive services like gas vouchers and child care to keep the project going, but the barriers were still too difficult for the women to overcome.

In addition to these problems, several other factors contributed to the lack of uptake for the portion of the program related to the WOLIP project. Some participants were being transferred to other bases, some disliked the IT field and had little interest in pursuing more IT credentialing, and many were unhappy that the jobs they received after the first six weeks of the program were merely entry-level positions. Program coordinators and state officials noted that in retrospect they wished that they had done better career assessments with the participants and that they had been able to show participants the varied occupations within the industry.

Finally, there was the issue that many women were not finding employment after the first round of training. Because of this, the LWIA was reluctant to invest further time and dollars into the program. They felt it did not reflect well on their benchmarks for employment. In the end, stakeholders felt that while online learning could possibly benefit military wives, this particular program was not able to deliver online learning to this population effectively. The constellation of problems proved fatal to the initiative.

The Nursing Program Test Group

The fifth test group was for a nursing program consisting largely of displaced homemakers. This test group was a partnership with the Community College of Denver (CCD), the CDLE, and the local Denver workforce center. All of the students were either interested in getting into a nursing program or were already enrolled in the two-year nursing program at CCD. Many of the students that signed up for the WOLIP project used it to take a course that was critical to being received into or moving through the nursing school. In total, 62 students enrolled in the program offered through CCD, and 60 completed their coursework.

Outreach for the program was conducted through the general CCD Web site and was posted on the Web site for the online course. Information about the WOLIP project was also provided to the nursing department at the college.

The students in this test group were generally positive about the online aspect of the program. They were pleased with the tuition assistance the WOLIP project offered them. There were, nevertheless, some problems reported to the evaluators. The program suffered some serious delays in the transfer of dollars from the workforce system to the community college, causing some students financial hardship.

MISSISSIPPI

Mississippi participated in the WOLIP project with a goal of introducing online learning as a training option within the state. The WOLIP project was the state's first large-scale effort to use online learning within the workforce investment system. Mississippi also used this opportunity to test online learning as a tool in a specific industry—construction—that traditionally conducts its training in a hands-on environment.

Project Context: Workers and the Economy

The state of Mississippi is home to almost three million people, a number that reflects an increase of 4.3 percent over the last ten years. It's civilian labor force numbers 1,343,400, including those who are employed and those actively seeking employment. Of this total, 1.2 million are currently working, and 134,800 are counted toward the 10 percent statewide unemployment rate. That rate exceeded the national unemployment rate of 8.7 percent in May 2011.⁶⁴

The average income in Mississippi is \$36,000 per year, and the share of Mississippi residents living below the poverty line—21.8 percent —exceeds the national poverty rate of 14.3 percent. Educational attainment in Mississippi is relatively low, with nearly a fifth of the population lacking a high school degree or equivalent and fewer than 20 percent holding a postsecondary degree (see Table 6).65 The state is fairly diverse in terms of race/ethnicity, with 50 percent of Mississippians reporting as white, 37 percent as black or African American, and 2.7 percent as Hispanic.

The rural and urban populations in the state of Mississippi differ considerably. The Delta region, a rural area located in the northwest part of the state, is known for its low population and high levels of poverty. For example, Sunflower County, located within the Delta, has a population of about 19,000 people, and almost 30 percent of the population in that region lacks a high school diploma or equivalent. Only about 31 percent of residents in Sunflower County have graduated high school, and only 9.6 percent have a Bachelor's degree. These numbers are fairly typical of rural Mississippi as a whole.

Comparably, Hinds County, home to the city of Jackson, boasts a population of about 151,000, of which only 15 percent have not earned a high school diploma; this number is significantly lower than that of Sunflower County. About 25 percent of adults over the age of 25 have earned a high school diploma, with an additional 27 percent having attained a Bachelor's degree or higher.⁶⁷

Table 6: Demographic Profile of Mississippi

	Mississippi	Hinds County (Jackson)	Sunflower County (Delta)
Education Levels (over 25)		(Juckson)	(Delta)
Less than HSD	21.1%	16.1%	29.9%
HSD or equivalent	31.2%	24.7%	31.5%
Some College	21.2%	23.5%	19.3%
Associate's Degree	7.5%	7.7%	6.1%
Bachelor's Degree	12.4%	17.8%	9.6%
Graduate Degree	6.7%	10.1%	3.7%
Age			
Under 19	29.4%	30.8%	29.8%
20–64	58.1%	58.4%	60.6%
Over 65	12.4%	10.9%	9.6%
Income Level		•	•
Under \$14,999	21.0%	20.3%	32.6%
\$15,000–\$34,999	27.0%	26.2%	32.9%
\$35,000-\$74,999	31.5%	32.3%	24.2%
Over \$75,000	20.5%	21.2%	10.2%
Race/Ethnicity		•	•
White	60.0%	32.4%	26.8%
Black/African American	37.0%	65.2%	71.8%
American	0.4%	0.2%	0.1%
Indian/Alaskan Native Asian	0.8%	0.9%	0.3%

Source: U.S. Census Bureau, American Community Survey, 2010

The state of Mississippi is divided into four workforce regions: Delta in the northwest, Mississippi Partnership in the northeast, Southcentral Mississippi Works in the southwest, and Twin Districts in the southeast. Each area has its own LWIB.⁶⁸ Mississippi also has a statewide WIB.

Mississippi has an interesting recent history that contributes to its economic situation. Hurricane Katrina hit the state in 2005, causing great destruction, and as of the close of the WOLIP project in 2011, the state was still recovering. The most devastating effects of the hurricane were felt in Hancock, Harrison, and Jackson counties.⁶⁹ In May 2006, after the hurricane, unemployment rates in Hancock, Harrison, and Jackson counties averaged around 10 percent, which was significantly higher than the 2006 state average of 6.7 percent. As recovery from Hurricane Katrina took place, the most affected counties began to see lower unemployment rates. However, the continued recession of the national economy stilted this recovery and brought unemployment levels back to around 10 percent.

In 2010, these areas were hit by another devastating tragedy: the British Petroleum oil spill that occurred in the Gulf of Mexico. Many of the same areas that had been devastated by Hurricane Katrina were badly affected. The oil spill put more people out of work, including self-employed workers (i.e., fisherman). Legislation was created between the federal government and British Petroleum to ensure that the costs of the tragedy were covered, including unemployment assistance for those whose jobs were lost. While these efforts helped, the area is still suffering, and recovery from these two events and from the recession will take years. Other areas of Mississippi have also recently dealt with disaster; the Delta region, for example, suffered from heavy floods in 2011.

Since the recession, Mississippi's economy and local industry have changed in terms of labor demand and job availability. As of spring 2011, the leisure and hospitality industry was reporting the largest monthly gains in employment. Industries such as government, education, and health services added the fewest jobs on a monthly average.⁷¹

Dealing with numerous unexpected disasters in an unstable national economy has caused great economic hardship to Mississippi since 2005. When planning for the WOLIP project began in 2007, unemployment was at a low 6 percent, but by the end of the demonstration project in 2011, the unemployment rate had reached 10 percent.

In May 2006, Hancock County, which was severely affected by Hurricane Katrina, experienced overwhelming unemployment at 11.9 percent. When the WOLIP project began in 2007, recovery efforts had succeeded in bringing Hancock County's unemployment down to 5 percent. When the recession occurred in 2008, many of these recovery efforts were hindered, and Hancock County's unemployment rate rose again to 8.2 percent.⁷²

The Delta region of Mississippi has also seen unemployment increases due to the recession. In May 2006, the Delta area had a high unemployment rate of 8 percent. The rate climbed a little over 8 percent in 2007, when the portal demonstration project began, and increased to 9 percent by 2008. At the writing of this report, the Delta unemployment rate was at a devastatingly high 14 percent.⁷³

Due to the recession, job creation is a problem in much of the U.S., but Mississippi is making great strides to help make sure that economic development occurs in the state. The Mississippi Development Authority is the state's leading agency geared toward economic development planning. Additionally, Mississippi's individual counties have made efforts to further the development in local areas, supporting employment training and local business. The agencies target certain industries that can potentially benefit employment and economic growth in surrounding communities.⁷⁴

Much of design and implementation work for the demonstration project was conducted at Mississippi's Department of Employment Security state office, but because the program aimed to be collaborative, other groups were drawn in to provide support and to help shape the project.

The WOLIP project in Mississippi was run through the Mississippi Department of Employment Security (MDES). The Mississippi Workforce Online Learning Information Portal (locally branded as *e-Magnolia*) was focused on ensuring that individuals in Mississippi had access to online certificate and degree programs that were relevant to Mississippi's workforce needs and economic conditions. The program had two tracks in Mississippi. The first offered the participants hybrid training in the construction industry, and the second provided residents with online training options in a variety of high-demand industries. A total of 633 people participated in the WOLIP project in Mississippi. As of September 2011, 392 had completed the program, 151 were still enrolled in training, and 90 people had dropped out (see details below).

The MDES targeted the following high-demand occupations and industries for the WOLIP project: construction, health care, energy, advanced manufacturing, community and social services, administrative support, entrepreneurship, and IT. The majority of participants were engaged in coursework in construction, health care or IT—fields that, despite a severe economic downturn, continued to afford employment opportunities in Mississippi. As the economy improved, the MDES extended its online training offerings via the portal to other previously neglected fields, most notably advanced manufacturing. At the start of the demonstration project, a car manufacturing plant delayed its opening in Mississippi, so training for positions at this plant was put on hold. Once the plant announced that it would reopen, the WOLIP project began to provide training for these available jobs.

The initial plan for the WOLIP project in Mississippi was to run the program through the state's network of AJCs. After discussion, however, it was decided that it would be too difficult for local areas to manage the demonstration project given the other work they were involved in at the time, including disaster-recovery programs. Administration of the WOLIP project was therefore centralized at the MDES offices in Jackson and was run primarily by a single dedicated employee.

This employee was the special projects officer for the MDES's Office of Grant Management. He was tasked with widely marketing the e-Magnolia program through a media campaign, populating the portal with appropriate coursework, designing the project model and Web site, and dealing with program financials and payments. He also shepherded each client through the eligibility, assessment, funding, and registration processes for the WOLIP project and acted as a contact for clients as they went through their training, assisting them in troubleshooting

problems. He was continually lauded by participants for his work in helping to connect them to training and for making the process of enrolling and continuing in e-Magnolia an easy one.

Program Development and Vision

Much of the design and implementation work for the demonstration project was conducted at the MDES state office, but because the program aimed to be collaborative, other groups were drawn in to provide support and to help shape the project. One of the main tasks in program development was the identification of target industries. This process was extensively researched by the High-Growth Occupation Search Group.

In addition to this search group, a steering committee also helped develop and shape the demonstration project. This steering committee was charged with a number of tasks, including identifying current employment needs in the state; suggesting possible methods of recruitment; providing information on the state's current training capabilities, both online and traditional; and reviewing the industry choices of the High-Growth Occupation Search Group.

Industry partners also advised on the demonstration project. Industry partners were able to help program developers understand what kinds of skill sets they were looking for in the workplace. Industry partners included manufacturers in the Golden Triangle of Mississippi as well as others.

Finally, educational partners were brought in to advise on online learning curricula and to identify educational capabilities in the state. As noted, the initial vision for the WOLIP project in Mississippi was to run the project through its Workforce Investment Network (WIN) AJCs. Not unlike what happened in other states, however, there was pushback from the overloaded job center staff. A decision was then made to run the program on two different tracks—a Mississippi Construction Education Foundation track and an e-Magnolia track—with both tracks accountable to the lead MDES employee in Jackson.

Like the other states, Mississippi experienced delays launching the WOLIP project as a result of the influx of funds from the ARRA. A delay unique to Mississippi was the creation of a data system that could track participants for the demonstration project. This system was developed in a timely manner but was preempted by the MDES for various stimulus programs, including ARRA. Because of this, another data system needed to be developed for the WOLIP project, and that, in turn, delayed the start of the project.

In Mississippi, the WOLIP project received very good support from the governing administration. In fact, the Rutgers team was able to interview the executive director of the Department of Economic Security, who expressed great interest in and support for this demonstration project. It was clear in discussions with high-level administrators, including the executive director, that using technology effectively in the state was an important mission of Governor Haley Barbour's administration. Prior to the WOLIP project, the state had worked to put online many of the services delivered through the MDES. It was believed that the WOLIP

project and the e-Magnolia program would fit in well with the technological advances already under way. High-level officials were also aware of the benefits that programs such as e-Magnolia offered participants. In fact, one spoke at length about the flexibility that online learning offered adults in both time and space.

Partnerships

Mississippi developed many fruitful partnerships for the WOLIP project. One very important partnership was with the Mississippi Library Commission (MLC). Many Mississippi residents, especially those in rural areas, are on the wrong side of the digital divide—many individuals lack access to computers or high-speed Internet. In an effort to remedy the problem of computer and Internet access, MDES forged a strong partnership with the state library system. This relationship provided the participants of the WOLIP project without access to a computer and Internet with a place to complete their online coursework. In addition to providing computer access, the library system also helped recruit students to the e-Magnolia program by placing project brochures at many libraries across the state. The MLC also conducted biweekly employment seminars during which library staff discussed e-Magnolia as a training option with their customers. Additionally, a link to the e-Magnolia portal was placed on the MLC's Web site.

Other partnerships were also developed for the demonstration project. The MDES reached out to the Office of Nursing Workforce (ONW), which helped identify training needs of the health care industry that e-Magnolia might fill. They assisted in outreach to potential students and to stakeholders in the health care industry and helped the MDES review online curricula for quality. In the end, the ONW pointed the MDES towards providing training in medical billing and coding, which they determined would be a fast and effective route to employment for e-Magnolia participants.

Outreach, Recruitment, and Retention

Mississippi advertised the e-Magnolia program in a variety of ways. Prior to launching e-Magnolia, a series of press releases were distributed throughout the state to share information about the program with possible participants. In addition, MDES staff informed all WIN Job Center supervisors about the demonstration project. Supervisors, in turn, were meant to share this information with case managers in their local job center.

