



UPSKILLING
PARTNERSHIP PROGRAMME



INTERNATIONAL
WORKFORCE
LITERACY REVIEW

› UNITED STATES

A report prepared for the Department of Labour
JANUARY 2008

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1. Reviewer introduction

David J. Rosen has worked in adult literacy education since 1982, when he was Director of Education at Jobs for Youth-Boston. From 1986 to 2003 he was director of the Adult Literacy Resource Institute at the University of Massachusetts Boston, a regional support center of the Massachusetts System for Adult Basic Education Support (SABES). In this capacity, in 1987, he oversaw the development of a National Workplace Literacy Program-funded workplace literacy project in greater Boston. It involved business and labor partners, and Roxbury Community College as the adult education provider.

In the late 1980's and early 1990's, with Laura Sperazi and Dr. Paul Jurmo, Dr. Rosen was part of the workplace literacy research team that evaluated the Massachusetts Workplace Education Initiative. Throughout the 1990's, under his direction, the Adult Literacy Resource Institute sponsored a state-supported workplace literacy program in a large computer parts manufacturing company in Boston. On behalf of the Massachusetts Coalition for Adult Literacy Dr. Rosen published the first Massachusetts directory of workplace literacy programs. He is the author of several adult literacy studies, book chapters and articles on the use of technology, formative assessment, and professional development. He is the senior associate with Newsome Associates in Boston, Massachusetts. ⁱ

1.1 Organization of this review

This review is divided into four parts.

Background

The first part is a brief overview of the background and current context of workplace literacy education in the United States, including the need for workplace literacy, and its outcomes and impact. A workplace literacy review in the United States is complicated by the fact that the US federal government does not have the primary responsibility for education. The United States, in fact, does not have a *national* education system. Education is largely the responsibility of states and local education authorities. Nevertheless, for a brief time, from 1989–1996, federal legislation was passed that provided for a national workplace literacy demonstration program.

Workplace Literacy Program

Because this federal program has affected workplace literacy in the states in significant ways, even though it has ended, the second part of this review is a comprehensive case study devoted to the National Workplace Literacy Program and its outcomes. In large part because of this program, over 20 states now invest public funds in workplace literacy, and the needs these states attempt to address today are nearly identical to those identified by the National Workplace Literacy Program:

- workplace-contextualized (imbedded) basic skills such as oral and written communication and numeracy
- English language for immigrants
- preparation for high school equivalency exams and credentials
- preparation for post-secondary education
- so-called 'soft' skills such as teamwork, decision-making, problem solving and interpersonal skills
- overall, improved performance at work.

Employers are concerned now, as they were in 1989, with employee education and training that ultimately leads to better quality products and services; and through improved employee skills, savings from reduced errors and better employee health and safety. A significant number of employers then and now are also concerned, especially when there are labor shortages, with providing workplace literacy as an employee benefit to reduce employee turnover.ⁱⁱ

With years of state and provider workplace literacy experience since the end of the NWLP, the incumbent worker basic skills models in some states are now better developed and, due to increased federal and state accountability demands, they have more reliable, standardized evaluation measures.

Case studies

To understand the range of these state workplace literacy models, in the third part of the review we will look at in-depth case studies of two states that each have a good reputation for workplace literacy programs but that organize their state level programs very differently. One of these, the Commonwealth of Massachusetts, provides a significant amount of its state adult literacy education and other state budget line items to pay for classes. Another state, the Commonwealth of Pennsylvania, spends its state resources for workplace literacy largely to train adult education service provider agencies to market and deliver education to businesses in short training courses that are paid for by the business. Because another recent study, by James T. Parker, referenced later in this review, has surveyed and profiled all the states that provide workplace literacy education, we look here in depth at two state case studies, state programs that are especially well designed and have practices that are worth exploring further or emulating.

A qualitative research approach, the case study method, is particularly suitable for this report as there is little hard research on outcomes, and only one workplace education study in the US that has used an experimental design (discussed in part two). There are, however, many narrative documents and workplace literacy program evaluations and, through interviews, there is access to experienced state level administrators who are responsible for funding and evaluating the state workplace literacy programs.

Recommendations

In the fourth and last part of the review we look at prospects and recommendations for a new national workplace literacy policy.

2. Background to the context of US workforce and workplace literacy

In the United States, a long-standing and strongly held set of American values has the public schools in a community governed by a local, usually elected, board of education as the local education authority. These public school systems are then, to varying degrees, supported and regulated by state and federal government. The education system in the United States generally consists of pre-kindergarten through 12th grade public schools. They operate at the early childhood/pre-school, elementary school, middle or junior high school and secondary level.

It also consists of a separate post-secondary or higher education system of public and private two-year (community) colleges, four-year colleges, and universities with graduate education. Adult education and literacy classes are often offered within Continuing Education, Community Education or Lifelong Learning divisions in post-secondary education. In many cities and towns, community-based nongovernmental organizations, volunteer organizations and libraries also provide basic skills for adults. Within these continuing education programs in post-secondary institutions, community-based organizations, and sometimes within the public school systems one finds the education home of workplace literacy. The public financial support for this has come from city, county or state governments, from the federal government, and from employers.

In adult education and literacy in the United States, for many years the end point has been the high school equivalency exam, a standardized test normed every few years on graduating high school seniors. Those who pass it are awarded a certificate or diploma of General Educational Development (GED). In some states and communities there is another option, a competency-based adult diploma or external diploma assessment that leads to the award of a local public high school diploma. In workplace literacy, although these diplomas and certificates are sometimes the goal for students/employees, there are other goals, as well. These include

- learning English (for immigrants)
- learning workplace-contextualized (embedded) basic numeracy, reading and writing
- learning so-called 'soft skills' such as teamwork and problem solving.

Usually, but not always, workplace literacy programs are offered at the workplace, have a curriculum contextualized to work-related needs, and provide relatively short-term learning -- weeks instead of months or years. After completing workplace literacy classes employees who need more levels of learning are sometimes then referred to community-based adult literacy classes.

2.1 The need for US workplace literacy

Nearly 25% of the more than 151 million working US adults, aged 18–64, do not have the basic skills needed to work in a competitive world economy. More than 5% of the workforce—8.34 million people—have completed high school but have limited English ability; nearly 10% (14.494 million) have completed high school but are earning less than a living wage; and nearly 17% (25.4 million) have not completed high school. ⁱⁱⁱ This lack of skills is due to several different challenges that vary in their significance in different states.

Some of the challenges include:

- immigrants who have poor English skills
- high school diploma holders who lack the skills now expected of graduates
- high school dropouts with low basic skills.

The lack of basic skills has implications for employment. Only 56.8% of US adults with less than a high school education are gainfully employed, as compared with 84.6% of those with a baccalaureate education. Those who have less education have jobs that pay lower wages, or they have no job at all. ^{iv}

Although the problem of adult low basic skills is not unique to the United States, it is especially problematic now that the US is in a highly competitive world economy. In comparison with other industrialized countries, US workers do not fare well. The US now ranks 11th, for example, among OECD countries in the percent of young adults who have a high school diploma.^v The US workforce, for the first time in modern history, is losing ground to other countries in its education attainment.

The workforce needs of employers are driven by changes in the world market and the movement of US jobs, especially low-skill manufacturing jobs, overseas. There is strong evidence that US workers will need significantly higher skills in the next decade and beyond. The US Bureau of Labor Statistics' projected number of jobs by level of education required, from 2004 to 2014, for example, shows that by far the greatest number of jobs will require some level of postsecondary education. Even in 2000, over 43% of those not participating in the workforce had less than a high school education, and there is evidence that this trend is continuing.^{vi} The problem is exacerbated by the fact that population growth rates in the US are highest among the least educated groups.

