



## INVESTING, IMPROVING, AND MEASURING WORKPLACE SKILLS

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### **I**NTRODUCTION

When the U.S. Department of Education launched the National Workplace Literacy Program (NWLP) in 1988, the goal was to assess whether workplace literacy programs provided a promising strategy for addressing a major economic development challenge facing the country—low levels of literacy among nearly 40% of the U.S. workforce.<sup>1</sup> The results of this multi-year national demonstration were promising yet the lack of standardized performance measures to govern the programs made describing the total impact difficult and federal funding was discontinued by the late 1990s. The passage of The Workforce Investment Act (WIA) by Congress in 1998 represented a new federal attempt to address the persistent challenge of a large segment of the American workforce not having the skills needed to fulfill the advanced technical requirements of jobs in the new economy. Contrary to the NWLP demonstration, funding for the Workforce Investment Act was tied to standardized performance requirements for adult education programs as well as employment and training services. Yet five years into WIA implementation and at the cusp of the program's reauthorization, it has become increasingly more obvious that WIA's accountability standards make using these federal funds to provide workplace literacy and other customized training programming difficult.

Despite evidence that workplace literacy programs can be effective at improving the lives of workers and the bottom line of businesses, the lack of a dedicated funding source is likely to diminish the number and/or capacity of these programs significantly. Still, the growing skills gap facing the nation creates an ongoing imperative that the Congress and the federal government continue to fund strategies that are aimed specifically at upgrading the literacy and technical skills of the workforce. This paper describes some of the economic and demographic factors that impact program strategies; draws on recent research on promising programmatic and system strategies for concurrently addressing

the needs of workers and businesses; and concludes with a set of recommendations for policymakers to consider that, if implemented, would support these strategies.

## **C**REATING A WORKFORCE FOR THE NEW ECONOMY

On Labor Day 2002, while the country was honoring the contributions that workers have made to the nation's strength, prosperity, and well being, the Domestic Strategy Group led by Harvard University Professor David Ellwood, released a disturbing report card on the state of the U.S. workforce. Strong findings suggest that three reinforcing problems—a worker gap, skills gap, and wage gap— will threaten our country's productivity and growth, international competitiveness and cohesiveness in the near future.<sup>2</sup> The report suggests that the impending retirement of the “baby boom” generation combined with other factors will lead to a flattening of future growth in our native born workforce that will require a reliance on *all* current workers and incoming immigrants to fuel our economy in the near future. At the same time, gains in the share of the workforce with a post-high school education will diminish from 19% in the past twenty years to 4% in the next twenty. The demographic reality of fewer workers with less education contributes to the growing gap between workers earning the least and earning the most. This income gap, the report authors' argue, breaks America's promise that hard work will be rewarded and thereby undermines the country's unity and productivity.

There is plenty of evidence that education is one route out of poverty and one way to close the earnings gap between the least and most skilled workers. An individual with a bachelor's degree, working full-time, year-round will earn nearly twice as much as one with a high school diploma—nearly one million dollars over the course of a lifetime.<sup>3</sup> Even among adults who do not have the literacy skills to attend college, improving from “basic” to “competent” literacy levels—an investment of about 200 hours of course time—can provide \$5,000 to \$10,000 more in annual income.<sup>4</sup>

There are a significant number of individuals that are in need of basic literacy and

technical skill upgrades and who have not entered or been successful in our primary education (K-12) system including immigrants, women who will transition or have transitioned from welfare-to-work, and criminal offenders being released into our nation's communities. Efforts to provide traditional basic education to these populations have resulted in troublingly high drop out rates and a strong tendency to end up in low wage work.<sup>5</sup> The good news is there is a growing body of programmatic evaluative research that, combined with the evaluations of workplace literacy programs, shows that the challenge of upgrading skills and creating more promising opportunities for these individuals is not insurmountable.

The next two sections of this paper describe research related to 1) "sectoral" training strategies that involve partnerships between trainers and employers in a certain sector and 2) bridge programs that combine literacy and training curricula to prepare individuals for post secondary education and/or labor market advancement and are tied to labor market needs. Both bodies of research should be considered alongside the results of the national evaluation of the Workplace Literacy Demonstration Program to inform policymakers about how to address the skills gap that is threatening our country's economic viability.