Print materials were also distributed throughout the workforce system and the library system. Finally, a link to the e-Magnolia portal was placed on the MDES Web site. This link to e-Magnolia turned out to be the most effective method of recruitment for the program track serving individuals. Most individual participants interviewed by Rutgers said that they had located information on the program when surfing the MDES Web site for another purpose, such as to apply for an unemployment insurance claim or to look for job information.

Recruitment into the e-Magnolia program track was high after the initial launch of the portal. MDES staff estimates that an average of 10 to 15 new applications came in each day during the first month, after which daily applications dropped to an average of four per day. To increase outreach, Mississippi then developed new partnerships like the one with MLC that was described earlier.

Prior to the WOLIP project, a review of the existing curriculum in the state revealed an overwhelming lack of online credential and certificate courses. At that time, all of the state's colleges offered online courses, but this training was primarily credit-based. Thus, in the process of choosing coursework for the WOLIP project Web site, it became apparent that this initiative would have to look beyond local community colleges and higher education institutions for faster, shorter-term training that could lead at least to a certificate. In the end, a few local institutions provided some courses along with national vendors who loaded their training onto the e-Magnolia portal. These national vendors included Gatlin Educational Services, offered through Itawamba Community College; Kaplan University; Allied Schools; the National Center for Construction Education Research (NCCER), offered through the Mississippi Construction Education Foundation; and East Mississippi Community College (EMCC), which provided blended advanced manufacturing training through the Amatrol program. The out-of-state training providers were chosen as a result of conversations that Mississippi had with other partner states in the WOLIP project.

Scholarships of up to \$3,000 were offered to participants of the WOLIP project in both the e-Magnolia track and the Mississippi Construction Education Foundation track. The state paid for the bulk of participants' training, but unlike in other states, those in the program (or their employers) were asked to contribute funding toward the training—or, to use the words of the executive director, to "Put some skin in the game." Participants or companies had to put forward 20 percent of the training dollars, but those funds would be reimbursed upon participants' successful completion of the program.

For the most part, having individual participants in the e-Magnolia track provide a match was thought to be a helpful strategy, as it motivated them to continue and gave them a personal financial investment in their education. However, the payment was not easy for everyone. Some participants struggled to make their payments even when they were offered the ability to pay in increments. There were points when some vendors shut off training if participants did not or could not pay their 20 percent portion of the cost on time, causing complications for MDES staff. Many of these kinds of problems had to be resolved on an individual basis. Overall, despite this issue, the match required by participants was thought to be a successful tool for retention.

Mississippi is the only state that extensively used the portal as a tool for its workforce clients to navigate on their own, allowing them to seek and choose from available online coursework for themselves.

e-Magnolia Program Track

The first track of Mississippi's demonstration project, e-Magnolia, focused on the general Mississippi population. The centerpiece of this part of the Mississippi project was the WOLIP project Web site, branded as e-Magnolia, available at www.e-Magnolia.org. Mississippi is the only state that extensively used the portal as a tool for its workforce clients to navigate on their own, allowing them to seek and choose from available online coursework for themselves. This Web site provided users with a brief description of the overall program, a document to fill out for enrollment, and an optional online assessment tool that allowed them to evaluate their computer skills. Participants were then able to view and enroll in courses from training providers both within Mississippi and in other states. Participants in this track included unemployed and incumbent workers looking to improve their skills.

All enrollments for the e-Magnolia program went through the MDES state office. Participants applied online and were each interviewed over the phone. These interviews allowed MDES staff to gauge each client's interest in the program along with his or her ability to learn online. For the most part, MDES staff noted that this was a good way to assess whether someone would be an effective and dedicated online learner.

As noted above, the e-Magnolia scholarship consisted of an 80 percent payment to the training provider upon enrollment. The participant was responsible for the remaining 20 percent, which was reimbursable by the MDES upon program completion. Vendors such as Kaplan University and Gatlin Educational Services allowed participants to pay their share of their training costs using an installment plan that called for a monthly payment of about \$40.

Upon successful completion of the program, the 20 percent participant contribution was reimbursed. At the close of the project, many students were still enrolled in the training despite the fact that the grant had ended. Because of this, the MDES made the commitment to reimburse these clients through other funds.

One of the program options for students in e-Magnolia was a manufacturing program offered through EMCC. EMCC partnered with e-Magnolia to provide stackable Modern Multi-Skill Manufacturing (M3) credentials by means of a hybrid training course. The online portion of the training used Amatrol software that simulates manufacturing activities. This program enrolled participants late in the demonstration project, but there

seemed to be great potential for student success. In fact, Rutgers was able to meet a local employer in the aerospace industry who was pleased with this training program and customarily hired from the pool of graduates. Evaluators also noted that the relationship with EMCC continued after the close of the WOLIP project Web site; the MDES and EMCC are currently working together on a college-completion initiative that spun out of the WOLIP project.

e-Magnolia Participants

The e-Magnolia track of the WOLIP project in Mississippi was geared toward job seekers, incumbent workers, and dislocated workers. In total, 169 participants went through this track. As shown in Table 7, they were overwhelmingly women, middle-aged on average, and almost evenly split in terms of race/ethnicity between black/African American and white. A little over half of e-Magnolia participants were not receiving other benefits.

Table 7: Demographic Profile of e-Magnolia Participants

Age			
18–29	18%		
20–64	58.1%		
30–39	24%		
40–49	37%		
50–59	16%		
Over 65	3%		
Race/Ethnicity			
White	42%		
Black/African American	49%		
American Indian	2%		
Other/no report	8%		
Sex			
Women	85%		
Men	15%		

Figure 9: e-Magnolia Participants Receiving Support from Government Programs at the Time of Training

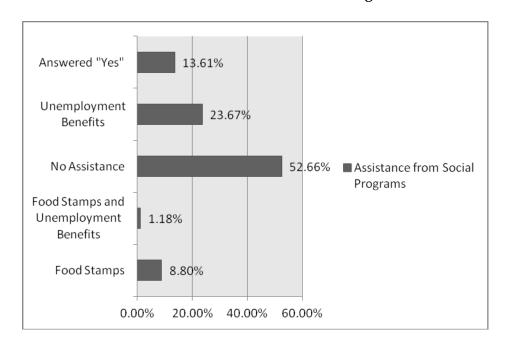
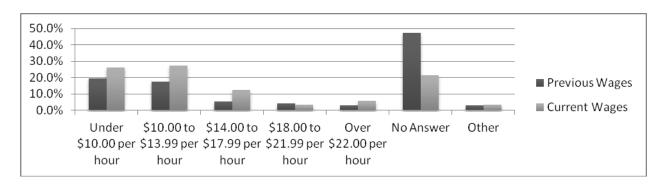


Figure 10: Pre- and Post-participation Wage Data for e-Magnolia Participants



In Mississippi, participants in the WOLIP project, like those in other states, tended to choose training in industries that could be considered traditional to their gender. For example, 78 percent of female participants chose training courses in the health care field, while only 15 percent of men picked health care coursework. The majority of male participants (58 percent) chose coursework in finance and IT, while only 17 percent of women enrolled in these in courses. Additionally, a higher proportion of men—approximately 15 percent—enrolled in energy-sector training compared to only 1 percent of women. Finally, about 8 percent of men took classes in advanced manufacturing compared to less than 1 percent of women.

Figure 11: Difference in Industry of Training by Gender for e-Magnolia Participants (Female)

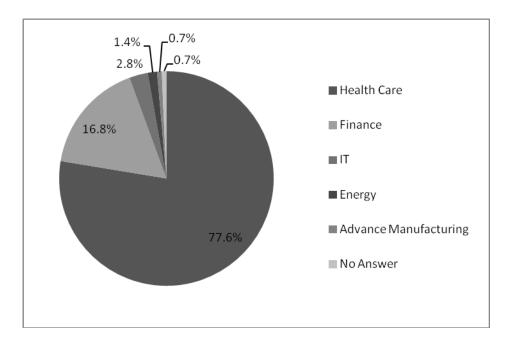
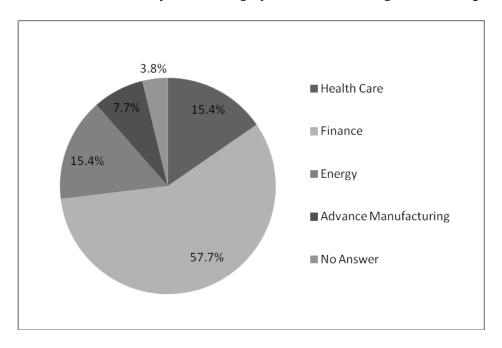


Figure 12: Difference in Industry of Training by Gender for e-Magnolia Participants (Male)



For the most part, the students in this track who were interviewed by Rutgers were pleased with the portal. They found that e-Magnolia was a helpful resource for locating credentialing programs relevant to their needs, describing the portal as being easy to navigate and user-friendly.

Mississippi Construction Education Foundation Program

The second track of the WOLIP project in Mississippi, the Mississippi Construction Education Foundation Program (MCEF), was focused on incumbent workers in construction, the skilled trades (e.g., carpentry), and the electrical trades. By focusing on these industries, the MDES moved into a new frontier for online learning. The training was provided by the MCEF, which was founded in 1996 in response to a projected shortage of craft workers in the state by the year 2010. The foundation works with high schools, employers, and adults looking to get into the construction field. It provides training courses that are developed by the National Center for Construction Education and Research (NCCER), a not-for-profit education foundation and accrediting body that delivers industry-recognized craft-training programs leading to credentials. In recent years, MCEF has moved from delivering traditional classroom training to providing courses in a hybrid format that includes both classroom and online components.

Students and MCEF

In total, 354 people enrolled in MCEF training under the WOLIP project. The overwhelming majority of participants were white and male incumbent workers with direct ties to construction companies. Most participated in the program to get the training that would help them qualify for industry-wide credentialing. MCEF conducted the entire screening and enrollment processes for participants in this track.

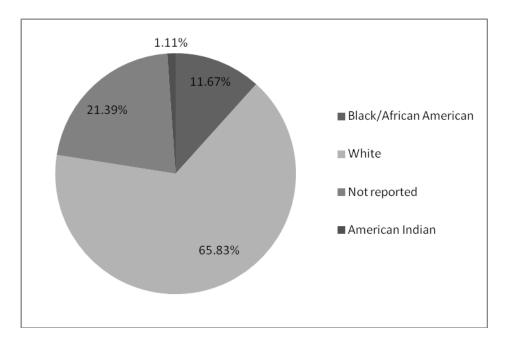


Figure 13: Race of MCEF Students

Figure 14: Gender of MCEF Students

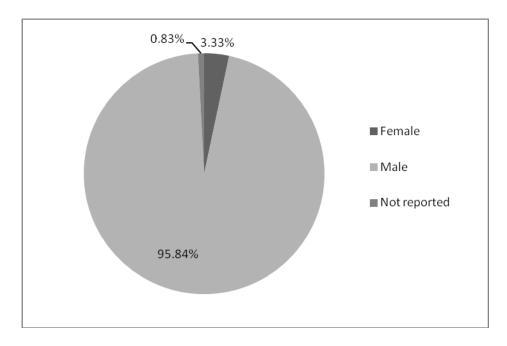
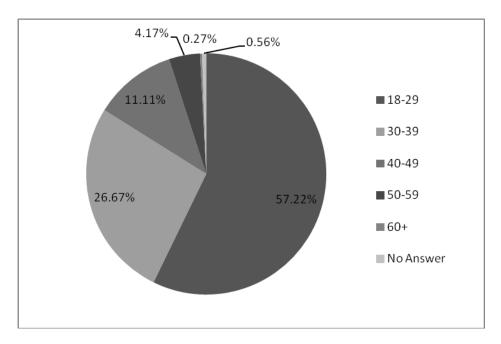


Figure 14: Ages of MCEF Students



The initiative was designed so that students spent the majority of their time in traditional classroom and lab settings with instructors or engaged in hands-on training. They were also provided with online tools that were designed to help them study in preparation for tests and quizzes.

This track only had a loose relationship to the portal. While MCEF courses were listed on the WOLIP project Web site, individual students on this track did not access the portal to find their coursework. Instead, MCEF staff counseled them and directed them to the appropriate training.

Students were required to use the online part of the training to take a series of practice quizzes and tests in preparation for final qualifying tests in the classroom. This online portion of the program varied in its usefulness to participants. Some reported being very pleased with it and made use of the simulated demonstrations and reading materials it supplied. Others found that they preferred to use their traditional books and printed material for their preparation.

One reason students may not have been as engaged in the online portion of the coursework as they could have been was the lack of interaction with teachers. For many instructors in the program, the online construction-skills software was a new tool—and one that they did not know how to use well. Instructors who had a greater understanding of the online component of the program themselves had more active student participation online. Rutgers spoke with one teacher who interacted with students in the online portion of the class by highlighting specific material he found relevant. Steps like this seemed to motivate students to use the online programming. In sum, while much of the real training in this program still occurred in person, the value of putting some of the course work online was that it familiarized both old and new construction workers with an online perspective and shortened the time they had to spend per semester in training, in some cases condensing what would previously have taken nine months of study into four months or less.

A high number of MCEF students, 325 (92 percent), completed training. Participants generally reported a very small wage increase of about 24 cents per hour after the training.

The workers on this track who were interviewed by Rutgers felt, for the most part, that this program offered them a good opportunity. Many stated that they were happy to expand their skills in construction and the trades and were pleased that doing a portion of their coursework online saved them some time by shortening their semester and by cutting down both their travel time to and from class and the hours spent in class per year. In addition to saving time, some participants stated that one of the values of doing online training was that the curriculum was up-to-date and helped them keep on top of the latest technological advances in the field. Like others involved in the WOLIP project, MCEF students talked about the self-discipline that was required to complete the online portion of the training.

The workers reported that receiving this industry-recognized credentialing may help them keep their jobs if layoffs occur. They also noted that the NCCER credential may help them find another construction position if they move out of Mississippi. This is important because many of these workers are transient, moving around the state and between states to wherever work is available.

