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Better Workers for Better Jobs:
Improving Worker Advancement
in the Low-Wage Labor Market

The Hamilton Project seeks to advance America's promise of opportunity, prosperity, and growth. The Project's economic strategy reflects a judgment that long-term prosperity is best achieved by making economic growth broad-based, by enhancing individual economic security, and by embracing a role for effective government in making needed public investments. Our strategy—strikingly different from the theories driving economic policy in recent years—calls for fiscal discipline and for increased public investment in key growth-enhancing areas. The Project will put forward innovative policy ideas from leading economic thinkers throughout the United States—ideas based on experience and evidence, not ideology and doctrine—to introduce new, sometimes controversial, policy options into the national debate with the goal of improving our country's economic policy.

The Project is named after Alexander Hamilton, the nation's first treasury secretary, who laid the foundation for the modern American economy. Consistent with the guiding principles of the Project, Hamilton stood for sound fiscal policy, believed that broad-based opportunity for advancement would drive American economic growth, and recognized that "prudent aids and encouragements on the part of government" are necessary to enhance and guide market forces.





Better Workers for Better Jobs: Improving Worker Advancement in the Low-Wage Labor Market

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This discussion paper is a proposal from the author. As emphasized in The Hamilton Project's original strategy paper, the Project is designed in part to provide a forum for leading thinkers from across the nation to put forward innovative and potentially important economic policy ideas that share the Project's broad goals of promoting economic growth, broad-based participation in growth, and economic security. The authors are invited to express their own ideas in discussion papers, whether or not the Project's staff or advisory council agree with the specific proposals. This discussion paper is offered in that spirit.

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Abstract

This paper proposes a new federal funding stream to identify, expand, and replicate the most successful state and local initiatives designed to spur the advancement of low-wage workers in the United States. In the Worker Advancement Grants for Employment in States (WAGES) program, the federal government would offer up to \$5 billion annually in matching funds for increases in state, local, and private expenditures on worker advancement initiatives. To gain funding, states would have to develop local advancement “systems,” which would provide career-oriented education and training to youth, working poor adults and “hard-to-employ” workers. Partnerships would be developed between local training providers (like community colleges), employer associations, and intermediaries. Additional financial supports for the working poor—including child care, transportation, and stipends for working students—would have to be funded as well. Initially, the WAGES program would require states to compete for federal grants, which would ultimately be renewable. The program would generate a “learning system” in which states would have an incentive to innovate and use information from other initiatives. The federal government would provide substantial technical assistance and oversight. Performance measurement and rigorous evaluation would be required for program renewal; states achieving substantial worker advancement would be awarded major bonuses and more rapid renewal of funding.

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1. The Low-Wage Labor Market: What Is the Problem?

There have been low-wage workers in virtually every labor market that has ever existed. Historically, economic growth has lifted the real wages of all workers, particularly in more developed countries like the United States, but many factors have influenced the degree of inequality (or difference in relative wages) between those at the bottom and those at the middle and top of the earnings distribution.

In recent years the difficulties experienced by relatively low-wage workers in the United States have grown, at least along some dimensions. Figure 1 plots the real wages of male and female workers with different levels of education since 1979. The earnings of both male and female workers without high school diplomas fell throughout much of the 1980s and 1990s, relative to those with more education (that is, the gap between their wages widened). The same is true for workers with high school diplomas but without college, again for both female and male workers. The earnings of male high school dropouts and even high school graduates not only declined in relative terms but were stagnant or declining in absolute terms throughout much of this period. After the mid-1990s the real wages of these groups rebounded somewhat, but today the wages of less-educated males remain not much higher than they were in the 1970s.¹

The reasons for stagnant wages among less-educated workers and for rising labor market inequality have been thoroughly analyzed in the economics literature. New technologies, globalization, and the

weakening of policies and institutions that protect workers have all contributed.²

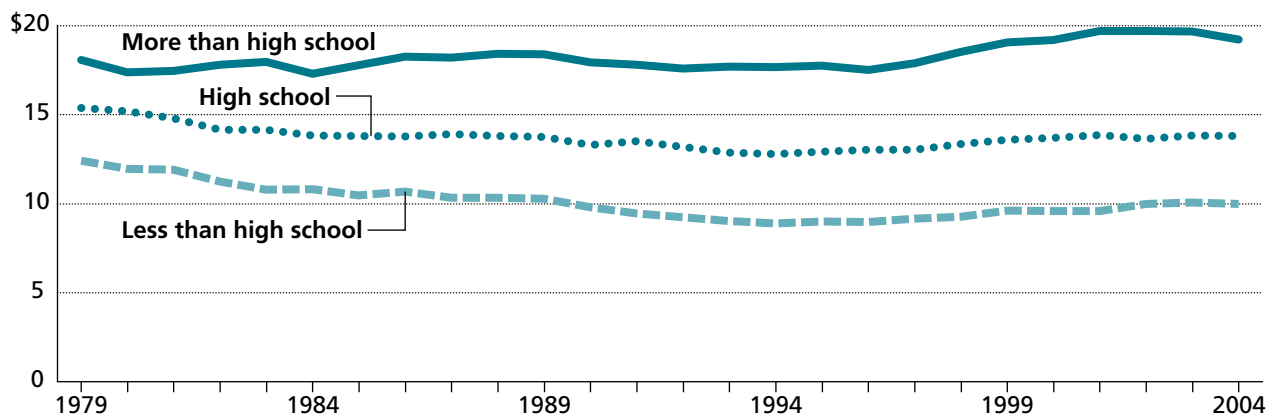
Recent evidence also suggests that there has been some “hollowing out” of the middle of the earnings distribution since the 1990s, with greater growth in employment (and even in wages) at the top and the bottom of the labor market relative to the middle (Levy and Murnane 2004; Autor, Katz, and Kearney 2005). Employment at the bottom of the labor market has grown rapidly in recent years; although high-paying jobs for less-educated workers in manufacturing, the clerical workforce, and other sectors have diminished in number, low-paying service jobs have rapidly expanded. The number of workers at the bottom has also risen somewhat in recent years, as improvements in the educational attainment of American workers have stalled while new groups of unskilled workers—particularly single mothers and immigrants—have entered the job market.³