## **N**EW RESEARCH ON SECTORAL-FOCUSED PROGRAMS

Since the mid-1990s there has been a proliferation of research on sector workforce initiatives that are designed to assist community residents in obtaining and advancing in their careers while meeting specific job needs of employers in a given region. As defined by the National Network of Sector Partners (NNSP), sector initiatives are "industry-specific workforce development approaches that share four common elements that distinguish them from conventional programs. They: 1) are targeted to a specific industry, crafting solutions tailored to that industry in that region; 2) offer the presence of a strategic partner with deep knowledge of the targeted industry and its companies linking them with organizations that may include community-based nonprofits, employer organizations, organized labor, community colleges, and others; 3) provide training strategies that benefit low-income individuals, including the

unemployed, non-traditional labor pools, and low-wage incumbent workers; 4) promote systemic change that cultivates a win-win environment by restructuring internal and external employment practices to achieve changes beneficial to employers, low-wage workers, and low-income job seekers.”<sup>6</sup>

Overall, assessments of sectoral training strategies have been very favorable. Evaluations by the Aspen Institute have shown that low-income adults participating in six industry specific sectoral training programs from across the nation have seen substantial earning increases relative to their earnings prior to engagement in the program. Wages for participants post training were on average 47 percent higher than those received before completing the program.<sup>7</sup> The interim report from Public/Private Ventures’ Sectoral Employment Initiative, entitled “Gearing Up,” showed that sector programs were seeing positive impacts on the earnings of the graduates—raising participants’ hourly wages at placement, on average, 21 percent over what they had earned before enrollment.<sup>8</sup>

Importantly, the Aspen Institute has also conducted several individual sector program evaluations in order to profile program strategies and to assess the impact of these programs on business as well as workers. Each of the programs described below incorporate workplace literacy/English as a Second Language (ESL), sometimes called vocational literacy or ESL, into their training programs and partner with industry employers to assess training impacts on business. Through these partnerships, the sectoral programs also serve as intermediaries, helping firms identify ways to improve their hiring and advancement practices.

- A 1998 survey conducted by Chicago’s community based trainer, the Jane Addams Resource Corporation, found that 17 of the 28 participating metalworking firms reported increased worker productivity due to participation in JARC’s metalworking training courses. Increased productivity was due to reduced waste, improved worker communication and problem solving; reduced set up time for machinery and other production processes; and improved safety practices.<sup>9</sup>

- The New York, community based Garment Industry Development Corporation (GIDC) offers a variety of Apparel Skills Training Programs for workers in the garment industry. Curriculum and evaluation of the programs are customized according to the goals of the partner firm and often include pre and post training time studies, measuring how an employee can perform a specific task. As one measure of success, GIDC tracks the value of export contracts that the participating firms win and, since 1991, estimates having facilitated \$35 million worth.<sup>10</sup>

In fact, the positive results of these and other studies like them, prompted the U.S. Department of Labor in 2001 to create the Sectoral Employment Demonstration which led to distribution of more than \$3 million in funds to 38 local workforce investment boards to plan and implement sectoral training strategies. The initial site review conducted in 2002 by the Aspen Institute and the National Network of Sector Partners revealed that of the 32 projects reviewed, 7 of the local workforce investment areas had begun implementing training and one hundred eleven individuals were participating at that point in time. Outcomes were not available at the time of the study, however, a final evaluation of the demonstration is being conducted by the Aspen Institute for the U.S. Department of Labor and is anticipated to be published before the end of the year.

## **N**EW RESEARCH ON “BRIDGE” PROGRAMS

A number of independent consultants, convened through the Workforce Strategy Center, recently conducted and released a study of contextualized basic skills programs also known as “bridge” programs.<sup>11</sup> This research is some of the only additional research on contextualized learning that has followed since William Stitch’s innovative study of the promising teaching practices used by the military.<sup>12</sup> With several profiled in a report entitled, “Building Bridges to Colleges and Careers: Contextualized Basic Skills Programs at Community Colleges,” bridge programs are described as providing a clear connection between basic skill development and entry

level work or training in high wage, high-demand career sectors. Bridge programs target individuals with basic skills such as welfare participants, dislocated workers, as well as others and “teach developmental, adult education or ESL classes in the context of students’ lives and the work-specific skills they need for employment in particular industries and sectors.”<sup>13</sup> Two examples that are highlighted in more detail in the Workforce Strategy Center report follow:

- Westside Technical Institute (WSTI), a satellite site of the Chicago City Colleges system, partnered with Instituto Del Progreso Latino, a community based organization in a predominantly Latino neighborhood called Pilsen/Little Village, to create a manufacturing bridge program that prepares individuals with Limited English Proficiency for careers in manufacturing. Through offering integrated communication and math fundamentals along with technical literacy and industry skills and an internship, WSTI prepared students and placed them in jobs with higher earnings than earned prior to program participation. Additionally, 43% achieved high enough placement scores to be accepted in the college’s vocational manufacturing program.<sup>14</sup> For students unable to meet the 8.0 reading and math requirement of the bridge program, Instituto offers a Vocational ESL (VESL) program incorporating time in the computer lab and workplace math class.
- Oregon’s Regional Workforce Training Team was created in 2001 and includes representatives from Portland Community College, Mt. Hood Community College and the local workforce investment board. The team works with different departments within the two colleges to reshape existing curriculum into short-term training steps to meet industry certificate requirements. Vocationally focused ESL is offered in Health Care, Food Services, and Office Skills, three areas where jobs exist in the regional economy. In three years time, the Health Care VESL program has placed 90% of the participants in jobs paying living wages. Additionally, students who meet “minimum” thresholds are eligible for three terms of remediation in writing and mathematics to prepare for the regular

college offerings.

One of the most promising outcomes associated with the bridge program model, which reinforces Sticht’s notion that students learn faster contextually, is the rate at which students persist in education and upgrade their literacy skills.<sup>15</sup> Given the high dropout rate of individuals from traditional adult education programs, this evidence is important to note.<sup>16</sup>

In addition to documenting promising bridge programs that exist around the country, the Workforce Strategy Center also documented in a separate report, the system reform efforts of three states—Washington, North Carolina and California.<sup>17</sup> Each state, to varying degrees, has attempted to create educational pathways that are relevant to the key sectors in their respective regional economies. These pathways provide a clear sequence between bridge programs at one end, both non-credit and credit occupational training in the middle, and associate degrees at the other end. These efforts were designed as a direct response to evidence that many individuals need improved access to post secondary education that will lead to higher earnings and employers are in need of a pipeline of skilled workers.

“There is still a lack of systematic data on bridge programs that is both useful to practitioners and persuasive to policymakers. Because of the connection to workforce development, earnings were the most common outcome measure the colleges use. Earnings are generally measured as gains over time... none of the colleges we visited have plans for a long-term evaluation (5+ years) of their bridge and career pathways programs.”

Excerpt from the Workforce Strategy Center’s *Building Bridges to Colleges and Careers: Contextualized Basic Skills Programs at Community Colleges*, 2003.

## **E** VALUATION RESULTS FROM THE NATIONAL WORKPLACE LITERACY DEMONSTRATION

The four major findings from the 1997 evaluation of the National Workplace Literacy Demonstration program (NWLP) included:

- 1) Partnerships varied in terms of size and kinds of organizational partners. Partners were much more actively involved than employers who merely serve as a site for workplace literacy;
- 2) Most workplace literacy courses were applied and job-oriented, and were convenient in terms of schedule and location;
- 3) Increased hours of instruction (more than 30) appeared to make a difference in the job outcomes and plans of workers who completed courses;
- 4) While certain benefits may have accrued from more than 30 hours of instruction, only half the workers who completed courses had more than 16 hours of workplace literacy instruction.<sup>18</sup>

Additional findings on the effectiveness of programs' ability to impact employer and worker outcomes were limited, due to little consistency of assessment methods used. Approximately one third of the courses used standardized literacy tests and most used student interviews as one tool. Among workers who completed one course, approximately 37 percent reported having been given more responsibility and about 17 percent reported receiving a pay raise.<sup>19</sup>

“Overall, what is noteworthy in these results is the seemingly limited extent to which new assessment tools—be they job-related competency measures, portfolio assessments, or improved standardized assessment batteries such as Work Keys—are being used in workplace literacy courses.”

Excerpt from Mathematica Policy Research's 1997 “Addressing Literacy Needs at Work,” 1997.