Employers and MCEF

Employers mentioned that as a result of these courses, workers began to view their work in the industry as a career and took more pride and care in their jobs.

For the MCEF training foundation, participating in the WOLIP project provided an opportunity to expand delivery of their hybrid training model to more individuals and employers in the state than they had previously reached. Many companies were pleased to take advantage of this program to train their employees. Employers talked about the importance of this training to their company and their workers. Small business owners that spoke with Rutgers in both the electrical and plumbing industries saw this as a good opportunity to improve the skills of their workforce at a relatively low cost. Many said that offering MCEF training to their workers was "worth the time and commitment." They noted that the training helped to change the culture of their companies and their employees for the better. They mentioned that as a result of these courses, workers began to view their work in the industry as a career and took more pride and care in their jobs. It was also noted that that the training program empowered employees and made them "more confidant and excited" about their work.

Employers were also pleased that once their workers gained new credentials, they would have the opportunity to bid on more jobs in different areas of the field. They showed their support for the training by providing the 20 percent match to the state on behalf of their employees. Many also allowed workers to complete their coursework during downtime at work, and one small business owner showed his commitment to the program by teaching the class to his workers.

Successes and Challenges in Mississippi

The experiences and lessons learned from the WOLIP project in Mississippi have begun to influence other state programs. For example, the U.S. Department of Commerce in Mississippi was awarded nearly \$5 million though the Broadband Technology Opportunities Program grant. Some staff members who worked on the e-Magnolia program were selected to be part of the Mississippi Broadband Connect Coalition that informs this program, and they have provided information on lessons learned in the WOLIP project to this group. Mississippi also joined a college completion initiative with Rutgers that emerged out of this project and will be discussed in detail later in this report.

AN ACROSS-STATE ANALYSIS OF THE WOLIP PROJECT: PARTICIPANTS' REACTIONS TO ONLINE LEARNING

This pilot project provides a unique opportunity to understand and learn the significance of education and training offered in online formats to individual men and women of differing backgrounds and circumstances across the United States. The workforce investment systems of the four participating states—Colorado, Maine, Mississippi, and Pennsylvania—each chose to implement the WOLIP project in different ways. Each state adopted differing types of online education offerings using multiple vendors and a variety of curricula and assessment tools. Some blended online education with classroom education to varying degrees. Each state reached out to a wide array of people seeking training across a range of geographic locations, and each trainee population differed in terms of employment status, educational background, and gender.

In this section, the reactions of participants to the WOLIP project is discussed according to how they were expressed in focus groups and individual interviews conducted during site visits in each state. The analysis of focus groups looks at what motivated participants, especially during the economic downturn in 2009 and 2010, to seek further education and training generally and online training in particular. It also explores in-depth which aspects of the online training experience these workforce clients found to be the most satisfying along with which aspects they found to be the most problematic or challenging.

The Need for More Education and Training

Participants across states were drawn to this pilot, and in many cases grateful for its existence, because of general concerns related to how they, with their particular educational background, fit in or did not fit in with employment shifts well under way in the larger economy—both locally and nationally. Whatever state they lived in, all knew that education or advanced training of some type was an important action they needed to take if they were to resolve some serious bread-and-butter issues brought into their lives by a poor economy.

The Need for Work: The Great Recession and the Impetus to Action Now

Given the vicissitudes of the recession across states, many of the participants interviewed from the WOLIP demonstration project wanted simply to find work. Many were unemployed or fearful of being laid off. A large number were long-term unemployed. All had a keen understanding of the national economy as well as of their local economy and how hard it was to find or even keep a job. Each evaluated the choices of courses and occupational options available to them.

Ethan, a former plumber, used the Maine program to get HVAC training so he could find work in a surviving area of the Maine real estate industry, commercial real estate. His new goal was to maintain structures as an HVAC technician rather than focus on installing plumbing systems

in new constructions, which he had previously done. He spoke effectively in a focus group of how commercial and residential plumbing locally was more or less "falling apart out there; it is really bad; it is really rough. The economy is going doing downhill; it's not getting any better." He also discussed why he thought HVAC skills would provide him with a lasting job, especially in Maine. As he saw it, even if there were no new buildings going up to work on, there were old ones that still needed work. After all, "people don't want to get cold."

Another male participant in Maine who loved computers and was in training for a Webmaster certificate cited economic history as a catalyst for choosing a focus for his studies:

"I read that when the world went through the Industrial Revolution and autos came, people who made horse carriages or shoed horses had to change their 'head sets,' and some couldn't adapt. We are now going through another phase like that: You have to be flexible now and understand that you have to be always learning and always doing something to move forward."

Some interviewees who were unemployed simply signed on to the program to keep their skills, especially technical skills, up-to-date during their unemployment.

Some expressed a political take on the unemployment scene and the need to get new skills, as one interviewee said:

"It is just tough. You really have to have experience in something here [in the USA] that the government [sic] is not willing to send overseas. If you don't, you are just . . . [expletive]."

Another workforce client, a former mechanic now out of work in Mississippi and interested in computers, talked about how it is "an employer's market now, not the job seekers.'" He described how down on the coast he would need to drive at least forty minutes west to Slidell, LA, to find work.

"There is nothing around here; there are no jobs, honestly, unless you have an advanced degree and could find work at a local university . . . or work at Taco Bell or Burger King."

A Mississippi female put it starkly, saying the only available jobs her in area were "in convenience stores."

In fact, participants were savvy about their local job markets and what job opportunities were being offered. Linda, recently laid off from a newspaper where she had done layout and page design for almost 40 years, was drawn to the Maine program because "I didn't have any skills in anything else." She chose to take a course as an Administrative Associate in Microsoft Word because in her job search, "I noticed what [skills] people were asking for in the different jobs around . . . and a lot of office jobs required Microsoft Access and all that."

Many of the employed or recently laid-off participants were clear that their impetus for more training was finding job security and "steady" or "reliable" work.

Many workforce clients were drawn to this educational opportunity because of their need to earn more money or have more job security. Many participants, including those who were employed, talked about being "always short" on money at the end of the month, of "making do" on too little, and of wanting finally to be "really comfortable" and to "provide better for my kids."

Many of the employed or recently laid-off participants were clear that their impetus for acquiring more training was finding job security and "steady" or "reliable" work—work where they would not be constantly in fear of being laid off or of being underemployed (employed too few hours to achieve economic stability). Indeed, one divorced mom in Mississippi came to the program seeking more education for anything but retail because she had been replaced in her full-time retail job by part-time workers.

Many others were simply interested in holding on to their current job. One woman in Colorado, employed for over 11 years in a nonprofit agency, saw that her organization's funding was being cut and felt she needed to take extra precautions just to keep her job: "I enrolled because our funding was cut dramatically. So for job security I took extra classes."

Take the case of Leslie, an underemployed 40-year-old Maine mother of four working part time as an assistant in a tax office after having worked for many years as a bartender/waitress. Her prime motivation for getting training as a tax consultant was that there was a very good chance that her current part-time employer would give her full-time employment if she expanded her skill set. She wanted this full-time position even if it meant she would earn less money than she did in her former industry:

"Bartenders and waitresses make a lot of money, but it is not steady work, and it's not steady money. If you use the ratio of what I am doing now, it's not as much money based on a daily basis, but it averages out because it's more job security for me. It gives me a set income an hour, so I know what I am going to be making. With waitressing and bartending you really don't know what you will make. You could be busy one day and completely dead the next."

Several participants talked at length about simply needing to find work closer to home—work that did not involve a long, stressful, and expensive commute that consumed both time and earnings. One man described his home location as "a small, small town [that's] very rural. Honestly, it's fifteen miles from here to the nearest Wal-Mart." Acquiring skills that could help participants in their local job market was therefore very important to many of them.

One example was a 50-year-old woman in Maine who was looking to find work by getting a Microsoft Certified Solutions Associate credential—a certification she felt might help her in her local job market or even help her open her own business doing computer and systems maintenance locally.

"Right now the only referrals I get for jobs are jobs hiring people for minimum wage. I can't drive to work every day for \$8 an hour to work at jobs so far away. I would have to get an apartment or rent a room to stay over. I tried a couple of years ago commuting from where I live to Waterville for a job; it was only four days a week but it took me an hour at least to get there, and there was traffic. . . . With those the only jobs available, I have decided that I am going to focus on [my own] small business . . . with a portfolio of customers who I can help locally with their computers. I would be happy to give you my [new] card!"

In fact, when asked where they might like to see themselves in five years, a majority of participants answered with the equivalent of "working full time at a job with benefits" or simply "earning more money." A number even said that in five years they just wanted to "be employed" or to "have a job." A few had loftier goals, such as "owning my own agency," "working on my own," or "becoming a manager."

Changing Careers: Education and the Role of Labor Force Demand

Most workforce clients interviewed across the states participating in the WOLIP project were adult, middle-aged men and women. Many had worked for years in one industry, and many approached this program as a chance to better their employment situation by changing careers and, hopefully, getting skills for jobs that were in high demand. As shown and as further evidence will detail, their motives for changing careers were legion, but many focused on moving into careers that offered more money, job security, or prestige. "I just don't want to be looked down on any more," said one Mississippi man in early middle age. Some sought careers that touched their passion—e.g., green construction that appealed to their interest in the environment or an IT program that drew on their love for computing. Some sought new careers because they were tired of doing the same thing. Some just wanted to find office work because it seemed safer than the physical labor they had performed for years or because they wanted to use their brain and felt their bodies were wearing out. Whatever their motives and whatever career had caught their eye, if they were to succeed, all of the workforce clients entering the program felt that they needed more education of one type or another.

One of the strengths of the WOLIP project was a design that purposefully emphasized growth occupations as the only acceptable training areas in all four states. The participants spoke of the importance of matching any career change and educational objectives to high-demand jobs, and if possible, to those occupations with better pay, benefits, and working conditions.

ERNIE The Job Keeper

Ernie, a 32-year-old warehouse worker, is a quintessential example of a WOLIP project participant who scoped out the job market and tailored his studies to improve the likelihood of being retained by—and perhaps even moving up in—his chemical company. Ernie was married and had only a high school diploma. He worked two other jobs in addition to his full-time warehouse job. His concern was that his full-time job in an industry supplying chemicals to farmers might be somewhat vulnerable.

"The way things are now with agriculture and the farmers having problems . . . everyone is planting soy beans and corn. People are getting laid off. There is more 'one person covering two jobs,' you know? Consolidation, and moving one person from here to there."

Ernie also noticed that network technicians were being "sent out" from his company's headquarters to set up inventory and other electronic networks for his company. He helped the technicians when they came from headquarters, and somewhere along the line he made the decision that the time had come for him to begin to get some formal computer networking skills himself. He did so by working on an entry-level network technician course.

"We always had a problem here at work, and we would talk to the tech guys over the phone about the problems over here. It made me want to learn some more about computers [and setting up networks]. It made me want to do something else with the company."

Some workforce clients explicitly spoke of the jobs they were in or had been laid off from as existing in dying-out or increasingly obsolete industries or occupations. One example of this is a female shoe-factory worker in Maine who enrolled in the WOLIP project for training as a pharmacy technician.

Some participants even came to the WOLIP project eager to search out the labor market for occupations that travel—occupations, such as medical transcription, that could easily be done from home and that they could take with them if their families were transferred to other parts of the country.

Some—like Ernie, the Mississippi warehouse manager profiled above—sought career mobility. Ernie took additional training through the WOLIP project to qualify for career advancement opportunities within his own (agricultural chemical) industry.

Some participants came into the program looking for career changes where they could "transfer their current skills" from what they once did into newer, more promising growth occupations. One focus group participant in Bath, Maine, was Melvin, an older man who for 38 years had done general building maintenance, or, as he put it, "troubleshooting problems ranging from welding structures that were falling apart, to plumbing, to putting in 8-inch pipe." Melvin, however, loved computers and decided he wanted to study computer maintenance, hoping to transfer some of those hands-on skills from building maintenance to computer maintenance:

"Maintenance is troubleshooting. [Similarly, with computers] I have helped people who have cried; they come and say 'help me; I can't get online,' [and] I help them."

A woman in a Maine focus group spoke of her past life in hospitality administration, working for 16 years as a general manager for a small hotel. Her goal was to "do something different" by transferring her skills into medical administration. She spoke of how she was familiar with insurance and administration in hospitality and how she felt she could "transfer those skills right over to medicine."

The Importance of the Right Credentials

All of the research participants seemed to fully understand the importance of credentials and certifications in their local workforces and how such credentials could help them stay employed, move up where they were, or find better jobs. For example, the same Melvin cited above had learned from his experience in building maintenance that licenses and certificates are very important. Now interested in computing, he had quickly grasped that despite his homegrown, innate facility and knowledge of computers:

"You need certificates and licenses to get anywhere now. In places that I wanted to get into [for] computing jobs that I was really good at, you are told, 'You need a license for this. You need a license for that.'"

Similarly, a Mississippi man studying HVAC said:

"They are telling me that they are short-handed in housing and apartments as far as maintenance goes. You see ads in the paper all the time talking about people that are HVAC certified. I am really hoping . . . to get an HVAC certification. You know, from what I am hearing, [with that certificate] I can go into business for myself and do pretty good."

Indeed, the Mississippi mechanic mentioned earlier, a single male high school dropout involved with computers for 10 years and the owner of five computers—one for gaming, one for studying, one for dismantling, etc.—had no luck at all finding work before enrolling in the WOLIP project because he had no credential. He saw his enrollment in the project and his work toward a Cisco Network A+ certification as critical to finally making himself employable:

"I used to manage a Midas muffler [shop]. I have been on the hiring side of things, and when we had people apply, the first thing was, 'Do you have any experience or an AFD certification?' We would hire people with the certification before we would hire someone with five to ten years of experience . . . because of that little piece of paper. That certificate means the person knows how to do this. . . . Employers want to feel comfortable. . . . In five years I want to have [this network degree] . . . and three more certifications and know I will be employed and earning money."