2.2 Outcomes and impact of US workplace literacy

There is a wide range of possible outcomes and impacts from workplace literacy programs, and different stakeholders may be looking for different outcomes. Economist, Alec Levenson, in a study conducted on behalf of the National Center for the Study of Adult Learning and Literacy (NCSALL), entitled *Why Do Companies Provide Workplace Education Programs?*^{vii} writes:

- The impact of workplace education programs can be measured in a number of ways, as the different stakeholders involved have different outcomes of interest, including:*
- *from the individual's perspective: continued employment, skill building, wage growth, and promotion*
 - *from the company's perspective: individual productivity/job performance, teamwork, retention/reduced turnover, attitudes/commitment/loyalty, and reduced recruitment costs via internal promotions.*
 - *from society's perspective: reduced welfare and unemployment costs if the program keeps people employed who otherwise might lose their jobs and possibly greater tax payments and lower health care costs that may occur because of increased skills.*

As Levenson points out, this list is far from exhaustive, and stakeholders often have overlapping interests. Levenson also identifies the following specific positive outcomes from nine workplace literacy studies conducted in the 1990's:

- wage growth, and other increased earnings
- job upgrades
- performance awards
- enhanced basic skills
- teamwork
- reduced absenteeism
- higher supervisor performance ratings
- work-related reading (such as reading job tickets and understanding and following directions)
- safety behavior at work

- improved employee-client interaction
- improved ability to identify quality defects
- improved work-related math skills
- savings from reduced scrap and rework
- reduced errors (especially errors that can lead to enormous loss of life, limb and profit in high-speed manufacturing)

Levenson also identifies other employee self-reported positive outcomes.^{viii}

3. National Workplace Literacy Program

3.1 Origins of the National Workplace Literacy Program

The US National Workplace Literacy Program (NWLP)^{ix} began in 1989, following a small funded workplace education effort launched by the US Department of Labor. According to Karl Haigler, the Director of Adult Education from 1986 -1988, under the US Department of Education's Office of Vocational and Adult Education, the initiative came from a group within the research division of the Department of Education that had been following the Department of Labor effort. It was also stimulated, Haigler believes, by Dr. Thomas Sticht's research conducted for the US Military on functional context learning, and it may have been supported by AFL-CIO leader, Anthony Sarmiento, and by Congressional Representative William Goodling from Pennsylvania.^x

The first appropriation for the NWLP was \$9,574,000.^{xi} Competitive grant awards were made that year for 37 projects in 25 states and the District of Columbia. The NWLP grew to \$21,751,000 in FY 1992, when 57 competitive grants awards were made to 31 states and the District of Columbia. In FY 1994, its appropriation dropped to \$18,906,000. In 1994 the US Department of Education issued new regulations offering a three-year grant cycle with a tapered public sector and expanded private sector funding strategy to enable companies to gradually assume the full cost of their workplace education program. The three-year cycle, modeled after the Massachusetts workplace education model described later in this report, was also intended to:

- provide more time for curriculum development
- enhance project management through national meetings
- improve monitoring and technical assistance from the Department of Education
- demonstrate results such as basic skills improvements and work-related outcomes.^{xii}

From 1988 through 1996, nearly \$133 million was appropriated to fund over 300 NWLP projects with thousands of partnering companies, education providers and labor unions.^{xiii}

The purpose of the NWLP was 'To support effective partnerships between education organizations and business and community groups for adult education programs that provide literacy training to meet workplace needs.' It was authorized as part of the Adult Education Act, Part C, Section 371, P.L. 91-230, as amended by the National Literacy Act of 1991, P.L. 102-73, (20 USC. 1211) (expired September 30, 1995). It funded competitive demonstration grants for programs involving partnerships between business, industry, labor organizations, or Private Industry Councils (now known as Workforce Investment Boards) and education

organizations, including state education agencies, local and community education service provider agencies and schools. These education and training partners included:

- area vocational schools
- community colleges and other higher education institutions
- employment and training agencies
- community-based organizations.

Each partnership had to involve at least one business, industry, labor organization, or Private Industry Council, and at least one basic skills education provider. It targeted adults who needed to improve their literacy skills (including basic skills, secondary education skills or English-language skills) to improve job performance. Each grant recipient was responsible for carrying out a specific company needs assessment to determine the kind and extent of employee basic skills needs that the workplace literacy provider and business would meet.

The National Workplace Literacy Program, as a whole, represented an attempt to address the national problem that a large percent of American workers were undereducated for the jobs that would increasingly be available. The US Bureau of the Census reported that in 1987, for example, there were 87,700,000 adults, ages 25 to 64, who were employed. Of these, 12,297,000, or 14%, had not completed high school. 2,576,000, or 3%, had completed less than the 8th grade.^{xiv} Later data in the last decade of the 20th century and first decade of the 21st century from the National Adult Literacy Survey and National Assessment of Adult Literacy, suggest that the concern was right, but that the size of the problem was underestimated by the census data. Yet, since the sunset of the National Workplace Literacy Program in 1995, there has been no US national workplace literacy or basic skills program, as such. (See 3.4: Why the NWLP Ended and Was Not Reauthorized on page 12 for a discussion of why the program may have been allowed to end.)

3.2 Services

The NWLP provided funding and technical assistance for the following kinds of services:

- adult basic education
- adult secondary education
- English for Speakers of Other Languages (ESOL)
- education to upgrade basic literacy skills to meet changes in workplace requirements or processes
- support services for those receiving basic skill instruction, including education counseling, transportation, and child care.

Funding awards were made primarily to public organizations including

- colleges and universities
- state and local education agencies
- community-based organizations.

Each grant award involved at least one business or labor partner. Projects included instruction in such areas as:

- basic skills for workers who deal with dangerous equipment so they could heed warnings and ensure worksite safety

- math/numeracy skills, for example, to accurately read blueprints to prevent costly mistakes
- literacy training for entry-level hospital food service workers so that critical diet and fasting requirements could be observed for patient health
- ESOL training related to language and literacy requirements of workplaces such as hotels.

More than half the new projects funded offered paid work release time for literacy training. Nearly two-thirds of the projects had an ESOL component.

3.3 Outcomes

The 1993-1994 Biennial Evaluation Report to Congress described the outcomes of the NWLP as follows:

Final reports submitted by the projects indicated that workers participating in NWLP projects do make learning gains as measured by standardized tests. Further, final reports relay quantitative and qualitative data indicating that workers participating in NWLP projects experience work-related gains. For example, supervisors often report increases in participating employees' teamwork, understanding of company policies and procedures, safety, attendance, suitability for promotion and productivity. In addition, some projects had reported that work-related basic skills training supported by the NWLP has been associated with outcomes outside of work such as the increased ability of employees to manage their money, help children with school work, and continue their own education.^{xv}

According to James T. Parker, a workplace literacy specialist with the US Department of Education at the time of the NWLP and author of a recent report on state workplace literacy programs, during the NWLP seven state adult education programs were funded to provide statewide services. Six of those have continued to support those programs with state and private funding.^{xvi}

According to Susan Imel, a prominent researcher of US adult literacy trends:

a number of positive spin-offs resulted from the NWLP, including meetings of NWLP project directors, presentations on NWLP projects and other workplace literacy topics at national conferences, professional development materials and activities for workplace literacy instructors, and a large increase in the number of documents on workplace literacy in the [Education Resources Information Clearinghouse] (ERIC) database. In short, workplace literacy was an important focus of attention during the NWLP era, and a great deal of workplace literacy activity occurred in the field.^{xvii}

Workplace literacy evaluator and researcher, Dr. Paul Jurmo, also notes that:

In this same period a number of states took up workplace literacy as a cause and created state-level workplace education initiatives. The NWLP also contributed to the creation of a series of international conferences on workplace learning.^{xviii}

In 1998, for the third round of NWLP grants, evaluators from Mathematica Policy Research conducted a comprehensive in-depth evaluation of five NWLP programs. They used an experimental design that randomly assigned participants to a treatment or control group. (Those in the control group were delayed services for 18 months.)