The most common reason that employers and unions cited for participating in workplace literacy was to reduce error and waste. Other often-cited reasons (in order of frequency) include: organizational innovations, changes in production and operations, improvement in the skills of workers with Limited English Proficiency, and learn new technologies.<sup>20</sup> Yet to assess employer satisfaction with meeting their expectations of the program, less



than one third used supervisor ratings or customized job related competency tests.<sup>21</sup>

## **G** OING TO SCALE: CHALLENGES

It is easy to argue that publicly-funded programs need to broaden their capacity to document how their programs impact workers and businesses with whom they partner. As the Center for Workforce Strategy suggests, it is difficult to be persuasive with policymakers that a dedicated and increased amount of funding is warranted without more outcome information. At the same time, participation rates by workers and businesses in these programs and individual programmatic evaluations suggest there are many effective workplace literacy, bridge, and sector programs throughout the country. What is more, these programs are piecing together funding to continue, a challenge made worse in the face of major state fiscal crises. Anecdotally it is known that few of these programs rely on the major federal funding in place to provide adult basic education/ESL, employment and training services—Titles I and II of the Workforce Investment Act. The national performance measures designed to evaluate program outcomes are one major reason why and, with the Congress’ impending reauthorization of this legislation, a discussion about their usefulness is timely.

### WIA Title I - Workforce Investment System

The goal of Title I, as written in the Workforce Investment Act, is “to provide workforce investment activities that increase the employment, retention and earnings of participants, and increase occupational skill attainment by participants, which will improve the quality of the workforce, reduce welfare dependency, and enhance the productivity and competitiveness of the Nation’s economy. These goals are achieved through the workforce investment system.” As one might conclude from reading the goal statement, the performance of adults and dislocated workers who are registered in the WIA Title I program is tracked using four measures—entered employment rate, employment retention at 6 months, average earnings change in 6 months, and the credential attainment rate.

A February 2003 General Accounting Office study describes the difficulty in using these funds to support employed worker programs that focus on business needs: “the WIA performance measure that tracks the change in adult earnings after six months could limit training opportunities for employed workers, including low wage workers. The wage gain for employed workers would not likely be as great as that for unemployed job seekers, and this might provide a disincentive to enrolling employed workers into training because their wage gain may negatively affect performance.”<sup>22</sup> Failure to meet WIA Title I or Title II performance measures results in a state’s disqualification from bonus funding of up to \$3 million annually.

There is at least one example of a state program—Illinois’ Job Training and Economic Development (JTED) program with a component aimed at increasing the skills of low wage workers—that decided to modify a performance requirement that participants see a pay raise within six months. The state agency administering the program decided to eliminate this performance measure after trainers reported repeatedly that their employer partners would not apply for JTED funding because they could not guarantee a pay raise. Also, some firms reported that if a pay raise was tied to training participation, their collective bargaining agreement would require that training be offered to all employees with the same job title. The Illinois state agency instead replaced the measure with a retention measure and requires grantees to conduct training impact surveys with their participating employers. The GAO recommended to the U.S. Department of Labor that, at minimum, they re-look at the earnings gains measure to ensure that disincentives are removed.

#### WIA Title II – Adult Education and Family Literacy

The codified goal of WIA Title II is “to create a partnership among the Federal Government, States, and localities to provide, on a voluntary basis, adult education and literacy services, in order to—(1) assist adults to become literate and obtain the knowledge and skills necessary for employment and self-sufficiency; (2) assist adults who are parents to obtain the educational skills necessary to become full partners in the

educational development of their children; and (3) assist adults in the completion of a secondary school education.” The core indicators of performance for participants of WIA Title II programming are:

- Demonstrated improvement in literacy skills in reading, writing, and speaking English language, numeracy, problem solving, English language acquisition, and other literacy skills;
- Placement and retention in, completion of, post secondary education, training, unsubsidized employment or career advancement;
- Receipt of secondary school diploma or recognized equivalent.