How many workers are earning low wages in the United States today, and what are their personal and family characteristics? Table 1 presents some data on the share of workers in the labor market who earned less than \$7.73 an hour in 2003 (the equivalent of \$8.50 an hour today) and on their characteristics. In that year just under a quarter of all workers earned low wages by that definition. Note that working year-round and full-time (defined as 2,000 or more hours a year) at this wage level would leave these workers and their families below the poverty line for a family of four, if no other family members are generating earnings.

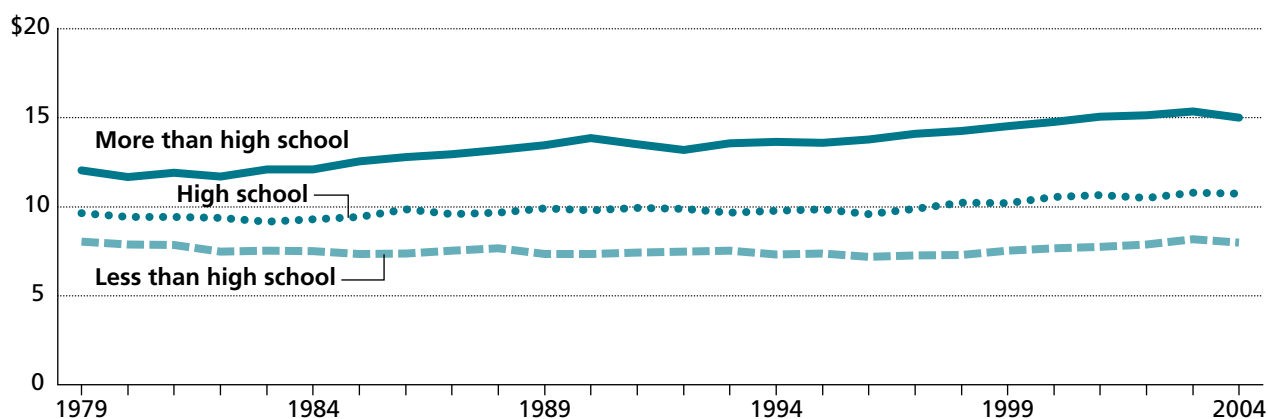
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1. Real wage trends are sensitive to the price index used to adjust nominal wages for inflation. There is widespread agreement that the consumer price index (CPI) overstates inflation and thus leads to an understatement of real wage growth. The wages in Figure 1 are deflated with the CPI-RS, a research series designed in the late 1990s that counters some, but not all, of the upward bias. See Abraham (2003).
 2. See Katz and Autor (1999), Card and DiNardo (2007), and Levy and Temin (2007). Katz and Autor tend to emphasize technological change and other market forces, whereas the other studies emphasize institutional factors.
 3. Goldin and Katz (2007) discuss the stalling of educational progress in the 1980s and 1990s and beyond. Blank and Schmidt (2001) discuss the effects of welfare reform on single mothers, and Borjas (2007) examines the impact of immigration on the skill content of the labor force.

FIGURE 1

Median Real Hourly Wages by Education Group, Males



Median Real Hourly Wages by Education Group, Females



Source: From Blank, Danziger and Shoeni (2006), using U.S. Census Bureau, CPS Outgoing Rotation Groups, 1979–2000.

Notes: Samples include only those with high school education or less who are not currently enrolled in school and are not institutionalized. Wages are deflated using the CPI-RS.

Of course, some of these low-wage workers might be teens or young adults, whose wages will almost certainly rise as they attain more education and work experience; others might be the second, third, and fourth earners in middle-class families. But Table 1 also indicates that roughly half of low-wage workers—and about 11 percent of all workers—live in families with low incomes (defined as income below twice the poverty line), and that a significant majority of these workers are aged thirty and above. A bare majority are white, and a majority have a high school diploma, although the concentrations of low-wage workers among minorities (in-

cluding immigrants) and high school dropouts are particularly high. Most low-wage earners also work full-time, and about half work all year, but few have employer-provided health insurance either directly or through a spouse.

In all, the data suggest that at least 15 million workers, and likely more, suffer from low market wages and low family incomes.⁴ But in a dynamic labor market, many of those who earn low wages today might have greater success tomorrow—if they can develop more skills and add to their work experience or land better jobs. What are

4. A higher though still reasonable cutoff for low-wage workers, such as \$10 an hour, would still place over 20 million workers in this category.