They found positive impacts on basic skills attainment as well as outcomes important to employers such as teamwork, low absenteeism, and higher employee job performance ratings by supervisors. They concluded that:

workplace literacy programs can have short-term impacts on workers of a fairly broad scale. These outcomes range from literacy-related behavior at home to performance on the job.^{xix}

They pointed out, however, that most of the 1994 NWLP-funded programs 'did not exhibit the features that appeared linked to the impacts observed in the in-depth study.' They identified the following challenges that needed to be overcome to deliver the desired program results more broadly:

- providing sufficient instructional intensity (hours per week of instruction)
- having programs with workplace literacy experience
- having a well-developed state or local infrastructure to support workplace literacy
- providing incentives for employers.

They concluded that:

1. Program effectiveness is associated with the amount of instructional time.
2. Implementation is aided by experience and state /local infrastructure.
3. Institutionalization is associated with workplace incentives for employers.

These conclusions meant that for high-quality workplace literacy programs the following were needed:

- employer participation and support, including financial support, throughout the development, implementation and evaluation of the program
- providing sufficient paid time for high-quality, contextualized curriculum development
- having well-qualified instructors with experience in workplace literacy
- having sufficient student instruction and learning time beyond that provided on work time at the workplace
- collecting and using information on program effectiveness.

One of their most important conclusions had to do with the role of state and local infrastructure. The authors found that for workplace literacy programs to endure and expand beyond the federal grants, infrastructures needed to be developed at the state and local levels to help interested employers get information about workplace literacy and to obtain qualified instructors and curriculum; to provide leadership and support and at the local level, to provide professional development that would result in experienced, skilled workplace education teachers and administrators. In Part 4 of this report we will look at two states that, while employing very different support models, have understood the importance of maintaining a strong public infrastructure at the state level, and that have continued to build expertise of local practitioners through professional development.

In addition to the Mathematica study, of eight major workplace literacy studies conducted between 1991 and 1997, seven showed positive findings and only one found no positive impacts.^{xx}

In 1999, the Conference Board, a well-respected international business-oriented membership organization, conducted a workplace literacy education study in the US Its report was entitled

Turning Skills Into Profit: Economic Benefits of Workplace Education Programs. ^{xxi} Through this study more than 100 interviews were conducted with employers, employees and union representatives from over 40 private- and public-sector workplaces, from a range of economic sectors across the U.S, that had workplace literacy programs supported by the NWLP from 1995-1998. The report found that these workplace education programs:

help employees increase fundamental skills such as reading and math, and also engender positive attitudes such as taking pride in their work and embracing change. These skills have proven to be critical to the success of employees and their organizations.

The researchers also found that:

This leads to a host of direct economic benefits for the employer, including increased output of products and services, reduced time per task, reduced error rate, a better health and safety record, reduced waste in production of goods and services, increased customer retention, and increased employee retention. It also produces a variety of indirect economic benefits, such as improved quality of work, better team performance, improved capacity to cope with change in the workplace and improved capacity to use new technology. The indirect economic benefits, although less tangible and more difficult to measure precisely than the direct benefits, have an important impact on organizational performance. According to most employers interviewed, the indirect benefits of increasing organizational capacity and performance frequently result in tangible, direct economic benefits that they can measure.

The report details each of these outcomes and then, in the concluding *Options for Action* section, urges the development of government policies that support workplace basic skills development and that take action:

to build broad support for workplace basic skills by implementing labor market policies aimed at improving the ability of workers to acquire, enhance, and employ their skills.

The report's conclusion, *Securing Prosperity*, is as relevant in 2008 as it was in 1999:

Global competition, the diffusion of technology, and the emergence of knowledge-based industries have created the workplace skills gap that threatens the United States' capacity to grow and compete on the world stage. Addressing the skills gap by focusing on current workers is a key strategy. Failure to act will limit businesses' capacity to grow and compete, because human capital will be limited.

As companies increase employees' skills and their capacity to apply them at work, they can directly improve their bottom line. Companies gain even more because these basic skills enhance employees' capacity to acquire higher technical and job-specific skills that make them high performers. In other words, workplace basic skills are the firm platform on which employees can build more advanced skills for success and greater profits.

All of these factors and benefits result in employees being given opportunities to do the kinds of jobs they want and to succeed in them. The assumption that individuals complete their formal schooling early in life and then carry this learning throughout their lives no longer holds. It has been replaced by the concept of lifelong learning—the idea that workers need to continue to protect and expand their skill sets. This new way of thinking about learning expands the focus from a narrow one—producing job-specific knowledge—to include learning that enables new ways of thinking and doing.

Ultimately, investing in workplace basic skills development can benefit everyone involved. The time and resources committed open the door to huge returns for individuals and organizations alike. Employees gain job satisfaction, security, and better pay. Employers improve performance and strengthen their bottom-line. Unions strengthen their members and increase commitment to union membership. And governments support strategic economic

development at local, state, and national levels. Working separately or in partnership, all their initiatives help to build a stronger, more prosperous America for the 21st century.^{xxii}

This persuasive argument, by a prestigious business-oriented organization, delivered to business, and supported by a wide range of positive findings from several major independent evaluations, should have attracted the attention of business and labor and galvanized them to advocate for a continued workplace basic skills initiative. But it didn't.

3.4 Why the NWLP ended and was not reauthorized

Reauthorization of federal legislation is initiated and accomplished in the US by Congressional members and their committees. Legislation such as the NWLP is authorized for a certain number of years and then, for it to continue, it must be re-authorized. If no one in Congress takes the initiative to reauthorize legislation it 'sunsets' or ends.

The question is, why wasn't there sufficient interest in Congress to re-authorize the legislation, particularly since there was evidence of both need and program success. Interest in reauthorization might have come from any of a number of sources, such as:

- the US Department of Education or US Department of Labor
- the business community (for example, from the US Chamber of Commerce, National Association of Manufacturers, and other industry associations)
- national organized labor unions,
- labor economists
- national associations of adult educators.

None of these groups made reauthorization of the NWLP a priority. There was almost no active constituency or advocacy agenda for federally-funded workplace literacy education in the United States.^{xxiii} Equally discouraging, except for a recent policy paper prepared for the new National Commission on Literacy by James T. Parker (cited earlier), there has not been much interest in a national workplace education program since then.

There may be many reasons for this. The NWLP, although often appreciated by employers that benefited from publicly-supported workplace literacy programs, was not always easy to administer. Reporting, federal monitoring, and evaluation do not always suit business interests or needs, and many businesses grumbled about this. Although companies might agree that they benefited from the federal help, many did not want to be in the limelight advocating for basic skills for their own employees. Nor did they want the public to know about their employees' basic skills problems.

At this time, while organized labor had become increasingly interested in workplace literacy, it was not yet ready to make workplace basic skills learning a national legislative priority. Most important, the new Republican-dominated Congress in 1995 had, as one of its priorities, the consolidation (and reduction) of federal education programs, not continuation or expansion. Finally, national adult literacy advocacy was not well organized at this time, and no national organization took on the challenge of building business or labor advocacy for workplace literacy. It was not a national priority then, nor since.

3.5 Workplace literacy after the NWLP

Workplace literacy is supported in the US in several ways. Federal funding is still available to some extent, although not concentrated in one demonstration program, and nowhere near the level that existed through the NWLP. Some funding has been provided since 1998 through the Workforce Investment Act (WIA) and the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, also known as the Welfare Reform Act.

Some states fund workplace literacy (not always called that) with state resources, usually in collaboration with business and organized labor. Sometimes labor unions, such as those representing transit, healthcare, garment and hotel workers in New York City, or the hotel and restaurant workers union in Massachusetts, have funded workplace literacy on their own.

However, since there is no specific national effort, there are no comprehensive data on how many programs there are, how each is funded, how many people are served, or what their outcomes are. In some states, where workplace education program data are collected in the same way that other funded programs' data are, it is possible to know how state funding is used and what the outcomes are, but these kinds of data are not systematically available on a national level.

4. State systems of workplace education

For his recent policy report on US state workplace education, cited earlier, James T. Parker studied 20 states. He categorized 10 of these states as having comprehensive state workplace education systems, characterized by factors such as:

provision of statewide services, collaboration with partners and alignment of partner roles, state staff position(s) dedicated to workplace education, program or instructor certification or standards, certification of skills attained by learners, state leadership to local programs, and sponsorship of program improvement/development.