Several participants spoke about how getting the right credential could help them in their current job by making their skill set newly relevant to what their workplace needed. Like Ernie, the chemical warehouse manager who saw opportunity in his current job but only if properly credentialed, numerous clients from the WOLIP project said their version of job readiness was to take courses in relevant and up-to-date areas that could "add value" to a company and to "let your employer know you were doing so."

At the very least, as some workforce clients pointed out to us, they would get to keep the certificates awarded in some courses at the completion of each module or section. They appreciated these awards even when they were not a full-blown national credential because they felt they were useful markers of job readiness that could be shown to a boss or even used on a job interview. Awards with local name recognition were particularly valued. As one Maine participant said:

"I see this certificate as a key piece of documentation. My online school, [which is] in connection with the University of Maine, is going to give me some sort of piece of paper indicating that I completed these courses. I can at least use [it] as some sort of prop when I go on a job interview. [It] will give me credibility other than saying that 'Six years ago I was at ABC Bank and I did such and such . . . and we put in 1000 computers . . . and they all work, and I am good at Windows software. . . . Instead, I can now say: 'I have this course behind me; I know how to do this!'"

In fact, as shown in the profile of Dorothy, a prime goal for many participants in the WOLIP project was getting a credential that could validate many years of past experience.

DOROTHY The Credential-Getter

Dorothy was a middle-aged woman living in an exurban community with her husband and kids—teenagers and a baby. For over ten years, she and her husband had worked for a global software-development company. Along with many others in the company, both she and her husband were laid off by this employer on the same day.

It was an upsetting time in their lives. The Great Recession was in full force. Dorothy and her spouse both were collecting unemployment insurance, and she knew that she needed to find a job fast. She also knew that, despite her Bachelor's degree, it was important that she have a Project Management Professional certification to help her find a job. She was eloquent in explaining her reasoning:

"I had been a project manager for a number of years, but because I worked for the same company for a very long time, I hadn't felt the need to pursue the certification. I felt like everybody that I worked with knew what my qualifications were as a project manager. But when I got laid off, [and] I was out looking for a job again, I needed to pursue that certification to sort of prove that my experience was valid."

In July 2009, Dorothy began her studies toward the certification, working through her local job center. She saw online learning as a good fit for her at that point in time. She had taken online courses before—many through her former employer—and she saw it as compatible with her personal learning style. She didn't worry about discipline, especially given her sense of urgency and motivation to get the certification. She was also pregnant when she began her courses, and the baby was an infant as she continued most of her early certification studies. She reported doing most of her coursework at night when the kids were sleeping.

Dorothy finished her work for the certification in March of 2010.

"At the time I had the interview for the job I have now . . . I was most of the way down the path to having the certification, [and that] definitely helped in the interview. Had I just said that I wanted this certification, I don't think that would have been a compelling story. Being that I was able to say that I was 90% there gave the interviewer [the message] that I was serious about it, and it was a reality."

Dorothy was only unemployed for about six months. She took the first job she was offered, and today she is a software project manager and works for a development team near her home. While she is not sure she is earning additional money or benefits as a result of her new credential, she feels the program helped her and her family at a time "when things were . . . shaky and uncertain."

Age, Aging, and the Need for Better Working Conditions

There were other motives for getting more education besides wanting to find work in a high-demand sector and understanding the importance of credentials. As noted, many of the participants from the WOLIP project were middle-aged. Aging, age discrimination, and tough working conditions surfaced frequently in the interviews as motives for getting more education.

There were many references to the fear of age discrimination as a reason to be laid off, to be converted from full-time to part-time positions, or to simply not be hired at all. Cathy, a 48-year-old unemployed woman on the Gulf Coast, reported great difficulty finding a job that was the right fit for her at her age.

"I go to the WIN Center very often, and the jobs I see there are not really related to anything that I can do. I think it is my age. It's not like I am able to fit in anywhere now."

One solution she found on e-Magnolia has been to work on a certificate in medical billing—work that she can perform from her trailer where she must remain to care for her disabled husband.

One 58-year-old Maine workforce client, currently at a very low-paying, per-diem job as a hospital receptionist, likewise saw herself as a victim of age discrimination:

"I have this age thing going against me. I am 58. Nobody wants to hire somebody that old. They want to hire the younger ones because once you get older, they figure you will cost them more in insurance, health, and problems [sic]. You are looked at differently. Even if you set up your resume differently, they see [from] the dates [how old you are] and they go, 'oh.'"

A few older participants also talked about being physically tired and aging out of their demanding manual labor jobs, whether involving factory work or home health care. Most of these participants were exploring computer training so that they could get desk jobs in industries such as medical billing or insurance.

Both younger and older participants discussed some tough working conditions they were eager to escape from in their current jobs. For example, working nights for years could be a challenge. As Leslie, the former bartender studying to become a tax assistant put it: "Now, once I am finished with training, I won't have to work late at night."

The Joy of a Second Chance at Education

Many clients who enrolled in the WOLIP project after years in the workforce reported that they had had a bad experience in school and had been loath to return to education until now.

For a few participants, the magic of the WOLIP project—whatever the state, whatever the chosen area of study—was simply that it offered them a second chance at education. They saw the WOLIP project as a welcome opportunity to go back to school after years in the workforce. Connie, a Mississippi woman who had recently been laid off from her retail job and who had only a high school diploma behind her, said simply:

"I am having trouble finding a job. I found the information on e-Magnolia and figured it would be a good chance to get an education and try to do something better with myself."

Those who specifically emphasized the WOLIP project as a second chance at education gave an array of reasons for having to drop out of school or for not being able to pursue higher education earlier in life. The most common reasons given were the need to go straight to work to support their families, the impossible cost of higher education in their younger years, early marriage and pregnancy, or family responsibilities that made further education impossible. Many clients who enrolled in the WOLIP project after years in the workforce reported that they had had a bad experience in school and had been loath to return to education until now.

A Desire to Do a Better Job

Finally, there were more than a few participants who reported to the Rutgers evaluators that they were interested in getting more education because it would help them "do their jobs better." Julia, the per-diem hospital receptionist in Maine, is one case in point. Her medical vocabulary course contributed greatly to her productivity and savvy at work relating to doctors, nurses, and medical staff. Similarly, Ernie from Mississippi felt he was doing a better job as a warehouse manager overseeing inventory electronically since taking his networking course.

JULIA The Per-Diem Worker Seeking Full-Time Work

Julia, a 69-year-old woman, offers another strategic research case that exemplifies the WOLIP project's attractiveness to those needing a flexible way of getting a credential and, hopefully, an edge in the job market. Her primary goal as a per-diem worker in a large hospital complex was to be good enough at her temporary job to be brought on full time. At the very least, her strategy was to keep her per-diem job in a difficult economic environment.

Julia knew that there was fierce competition for each job in her hospital and that her age was a big challenge. She also felt she needed the "right fit" of credential-to-job if she were to be retained at her current switchboard per-diem position or if she were to be considered for any of the other full-time positions that may open up in the future. She became engaged in a focused effort to study medical administration.

"The hospital is everything [to me]. At first I started out volunteering, [then] this [job] opened up per diem, and I got it. By mostly working at the hospital, they know me. If there is an opening now . . . and I apply, I think there is more of a chance fore me [now that I have completed my medical administration course]. They are going to hire internals first."

She liked the year-long medical administration coursework bundle that included coursework in things like medical terminology. She felt it helped her even in her per-diem job at the hospital. And when she told hospital supervisors about the coursework she was doing, "They thought it was fantastic."

Her educational work also made her current switchboard job more satisfying:

"What I did learn [in the course] I definitely applied. When you are at the switchboard, you are dealing with the nurses, the doctors, emergency codes, and directions, telling people where to go. You are sort of handling it all. People think you just go in and answer the phone, but it's not [just] that. You are handling all the [hospital staff] so they get there and a person doesn't die."

Like others profiled here, online learning was a convenient fit for her lifestyle. Julia particularly liked being able to schedule her online coursework around her per-diem work at the hospital. She also liked avoiding bad weather, which she would have had to contend with if her courses had been located at a school. She saw online coursework as a "relaxed way of learning." She praised the tests as "good" and liked that she received feedback from her instructors "right away."

There were also those participants who sought more education via the WOLIP project in order to be more than just efficient at their work but also to be "in touch with the times." Indeed, one manager, the director of outpatient services in a Pennsylvania health care company that was implementing the training for the WOLIP project, elected to participate as a student in the medical billing training her staff was required to take. She decided to take the training because "I could just learn more about the billing and coding aspects and better oversee those practices." Though fully credentialed for her job as a therapist, she felt the course was a worthwhile pursuit: "I have learned a lot, and it has been very, very helpful."

INCENTIVES FOR THE WOLIP PROJECT

MONETARY AND NONMONETARY INCENTIVES

While the recession, economic issues, desires for career changes, aging, or simply an interest in education or doing a better job all acted as powerful motivators to workforce clients to engage seriously in the WOLIP project, there were three aspects of this government-sponsored program that participants from the WOLIP project cited as particularly pivotal to their decision to enroll. One was the importance of the financial assistance it offered to unemployed or very underemployed Americans, allowing them access to education in a time of economic austerity. Another was the fact that some states attached some nonmonetary incentives to the program that helped support their participation. Finally, there was the nature of the education for the WOLIP project itself—specifically, online training and education that was flexible and could fit into workforce clients' lives in a way that traveling back and forth to a brick-and-mortar classroom on a rigid schedule never could.

The Importance of Financial Assistance

Participants routinely commented on how difficult going back to school would be for them without the financial support they received from their state, nonprofit agency, or employer as part of the WOLIP project. Spending money for extra education was considered an impossible luxury in families where only one spouse was working, in families relying solely on unemployment, or even in families where both spouses were employed full time but at lowwage jobs. As George, an unemployed Maine workforce client studying computer forensics, put it:

"I wouldn't have done it [without the MOLLI scholarship] program because I really don't have the money right now. At my wife's job, they cut her back to 3 ½ hours a day in the school district, so that kind of hurt."

Similarly, Dorothy, profiled earlier in this report, pointed to the importance of the financial help the WOLIP project provided her:

"Now that I was out looking for a job again . . . I needed to pursue certification, which would cost maybe a couple of thousand dollars. So being that both my husband and I were unemployed, we felt it was appropriate to try and get the [WOLIP project's] scholarship to cover [the cost]."

The Importance of Nonmonetary Incentives

Some clients attached importance to the nonmonetary incentives in the WOLIP project. ⁷⁵ While each of the participating states offered different incentives, Maine's decision to give waivers to students to participate in the educational program rather than look for jobs while on unemployment was a true incentive to some. When asked if she would have been able to take a course if she never received funding from Maine's MOLLI or WOLIP project Web site, another workforce client in Maine said:

"No. [The program] has the financing component, and it also has the component of giving you the time [to take the course] because otherwise you would have to spend your time looking for a job. Yes, the waiver . . . it's huge."

Participants in the Mississippi e-Magnolia version of the WOLIP project were grateful for the state's willingness to establish installment payments for the 20 percent of the tuition payment for which participants were responsible. Clare, a Mississippi student in her late twenties taking courses to become a certified dental assistant, explained that the 20 percent of the cost she was responsible for came to a total of \$300. That amount, while not daunting to some people, was only affordable for her as a single mom who was unemployed because she could pay it in installments.

Online Learning: A New Tool in Education and Training

In focus groups and in face-to-face interviews, participants spoke about how the online nature of the training for the WOLIP project drew them to participate in the program. ⁷⁶ A summary of the reasons they cited include:

- the flexibility and convenience of online training and its fit with their circumstances and lifestyles, whether employed or unemployed;
- the variety of educational offerings available to them online, some of which were unavailable locally; the flexible learning style online education affords certain types of students returning to school after long periods away;
- the capacity of the online learning experience to create a high-tech learning environment that expands learners' technical and computer skills and thereby boosts their job readiness; and

• finally, the sense of accomplishment that the training provided and the role it played in staving off boredom or even depression in a period of serious economic downturn.

Each of these reasons is explored further through case studies below.

Online Education: Flexibility and a Fit with Participants' Circumstances

Part-time workers praised online learning's flexibility—the ability to fit studying and coursework into odd hours of the day and night—because their hours as contingent workers could change radically, and any structured classroom training would be inconvenient or impossible to work into their lives.

There was much discussion and positive feedback in participant interviews concerning the flexibility and convenience of online training. A laid-off Colorado man said he enjoyed online learning because "I can do it anytime, anywhere that I have access to a computer."

Labor Force Attachment Advantages

Many participants remarked on how online learning's flexibility fit with their particular laborforce attachment status in time and space.

Part-time workers praised online learning's flexibility—the ability to fit studying and coursework into odd hours of the day and night—because their hours as contingent workers could change radically, and any structured classroom training would be inconvenient or impossible to work into their lives. An elderly Maine home care worker who finished her coursework online said of the process:

"Working per diem, I can get called in any time. Online [learning] was very convenient ... because I could make the money that I needed to make and still have the ability to study online. There is this woman whose husband is elderly, and he gets these nose bleeds, and she will sometimes call me up at 4 in the morning to come in at 7. That can happen for two or three days at a stretch. If you had [traditional] school, you couldn't have made it to work."

Some per diem workers noted that employers set their hours, so any education and training commitments they might make would have to come second to their work commitments.

Similarly, many laid-off and furloughed individuals commented on the flexible structure of online programs because they hoped they might be called back to their jobs at some point, even temporarily, if industrial or service demand picked up. Bonnie, a laid-off worker in Pennsylvania that was an archetypical participant in the WOLIP project, described online learning as an appealing form of education because finding work was still her number-one priority. Education, however important, was something that had to be scheduled around any work opportunities that arose:

"If production picks up [at work], I can be called back. If I am in a classroom, I can't [continue]. If I had signed up for a classroom course and gotten a call back, signing up would have been a waste of [tuition] money."

Workers employed full-time also commented on the benefits of the asynchronous structure of online learning. Going to school and working full-time put many under pressure in terms of time and space. Many liked the convenience of fitting in a few hours of studying here or there, sometimes late at night and sometimes getting up very early before going to work. Several mentioned studying while at work, taking their computers to the job site or signing on from work computers when things were slow.