TABLE 1

Personal and Family Characteristics of Low-Wage Workers (percent)

Characteristic	All workers	Low-wage workers ^a	Low-wage workers below 200% of FPL	Low-wage workers below 200% of FPL, with children in family
All workers	100.0	22.8	10.8	5.3
Educational attainment				
Less than high school	10.1	19.0*	27.7*	33.2*
High school diploma or GED	30.4	35.5*	36.9*	36.7*
More than high school	59.5	45.5*	35.4*	30.1*
Age (years)				
18–29	27.0	39.1*	42.7*	39.8*
30–49	52.2	43.1*	44.7*	54.8
50–61	20.8	17.8*	12.6*	5.4*
Race or ethnicity				
White non-Hispanic	69.8	62.0*	50.4*	42.9*
Black non-Hispanic	11.2	12.7*	16.7*	18.5*
Hispanic	13.2	19.4*	27.2*	32.8*
Other	5.8	5.9*	5.7*	5.9
Work				
Full-time, full-year	70.0	51.2*	49.8*	50.4*
Full-time, part-year	13.6	18.5*	22.9*	23.5*
Part-time, full-year	8.8	15.8*	13.8*	12.3*
Part-time, part-year	7.6	14.4*	13.6*	13.9*
Spouse works full-time ^b	69.7	71.6*	53.2*	56.9*
Health insurance				
ESI from own employer	55.3	22.1*	21.0*	18.8*

Source: Acs and Nichols (2007), using data from U.S. Census Bureau, March Current Population Survey, 2004. Reprinted with permission. The cutoff at \$7.73 an hour was chosen because it represents roughly half of the average hourly wage at that time.

Notes: FPL, family poverty line; GED, general education diploma; ESI, employer-sponsored insurance.

Asterisks indicate percentages that are significantly different (at the 0.05 level) from those in the non-low-wage or non-low-income categories.

a. Defined as those earning no more than \$7.73 an hour in 2003.

b. Data are percent of married workers.

the prospects of upward mobility over time for prime-age workers who have persistently earned low wages?

A recent study that I co-wrote (Andersson, Holzer, and Lane 2005) analyzes the earnings paths of prime-age workers over a nine-year period, be-

tween 1993 and 2001, using extensive new panel data from the U.S. Census Bureau on workers and their employers.⁵ Table 2 presents some data from this study, which focuses on workers who consistently had low earnings (here defined as \$12,000 or less a year, in 1998 dollars) in the first three years of this period. We asked what fraction of these work-

5. The Longitudinal Employer Household Dynamics (LEHD) data combine quarterly earnings data for all participating workers in a state, from the unemployment insurance program, with various data from Census surveys of households and employers, resulting in an enormous panel dataset on virtually all U.S. workers and their employers.

TABLE 2
Transition Rates out of Low Earnings, 1999-2001

Group	Transition rate ^a
All low earners ^b	27%
High school dropouts	17%
High school graduates or dropouts	21%
Family income below poverty line	15%
Family income below twice poverty line	23%
Wage less than \$8.00 an hour	14%

Source: Andersson, Holzer, and Lane (2005).

Notes: Sample includes all workers aged twenty-five to fifty-four in 1993 who participated in the labor force for at least one quarter each year and who earned at least \$2,000 a year between 1993 and 2001.

a. A transition out of low earnings is defined as earning at least \$15,000 for each of three years between 1999 and 2001, after having been a "low earner" as defined in note b.

b. Defined as those who earned less than \$12,000 (in 1998 dollars) in each year between 1993 and 1995.

ers ultimately escaped low earnings by consistently earning over \$15,000 a year for three years within the study period. This is a modest definition of success, although one we think is sensible.⁶

The table shows that 27 percent of all persistent low earners managed to escape low earnings during the nine-year period by this definition. However, some of these are likely to be more-educated workers or workers who previously earned a higher income (female homemakers, for example) but temporarily chose to work part-time and ultimately returned to full-time working status. When the sample is restricted to those with less education (at most a high school diploma), lower family incomes, or lower wages, the rates of upward mobility observed in Table 2 diminish, falling generally in the range of just 15 to 20 percent.⁷

These data are very consistent with other recent analyses of upward mobility among low wage-earners (Schochet and Rangarajan 2004; Connolly, Gottschalk, and Newman 2003) that show significant and lasting jumps in earnings for only small fractions of these workers. And if anything, the data suggest that the booming labor market of the late 1990s generated more such upward mobility than usually occurs.⁸

Furthermore, the data above follow low-wage workers who are fairly consistently attached to the labor market. Another category of workers is not captured in these data: those who are persistently detached from the formal labor market altogether. Prime-age workers may choose not to be active in the labor force for many reasons: for example, they may be heavily responsible for childrearing (these are mostly married women) or may have disabilities. But others may do so because they view their prospective earnings as too low. Because the earnings of less-educated men have fallen most dramatically (at least relative to others), their tendency to participate in the labor force almost universally during their prime-age years seems to weaken as well, suggesting that their labor supply behavior is responsive to changes in the available wage.

Figure 2 presents data on the labor force participation rates of less-educated young men (those aged sixteen to thirty-four with a high school diploma or less) of different races who are not enrolled in school or otherwise institutionalized (see Holzer and Offner 2006). The figure clearly shows that labor force activity among all males in this age group generally declined during the 1980s, as did their earnings (in relative and in absolute terms).