Parker writes that the following states fit this category: Arkansas, Connecticut, Indiana, Kentucky, Massachusetts, Minnesota, Mississippi, New York, Ohio, and Pennsylvania.

Parker categorizes eight states as Leadership System states, 'because they are characterized by providing state workplace education leadership and direction to local programs and the sponsorship of program improvement/development.' Parker says that many also facilitate collaboration with other supporting agencies. He writes that states fitting these criteria are: California, Florida, Georgia, Louisiana, North Carolina, South Carolina, West Virginia, and Wisconsin.

Parker lists two states as being in the Process of Development: Texas and Virginia.

I have chosen two of the comprehensive state workplace education systems to report on in further detail: Massachusetts and Pennsylvania. One of these, Massachusetts, is funded primarily through state resources matched by companies. The other, Pennsylvania, is funded primarily through fee-for-service contracts from companies. Public funding supports program start-ups, as well as professional and program development. These are examples of two primary ways that workplace education is funded in the United States now. A third way is companies that offer workplace education entirely with their own resources and that either provide these services with in-house training staff or through a contract with external education providers.

4.1 Massachusetts case study

Background

Massachusetts is a very small Northeastern state of 7,840 square miles, with a (2006) estimated population of nearly 6.5 million people. It has a population density of 810 people per square mile, making it one of the more densely populated states. It has a slightly larger population of people who speak a language other than English at home, 18.7%, compared with the national average of 17.9%. Its school drop-out rate is 15.2%, below the national average of 19.6%. Its rate of college degree holders is 33.2%, much higher than the national average of 24.4%, perhaps because of the large numbers of private colleges and universities in Massachusetts. While it has a higher-than-national per capita income, \$25,952 compared with \$21,587, the cost of living in Massachusetts, especially the cost of housing, is one of the highest in the country. In recent years prohibitive housing costs have resulted in the loss of adult workers and families to other states.

From 2000 to 2006 the Massachusetts population grew at a fraction of the rate of the US population, 1.4% compared with 6.4%. Without a significantly greater number of immigrants, Massachusetts' population growth may be so slow that the state will lose a Congressional Representative after the next national census in 2010. The rate of immigrant workers without a high school diploma or GED is considerably higher than the state average. It is at least double, and perhaps triple the state average.^{xxiv}

Approximately 64% of the population, comparable to the rest of the country, is between the ages of 18 and 64.^{xxv} Major industry sectors in Massachusetts include:

- agriculture
- forestry, and fishing
- construction
- manufacturing
- transportation and public utilities
- wholesale and retail trade
- finance, insurance, and real estate
- services.^{xxvi}

Examples of specific major industries include:

- higher education
- high-technology research and development
- financial services
- health care
- pharmaceuticals manufacturing
- food processing
- printing and publishing
- tourism.^{xxvii}

According to a study conducted by researchers John Comings, Andrew Sum and Johan Uvin in 2000^{xxviii} fully one third of those in the Massachusetts workforce lack the skills needed to succeed in the new economy. This includes 195,000 immigrants with limited English-speaking

skills, 280,000 high school drop-outs, and 667,000 workers who have a high school credential but do not have the skills now expected of high school graduates.

The Commonwealth of Massachusetts Workplace Education Program had an important influence in the late 1980's, on the model for the US National Workplace Literacy Program.^{xxix} Workplace literacy in Massachusetts began in 1986, under Governor Michael Dukakis, with a partnership of the Department of Employment Training, the Department of Labor, and the Department of Education. In 2007, these three state agencies continued to fund workplace literacy education, although over the years not every agency's funding of programs has continued without interruption.

This case study reviews the roles and some of the contributions of all three agencies, but it eventually focuses on one in particular, the Massachusetts Department of Education, because of its consistent commitment to workplace literacy over time, its leadership role, and the policies, standards, and professional development work that it has supported.

There is one other public workplace literacy effort in Massachusetts, headed up by several of the individual community colleges, under their Continuing Education Business and Industry departments. They reach out to businesses and offer tailored training and basic skills courses at the workplace or at the college. The college, business and industry coordinators meet monthly as a group to plan and evaluate their efforts.

In addition to these government-sponsored workplace education programs, many companies in Massachusetts have their own, often internal, privately funded workplace education programs. Unfortunately, there is no data on how many of these there are or how many employees they serve.

Department of Employment and Training Workforce Training Fund

For several decades the Massachusetts Department of Employment and Training (now the Executive Office of Labor and Workforce Development's Division of Career Services) has funded workplace basic skills and English for Speakers of Other Languages (ESOL) programs. Since 1998 this has been primarily from its \$18–\$24 million/year Workforce Training Fund.^{xxx} Since the revenue for this fund is provided from payments by Massachusetts employers, only employers who pay into the fund are eligible to apply for these grants. Annually, an estimated 10-15% of the Workforce Training Fund dollars go for workplace basic skills (including English for immigrants) programs.

Recently the Workforce Training Fund has implemented a small training grant process with simple, online applications and quickly awarded grants for companies with fewer than 50 employees. In the past, the Department of Employment and Training also awarded specific industry labor shortage initiative grants, for example, to healthcare industry employers and their education partners. Since its inception the Workforce Training Fund has awarded 4,332 grants, totaling \$153.8 million dollars, through which 212,752 workers have received training, only a small number of whom have received workplace literacy skills such as English for immigrants and work-related basic skills.^{xxxi} Also, those employers who receive such grants represent only a small percentage of companies that are eligible to apply for them. There are many reasons for this, including the required investment of cash or in-kind matching company resources, and the targeting of services to low-income employees whose wages may rise as a result of the training.^{xxxii}

Department of Labor and Workforce Development initiatives

In 2002, the interest of Massachusetts' Acting Governor, Jane Swift, in workplace education was sparked by a major study called *New Skills for a New Economy*. It had been conducted for the Massachusetts Institute for a New Commonwealth (MassINC) in 2001 by the director of the National Center for the Study of Adult Learning and Literacy, Dr. John Comings, (then) graduate student Johan Uvin, and Northeastern University Center for Labor Market Studies Director, Andrew Sum.^{xxxiii}

Governor Swift had decided to create a new workplace education initiative focusing on incumbent workers. The Commonwealth Corporation, a public/private agency under the Massachusetts Department of Labor and Workforce Development, at her direction, created the Building Essential Skills through Training (BEST) Initiative, in 2002^{xxxiv} and the BEST Older Youth Initiative, in 2003.^{xxxv} A new Governor, Mitt Romney, continued the BEST initiative in 2004, changing its name, however, to the *BayStateWORKS* Initiative.^{xxxvi} In 2007, with new interest from the Massachusetts legislature evidenced by its Economic Stimulus Bill, the result of urging from several workforce and adult literacy advocacy groups, the name was changed again, to the Massachusetts Workforce Competitiveness Trust Fund Initiative, and funding was increased.^{xxxvii}

The BEST Initiative began as a \$3.5 million effort, \$1 million of which was provided by the Department of Education. There were eight grants, primarily to Workforce Investment Boards in industry sectors such as financial services, healthcare and biotechnology. Projects in the first two areas were widely regarded as successful. The biotechnology projects suffered, however, because of sudden changes in the biotechnical industry. In large part because of this initiative Massachusetts was recognized in 2007 by the National Governors Association as one of five leading states in the nation advancing a sector-based approach.

The sector approach targets critical industries that are experiencing worker and/or skill shortages. Through partnerships (of invested employers, unions, workforce investment boards, one-stop career centers, adult basic education providers, community based organizations, community colleges and other institutions of higher education, and other training and service providers) education, training, and other supports customized to meet the needs of the of the industry's employers and workers are created. The sector-based approach has been used successfully in Massachusetts in the healthcare industry to address the direct care worker needs of long term care (Extended Career Ladder Initiative-ECCLI) and to reduce the nursing shortage (Nursing Career Ladder Initiative-NUCLI), and to tackle the workforce needs of manufacturing, biotechnology, financial services, and other industries through the BEST and BayStateWORKS initiatives.^{xxxviii}

BayStateWORKS involved 11 workforce investment boards and nine not-for-profit organizations in partnership with employers from the following sectors: education, manufacturing, healthcare, aerospace, and human services. Worker wage gains and business impact were tracked and measured over time. It continued into 2007, when it was replaced by the Workforce Competitiveness Trust Fund initiative. While the Department of Education has been a partner in these initiatives, the Commonwealth Corporation, under the Department of Labor, has had primary responsibility.