One participant in Mississippi reported that he sometimes worked as much as 50 to 55 hours of overtime each month, so commuting to a traditional school to take classes would be impossible.

"This month we will be picking up hours of overtime, and I don't know if I would have the time to drive over to the university as easily."

On the other hand, he pointed out that when things are slow at work, given the online nature of his courses, he can do some studying on-site:

"[My employer] know[s] I am taking this class, and as long as I have some slow time at work and it doesn't interfere . . . I will sneak over to my laptop and do some work."

One Pennsylvania supervisor taking courses online through the WOLIP project described how she was able to fit her training in at work "between the many, many other demands on my day. It is really working well for me."

BONNIE The "Career Changer"

Bonnie, a 41-year-old woman, called her job center specifically to find some sort of online training. She had recently been laid off the production line at a brake manufacturing plant where she had earned \$15 an hour. Her goal was to use this time off to fulfill her personal dream of getting out of the factory and into a medical office. (Bonnie saw the medical field as "a field where there will always be jobs.") But to do this, especially since she needed to work and earn money, she had to have a system of study that was flexible. It was very important to her to be at home and available on a moment's notice if the factory called her back to work.

Many aspects of the online process suited Bonnie. She had a computer and broadband access in her home. Her job center pointed her to many medical course offerings online that would help her earn a certified administrative medical specialist certificate.

Bonnie noted the flexibility of online learning:

"I am laid off, so I can do [my studies] at any time of the day. I can do it at night. I can get up at 3 a.m and do it. I can go online and take the test at any time. When you take your test, as soon as you are done, it gives you the %age. You can bring the test back up to see all your answers, to see what's right and what's wrong. I have 180 days from the start of the course to the finish, [but] I think I will finish before that. That's why I like the option of being home, because I can do this every day."

Bonnie also had some negative associations with classroom learning, which she attributed to being an older person:

"I am 41, and I guess I don't care to be in that classroom setting. I am learning a lot. I feel I am learning more [than in the classroom of my former business schools]. I kind of recommend it to everybody. There isn't anything about this program I don't like. I really have enjoyed it."

Transportation and Commuting Advantages

Unlike classroom training, which requires precise scheduling commitments, online courses' flexibility was noted as important by many of those interviewed. Participants noted financial and time savings when comparing online learning with commuting to and from a traditional school. As a pair of sisters in Colorado put it:

"You know [online classes] save gas; for me it would be 30 miles back and forth going to a school. [An online format] helps since [traditional classes] are never scheduled one right after the other, so it's to and fro and back and forth."

A few participants mentioned that online learning helped avoid driving in traffic. Others, especially in Maine, referred to the challenges of getting to both work and school in severe winter weather.

Work and Family Advantages

Participants in all four states implementing the WOLIP project mentioned in the interviews that the flexible study structure that characterizes online learning helped them meet different work/family demands.

Many participants noted that doing training online helped them to manage their work and family responsibilities. Child care is generally expensive, is not always available, and can be of very dubious quality. Participants also struggled with elder care demands. Some workers even reported forfeiting full-time work for part-time or temporary jobs in order to provide caring labor.

In fact, for some, the online aspect of the program was noted as a primary reason for participation. Some participants talked about doing their work "when the children were settled," "when the kids were situated," or "when everybody's out or sleeping."

Some participants across the states participating in the WOLIP project noted that they would worry about their households and families if they were away taking traditional classroombased training courses:

"If my kids were older and all out of the house, I could go back to [traditional] school and not worry about things at home. But now, [with them still young and at home,] I would be sitting there in a classroom worried about, 'oh, I should be doing this or that right now—at home—for my family.'"

One mother in Maine, who had responsibility for her own large family and her recently widowed mother, viewed her coursework on the WOLIP project Web site as the only type of education she could manage:

"I could not have taken this accounting course if it had been in a classroom. It would have taken too much energy. Doing it online was perfect for me because I could do it on my spare time. I could do it when I had a little bit of time, and I wasn't taking time away from my children. I could do it when I put them down for a nap or whatever. It was perfect. It was really a perfect course."

Finally, there was some mention, especially among some of the lower-income workforce clients, of the importance of getting more education and setting a good example for their children. This finding on family literacy is one that has been well documented in earlier studies by the Rutgers

Center for Women and Work. 77 A nursing student in Colorado noted that seeing her studying at home "encourages [my son] to go to school."

Access to Education Targeting Growth Occupations

States' workforce investment systems also went the extra mile, and to considerable trouble in some cases, to be sure that the vendors offering 'certifications of completion' were vendors with name recognition for local employers.

Many rural Americans, and even ex-urban and suburban Americans without access to good transportation systems, have problems accessing higher education even at the community college level. The states participating in the WOLIP project had extensive rural areas, many of which were underserved by their educational systems. Educational institutions offering courses in high-demand, high-growth areas of the economy were especially hard to find in certain rural areas.

Workforce clients were drawn to the WOLIP project by the variety of educational offerings that were available to them online. ⁷⁸ As explained earlier, the states tried to ensure high quality in the course offerings provided through the WOLIP project Web site. They also felt it was important that the project's course offerings retained a focus on growth industries with good wages.

Students were drawn to the WOLIP project and the workforce investment system because they thought that those resources might have the best information on local job opportunities. One participant noted:

"One local company is heavily into machining. And some of the jobs that are coming up on the next round of offerings will be for machining the blocks and the heads that are required in diesel engines. I know from a forecasting standpoint that machining is coming up, and it's solid."

States' workforce investment systems struggled to make sure that training and certificates would have value in the eyes of local employers. A woman in Maine, who got an accounting certificate through an unnamed online university that was linked to her state university, explained how important it was when, on a job interview, she showed her prospective employer her certificate that bore both the name of her state university as well as that of the online university:

"I showed them my certificate when I went for the job interview. It helped me get into my job [because my employer] thought it was a good course [from a place he recognized]."

ONLINE LEARNING: STRENGTHENING SKILLS AND MARKETABILITY VIA A HIGH-TECH LEARNING EXPERIENCE

Research shows that online learning creates a high-tech learning environment regardless of the topic of study.⁷⁹ Participants in the WOLIP project reported that taking courses online helped them to get comfortable with the computer and, more importantly, to expand their technical and computer skills, thereby boosting their job readiness.

As indicated earlier, many per-diem employees, eager to get full-time work, emphasized their high-tech experience taking classes online as a mark of their technological relevance and job readiness in discussions with their employers. Some got permission to take courses at their workplace by pointing out a program's relevance to their work activities, keeping their employer informed about their progress. Several full-time employees used their online learning experience to give evidence to their employers of their motivation and readiness for promotion to a higher rank.

Some participants in the WOLIP project had employers who mandated that they take special courses in order to be hired, promoted, or even retained. David, who spent thirteen months looking for a job when he moved with his wife from the East Coast to Colorado, finally found a full-time job with a small company as a director of technology. Still finishing up his training on the WOLIP project Web site to qualify for a certified network administrator position, David reported that:

"The company that hired me is adamant that I finish this training. It [is] one of the bonuses [my employers see] with me coming in. They are actually letting me study during the day when I have free time. They basically offered me a position [and] said 'once you're certified, I'll give you a \$5,000 increase in your salary.' So my wife is really pushing me to get this thing done as well."

In Pennsylvania, where the WOLIP project was driven by industry partnerships, some employed participants, as well as some supervisors felt that being selected to take part in training was a privilege and a mark of the employee's value to his or her employer. As a participant reported:

"You know, when you are brought in to do the online training, it is a step up for you."

ONLINE LEARNING: AFFIRMATIONS AND CONTRADICTIONS

Much of the discussions in the participant interviews in all four states revolved around the affirmations and contradictions of taking courses online from a learner's perspective. Some participants articulated an array of personal advantages this new style of learning afforded them. Others identified problems associated with online learning, such as its tendency to be

isolating and the need for significant self-discipline. Several vendor-dependent factors, including the quality of coursework, vendor responsiveness, instructor responsiveness, and technological issues, also received contradictory reviews.

Benefits of Online Learning and Individualized Study

Participants cited a host of reasons why they liked learning online.⁸⁰ This section analyzes some of the more personal factors they found satisfying.

Setting Your Own Pace

The foremost reason for appreciating the online learning environment, as cited by participants, was the opportunity it afforded them to learn independently at their own pace. Participants in the WOLIP project noted that they were either fast learners or slow learners. Students who considered themselves fast learners were happy not to be slowed down by other students who were less advanced. As Jason, a man studying Web-database design, said in a Maine focus group:

"I like the self-paced part. In a classroom, you can have a huge range of people who either know what they are doing or don't know what they are doing taking the class. You can have people with very, very basic computer skills . . . taking, for example, Web development, and other guys that have already developed Web pages and are in the class too because they want to get advanced now. There are a lot of different skill levels trying to take the same course."

Students who described themselves as slow learners were equally happy not being rushed by those wanting a quicker pace. A woman interviewed in the same Maine focus group described her feelings this way:

"You can go in and, after each unit, pull up all these mini practice quizzes—sometimes they are like the 'hangman game'—and you can concentrate and practice. I have to study, absorb, study, absorb. I try to get to it morning, night, and noon."

Other participants also liked the capability of controlling the learning process. Some participants noted previous bad experiences in traditional classrooms; clients remarked that with online learning, they felt more in control and less subject to peer evaluation.

And another, older, focus group participant said simply:

"It's self-paced; you can go at your own speed. That's important for me; I haven't been in school in 40 years."

While these data do not permit analysis of this group in any great depth, their comments suggest that independent, online training is a good way for some to return to education.

Some noted that online learning lacked features of traditional education that they found helpful, such as books and manuals. Others pointed out the accessible online resources that accompanied their coursework. "I get as much out of the online library as I do the courseware."

Some noted that online learning helped them stay organized and retain information.

"I went five years to the University of [name removed], and I thought back to what I actually learned there, and I couldn't remember anything. But with this, I don't have to think back. I just have to look online and check it out if I forget something which is interesting. You never lose it; it is always there."

Indeed, many students discussed how learning online let them explore topics in more depth.

"Online works well for me because it is allowing me the flexibility to decide on my own if I want to go deeper into the course, deeper into the individual programs . . . and no one is telling me, 'Oh, no, you're not. You have to move on to the next thing.'"

Learning styles and learning preferences, in addition to home and work circumstances, also seemed to dictate not just how participants studied but also when they studied. Study times were idiosyncratic and varied; some participants might study on and off all night long, others might be highly structured and keep to a tight schedule, and still others might be ultra-flexible with their schedules, studying when they have time and as their lives permit:

"I did [my online work] at nighttime or during the day. I did it in my free time. I [would] do a lot of hours all at once from nighttime to the beginning of the morning. I was on the computer a lot, that is why I got it done so fast. I just focused on getting through it."

Similarly, where participants did their studying was a personal choice driven by their own preferences as well as by work commitments and home circumstances. While most seemed to study at home or at work, some went to their local libraries, to a friend's house, or even to a diner or coffee shop to do their coursework.

Deb, a Maine woman studying to become a certified purchasing agent, explained her study strategy in terms of time and place:

"My husband leaves for work at 6 a.m., so as soon as he is out the door, I am on the computer. So I study for about two hours, and then I go work out, and then I will go back. Like, I will write a draft to a paper in the morning, and then [after my workout] I go back and rewrite the draft. . . . I usually do the reading in the afternoon."

Training and Self-Esteem

The training provided through the WOLIP project helped some participants gain a more positive self-image. A woman in Maine, who was training to be a tax consultant, reported that "[Getting this certificate] . . . has actually helped my self-esteem."

Challenges of Online Learning and Individualized Study

This report has described many of the positive aspects of online learning that were reported in this study. The next few sections examine some of the disadvantages and challenges that emerged in the evaluation. Many of these have been noted in other studies of online learning.

Three areas noted by participants as challenges were isolation and the challenge of self-guided study; the absence of opportunities for networking within their area of expertise; and the perceived need for hands-on experience or for opportunities to practice the skills and knowledge gained through online study. A combination of these concerns prevailed for a large number of interviewees, in some cases depending on their specific program or area of interest.

Isolation and Other Challenges of Self-Guided Study

Participants reported to the Rutgers interviewers that a problematic aspect of online learning was the issue of isolation. They also noted some other challenges related to the nature of self-guided study. Studying full time at home was also reported as being a distraction.

While many participants discussed the value of setting their own learning pace, some felt that studying online was difficult. The need for self-discipline sometimes meant struggling to stay motivated. A large number of people interviewed talked about the importance of setting up a strict routine for themselves, the difficulty of sticking with that routine, and the battle they fought to "get in the zone" and "stay in the zone."

Cathy, the Mississippi resident studying medical billing in Gulfport, said this about her efforts to set up a routine for her online coursework:

"You have to be disciplined. My goal is to have the medical billing certificate before July 14th, which is my daughter's birthday. I try to get on the computer every day so that I make sure I do something. I want to make sure I am on top of things. I have dates that I study. I have a planner and . . . Friday, Saturday and Monday are my days to do my classwork."

Several online learners, especially those with less confidence in themselves or who possessed insufficient technical savvy, talked about the steep learning curve they faced when getting started in their studies. 82 Even the more technically sophisticated discussed the difficulty of staying focused for hours at a time on highly technical material that they had never been exposed to before. As one participant put it, "After a while, I think my poor brain finds it difficult to stay focused on that technical material because it is very specific."

Another issue noted by some participants was the lack of feedback from training vendors and educational instructors. For example, some focus groups members noted that they missed the classroom environment, where there were teachers, friends, and colleagues to talk to. Other focus group participants expressed that they felt studying within the home was an invitation for diversions. As one participant from Maine noted, "Sitting at home, trying to study on the computer, is just almost impossible. There are so many distractions."

Similarly, a Colorado man, studying for his Microsoft MCIPP, described the specific interruptions that interfered with his study:

"Initially, when my wife was handling the majority of the housework, I could focus. I could get up in the morning and study six hours a day or more. Now the laundry and the dishes and the household chores have fallen to me, and I have to break up my study time to take care of those things. So I don't get quite as many hours a day to study."