Although WIA Title II funds can be used for workplace literacy programs, the measures are not particularly meaningful to business. The most effective workplace literacy programs and/or sectoral trainers suggest that the key to being successful is designing and evaluating programs with business partners and according to business needs. For example, an interview conducted by the National Network of Sector Partners with staff of the Lancaster Lebanon Intermediate Unit 13, a Pennsylvania nonprofit trainer, suggests that the most innovative and important strategy they use is beginning with the creation of a training team made up of employees from all relevant departments. An organizational assessment is conducted to determine the workers and business needs and then curriculum is designed accordingly. The indicators of success are defined and the evaluation tools designed by the training team. For workers, this includes their enjoyment as well as how much they learned and for employers this might include a survey of supervisors and coworkers to determine if workers are using their new skills, as well as return on investment measures as decreased translation time, supervision time, and mistakes due to new skills.<sup>23</sup> This “best practices” example illustrates that grade gains are not usually the most meaningful outcome for either worker or employer.

#### Combining WIA Title I and II

Those providers who operate “bridge” programs that offer opportunities for participants to both gain literacy skills (broadly defined to include English acquisition, numeracy,

communication, etc.) and technical or vocational skills, are often eligible for funding through both WIA Title I and II programs. However, using both sources of funds to cover an integrated program is difficult, at best. First, it is administratively cumbersome to operate with multiple funding sources that can only go to fund certain program services and that also require different performance tracking. Second, as a recent report by Women Employed contends, it is easier for educators to track grade gains than it is to achieve employment and transitioning to further education so despite promising outcomes there is no incentive to operate a bridge program.<sup>24</sup>

## **R**ECOMMENDATIONS

At the outset, this paper outlines the pressures facing the U.S. caused by changes in our economy and the job market in particular, as well as demographic pressures, that require the government and private sectors as well as community institutions to work together. Bridge programs, sectoral training, and workplace literacy programs all show promise in upgrading the abilities of individuals with limited literacy and technical skills. Challenges exist in using the Workforce Investment Act to fund these programs. Without incentive money to operate them, they will likely diminish or be limited in capacity. The following are recommendations for policymakers to consider that would support these programs and ultimately meet the needs of workers and businesses:

- 1) Provide dedicated grant support to educational partners to develop career pathways programs, starting with bridge programs, in conjunction with employer partners who are vital to the regional economy.
- 2) In the short-term, allow bridge programs that receive both WIA Title I and II funding to choose which performance requirements to operate under. Then, form a joint exploratory committee with the U.S. Department of Labor to assess how to address the disincentives in the performance measures for WIA Title I and II for combining literacy and vocational programming.
- 3) Support and join as partners in the continuation of U.S. Department of Labor's

Sectoral Employment Demonstration.

- 4) Allow local workforce investment areas that use WIA Title I funding for employed worker programs to negotiate customized outcome measures.
- 5) Support the “Access to Employment and English Acquisition Act of 2003” proposal that was incorporated as a demonstration program in the Senate’s WIA reauthorization bill and would allocate funds to pilot “integrated training” programs for individuals with limited English proficiency.
- 6) Support the development of ESL workplace certificates, which establishes English language competencies needed in particular jobs. (This is a recommendation adopted from a recent CLASP report addressing a similar topic as this paper).<sup>25</sup>

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## ENDNOTES

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- <sup>16</sup> Mazzeo et al, pp. 2-4.
- <sup>17</sup> Julian Alssid, David Gruber, Davis Jenkins, Christopher Mazzeo, Brandon Roberts, and Regina Stanback-Stroud, Workforce Strategy Center: *Building a Career Pathways System: Promising Practices in Community College-Centered Workforce Development*, April 2002.
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- <sup>19</sup> Ibid, p. xviii.
- <sup>20</sup> Ibid, p. 25.
- <sup>21</sup> Ibid, p. 36.
- <sup>22</sup> General Accounting Office, GAO-03-353, *Workforce Training: Employed Worker Programs Focus on Business Needs, but Revised Performance Measures Could Improve Access for Some Workers*, February 2003.
- <sup>23</sup> NNSP Survey, Interview with Cheryl Heister of Lancaster Lebanon Intermediate Unit 13, 2002.
- <sup>24</sup> Women Employed, p. 8.
- <sup>25</sup> Heide Spruck Wrigely, Elise Richer, Karin Martinson, Hitomi Kubo, and Julie Strawn, CLASP: *The Language of Opportunity: Expanding Employment Prospects for Adults with Limited English Skills*, August 2003. p. 3.