The Commonwealth Corporation's Extended Care Career Ladders Initiative (ECCLI).^{xxxix} was originally the idea of New Bedford, Massachusetts state senator, Mark Montigny. Its focus has been on upgrading the skills of nursing assistants and other basic caretakers in nursing homes using a career ladder and flexible basic skills investment approach. ECCLI began in

2000 with funding of \$7 million and it has remained near that level. It has helped 158 nursing homes and home health agencies train over 7,500 individuals, and after six years, according to Department of Education officials, it has now reached 25% of the industry.^{xi}

The ECCLI career ladder identifies three rungs of Certified Nursing Assistants (CNAs) and especially provides help to those who want to get on the first rung, offering for example health-contextualized English language classes for immigrants. ECCLI also provides help for those who want to transition from the third rung to Licensed Practical Nursing positions. Health-contextualized English classes are offered at all levels. Following the lead of the Department of Education Adult and Community Learning Services' (ACLS) workplace literacy initiative, ECCLI offers employers workplace literacy (including English language learning) planning grants, supplementary curriculum materials developed by the Department of Education, and practitioner training on how to provide effective workplace English classes.

ECCLI outcomes as of this review date include:

- Wage increases and promotions have been received by 2,512 participants.
- The average wage increased \$1.05 per hour.
- 3,719 participants received basic skills training.
- In the last two years, 341 workers have been prepared to sit for nursing school entrance exams.
- ECCLI sites have seen decreases in persistent job vacancies from 11.4% in 2001 to 1.4% in 2003, a 33% lower rate than a non-ECCLI comparison group.
- ECCLI employers reported cost savings of about \$47,000 per year per facility as a result of the decrease in turnover.^{xii}

The Department of Education's Workplace Education Program

This case study will now focus on one Massachusetts state workplace literacy program, the Workplace Education Program (WEP), sponsored by the Massachusetts Department of Education. It has a 20-year history, notable standards, policies, and measurable outcomes that can be compared to outcomes from community literacy programs. Except where otherwise noted, interviews with three Department of Education staff from Adult and Community Learning Services, Andrea Perrault, Olivia Steele and Julia Zoino, provided the information for this part of the case study.

Adult and Community Learning Services (ACLS) has funded workplace literacy education since 1986, at first using only state funds in a collaboration with the two other state agencies, then adding federal workplace education funds. Since the end of the National Workplace Literacy Program funds in 1998, the Massachusetts Department of Education has funded workplace literacy education primarily from its state budget line item, but also using federal state grant program funds.^{xiii} Employers match these monies with targeted funding and in-kind donations. A variety of types of education providers, businesses and labor unions are eligible to apply for these grants.

The ACLS model includes several important features developed over the years, including:

- planning grants for new programs
- three to five-year grants with a tiered structure through which employers increase their contribution so that at the end of the grant period they are ready to fund the program entirely with company funds

- a required Planning and Evaluation Team (PET) model that requires the company, education provider and, where applicable, labor union to work out together a set of shared goals, a curriculum and an evaluation based on those goals and objectives.

The PET is also expected to meet regularly, in some cases monthly.

Approach to the program

The approach to Massachusetts Department of Education-funded workplace literacy education has not significantly changed since the late 1980's and early 1990s. For companies and unions new to workplace literacy education there is a required planning grant stage in which a workplace needs assessment is conducted. This was developed in the early years of the Massachusetts WEP based on the work of Sue Folinsbee in Canada, and Massachusetts Workplace Education Program evaluators Paul Jurmo and Laura Sperazi.

When the second stage begins, funded by an instructional grant, the employer, the education provider and, where pertinent, organized labor must together form a Planning and Evaluation Team (PET) that is responsible for developing, reviewing and approving program goals, curriculum and evaluation. The planning grant and the PET are distinctly important features of the Massachusetts WEP that are not always required as part of other publicly-funded workplace education and training programs in Massachusetts, such as those funded by the Department of Labor's Commonwealth Corporation or the Division of Career Services.

Evaluation, in the Massachusetts WEP-funded programs consists of pre-post test data from standardized instruments, the same instruments and administration process as used by Department of Education-funded community learning programs. It also includes evaluation based on employer, education provider and labor union goals, and especially on student goals, which may be broader than work-related basic skills.

How the Massachusetts Workplace Education Program has changed since the mid-1980s

There are several notable ways in which the WEP has affected change and has been changed over two decades.

1. Undereducated adults are now on the 'radar screen' of Massachusetts' governors and state agencies.
2. State funding has increased for workplace literacy education.
3. Organized labor is more involved in workplace literacy education.
4. Public sector employees show greatly increased involvement in workplace literacy education.
5. Workplace education participants now are predominantly immigrant English language learners.
6. There is greater business churn in the economy that affects the delivery of workplace education services.

Notable Trends

1. Being on the radar of governors

Since Michael Dukakis was governor of Massachusetts in the 1980's, through Governor Deval Patrick, today, governors have supported workplace education. Today, support appears to be reasonably strong in both the Department of Education and the Department of Labor and Workforce Development.

2. Increased state funding through advocacy, legislators' and administrators' support

Funding for adult basic education in Massachusetts has increased considerably over the past two decades since the beginning of workplace literacy programs. Massachusetts has an active community of literacy advocates and, as a result of a well-designed adult literacy education system, sustained and savvy advocacy, and leadership both within the Department of Education and in the Legislature, Massachusetts moved from a position in 1980 where there was no state funding for adult literacy education to a budget of over \$41 million today, with more than 75%, over \$30 million, provided by the state.

As its budget has increased the Department of Education has also increased its support for workplace literacy, and now \$1,350,000 is available annually from the Department of Education for workplace literacy education, approximately 4% of the state funding for adult literacy education. In addition, there have been new funding initiatives in other parts of state government, particularly those sponsored by the Department of Labor and Workforce Development and administered by the Commonwealth Corporation of approximately \$3–\$5 million a year, and an estimated 10–15% of the \$18–24 million Workforce Training Fund (WTF) is used for workplace literacy education. The WTF has remained relatively stable, but depends for its resources on unemployment insurance revenue from employers.

3. More involvement by organized labor

Since the beginning, the Workplace Education Program has focused on partnerships of businesses, education providers and, where applicable, organized labor. Especially in the past several years, organized labor has become an active advocate for workplace literacy and also increasingly has become an important sponsor/lead agency of workplace literacy education programs. Currently 22 of the 37 Department of Education-supported workplace education programs, nearly 60%, have involvement or primary sponsorship by organized labor.

Although organized labor has been an eligible applicant in the past, recently they sponsor many more programs, and classes are held at a union hall or at other non-company sites. Organized labor has come to strongly value basic skills for incumbent workers even if it means that workers must pursue learning on their own time instead of being partially or fully on paid work time. Examples of labor unions that are sponsoring workplace literacy and Workplace ESOL programs include the Service Employees International Union (SEIU) Workplace Education Program and its Voice and Future Fund, Local 615, and Healthcare Workers, Local 1199.

4. Increased involvement by public sector employees

Public sector employees show greatly increased involvement in Workplace Literacy Education. According to Department of Education staff, there are now many more students enrolled in workplace education programs who work in the public sector, and also in the

service industries. This may be because of the increased involvement of organized labor, because the jobs in Massachusetts have shifted away from manufacturing to service industries, and because one of Massachusetts' major industries is healthcare.