Other participants agreed and noted that they were more successful when they worked outside of their home:

"It is impossible for me to study at home; I have to go to the library. I can study better outside of the house than in the house. . . . The library is awesome."

The Need for Professional Networking Opportunities

Some of the students in the WOLIP project remarked that they would have been more successful in a blended learning situation, with some coursework online and some in a classroom.

Several participants, especially those taking certifications in high-tech areas, reported a need for professional networking that was not being fulfilled through their online training. Some remarked that they would have been more successful in a blended learning situation, with some coursework online and some in a classroom. In fact, several of the Rutgers focus groups turned into group self-help sessions.⁸³ On two occasions in Maine, during the group interviews, the job centers were even asked if they could institutionalize such meetings after the research interviews ended.

Participants also noted that they would have liked the program to provide networking opportunities geared toward finding employment. Job centers that did set up special networking events with employers and other job seekers were commended for doing so.

The Need for Hands-On Experience

Another complaint about online learning mentioned by some training participants, especially those interested in certain trades and occupations, was the need for more hands-on experience, which could be gained through internship or laboratory requirements. Some participants were frustrated by the fact that there was no way to put the skills they were learning into practice.

One pharmacy technician student noted the benefits of having an internship requirement in her program of study, while a student studying HVAC said:

"I realize that [this] is online learning, but some of the courses and some of the studying should require labs or something like that because this [HVAC] is hands-on work."

David, studying systems administration in Colorado, noted the need for hands-on experience by saying:

"My issue with online learning is I like to physically play with equipment, and I wish I had a lab that I could access. Simulators are fine . . . but there is just something about taking a piece of equipment out of a box and putting it together and making it work that I don't think you are fully going to get out of [online learning alone]. I really think these classes should be at least 20 to 25 percent hands-on, where you are dealing with equipment."

Mixed Reviews: Timely and Quality Feedback and Online Coursework Design

Successful online learning is dependent on having access to working technology. This includes functioning hardware systems, high-quality software, and methods of student–teacher interface.

The evaluation found that these classroom and technological aspects of the online learning services delivered as part of the WOLIP project received mixed reviews by participants. While no quantitative data were collected to understand dissatisfaction or satisfaction with individual training vendors, 85 the qualitative data the Rutgers' research team collected demonstrated both very positive and very negative reviews with regard to vendor quality. Two commonly noted issues involved the timeliness and quality of feedback from online instructors and the quality of the curricula and coursework design.

Mixed Reviews on the Timeliness of Feedback

A significant portion of the data collected on vendors focused on the timeliness of student feedback from instructors.

Participants who noted dissatisfaction with the response time of feedback from their online school described feeling frustrated. One participant noted:

"I find that the feedback I get from my instructor takes, like, days to get. So if you are in the middle of doing something, and you have a question, and you e-mail the professor, it can be two days before you hear back. So for me that is kind of difficult, because when I have a question, I would like to have an answer then."

One young man in a focus group reported that:

"There is no feedback in the course I am in. I have been waiting a week for someone to get back to me. I just usually try to find an alternative source [to answer any questions that arise]."

One Colorado woman observed the following:

"It all depends on the instructor. The first one was very responsive, but the last one was not. The first one was really good; he was on top of things. You asked a question, he responded right away. Unfortunately, I am kind of disappointed in this last instructor. I was giving him the benefit of the doubt, but I didn't even get my last grades until [it was time that] I reviewed him."

No participants in the WOLIP project reported that they would drop out of their course or program as a result of their frustrations with timely feedback. Instead, participants coped with the lack of feedback in a variety of ways. Some reported that they connected with other students for feedback.

"Go into the chat rooms and get all the comments from the students. I went there to see if I was the only one having trouble getting through the course . . . and the feedback there was that there were a lot of people having trouble getting through the first assignment. There were a lot of comments from the students . . . and when I went through them and read them I felt like I wasn't a dummy or the only one having a hard time. I thought I could pick up this online thing really fast, but I wasn't; and it seemed like a common thing with the comments."

Despite the negative comments researchers received about poor feedback, a sizeable number of students were satisfied with the responsiveness of their institution or instructor. Deb, the young woman studying to be a pharmacy technician in Maine, commented:

"If I have had any questions, which I had had quite a few for the professor, the longest that she has taken to get back to me is, like, six hours. Anything that I have needed, they have been really on top of it. She grades papers three times a week, so your papers come back really fast, your quizzes come back really fast."

Mixed Reviews on the Quality of Feedback

The evaluation also found that participants in the WOLIP project had mixed reviews on the quality of the feedback they received from their instructors. A participant noting a negative experience said:

"Some of my friends have teachers that give them lots of TLC online. They have a lot of interaction with their instructors and some assignments where there is some mentoring going on. My [instructor] was courteous and timely when I sent him an e-mail, but he was basically no frills. I got my UPS box, and it was like: 'Here's your course; good

luck!' They didn't even follow up to see if I liked the course and if I would take another course."

Others participants reported satisfaction with the quality of the feedback their instructors provided. As noted by a 69-year-old Maine woman:

"I have two instructors; they have both been very helpful. They gave me a list with their office hours. They tell you when they are on the chat line, even after hours. If I sent them work to look over, they explained to me if I was doing something wrong. They were very good that way. They were encouraging, too. When you did a test, they just didn't put a grade on and leave it there; they sent personal notes. That is encouraging."

Many students, however, had few expectations regarding either timely or quality feedback. Some suggested that it was naïve to expect constant communication with their instructors. One student pointed out that his teacher had approximately 500 students and that it would be absurd to expect more in-depth feedback.

Mixed Reviews on the Quality of Coursework Design

Some participants felt that their online courses, compared with their classroom experiences, were much more likely to be up-todate because they were technically driven.

Another issue that received mixed reviews with workforce clients engaged in the WOLIP project was the quality of the coursework design.

Some of the negative comments included comments on Web site design. As one participant noted:

"I don't think the Web design and the Web site is very good actually. My [work] is all online; there are no books . . . and a lot of times I am on this first lecture, and I have been over it for like 12 hours, and some of the things the professor shows you to do doesn't work the way he says they do; so I have to go and try to find some resource to kind of figure how to do it. I am finding it really confusing and kind of frustrating because I am putting so much time into getting it done, but I think it could have been easier. "

Other students noted problems such as instructors from online vendors using out-of-date materials, tests not being coordinated with study materials, and insufficient instructions regarding tasks and instructors' expectations.

Frustrations with dated materials were specifically expressed in one Maine focus group:

"The materials seem to be quite dated. I think they are definitely due for an upgrade in content. I am reading stuff about the 'latest and greatest thing in Web TV' that was done years ago. I think that [online learning] has great potential, but it needs some work."

Yet not all the comments on course design were negative. Just as many participants mentioned how much they liked their course design and talked about how interesting the materials provided to them were.

"I just loved the courses. I enjoyed the reading and the games, even. It's a neat way to learn . . . with the way they have it formulated."

As for the quality of the testing mechanisms, many participants had positive things to say about the tests themselves:

"They are really good tests. They cover a lot of material, and they are not just multiplechoice questions. You have to know the formulas, and you have to know the right answer. It's a good program."

There were, however, a few participants that noted that the work that was being tested did not align with the coursework.

"What I don't like about it is that the course material doesn't always reflect what's on the test, and I don't have the opportunity or the option to ask a particular question of an instructor in real time, to say: 'Well, I took a test and there were questions that this course did not cover, and why is that?'"

There were also instances of students noting that course design cut corners and was not comprehensive. One woman, Lena, took an accounting course focused on mastering a well-known tax-software program. Lena expressed dissatisfaction with the fact that her online course did not offer her the actual software program on which to practice. She noted that the simulated exercises in the course were not extensive enough, and she worried that she would not know enough in a job when confronted with the actual software package: "I really didn't feel confident in it because I didn't get to play around with it [as part of the course]."

Other participants had similar experiences, and some went to the length of borrowing software packages to practice on because the actual software they were learning was not provided to them.

A final observation for a few participants in the WOLIP project pertains to the quality of coursework design and the unclear requirements and poor guidelines provided by their online instructors. A clear example of this was the confusion, which was never really resolved, that one student experienced while trying to find out from her instructor the school's expectations for writing a good paper:

"I asked my instructor a couple of questions about writing a paper. [First] I searched the Web site completely, and I couldn't find any criteria for papers. So I sent her an e-mail and said 'I have been out of school for 30 years: What is your criteria for writing a paper?' And she wrote me back and she said: 'If you can get your point across in five words or five pages, do whatever works for you.'"

Nonetheless, there were other participants who reported satisfaction with course design and instructions:

"The instructions were done very well. They take you from step to step. There are little notes at the bottom [of each screen] that tell you exactly where everything is that you are looking for, [and] if you do have any problems, you can e-mail your instructor or get student help."

This divergence in opinion on course design and instruction suggests that further research should be conducted on standards for online instruction across disciplines and vendors.

It is important to note that students reminded interviewers on several occasions that some of these problems (e.g., the quality of feedback from instructors or instructors/vendors and issues related to curricula design) were not unique to online education. They insisted that if you compare the online experience with the traditional brick-and-mortar classroom experience, the two are not always so different in terms of quality. To sum up their thoughts: The educational experience of a participant depends in large part on the course and its instructor.

EMERGING ISSUES AND HYPOTHESES FOR ONLINE LEARNING RESEARCH

Rutgers noted that there were some new issues that emerged about online learning in this study. These include:

Online Education May Breed Faster Completion Rates and Fewer Drop Outs for Certain Students. A number of workforce clients—especially those who were older—viewed learning online as a type of training that took them through coursework (and often resulted in a certificate in hand) faster and more efficiently than classroom training would allow. They attributed this to being able to work independently from home, which helped them push themselves to learn faster and more efficiently than they would have in schools with traditional semester structures.

Online Education May Be an Ideal Method of Training for Some Older Workers. Data from the WOLIP project provided the first opportunity for a Rutgers research team to hear older workers discuss online education and training as a way to pick up essential skills if they were unable to retire for economic reasons. Some noted that the training provided through the WOLIP project Web site provided them with additional skills to keep from being laid off, or, if unemployed, to find new work. Some had plans to work part time and saw online education as a good way to get skills that would help them get part-time jobs. All of these benefits, of course, could also be accessed through traditional education; they are not necessarily unique to online learning. Engagement in both types of education or training for older workers should be researched further.

Online Learning Can Help Users Become More Familiar with Computers. The research team was struck, especially in contrast to research the same team conducted as recently as 2005, by the centrality of the computer in participants' lives—whatever their age. There was little mention of any problems regarding the technical aspects of using a computer for training. The interview data revealed the important role the computer played in connecting unemployed workers to the outside world. Workforce clients in need of work in all the states talked about how—day in and day out—they used their computer not only to do their training online but also to look for job opportunities.

Online Learning Can Help the Unemployed Stave Off Depression. Perhaps the most striking finding in interviews with participants in all four states implementing the WOLIP project was the role that simply participating in an easily accessible (and low cost) education program played in helping unemployed workers, especially the long-term unemployed, stave off depression by keeping them productively occupied.

While both employed and unemployed workforce clients reported a boost to self-esteem and feelings of self-efficacy after completing online training, interview data also revealed that the WOLIP project, coming as it did during a time of a long-lasting recession, helped many participants fight boredom and depression when they could not find work. Indeed, it was only in their previous research on the online learning efforts of incarcerated women in New Jersey that the Rutgers team heard the phrase "This program helps me make good use of my time" (or some equivalent) as often as it was expressed by the long-term-unemployed workforce clients engaged in the WOLIP project.

Comments such as, "having a routine," "fending off boredom," "feeling worthwhile," "doing something useful," or even "doing something new and hard" surfaced unexpectedly and often. One older woman in Maine who had been out of work for a very long time said simply:

"When I first got laid off, I know that I went through . . . a depression. Now, [this course] is my school time. It is something to look forward to. The encouragement from people [that things would get better] just sometimes made me feel like I was so old, when actually I'm not that old. I know now that I can learn new things!"

Just staying busy by getting more education—whether sitting in a brick-and-mortar classroom or participating in an online program—is no doubt the principle factor contributing to the alleviation of feelings of uselessness. Whether the online nature of the program had a specific role to play can only be determined by a comparative study of engagement in education online versus engagement in a traditional classroom setting during periods of unemployment. What was clear in these interviews with participants from all four participating states is that the WOLIP project gave many participants an educational outlet and a way to feel good about themselves while they looked for jobs. One participant said:

"This training has given me a routine . . . because after my husband leaves for work, instead of sitting around or just puttering—because sometimes you feel like you are lost when you are not working—this gives me something to look forward to."

Beyond staying busy while out of work in this economic downturn, feedback from participants in the WOLIP project indicates that just being engaged in the program has given many participants—whether employed or unemployed—more hope for the future. Further research should be conducted on the indirect benefits of education and training, such as self-efficacy and staying off depression.

CONCLUSIONS ON PARTICIPANTS' EXPERIENCES

Time and again, participants indicated that they would have been unable to engage in any training on their own without the support of the WOLIP project.

The analysis of the qualitative data in the pages above suggests an overall satisfaction with the program—with some important qualifiers. In an effort to confirm these findings, the research team also searched the data for some silent indicators of satisfaction used often in qualitative research. One such indicator was the spontaneous expressions of gratitude or appreciation for the program. One Colorado woman, laid off and now gainfully reemployed after obtaining a certification through the WOLIP project, spoke for many workforce clients when she said:

"[H]aving this opportunity was hugely important to me given my situation, [with] both my husband and I laid off at the same time. It was an uncertain economy. Just being able to take advantage of the resources that the workforce center offered and [having] the flexibility to be able to pursue the certification through online training—given that I have kids and all the uncertainly of everything else—was really important to me. I really appreciate that I had that opportunity and that those resources are there for those that need to take advantage of them."