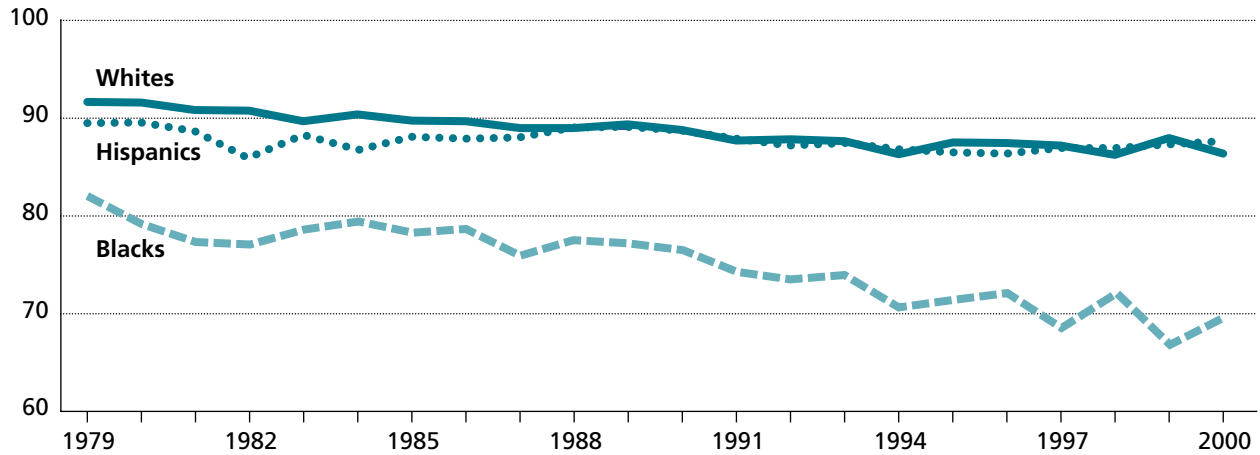
6. In 2007 dollars these admittedly arbitrary cutoffs are approximately \$15,000 and \$19,000, respectively. The first figure represents an income well below the poverty line for a family of three, and even below that for a family of four after considering the value of benefits such as the earned income tax credit. The second figure clearly exceeds those levels when benefits are considered. The sample is limited to those who participated in the labor market for at least one quarter each year and whose annual earnings exceed \$2,000 each year. Still, average earnings of those who consistently fall below the poverty cutoff were only about \$8,500 at that time; thus consistently earning more than \$15,000 represents a major gain for them.

7. Linking the LEHD microdata to data from the Current Population Survey enabled us to consider the education levels, hourly wages, and family incomes of these workers, although for much smaller samples than were used for most of the analysis.

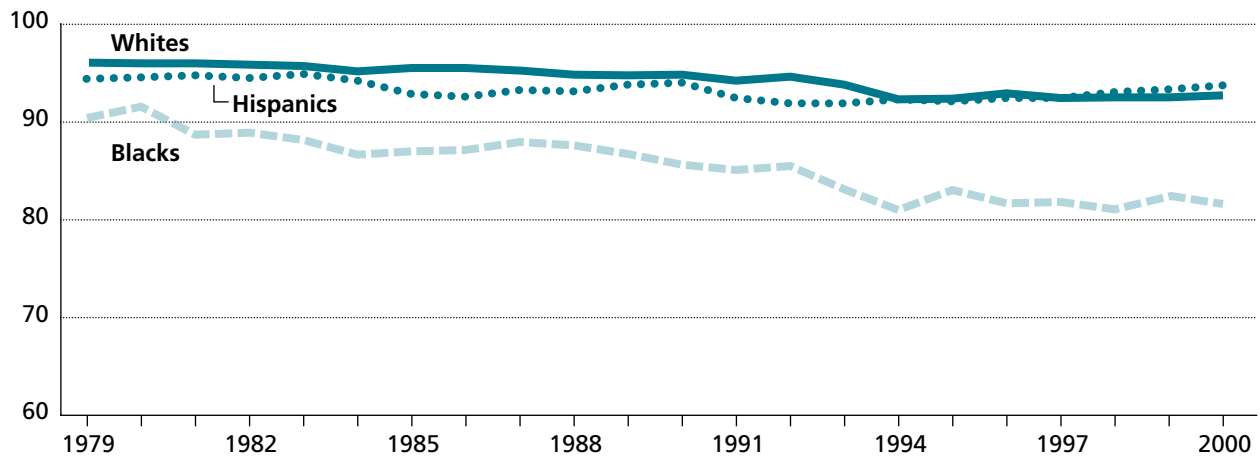
8. Connolly, Gottschalk, and Newman (2003) compare data from the Survey of Income and Program Participation for the 1980s and 1990s. They find much higher rates of low-wage worker advancement in the latter period.

FIGURE 2

Labor Force Participation Rates for Young Less-Educated Men, ages 16–24, 1979–2000



Labor Force Participation Rates for Young Less-Educated Men, ages 25–34, 1979–2000



Source: U.S. Census Bureau, CPS Outgoing Rotation Groups, 1979-2000.

Note: Samples include only those with high school education or less who are not currently enrolled in school and are not institutionalized.