5. Predominance of English-language learners

Workplace Education Program participants now are predominantly English language learners. Although English language learners have always been the majority of the participants in the Workplace Education Program, that trend has increased over the years due to significantly increased numbers of immigrant workers. Overall, the numbers of workers in companies who need English and other basic skills services is much greater, and the English language and basic skills awareness of employers is also greater. Employers recognize the skills and talents of immigrants and employers believe that they could promote these employees if their English skills improved. Hospitals and long-term care facilities especially are interested in a 'grow your own' investment in immigrant employees.

6. Greater business churn in the economy

There is greater business churn in the economy, and it affects the delivery of workplace education services. Many businesses in Massachusetts are small, and are frequently bought and sold. This results in a great deal of employer, and in some cases, employee turnover. These companies may invest in workplace literacy education one year only to find that they cannot continue the program the next year because they have new owners, they have closed a plant, or they have moved their operations out of the state or country. That churn has increased in the last decade due to increasing competitiveness from a world economy.

Policy changes

Since 2005, the Department of Education has had a Workplace Education Policy Group that reviews and recommends policies. Members of the group include Department of Education staff, a member from the Board of Education who is very knowledgeable about workplace education, workplace education practitioners and other workplace education experts. It includes service providers as well as business and labor partners. One example of a policy change brought about by this group was a change in the requirement that funded programs hold a monthly PET meeting. A recommendation was adopted that the PET at each workplace will decide how often it will meet, and give a rationale. The minimum is now quarterly rather than monthly.

The change, according to one of the Policy Group members, Connie Nelson:

has to do with several factors: the culture of the workplace and how meeting-oriented or not they are, how well things are going (i.e. some programs were going very well and monthly meetings were not necessary, thus creating complaints from business partners) or what other mechanisms exist to problem-solve within that workplace (sometimes one good point person can take care of logistical things that the PET may have to discuss in other workplaces). xliii

Outcomes of the program

The Massachusetts Department of Education's Adult and Community Learning Services has for several years required the programs it funds, including workplace literacy programs, to pre- and post-test students using standardized tests such as the *BEST Plus*, the *REEP* (writing) test, and recently a Massachusetts-developed standardized basic skills test known as the *MAPT*. In addition, programs are asked to track learners' attainment of self-identified goals, including employment outcomes. Because these data are available for workplace

literacy education programs as well as community learning programs it is possible to compare the outcomes.

According to the ACLS staff interviewed, the outcomes of workplace education programs are comparable to community learning programs, although not quite as high. This is encouraging, especially since workplace education programs offer fewer hours a week of instruction, generally the minimum of 4 hours per week, as compared with 5 hours a week or greater in community learning programs, and since workplace education programs are subject to interruptions and temporary shutdowns when company work takes priority. Also, some employers, unions and education providers have argued that because every workplace education program is contextualized the standardized tests may not be related to participants' and companies' goals. They say wage increases, promotions, entering postsecondary education, employment retention, improved communication and job satisfaction are more important. These outcomes are very positive, according to ACLS staff.

A recent report of focus groups conducted with over a dozen representatives of employers who sponsor workplace education programs reinforced that these work-related outcomes are being met, and that employers are pleased.

Attendance at classes is also comparable to other ACLS-sponsored adult literacy education programs, averaging 65–66%, according to ACLS staff.

Impact of the program

Although there has been no longitudinal study of the Massachusetts Workplace Education Program, one study has looked at whether public funding as seed grants for education and labor partnerships actually works, whether the seeds grow and the programs thrive over time. In those that thrive, support is provided exclusively by the private sector, and the initial public investment has successfully built private sector-supported workplace literacy education. Researcher Connie Nelson found that of the 50 programs she studied, those that were still in existence, that finished the initial grant and still had eligible respondents working at the company,

24, or 48 percent, continued their workplace education programs in some form for at least a year after their public funding ended. Larger firms, those with more than 500 employees, were more likely to continue. Programs that did continue shared several features: an internal champion who had decision-making power or knew how to influence those who did, a well-identified internal issue or problem, and evidence that the program had helped to address that issue."

From her interviews with businesses Nelson found that:

the great majority of companies that continued their workplace education programs cited value to the business as a reason to continue. Respondents mentioned increased confidence of employees, increased communication skills, decreased errors, improved productivity or service, promotions, and improved retention and recruitment as evidence of the value.

Nelson found that

the 24 programs that did continue all shared five common elements: a champion, a strategy, a problem, evidence, and access.

However, Nelson suggests that this should not rule out public funding for smaller companies.

Policymakers may need to acknowledge that small- and medium-sized workplaces face greater challenges in continuation and address them. The government seed grant allows workplace education partnerships the time to develop the elements and processes that have been proved necessary for workplace education programs to continue. Larger employers seem to be able to do it in three years. Smaller employers may take longer or need more help. In some cases, continuation may not be appropriate for smaller companies.^{xliv}

The result of this public investment has been impressive. Between 1985 and 2004 two-thirds of the workplaces have continued the workplace education programs independently. This includes employers in manufacturing, health care and service industries.^{xlv}

Strengths of the program

According to the Department of Education Staff who were interviewed, the following are the strengths of the ACLS-sponsored Workplace Education Program:

- Professional development for workplace education teachers is provided by the Massachusetts System for Adult Basic Education Support (SABES), including training on how to create and implement a Planning and Evaluation Team.
- A planning period is available for new partnerships, with a small grant that precedes an implementation grant, and that includes a workplace needs analysis to determine what is needed to support a workplace education program.
- The Planning and Evaluation Team model brings the business, labor and education provider partners together to work out a shared set of goals and objectives, curriculum that meets those objectives, and a process for evaluation.
- Two decades of experience and expertise in providing contextualized workplace literacy education with an intact institutional memory (since many of those who began this work are still in place), has meant that the program has not needed to periodically re-invent itself. This program has had some influence on how workplace education is conducted by other state programs.
- Involvement of organized labor has been important, for example through the Massachusetts Worker Education Roundtable, in professional development and planning.
- A pool of talented and experienced teachers and education provision administrators has been essential.
- A clear, proven set of workplace literacy policies, including 50% minimum paid work release time for participating employees, 4 hours of instruction per week and at least 32 weeks per year of instruction, have provided good guidelines.^{xlvi}
- Workplace literacy education Indicators of Quality have provided standards.^{xlvii}
- Serious attention has been paid to worker (student) goals incorporated in the planning, implementation and evaluation of the programs.

These strengths have resulted in successful, measured outcomes including:

- promotions
- job upgrades
- increased wages
- better productivity
- increased retention of employees
- reduction in errors
- increased communication

- decreased absenteeism
- improved safety.^{xlviii}

Challenges

The Department of Education staff recognized several challenges, including:

- their grant application process. It is complicated and demanding. Businesses have said that if the education providers didn't handle this they would not be able or willing to apply for the grants
- providing work release time for employees to attend classes is not always possible
- in some parts of the state there are relatively few education providers that have the interest and ability to work with businesses to develop workplace education programs, and there is need for continuous training of these providers
- there is a need for brokering of education providers and businesses that want to start workplace literacy programs.

4.2 Pennsylvania workforce improvement network case study

Background

Pennsylvania, a middle-Atlantic state with 44, 817 square miles of land, although more than five times the size of Massachusetts, is only the 33rd largest state. It has a population of nearly 12.5 million people and a population density of 274 people per square mile, considerably less dense than Massachusetts, but still three times as densely populated as the national average. It has a relatively small population of people who speak a language other than English at home, 8.4%, compared to the national average of 17.9%. Its school drop-out rate is 18%, compared with the national average of 19.6%. College degree holders make up only 22% of the population, less than the 24.4% national average.