Another student, previously turned down for many jobs but now employed, post-WOLIP project, in a job she loves, gave these unsolicited words of praise to her workforce center:

"This has been a wonderful, wonderful thing. I have been to a few interviews, and if I had this [training] behind me with those interviews, I probably would have gotten those jobs."

Time and again, participants indicated that they would have been unable to engage in any training on their own without the support of the WOLIP project. Usually these workforce clients mentioned that the program's design (especially its flexibility) and its low cost "met them where they were in their lives."

As to the future, the data reflect not just a sense of personal accomplishment but also a hope for the future on the part of many participants. When asked, "Where do you hope to be in five years?," the more ambitious participants saw themselves on a pathway to management or were inspired to find ways to go into business for themselves. And almost all expected their efforts to result in "a full-time job," "more money," or some sort of "job security."

Some clients had hopes grounded in more immediate goals. For example, many participants expressed great interest in taking more courses or continuing on with their education, whether online or by attending college. A Colorado student currently working four different jobs and going to school part-time reported being so productive and successful in her online registered nursing program that she had taken steps to continue taking courses to get her Bachelor's degree online. Likewise, the former bartender in Maine, who was completing a certificate in QuickBooks, reported to the evaluators on making plans to take more courses online to become employed as a Certified Public Accountant.

CONCLUSIONS

The evaluation of the WOLIP project revealed the value of an online portal in the workforce investment system and the role that online learning can play in expanding education and training options for clients.

The demonstration project served as an important test for the idea that online and hybrid training options could be centralized on a single portal and used as a resource for online training opportunities nationally. This evaluation suggests that the portal did not prove to be a very useful tool. Prepopulating the portal with high-quality, tested curricula would have made a significant difference. While the portal was to be the main focus of this demonstration project as it was originally envisioned, the project was more successful in giving states experience in implementing online learning in general. As is clear from the state profiles above, each state implemented the WOLIP project in different ways. Each pursued its own goals for the programs and worked within different budgets and funding constraints. Projects were dispersed differently across geographic areas, and collaboration styles and partnering strategies varied within states as well as between them. There were also important differences in the range of industries and occupations targeted, in the type and stringency of eligibility requirements, and in the role played by employers and industry in the program's implementation. Rich lessons can be learned from these individual experiences.

Each state employed unique strategies with regard to program implementation, including staffing strategies, targeted groups, outreach to clients, training delivery, co-enrollment practices, case management, types of online education, vendor training arrangements, and curricula and assessment tools. Some also blended online education with classroom education to varying degrees and with varying levels of success.

While overall implementation practices varied, there were many commonalities across states. These included the concentration of training in high-demand and high-growth occupations and industries, a focus on providing services to rural areas, and outreach to incumbent workers as well as to WIA clients. All states also had difficulties locating quality coursework.

Collaborations between the states were an important part of this project. Officials worked hard to share implementation ideas and learned from one another as the project progressed. The early adopter states served an important role by sharing useful strategies that worked for them, such as methods of course population and client assessment. The feedback from the formative evaluation was also used as an important tool for project improvement. Following are some key observations that emerged from the evaluation:

- Strong state leadership and ownership of the project from the outset makes for a stronger program.
- State cultures and structures drove the implementation process in vastly different ways.

- Implementation of a concept as novel as an online portal demands strong partnerships and collaboration to be successful.
- A primary point person at the state level was essential to this project's success.
- Buy-in for the WOLIP project by LWIBs and workforce staff varied across and within states.
- A single vision of the portal was relayed to the states by the Department, but state understandings of how to use and implement the portal varied greatly.
- States had different levels of familiarity with online learning as a training tool prior to this demonstration.
- State partners struggled to identify and evaluate quality online training; no satisfactory mechanism for doing so evolved in any state.
- State partners used an assortment of methods to assess potential participants' capacity for online learning; some assessment tools were better than others.
- Online learning in certain rural areas offered training courses that were previously unavailable but were in demand locally.
- Strong case management that includes personal contact is important to successful retention in and completion of online learning programs.
- Vendors and training providers varied in their ability to provide timely and quality feedback to students.
- Vendors and training providers varied in the quality of their coursework design and in keeping their curricula up-to-date.
- Participants critiqued online learning for its lack of networking opportunities with other students as well as with industry contacts and employers.
- Participants in certain fields of study critiqued online learning for its lack of opportunities for hands-on experience, recommending a blended approach.
- Local training providers were preferred by some workforce investment staff, clients, and employers.
- Participants throughout the four states generally responded positively to online learning as a training tool.

- Participants liked that online coursework gave them the flexibility to learn while working, taking care of their families, or searching for a job.
- Online learning is not a good fit for everyone; some participants found it isolating and were challenged by the need for discipline and self-guided study.
- During periods of protracted unemployment, education and training, whether taken online or in a classroom setting, may play an important role in maintaining self-esteem and staving off boredom and depression.

SUSTAINABILITY OF THE WOLIP PROJECT

The WOLIP project will be sustained in terms of the partnerships developed and the interest in online learning generated as part of its implementation. While the portal will no longer be used in any of the participating states, an off-shoot of the project and the portal concept is currently underway. The CWW is extending and expanding upon the work of the WOLIP project through funding provided by the Lumina Foundation for Education. The extension program builds off of the relationships developed in the WOLIP project along with the lessons learned about online learning and the use of a portal. The new project will provide degree attainment support to clients in the public workforce system with only a few credits away from earning an Associate's or Bachelor's degree. It will be institutionalized in four states, two of which were partners from the WOLIP project, Mississippi and Pennsylvania. Colorado has also joined project, but it will employ the state's well-regarded e-Colorado portal and its Connecting Colorado Web site. The other state partners are Indiana and Oklahoma. Postsecondary training will be delivered by adult-friendly colleges throughout the country, and a new Web site currently being developed by the SREB will be used to provide clients and workforce professionals with information on college completion. This project also involves a partnership with the NAWB, which is helping states and LWIAs by providing technical assistance on how to incorporate degree completion as an option in their workforce system. This four-year project began in 2010.

ENDNOTES

- ¹ To meet the editorial and dissemination requirements of ETA, the report was finalized in 2014.
- ² Gatta, Mary L. *Not Just Getting By: The New Era of Flexible Workforce Development*. New York: Lexington Books, 2005.
- ³ McKay, Heather and Mary C. Murphree. *Raising the Bars: Early Findings from the Prison to Community Project*. 2008. Accessed September 14, 2011. http://www.businessaccess.com/about/Raising%20the%20Bars%20Full%20Report.pdf.
- ⁴ As of August 2011, the portal can be accessed at http://wolip.sreb.org/.
- ⁵ SREB continued to host the portal for project members after the end of their contract so that the project could continue without disruption.
- ⁶ In the end, due to the fact that the Sloan-C catalogue was primarily focused on four-year academic work, it was not pursued. It was thought not to be the best fit for the training needs and goals of the states. In hind sight, this may have been short-sighted and was not the opinion of some of the participating states.
- ⁷ Bureau of Labor Statistics. "Monthly Labor Review." *December 2007 through June 2009*. Accessed July 20, 2011. http://www.bls.gov/mlr/archive.htm.
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- ¹⁰ See www.bls.gov/news.release/archives/empsit_07032008 and www.bls.gov/new release/archives/empsit_07022009. Accessed July 20, 2011.
- ¹¹ Shierholz, Heidi and N. Finio. "Ten Facts about the Recovery." *Economic Policy Institute*. Accessed July 6, 2011. http://www.epi.org/publication/ten_facts_about_the_recovery/.
- ¹² The Economist. "The Trap." Accessed July 19, 2011. www.economist.com/node/15271079/print.
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- ¹⁴Tascsi, Murat and John Lindner. "The Great Recession and Its Impact on Different Industries." *Federal Reserve Bank of Cleveland*. Accessed July 20, 2011. http://www.clevelandfed.org/research/trends/2010/0910/01labmar.cfm.

- ¹⁵ Kurtzleben, Danielle. "Five Ways the Recession changed the Job Market." *U.S. News & World Report*. Accessed July 20, 2011. www.usnews.com/mobile/articles_mobile/5-ways-the-recession-ch.
- ¹⁶Bureau of Labor Statistics. "Monthly Labor Review." *December* 2007 through June 2009. Accessed July 20, 2011. http://www.bls.gov/mlr/archive.htm.
- ¹⁷ Bozzo, Albert. "Services Sector Continues to Hold Back Economy." *CNBC*. Accessed July 19, 2011. http://www.cnbc.com/id/41641445/p2.
- ¹⁸ Tascsi, Murat and John Lindner. "The Great Recession and Its Impact on Different Industries." *Federal Reserve Bank of Cleveland*. Accessed July 20, 2011. http://www.clevelandfed.org/research/trends/2010/0910/01labmar.cfm.
- ¹⁹ Economic Policy Institute. "Post-Recession recovery marked by Public-Sector Losses." Accessed July 20, 2011. http://www.epi.org/press/news_from_epi_post-great_recession_recovery_marked_by_public-sector_losses/.
- ²⁰ See the following: http://www.sba.gov/advocacy/7495/8420; http://smallbiztrends.com/2011/07/chart-job-loss-small-businesses.html; Kurtzleben, Danielle: *Five Ways the Recession Changed the Job Market*, U.S. News & World Report; www.usnews.com/mobile/articles_mobile/5-ways-the-recession-ch. Accessed July 20, 2011.
- ²¹ United States Department of Labor. "Women's Employment During the Recovery." Accessed May 3, 2011. http://www.dol.gov/_sec/media/reports/femalelaborforce.
- 22 Ibid.
- ²³ Lane Kenworthy comment on, "Low-Wage Jobs and No Wage Growth." *New America Foundation: Decent Jobs Forum*, June 2011. Accessed July 10, 2011. http://growth.newamerica.net/can_the_american_economy_produce_more_decent_jobs.
- ²⁴ Economic Policy Institute. "Tracking the Recovery: One in Four Households Has Suffered a Layoff over the Past Year." Accessed July 6, 2011. http://www.epi.org/analysis_and_opinion/entry/tracking_the_recovery_one_in_four_households_has_suffered_a_layoff.
- ²⁵ United States Department of Labor. "Women's Employment During the Recovery." Accessed December 14, 2011. http://www.dol.gov/_sec/media/reports/femalelaborforce.
- ²⁶ Note: the Rutgers evaluators heard of several instances in the WOLIP project where both husband and wife experienced layoffs hurting family income—hence the great interest in job training and finding immediate employment.
- ²⁷ United States Department of Labor. "Women's Employment During the Recovery." Accessed December 14, 2011. http://www.dol.gov/_sec/media/reports/femalelaborforce.

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- ²⁹ Mishel, Lawrence and H. Shierholz. "Seven Million Jobs Needed to Return to Pre-Recession Employment Levels." *Economic Policy Institute*. Accessed July 10, 2011. http://www.epi.org/publications/entry/jobspict_200905_preview.
- ³⁰ Farrell, Chris. "A College Degree Is Still Worth It." *Bloomberg Businessweek*. Accessed July 15, 2011. http://www.businessweek.com/investor/content/mar2011/pi20110318_071224.htm.
- ³¹ The WOLIP projects were designed for adult learners, and young workers under age 25 were not included. Nevertheless, the recession has been detrimental for young workers (age 16 to 24) including those entering the labor force with new degrees. As of April 2010, young workers account for 26.4 percent of all unemployed workers, even though they account for just 13.5 percent of the overall labor force. In September of 2009, young workers had an unemployment rate that peaked at 19.2 percent. As of April 2010, young Black workers' unemployment rate hit an astonishing 32.5 percent. Economic Policy Institute. "Recession hits young workers particularly hard." Accessed July 11, 2011. http://www.epi.org/press/recession_hits_young_workers_particularly_hard_says_new_epi_report/.
- ³² Farrell, Chris. "A College Degree Is Still Worth It." *Bloomburg Businessweek*. Accessed July 6, 2011. http://www.businessweek.com/investor/content/mar2011/pi20110318 071224.htm.
- ³³ This section draws primarily from the U.S. Census Bureau. "Pennsylvania Selected Social Characteristics in the United States: 2005-2009." Accessed July 19, 2011. http://factfinder.census.gov, and from data of the Pennsylvania Department of Labor and Industry.

34 Ibid.

³⁵ Pennsylvania Department of Labor and Industry. "Pennsylvania Fast Facts June 2011 Edition." Accessed July 20, 2011. http://www.paworkstats.state.pa.us.

36 Ibid.

37 Ibid.

38 Ibid.

- ³⁹ PA CareerLink is the name of Pennsylvania's workforce system.
- ⁴⁰ While it was planned from the outset to use the IP for WOLIP, LWIA staff noted that with more time, they would have also explored other routes and populations for the WOLIP project funds. Local areas were forced to make program choices that would ensure participants were finished with their training by the end of the original grant period. The IP is well established in Pennsylvania and allows this to occur.
- ⁴¹ Tooling University is a provider of online training for manufacturers. Content includes courses to train machine operators, welders, assemblers, inspectors, and maintenance professionals.