For less-educated white and Hispanic men, labor force activity generally stabilized during the 1990s, and real wage growth resumed. But for young black men, labor force activity continued to decline. This trend is especially noteworthy in light of the rapid improvements in labor force activity among less-educated young black women during the late 1990s, a phenomenon associated with welfare reform and a tight labor market. If anything, Figure 2

understates the decline in work experienced by this group, as the samples on which they are based omit the rising fraction of young black men who have been incarcerated and are thus by definition out of the workforce.⁹

The decline in labor force activity among less-educated men in general during the 1980s has been attributed to their declining wages (Juhn 1992). The

9. Currently, about 12 percent of all black males between the ages of 16 and 34 are incarcerated at any point in time, and roughly twice that number are on parole or probation. Incarcerated persons are, by definition, excluded from the noninstitutional sample, and even those on parole or probation are likely undercounted by these surveys.

more dramatic and continuing decline observed among black men also likely reflects declining wages, on top of other sources of labor market disadvantage that continue to weaken their job prospects, such as discrimination, “spatial mismatch” (homes located far from jobs), and diminishing job networks. During the 1980s large fractions of black men temporarily found growing rewards in the illegal labor market, especially during the “crack” cocaine epidemic. This activity led to high rates of incarceration, which in turn appear to have long-term negative impacts on their work activity, even after release from prison. The high rate of unwed fatherhood among this population has also generated high child support orders, especially for those in arrears on their payments, which likely drive many more out of the formal workforce (Edelman, Holzer, and Offner 2006).

Perhaps most disturbingly, rates of “disconnection” from school and work continue to be high for this population and for low-income young men in general, beginning quite early in life; this ongoing tendency seems to reflect the general perception that their chances for success in the mainstream world of school and work are very poor (see Edelman, Holzer, and Offner 2006). These trends imply enormous disadvantages for the children of these men and their communities over time, and a continuing cycle of deprivation for those growing up in these circumstances.¹⁰ And although the broader question of what to do for disadvantaged youth is well beyond the scope of this study, it clearly seems that improving their prospects of earning higher wages must be central to any effort at improving their outcomes in life.

The difficulties experienced by the working poor and by those disconnected from the world of work clearly reflect changes in the labor market that have placed less skilled workers at a disadvantage. Yet from a different angle these outcomes are somewhat ironic; a fairly large number of reasonably well paying jobs remain in the labor market for non-college-educated workers. Despite the hollowing out of the middle of the wage distribution noted earlier, and despite the weakening of institutions that encourage higher wages, good-paying jobs in a variety of growing fields—such as health care, construction, and transportation—will likely remain fairly abundant.¹¹

Employers in many of these sectors continue to report difficulty attracting and retaining skilled workers, even in occupations where four-year college diplomas are not a necessity (Holzer and Lerman 2007). In health care especially, shortages of workers will persist and grow even more severe over time, as the aging of the Baby Boom cohort generates demand for labor in health and elder care that the labor market will likely have difficulty meeting.¹² Although these difficulties should induce employers to invest more of their own resources in recruiting and training workers, a variety of market failures likely limit their interest or ability to do so. For instance, liquidity constraints might keep employers from investing, and imperfect information about workers’ abilities might limit their willingness to invest. Employers may also be reluctant to invest in training workers in general skills for fear that these workers might then leave to work for another firm. Wage rigidities in the market may also prevent employers

10. See Hill, Holzer, and Chen (forthcoming) for evidence on the costs imposed on children of growing up in single-parent and low-income families.

11. Projections by the Bureau of Labor Statistics over the next decade suggest continuing strong demand for semiskilled labor in construction; health care; installation, maintenance, and repair occupations; transportation; and some parts of the services sector. These projections likely understate the growth of demand for college graduates and frequently miss the effects of major technological changes in the workplace (Freeman 2007a), but on average and across occupations they have been relatively accurate over time.

12. In theoretical economic models of the labor market, shortages of workers are unlikely to persist for very long, since rising wages tend to increase supply and limit demand until the market returns to equilibrium. But in health care these mechanisms may not work as successfully, given the many limits on third-party insurance reimbursements that might impede the ability of health providers to raise wages. Also, with the retirement of the Baby Boomers and longer life expectancies, demand for health care and especially elder care workers will likely grow substantially over the next few decades.

from reducing wages enough to compensate them for providing these skills to workers.¹³

Low-income youth and adults have difficulty getting well-paying jobs in these sectors because they lack the needed basic skills and education, occupational training, and early work experience. But their difficulties are compounded by a lack of access to higher-wage firms and sectors more broadly. Andersson, Holzer, and Lane (2005) have clearly demonstrated that workers of a given skill level face very different earnings prospects according to whether they gain employment with higher-wage or lower-wage employers, even within narrowly defined industries and locations. Furthermore, gaining employment with a higher-wage employer (who usually provides better advancement opportunities as well as higher wages and benefits) has a large impact on the odds that a lower-wage worker will escape poverty.¹⁴

As noted, the labor market problems of low-wage youth and adults (including poor skills, weak information and labor market contacts, spatial mismatch, and discrimination) all restrict their ability to obtain these higher-wage jobs; problems with health, transportation, and child care often generate employment instability when they do obtain them (Holzer and Stoll 2001). Furthermore, firms paying wage premiums are likely growing scarcer in the economy, thus making it even more difficult for less-skilled workers to gain such employment, and worsening earnings inequality overall.¹⁵

Finally, it is important to recognize the barriers that often impede the success of training programs for low-income individuals, and the limitations of the current workforce development system more broadly, in addressing these problems. The positive impacts of training on low-income workers are lim-

ited by their own poor basic skills and work experience. Limited English proficiency often impedes the ability of recent immigrants to pursue additional training. Working parents often have difficulty pursuing education or training on top of their job and family obligations.