The population growth rate in Pennsylvania is considerably less than the national average, at only 1.3%. Approximately 62% of the population, comparable to the rest of the country, is between the ages of 16 and 64. Per capita income, at nearly \$20,880, is a little lower than the national average of almost \$21,587.^{xlix} Like Massachusetts and many other states, the range of median annual incomes between those with less than a high school diploma (\$7,800), those with some college but no degree (\$30,000), and those with a post-graduate degree (\$62,919) is significant.ⁱ

Pennsylvania faces many of the same workforce challenges that Massachusetts does:

- businesses often cannot find the skilled workers they need to compete in a global, technology-driven economy
- the education levels in Pennsylvania are low compared with other states, while unskilled jobs are disappearing, and the demand rises for higher skills—for example 60% of job growth through the year 2112—will be in occupations that require at least postsecondary vocational training
- an aging and skilled workforce must soon be replaced
- workers with less education are more likely to become unemployed.ⁱⁱ

Major industries in Pennsylvania include services such as finance, insurance and education; durable goods manufacturing; and state and local government.ⁱⁱⁱ

The Pennsylvania Workforce Improvement Network (PA WIN) began in 1999 as a separately-funded Pennsylvania initiative using federal Workforce Investment Act funding to support workplace basic skills education for incumbent workers. It is

a cooperative network of workplace basic skills training providers,[that] focuses on developing and providing customized basic skills instruction to Pennsylvania's incumbent workers in collaboration with employers... Since its inception, the PA WIN has developed the expertise and partnerships needed to provide over 185 workplace basic skills programs. PA WIN has integrated adult basic and literacy education into the workforce development continuum by:

- training program developers to assist employers in identifying workers' basic skills needs, link employers with ABLE providers, and assist employer and provider teams in developing basic skills programs designed to meet identified needs*
- providing employers with information on the impact of basic skills on workplace productivity and profitability and the types of educational services available*
- providing adult educators with professional development opportunities to enhance their ability to work effectively with employers in planning and providing customized basic skills programs designed to meet employer and worker needs*
- connecting with the Commonwealth's system of workforce development, including links with Workforce Investment Boards and PA CareerLink operators*
- upgrading the skills of incumbent workers through the development and provision of customized worksite basic skills programs.* ^{liii}

According to a 2004 state report on workplace education,^{liv} in 2002–2003 PA WIN was funded with \$500,000 of federal Workforce Investment Act, Title II money, and was matched by \$236,000 of in-kind funds from employers and education providers. Today PA WIN is housed with the Pennsylvania WorkABLE Project that serves community providers of workforce development skills (for those seeking both adult basic education and preparation for jobs), in the statewide Workforce Education Research Center Professional Development Center (WERC PDC).^{lv} The WERC PDC is part of the state Department of Education-funded professional development network under the Bureau of Adult Basic and Literacy Education (ABLE).

In addition to PA WIN and WorkABLE, the WERC PDC also provides professional development support to ABLE Coalitions in each Workforce Investment Area of the Commonwealth of Pennsylvania. In 2007–2008, \$75,000 is available to agencies for small grants, called training plans. Funding is also provided for a half-time staff person and for trainings that prepare adult education agencies to provide workplace education to companies for their incumbent workers on a fee-for-service basis. These trainings build agency capacity and help them develop the workplace training plans. The total workplace education investment is \$400,000 per year including cost sharing from the business partners. In 2006 the match was over \$120,000.^{lvi}

The adult education agencies that provide workplace basic skills education on a fee-for-service basis, and that have received training and support from the WERC PDC, are among the 150 ABLE-funded agencies. They include local education agencies (public school systems), learning centers (usually nongovernmental, not-for-profit agencies), community colleges and universities, and labor unions. Over the years the WERC PDC has provided training and support to about a third of these ABLE provider agencies. The agencies do not pay for the training, but have to provide paid work-release time and possibly travel for their staff to attend. The provider agencies hope that some of this initial investment is recouped when they eventually have workplace education fee-for-service contracts.

Both the WorkABLE and PA WIN projects are based on a set of competencies called the *Foundation Skills Framework*^{lvii} that was developed at the same time as PA WIN. These standards are the basis for all workforce development and incumbent worker basic skills training in Pennsylvania. They were informed by the Equipped For the Future (EFF) Worker Role Map standards developed by the US National Institute for Literacy, and they focus on the skills needed by workers to remain in a job and advance, not the job readiness skills they need to get a job.

Approach

The WERC PDC approach to training includes the following steps:

1. The education provider agency develops a Workplace Basic Skills team that includes at least the company management, a supervisor, a front line worker, and the education provider. This team guides the employee basic skills instruction. It identifies basic skills training needs, oversees the training, and begins the Organizational Needs Analysis (ONA). Provider agencies need to be clear and specific about what teaching and learning they can offer with the resources available, and employer and provider agency expectations need to be in agreement.
2. Under the auspices of the team, the education provider agency conducts an ONA that might include any or all of the following: focus groups, interviews, surveys, and observations. The WERC PDC provides them with training through a PA WIN affiliate agency, on how to do this. The training is at least 12 hours but is usually longer. A new workplace program may receive a training plan grant award from the WERC PDC for \$7,500 for the training and start up activities.
3. The team uses information from the ONA to develop a customized workplace basic skills or English language curriculum. The customized curriculum is a top selling point among the services they offer to the company.
4. Employee instruction is usually offered as a group-paced course or courses but could be individually paced or online.
5. The team is responsible for project evaluation. In addition to measuring the extent to which the project goals have been accomplished, provider agencies keep track of how they are doing with fee-for-service contracts, and this is one measure of their success. Other measures include agencies' benefits from developing relationships with businesses, such as donations of equipment, and having business people on their boards.

Standardized pre/post tests are not used to measure learning gains. Instead, following US National Reporting System Guidelines on reporting workplace learning outcomes, the workplace education programs measure whether or not participants have met their stated goals for the projects. These goals are evaluated using non-standardized affiliate agency-developed assessments such as checklists, interviews with supervisors and direct observations. Affiliate agencies are required to use the Foundation Skills Rubric and Learner Achievement Form to document all learner gains.

For several years, through 2003, PA WIN also had external evaluations.

The policy that initiated PA WIN

PA WIN was formed in response to the Adult Basic and Literacy Education Interagency Coordinating Council's recommendation to develop a basic skills support system for incumbent worker programs. The ABLE ICC 1999 report, *Blueprint for Change: Adult Basic*

and Literacy Education Services in Pennsylvania, recommended that a centralized support system for workplace education programs be developed and implemented to focus on the basic and work-based skills needs of incumbent workers.^{lviii}

How PA WIN has changed since 1999

Over the past several years PA WIN projects have increasingly focused on English language learning for immigrant workers. Also, for reasons that are not clear, there has been less demand by the provider agencies for training dollars from the WERC PDC. Although this could indicate a lack of interest, or that there are too few fee-for-service contracts to make it worthwhile, it could also indicate that the agencies no longer need the training dollars, that they are capable and that their revenue now comes directly from private-sector companies purchasing their services.

Most of the training offered continues to be about 25 hours; however, this year agencies could apply for higher level grants, from \$250/learner and \$5,000 per training in the past to \$350/ learner and \$7,500 per training now. One purpose of this change was to help provider agencies that were working with small businesses.

The strengths of PA WIN

PA WIN has several notable strengths.

The first is that PA WIN and WorkABLE are based on 19 essential skills and knowledge areas, outlined in the Pennsylvania Work-based Foundation Skills Framework. These skills were those determined as necessary for all Pennsylvania^{lix} workers, and may well have applicability for other states and countries.^{lx}

The second strength is the services and support the Workforce Education Research Center Professional Development Center (WERC PDC) provides. These include:

1. Ongoing, extensive support to provider agencies.

Workplace education individual technical assistance and training, and professional and program development planning is provided by the WERC PDC to any PA Department of Education-funded adult education program in the Commonwealth. As part of this process one person at each program is designated as a program developer, a key position in creating, maintaining and evaluating the workplace education program. This person meets with the business and writes a training plan that they agree upon. This person is critical to the success of the program; sometimes, if a program developer leaves the position or the agency, it is a big challenge to maintain the program. Having the WERC PDC available to provide ongoing support, however, mitigates this problem. The WERC PDC also provides support for a Regional Network in each of the state's six professional development regions. The WERC PDC helps to develop the regional networks of PA WIN providers. The providers meet in their regions. The WERC PDC also provides an active online discussion list for them that has 200 subscribers, and the discussion list leader selects a monthly theme and hosts discussions on the theme, providing background information and resources.^{lxi}

2. Online training provided to agencies asynchronously but in cohorts

Web-based training is available through continuous enrollment, in a self- study format. It includes, for example, an introduction to the Foundation Skills Framework. The WERC PDC also hosts Electronic Book Clubs. These are like online courses. Participants are assigned sections to read in a book that is sent to them. The discussions are based on questions

developed by the facilitator. The discussions are online and asynchronous. Typical questions include: “How can you use this information in your classroom?” “How would this help in your lesson plans?” The online training may also be accompanied by onsite technical assistance.