- ⁴² U.S. Census Bureau. "Maine QuickFacts from the U.S. Census Bureau." Accessed July 18, 2011. http://quickfacts.census.gov/qfd/states/23000.html.
- ⁴³ The number of persons living below poverty level is lower than the national average, yet the median household income is also below the national average by \$5,000.
- ⁴⁴ Center for Workforce Research and Information. "May Unemployment Rate: State Labor Commissioner Robert Winglass released May workforce estimates for Maine today." Released June 17, 2011. Accessed July 18, 2011. http://www.maine.gov/labor/cwri/news/release.html.
- ⁴⁵ Maine Career Center: Services and Programs. http://www.mainecareercenter.com/services-programs/training/cssp/index.shtml. Accessed January 17, 2012.
- ⁴⁶ University of Maine, Augusta (UMA) was the vendor that enrolled the second largest group of students. This was, however, a special program within MOLLI. As a result of the differences in the participants' two populations, it is not possible to compare UMA student retention to Gatlin student retention.
- ⁴⁷ SORT is an online learning assessment tool housed at the University of Georgia. It is no longer available for use by the general public.
- ⁴⁸ Online learning has been used on a small scale in Maine with Trade Adjustment Act clients.
- ⁴⁹ This issue is examined in greater detail in a report for ETA by Mary Gatta.
- ⁵⁰ Each class cost \$355, which is about half of the cost of a typical credit course at the University of Maine, Augusta.
- ⁵¹ A number of students in the class were hearing impaired and the in-person portion of the course allowed them to have sign language interpreters translating the material.
- ⁵² U.S. Census Bureau. "Colorado QuickFacts from the U.S. Census Bureau." Accessed July 13, 2011. http://quickfacts.census.gov/qfd/states/08000.html.
- ⁵³ U.S. Census Bureau. "Colorado-Selected Social Characteristics in the United States 2005-2009." Accessed July 13, 2011. http://factfinder.census.gov.
- ⁵⁴U.S. Census Bureau. "Colorado QuickFacts from the U.S. Census Bureau." Accessed July 13, 2011. http://quickfacts.census.gov/qfd/states/08000.html.
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- ⁵⁶ Colorado Department of Labor and Employment. "Press Release on Colorado Employment Situation May 2011." Presented June 17, 2011. Accessed July 12, 2011. http://lmigateway.coworkforce.com/lmigateway/admin/gsipub/htmlarea/uploads/May11pr.pdf.

- ⁵⁷ Colorado Department of Labor and Employment. "Annual Not Seasonally Adjusted Labor Force, Employment and Unemployment data in Colorado." Accessed July 13, 2011. http://lmigateway.coworkforce.com.
- ⁵⁸ Colorado Health Institute. "Colorado Workforce Development Regions." Accessed July 12, 2011. http://www.coloradohealthinstitute.org/geo-regions/colorado-workforce-regions.aspx.
- ⁵⁹ Colorado Department of Labor and Employment. "Annual Not Seasonally Adjusted Labor Force, Employment and Unemployment data in Every Workforce Development Region for 2007." Accessed July, 13, 2011. http://lmigateway.coworkforce.com.
- ⁶⁰ Colorado Department of Labor and Employment. "Annual Not Seasonally Adjusted Labor Force, Employment and Unemployment data in Every Workforce Development Region for 2010." Accessed July 13, 2010. http://lmigateway.coworkforce.com.
- ⁶¹ Colorado Department of Labor and Employment. "Press Release on Colorado Employment Situation May 2011." Accessed July 7, 2011.

 http://lmigateway.coworkforce.com/lmigateway/admin/gsipub/htmlarea/uploads/may11pr.pdf.
- ⁶² For more information, please see http://www.microsoft.com/about/corporatecitizenship/enus/community-tools/job-skills/elevate-america/#vouchertab.
- ⁶³ Gatta, Mary L. *Not Just Getting By: The New Era of Flexible Workforce Development*. New York: Lexington Books, 2005.
- ⁶⁴ Labor Market Information Department. "Labor Market Data for May 2011." *Mississippi Department of Employment Security*. Accessed July 7, 2011. http://www.mdes.ms.gov/Home/docs/LMI/Publications/Labor%20Market%20Data/labormarketdata.pdf.
- ⁶⁵ U.S. Census Bureau. "Mississippi Selected Social Characteristics in the United States: 2005-2009." Accessed July 7, 2011. http://factfinder.census.gov.
- ⁶⁶ U.S. Census Bureau. "Mississippi Selected Social Characteristics in the United States: 2005-2009." Accessed July 7, 2011. http://fastfacts.census.gov/servlet/ADPTable?-geo_id=04000US28&-qr_name=ACS_2009_5YR_G00_DP5YR2&-ds_name=ACS_2009_5YR_G00_.
- 67 Ibid.
- 68 Win In Mississippi. Accessed January 2, 2014. http://www.wininmississippi.org/.
- ⁶⁹ Federal Emergency Management Agency. "FEMA: Mississippi Katrina Flood Recovery." Accessed July 12, 2011. http://www.fema.gov/hazard/flood/recoverydata/katrina/katrina_ms_index.shtm.
- ⁷⁰ Office of the Press Secretary, May 12, 2010 (10:02 AM), *Press Briefing on BP Oil Response Legislation by Meloday Barnes, Carol Browner, and Jeff Liebman*. Accessed July 7, 2011. http://www.whitehouse.gov/the-press-office/press-briefing-bp-oil-spill-response-legislation-melody-barnes-carol-browner-and-je.

- ⁷¹ Labor Market Information Department. "Labor Market Data for May 2011." *Mississippi Department of Employment Security*. Accessed July 7, 2011.
- ⁷² U.S. Census Bureau. "Mississippi Selected Social Characteristics in the United States: 2005-2009." Accessed July 7, 2011. http://fastfacts.census.gov/servlet/ADPTable?-geo_id=04000US28&-qr_name=ACS_2009_5YR_G00_DP5YR2&-ds_name=ACS_2009_5YR_G00_.
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- ⁷⁴ Mississippi Development Authority. Accessed July 7, 2011. http://www.mississippi.org/.
- ⁷⁵ In the interviews and focus-groups of both participants and stakeholders in the workforce system, there was also discussion of how important it was that the WOLIP project could be offered in Maine and Pennsylvania to people who traditionally could not have qualified for state-sponsored job training.
- ⁷⁶ It is important to remind readers, as noted earlier, that what constitutes online learning varied widely within and between the states. Online programs offered by different vendors ranged from courses and program of study conducted entirely online to programs that used hard back books in combination with online learning assignments and/or quizzes; too, as in at least one case, the MCEF construction track provided courses of study conducted almost entirely in classrooms and lab "shops," with just reading materials and trial quizzes attempted online. Nevertheless, most of the coursework offered by the WOLIP project was conducted primarily online, and participant's reactions in the interviews reflect that reality. WOLIP PROJECT¹ Gatta, Mary (2003); Gatta, Mary (2004); McKay et al., (2008).
- ⁷⁷ Gatta, Mary (2003); Gatta, Mary (2004); McKay et al., (2007); McKay et al., (2008).
- ⁷⁸ Here it is crucial to again emphasize the self-selection of these participants into this generally voluntary online program. (Incumbent workers in Pennsylvania and Mississippi were sometimes exceptions and this training was a requirement.) For many of the people interviewed, this was their first experience with online study. Certainly, as pointed out earlier, all of the states had very high quality assessment mechanisms that applicants had to complete in order to qualify to participate in training. Clearly, given the generally high level of satisfaction participants voiced about this innovative way of learning, those assessment tools were doing their job well, weeding out people not suited to the online experience.
- ⁷⁹ Gatta, Mary (2003); Gatta, Mary (2004); McKay et al. (2008).
- ⁸⁰ While setting their own structure for self-study was seen as a challenge for some learners, the need for more structure, including tighter *timeframes* for submitting their work, did not come up in interviews. Most WOLIP project participants were quite happy with whatever 'timeframe' for completion they were given by their online educational vendor or institution. This is in contrast to earlier Rutgers data collected on online TANF learners and women inmates, which showed that learners were seeking more structure and tighter deadlines from their respective university/vendor institutions. [See Gatta, Mary (2003); McKay et al., 2008.
- While quite a few students talked of wanting more interaction with other students, few WOLIP project participants reported exploring the more 'interactive' capacities, e.g., email, chat rooms, etc., provided by

their online universities/education vendors beyond the issue of "getting help" or "finding out what kinds of problems students engaged in a similar course faced."

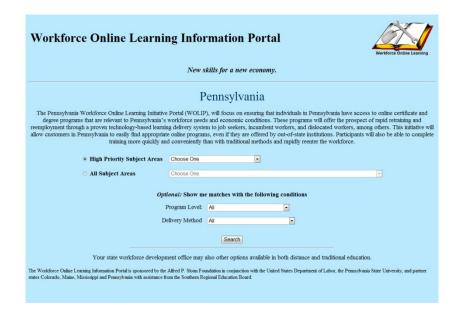
⁸² Unlike in Rutgers's previous evaluations of different online educational programs (see Gatta 2003), problems with the technology surfaced hardly at all as an issue but could be a serious impediment when they did arise. See Section 7B, Lena's Story. See also Maine focus-groups.

⁸³ This was a formative evaluation, and every effort was made to "fix" issues revealed in the interviews as the project progressed; however, some issues did not lend themselves to 'easy fixing' by the states (or through the states' assistance) because they were under the domains of multiple vendors. Where possible, however, especially in Maine and Mississippi, vendors were contacted by state officials and troubling issues ranging from matriculation to timed shut-downs to software availability were discussed and where possible resolved.

Pennsylvania Local Workforce Investment Areas (WIA) Erie Warren McKean Potter Tioga Bradford Susquehanna (12) Crawford Wayne (13) Forest Wyomina Elk (11)Cameron Sullivan Lacka-wanna Venango Pike Lycoming Mercer Clinton (15) Luzerne Clarion (21) Jefferson Columbia (3) Monroe Clearfield Lawrence Montour 9 Centre Union Butler Carbon (20) Snyder Umberland Northampton Armstrong Beaver Schuylkill Lehigh(8) Indiana Mifflin Juniata (19) Cambria Blair 1 Berks Allegheny Perry Dauphin ebanon Buck: (10) Westmoreland (16) Washington Huntingdon (17)(7)Montgomery 22 Cumberland (18)(4) Lancaster Chester Philadelphia Bedford Fulton Franklin Greene Fayette Somerset Adams York Delaware Berks County WIA 6. Lackawanna County WIA Northern Tier WIA Southwest Corner WIA 2. Bucks County WIA 7. Lancaster County WIA 13. Northwest WIA 19. Three Rivers WIA 3. Central WIA 8. Lehigh Valley WIA 14. Philadelphia County WIA 20. Tri-County WIA Chester County WIA Luzerne-Schuylkill Counties WIA 15. Pocono Counties WIA 21. West Central WIA 16. South Central WIA Delaware County WIA 10. Montgomery County WIA Westmoreland & Fayette WIA 11. North Central WIA 17. Southern Alleghenies WIA

Figure 15: Map of Pennsylvania Local Workforce Investment Areas

Figure 17: Pennsylvania Workforce Online Learning Information Portal



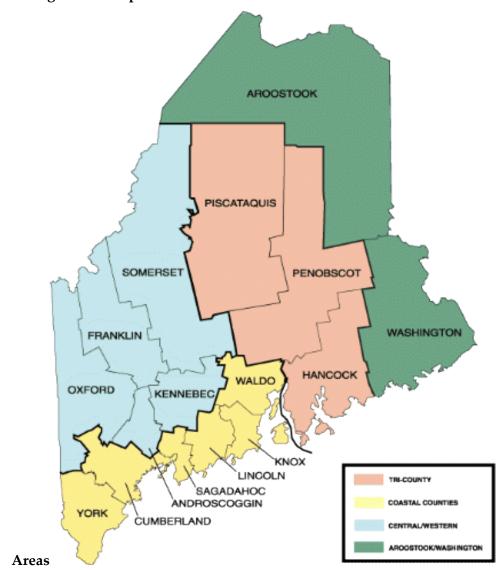


Figure 16: Map of Maine Local Workforce Investment

Figure 19: Maine Workforce Online Learning Information Portal

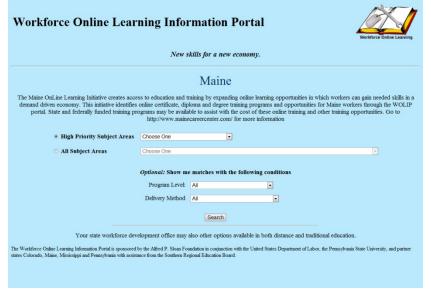


Figure 20: Map of Colorado Workforce Regions

Colorado Workforce Regions

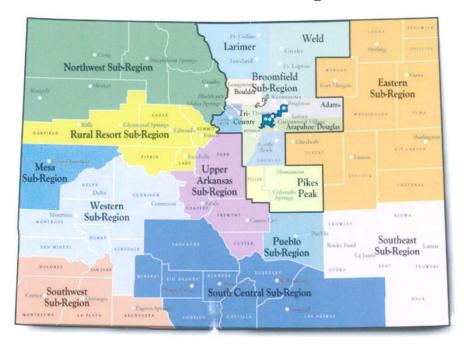
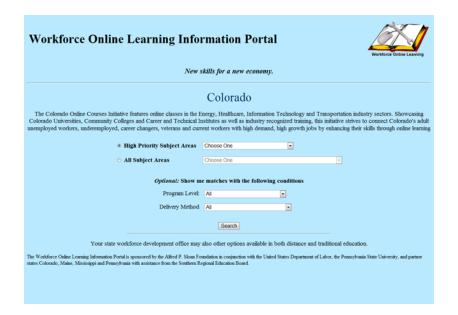


Figure 21: Colorado Workforce Online Learning Information Portal



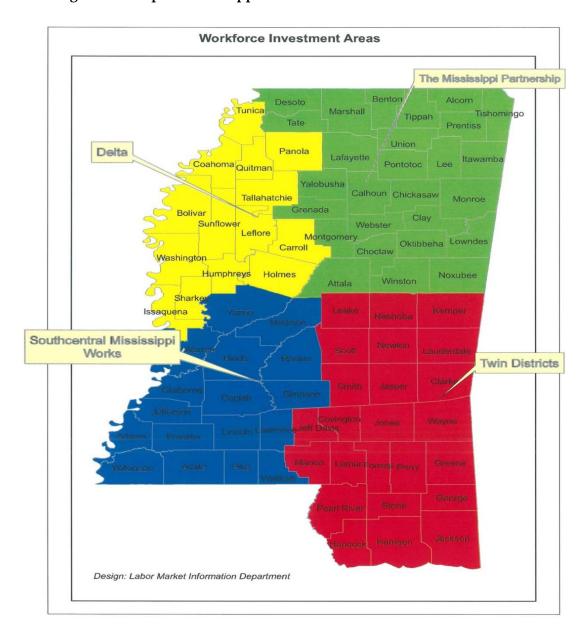


Figure 22: Map of Mississippi Workforce Investment Areas

Figure 23: Mississippi Workforce Online Learning Information Portal