More broadly, the workforce development system in the United States is underfunded relative to the many goals it pursues. It is also fragmented, with too few pathways linking workers to training providers, employers, and supports (Osterman 2007). Funding for the Workforce Investment Act (WIA) and its local workforce investment boards has declined dramatically over time, despite the added requirement that it provide core and intensive services as well as training to broad ranges of adults, youth, and displaced workers. “One-stop” offices, designed to improve worker access to jobs, training, and supports, have limited capacity and weak links to the private sector. Support for effective models of career and technical education (CTE) has eroded. Although Pell grants for low-income students and supports for the working poor, such as the earned income tax credit (EITC) and child care, have grown over time, funding remains limited, and important groups of workers remain ineligible. These issues are discussed further in a later section.

The broad picture is thus of a labor market where growing numbers of workers earn low wages, and where millions more disconnect from work entirely because of poor earnings prospects. At the same time, employers have difficulty filling at least some higher-wage jobs (although the number of “good jobs” for less-educated workers seems to be diminishing). Informational limitations and other market failures on both sides seem to prevent workers and

13. See Becker (1993) for more discussion of these issues.

14. Employers often choose to compete in their product markets either on the basis of higher productivity and lower turnover or on the basis of lower costs and higher turnover. These choices are often labeled the “high road” and “low road” approaches to employer competition, respectively. See Appelbaum, Bernhardt, and Murnane (2003).

15. The disappearance over time of many jobs in durable goods manufacturing and other relatively high wage sectors, along with the decline in real wages for less-skilled workers and jobs within most sectors, likely reflects a declining tendency of employers to offer higher wages to less skilled employees. For more on how changes in the composition of firms and jobs affect earnings inequality, see Brown, Haltiwanger, and Lane (2006).

firms from making the necessary matches in the labor market and from investing resources in skill development; the resulting mismatches between workers and firms cause low employment and high rates of job vacancy to persist. The current workforce development system seems unable to address these myriad problems effectively.

2. Promising Approaches to Spur Worker Advancement

To advance in the labor market, less-educated workers need to obtain at least some post-secondary training and relevant work experience, which most now lack. Their access to higher-wage employers and sectors of the economy needs to be enhanced. A range of other financial supports and incentives as well as services might also be needed to encourage their efforts. Institutional linkages between low-income workers and employers, training providers, and public supports have to be strengthened.

Across the country today, dozens of small new programs have emerged at the state and local levels to spur worker advancement in ways that try to address these problems (Holzer and Martinson 2005; Martinson and Holcomb 2007). Most of these provide education or job training for workers, leading to the granting of a certificate or associate's degree; they also provide various supports and services such as job placement assistance, child care, and transportation. This training is often carefully targeted to private-sector employment opportunities at the local level, and the programs actively seek to engage employers in the process.

In these settings a local organization, usually a nonprofit organization or government agency, acts as a labor market intermediary to bring together training providers (usually community colleges), employers, and workers. Skillful intermediaries can help improve the disadvantaged workers' access to better jobs, partly by overcoming informational and locational disadvantages and/or discrimination through job placement assistance. But to do so effectively they must have the confidence of employers and must clearly address their legitimate business needs; sector-specific knowledge of employer needs can often be helpful (Giloth 2003). Sometimes the intermediaries even seek to change

employer human resources policies (especially with small employers that lack their own human resources departments), by convincing employers that they might be able to hire and retain more skilled workers with other approaches. And by putting together a package of supports and services for workers, they can also help address some of the problems (such as lack of child care and transportation) that lead to retention problems for many low-wage workers.

Broadly speaking, most of these newer efforts to provide training to low-income workers fall into one or more of the following categories:

Sectoral training. These efforts usually target one or more sectors of the local economy that are growing rapidly and where jobs are available that require limited postsecondary education but that pay reasonably well (for instance, at or near the median wage of the economy).¹⁶ Intermediaries help training providers generate curricula that lead to an appropriate credential; they work with employers to ensure that jobs are available for those who complete the training; and they often provide financial aid during the training period and support services (such as child care and transportation) both during and after. Sectoral efforts frequently target such industries as health care, construction, skilled manufacturing, and some other technical fields where employers have had some difficulty filling available slots that require less than a bachelor's degree.

Career ladders. Usually a subset of the sectoral approaches, these programs combine education and training with sequences of jobs that gradually upgrade less-educated workers from entry-level jobs to jobs that pay substantially more. Intermediaries work with employers as well as training providers to generate training curricula and jobs that will lead to

16. Mean hourly earnings in the private sector nationwide are now just under \$17.50, while median earnings are between \$15 and \$16 an hour.

advancement, either within these firms or through mobility across firms. To ensure that workers with very limited education have the necessary basic skills and competencies, career ladders often start at the high school level or with remedial community college programs; these bridge programs prepare students for more rigorous coursework in the occupation-related classes.

Incumbent worker training. These programs fund training for less-educated, entry-level workers who are already employed, with the hope that they can be promoted to higher-paying positions at their current firm or elsewhere. The programs may or may not be limited to a particular sector or sectors. The fact that the workers have already been hired reduces the chances that firms will find them unacceptable at the end of the training. On the other hand, the funding might induce firms to provide training on the job that they might not otherwise for a variety of reasons.¹⁷

Apprenticeships. Heavily used in construction, apprenticeships provide on-the-job training at somewhat reduced wages for those who meet the entrance requirements in terms of academic preparation and early work experience.