The ongoing support and online training are focused on the agencies’ program developers to help them market to business, develop a plan, and provide services.

3. Program development seed grants

Program development seed grants are available to agencies that have been affiliated more than one year -- \$1,000 to get their new workplace education programs off the ground – for such costs as professional development, printing materials, and scholarships for conferences.

4. Work-contextualized curriculum development

5. Alternative assessments.

Alternative assessments are based on the Workforce Foundation Skills Framework, a competency list derived from skills, and, for example, a rubric to document what is assessed. The Foundation Skills Framework, competencies, and rubric all appear on the WERC PDC Web site.^{lxii}

6. Quality assurance

Quality assurance is provided through the professional development and technical assistance the WERC PDC provides.

7. Marketing

The WERC PDC spends a great deal of time on marketing because the provider agencies historically are not used to selling their services. Now they are marketing to businesses and doing more in marketing their services to one-stop career centers.

8. The PA WIN Quality Credential.

Initiated five years ago, agencies that excel can receive recognition for their success. They get a quality logo or emblem to use on their materials; they are publicly recognized as being among the best workplace education providers; and they may submit abbreviated training plans. They are judged on the capacity of their agency, not just on a person’s performance. Past project quality, and monitoring reports of their work are reviewed, and interviews are conducted with the agency’s program developer, director and employer partner(s). Thus far there are six credentialed agencies.

Challenges

The biggest challenge PA WIN faces, according to WERC PDC project director, KayLynn Hamilton, is staff changes/turnover at local agencies. Programs must continually re-learn how to provide quality services and deal with funding and reporting requirements. Another problem is due to the lack of upfront workplace education start-up money from the state. Agencies have to be entrepreneurial and deal with unfunded program start-up costs. It takes awhile before the provider agency gets fees from the businesses, or from the WERC PDC. A program might be 20 hours into the project before submitting a training plan, and all of this is unpaid time. It is especially difficult for small agencies (for example, small literacy councils) to plan and maintain workplace education programs.

Marketing is another challenge. As KayLynn Hamilton put it, sometimes teachers react to the need for marketing workplace education programs by saying “I’m a teacher, not a salesperson.” Marketing these programs requires a different mindset. While PA WIN has had a great deal of success in helping educators make this important adjustment, for each new group of practitioners the challenge re-occurs.

5. Prospects and recommendations for a new national workplace education policy

As we have seen, in the years since the end of the US National Workplace Literacy Program, in some states there have been noticeable positive changes and continued or increased state and private support. In at least one state, Massachusetts, organized labor has become a strong advocate for workplace literacy. State adult education directors in several states have chosen to use their state and/or federal funding to support workplace literacy programs and/or professional development within their states. Also, there continues to be interest in some industries and by some local and state Workforce Investment Boards in workplace literacy within a particular industry or sector. Examples of these industries include healthcare, some manufacturing industries, hotels and hospitality, and food service. If there were to be new national workplace literacy legislation, there would be a great deal to build on given what was learned from the first national demonstration and from the local and state level activity that began then and has continued to the present.

At the national level, even without specific national workplace literacy legislation, some federal funds are currently used for workplace basic skills. In addition to states, and Workforce Investment Boards within states, that use Workforce Investment Act resources for incumbent worker education, recent US Department of Labor (USDOL) grants have also supported workplace basic skills. For example, USDOL Community-based Job Training Grants have supported career ladders that involve strengthening English language and other basic skills. Another example of a national investment in workplace education is the National Work Readiness Credential (NWRC). A spin-off of *Equipped for the Future*, a 10-year national curriculum initiative supported by the federally funded National Institute for Literacy, the NWRC is now being implemented in more than 80 sites across the US and a national NWRC readiness guide has been developed to help people prepare for the credential’s assessment.

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Although there currently are no visible efforts to bring about a new federal workplace literacy policy—indeed the US Congress has repeatedly delayed reauthorization of the present Workforce Investment Act for several years—if anything, the need for workplace basic skills is now more widely recognized by US business, economists, and educators than it was in the late 1980’s. There is much that has been learned both from the National Workplace Literacy Program and, more recently, from state and local workplace literacy education programs that would be worth the attention of US federal policymakers. Continued workplace literacy at the state level and, to some extent, at the national level has laid a good foundation for a new national workplace education initiative.

The National Commission on Adult Literacy has commissioned a policy brief on workplace education. If it were to recommend legislation for a new national workplace literacy program, it would need a clear direction and goals for it. The Commission’s workplace education policy brief includes seven policy options for the Commission to consider, several of which suggest a stronger federal role. These include:

- more involvement in research and evaluation,
- support of state professional development
- improved federal measures for workplace education outcomes
- better federal agency collaboration
- national dissemination.

From my understanding of the successes and failures of the NWLP, and from what we have learned from the state workplace literacy efforts that have continued in the past decade, I would add the following policy recommendations for a new federal workplace literacy initiative:

1. Conduct a national workplace needs assessment

Establish a national process to collect from employers, employer associations and other intermediaries, data by industry sector on employee basic skills needs.

2. Measure workplace education program outcomes

Outcomes should be based on employer and employee goals, and emphasize direct work-related measures rather than (only) level gains on standardized tests. Eliminate National Reporting System barriers to developing and reporting workplace education program outcomes. As James T. Parker urges in his policy options, the NRS should approve and encourage the use of work-based, contextualized basic skills measures and certifications and the federal government should pay to develop valid and reliable measures if they are required.

3. Measure return on investment and other impacts.

Federally supported studies are needed to demonstrate the effect of workplace education on companies and workers. A national adult education and literacy research center is needed that includes research on workplace literacy education.

4. Support federal, state, and local partnerships

Continue to base workplace education at national, state and local levels in a partnership of business, organized labor and adult educators. A federally-funded initiative should focus on developing and strengthening state initiatives, and should also require viable partnerships of federal agencies such as Education, Labor, Higher Education, Commerce, Health and Human Services and the National Institute for Literacy

5. Use multiple funding sources

Use a range of federal, state and local public sector and private sector funding to support workplace education.

6. Connect workplace education with community-based and distance education

Connecting workplace education with community based and distance education providers would give seamless opportunities for workers to continue their education beyond the limited opportunities offered at the workplace itself.

7. Support a significant level of state professional and program development

This is needed to support states to train/re-train professional adult educators to provide high-quality work-contextualized instruction in the workplace, and to do so through the use of fee-for-service contracts as well as public support.

8. National curriculum development.

Develop publicly available online, industry-specific contextualized basic skills curriculum, for example in healthcare, hospitality, financial services and other industries.

9. Require in-kind private-sector match

Continue to include an in-kind match from companies for publicly-supported workplace education services

10. Develop a program accreditation model

Develop program requirements and certification or accreditation for provider programs of workplace basic skills services that meet the requirements. Requirements might include consistently high program performance and student outcomes, and ongoing professional development.

11. Disseminate information and study results

In the NWLP, information was effectively disseminated through the ERIC Clearinghouse, the National Diffusion Network, and through a private effort, the *Business Council for Effective Literacy newsletter*. A new national workplace education program needs a revitalized, Web-based, national dissemination system.

Will the United States again have a National Workplace Literacy Program? A new federal Administration and Congress in 1909 might be fertile ground for discussion of such a program, and there could be new support from state education departments, organized labor, and perhaps some specific corporations and associations. The National Commission on Adult Literacy could recommend this to Congress and the Administration as a basic skills priority. If this interest were organized, if there were a national advocacy effort, it is possible, but at this time it is uncertain.

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