The first three of these approaches are mostly for adults who are already consistently attached to the labor market but are earning low wages—the “working poor.” The fourth is sometimes used for adults but more frequently for youth coming out of high school or community college. As such, it also fits into a broader category of CTE that is provided for youth at the high school and community (or technical) college level.

Formerly known as “vocational education,” more recent CTE efforts attempt to upgrade the academ-

ic skills provided and more fully integrate occupational training with more rigorous academic study (Kazis 2005). Newer efforts that also involve more direct involvement of employers in the development of curricula and the provision of employment during summers or the academic year are often referred to as “school to career” (STC) models. These were extensively developed with funding from the School to Work Opportunities Act (STWOA) between 1996 and 2001.¹⁸ The goal is thus to provide young people not directly bound for four-year colleges with clearer pathways to success through other postsecondary institutions and the labor market, thus improving their earning capacity and their motivation to be seriously connected to both school and work.

Among the most promising approaches to CTE or STC, in addition to apprenticeships, are

Career academies. This “school within a school” approach at the secondary level frequently targets a sector of the economy, such as information technology, health services, or financial services, and prepares high school students for work in that sector. Students take both academic and occupational courses and get significant work experience before they graduate.

Tech-prep and career pathways. Tech-prep programs often combine the last two years of high school with the first two years of community or technical college, and combine academic and occupational training leading to an associate’s degree. The career pathways approach broadens this concept, building curricula at both the high school and the community college levels (for youth or adults) that are oriented toward work in particular sectors (Jenkins 2006).¹⁹

17. As noted earlier, firms tend to underinvest in general worker training because they fear that workers will then leave the establishment, unless the training is firm-specific. Other market failures could lead to such underinvestment as well. Empirical evidence suggests that U.S. employers tend to invest much more heavily in their highly-educated workers (Lynch 2001.)

18. For some history of STWOA and its effects, see Hughes, Bailey, and Mechur (2001).

19. These programs are part of a broader set of programs, sometimes called Secondary-Postsecondary Learning Options, that combine high school and community college into one. See Lerner and Brand (2006).

Finally, a range of new programs target adults who are not fully or consistently attached to the labor market. These programs stress work experience, case management, financial incentives, and support services as well as education and training, and they seek to improve labor market attachment and job retention as well as advancement. They also target groups usually considered hard to employ, such as ex-offenders. Among the more notable categories are

Transitional jobs. Here intermediaries try to provide subsidized employment in the private sector for a year or less to prepare individuals for the world of work. Intensive case management and other supports are usually provided, as well as job placement assistance once the transition period has been successfully completed.

Pre- and post-employment supports and services. This broader category of programs provides case management, assistance with housing and child support issues, and job placement services. Some programs stay with workers over time, even after one or more job placements. Some heavily emphasize “soft skills” and attitude adjustment, sometimes from a faith-based approach, and themes of personal responsibility more broadly. Referrals to remediation for substance abuse, depression, and other mental health problems are sometimes provided as well. Some programs also try to provide financial incentives, through wage or benefit supplements above and beyond what is provided on the job or is publicly available (through the EITC, Medicaid, food stamps, or other means).

Although many promising and well-known examples of these approaches have emerged at the state and local levels, they often operate at too small a scale to have any significant impact on local poverty rates or on aggregate employment or earnings. These programs are generally targeted either to working poor adults, in-school youth, or the hard to employ, although they might overlap with more than one of the general approaches listed above for each group, or might not fit any of them completely. Some of these programs are purely local, run by private not-for-profit organizations; in other cases state governments have tried to implement them on a somewhat broader scale. The appendix to this paper describes some of these local efforts.

A few cities and several states have developed programs on a larger scale that show some potential for reaching much larger numbers of workers. Many states view these efforts as part of their economic development strategy, particularly for those sectors where they are concerned about shortages of skilled workers inhibiting business activity and willingness to locate in their state. These are reviewed in the appendix as well.

Together these examples indicate that some potential exists for states to scale up their programs aimed at the working poor, youth, or hard-to-employ individuals. States interested in economic development and employers who have difficulty recruiting and retaining workers on their own already tend to participate in these efforts. But further expansion of the most promising state and local efforts to date will likely require more federal funding and support, along with more serious evaluation to gather evidence on which efforts are most cost-effective.

3. The Proposal: Federal Funding for State Advancement Systems

To scale up successful state initiatives, I propose the creation of the Worker Advancement Grants for Employment in States (WAGES) program. The WAGES program would develop a new federal funding stream directed at state-level employment advancement efforts for disadvantaged adults and youth. Federal funds would target those efforts with the most promising and innovative approaches to the problems low-income workers face. Broadly defined, “advancement” would mean efforts to encourage higher employment rates and earnings among the major disadvantaged groups: the working poor, who might be employed or unemployed at the time of service delivery; at-risk youth, whether in or out of school; and hard-to-employ adults, who are likely to be unemployed or out of the labor force.

WAGES would offer incentives to states to develop comprehensive efforts, or systems, to promote advancement. Initially, grants would be competitive and awarded to a limited number of states. The WAGES program would provide chosen states with matching funds for new public and private expenditure on promising efforts to train less-educated workers and provide financial supports. Matching funds would be limited to efforts benefiting disadvantaged workers or youth and to new expenditure, that is, above and beyond what states and localities are currently spending. By matching only new (marginal) funding, WAGES would prevent states from simply replacing their current expenditure with incoming federal funds. It would thus essentially create a “maintenance of effort” requirement for current state and local expenditure similar to that incorporated into the TANF and SCHIP programs.²⁰ The evidence suggests that, although bureaucratically cumbersome and subject to some

manipulation at the state level, these requirements have at least partly succeeded in preserving earlier states’ expenditure on behalf of their low-income populations (Greenberg 2002). But new public expenditure at the state and local levels, as well as expenditure by private employers or the workers themselves, could be matched. New spending requirements for matching funds would apply only to a state’s initial grant. During grant renewal, matching funds would be offered to programs that were initially new but are now maintained with a consistent level of state and local spending.

To compete for federal grants, states would be required to submit plans proposing increased expenditure on training for each of the three targeted groups. Programs for the working poor, for example, would include training directly oriented toward the private sector, such as sectoral training, incumbent worker training, and career-ladder building. Programs for youth would include high-quality career and technical education, and those for the hard-to-employ would focus on transitional jobs and other routes to more regular privately financed employment. States would also be required to develop supportive services and case management, including job placement efforts to help individuals obtain jobs and training in higher-wage firms or sectors. Such efforts generally involve workforce intermediaries using local labor market information to help identify appropriate firms and sectors for their placement and training efforts (Holzer 2004). In addition, states would propose work supports and income supplements designed to increase the returns to work for low-income earners and bolster incentives to work. These could include expansions of the state-level earned income credits, as well as expenditures for child care, trans-

20. The Temporary Assistance for Needy Families (TANF) program is the principal federal program that provides cash assistance (welfare) to families with children. The State Children’s Health Insurance Program (SCHIP) is the principal federal program for health insurance for children whose parents cannot afford private insurance.

portation, and financial aid and stipends during the training period.

As part of their plan, states would have to devise partnerships involving local worker investment boards, community colleges and high schools (or other training providers), employers and industry associations, and workforce intermediaries.²¹ Currently, economic development efforts in many states engage their WIA-funded workforce systems and target employers in key industries, such as construction and health care, that provide good-paying jobs for non-college graduates and are likely to grow over time. States could plan to expand these existing efforts and to develop new ones. States should consider using the existing one-stop offices to improve access to the various supports that would now be available for the working poor.

Through these institutional arrangements to connect workers and employers, and through training and funding for supports and services, the WAGES program would attempt to develop advancement systems at the state and local levels that not only build on individual parts of the workforce system but also create stronger networks among these parts. If successful, these systems would make it much easier for disadvantaged populations to access better jobs, skill-building institutions, and various sources of public support. Services would no longer be so fragmented, but would instead become more effective in combination than they are individually.

Of course, building such partnerships and developing the institutional capacity to operate them on a large scale is likely to take time. Thus it would make sense for any grants given to states to be long-term—say, for at least five years—with the expectation that expenditure for services might be back-loaded. The federal government could even consider making expenditure on system building exempt from state matching requirements.

The relevant public agencies at the federal and state levels, such as the U.S. Department of Labor and its state-level counterparts, would also need time to develop new capacity for grant oversight and review and for technical assistance to the relevant local actors. The best program would thus be one that ramped up slowly over a period of many years. Although most states would ultimately receive grants, only a small number of grants (perhaps five or ten) would be given out in the first few years, to preserve the incentives for states to plan carefully and to give state and federal agencies time to learn from the initial efforts. Federal oversight would ensure that program requirements are being met and that the programs proposed by the states are in fact implemented. Major deviations from their proposals, unless specifically authorized by the U.S. Department of Labor, could result in loss of authorized funds during the period of the grant. Any grants awarded would also be renewable and expandable across more local areas and industries, but any such renewals would not be automatic.

To ensure that only the best initiatives are expanded and replicated, the WAGES program would base grant renewal and expansion on state-provided performance measures such as pre- and post-training earnings and on more general data regarding advancement rates among low-income earners. Of course, it is well known that labor market performance measures for program participants in WIA and elsewhere are subject to “creaming”—restriction of the sample to only the most successful participants—and other kinds of manipulation, including who gets admitted to the program and who gets counted as completing the program.²² To adjust for the problem of selective admission, review boards should require states to provide data on advancement rates in critical populations in the state more broadly, relative to what existed before the grants were received. States receiving grants might also be required to perform high-quality program evalua-

21. For large employers and industry associations that span many states, the U.S. Department of Labor might facilitate broader arrangements and help individual states make these connections.

22. See, for example, Barnow and Smith (2004) and Heinrich (2007).

tions using nonexperimental administrative data on earnings and on individual receipt of program services or supports. The types of evaluation that would be acceptable have been fairly well formulated by researchers and can be fairly easily implemented with available administrative data.²³ The WAGES program would renew grants most quickly for those states with high rates of overall worker advancement and provide these states with large bonuses.

In addition to nonexperimental evaluations, some funds would be set aside for a limited set of more rigorous studies. For instance, the U.S. Department of Labor would commission experimental studies of various training efforts, using random assignment methods, and disseminate the results to the states along with results from the nonexperimental evaluations. Of course, random assignment methods are appropriate for evaluating specific training programs rather than broader systems with many

components. To evaluate the latter, other statistical methods will need to be developed and used.²⁴

The ultimate purpose of the grant renewal process, evaluations, and studies is to create a learning system that identifies, expands, and replicates the best worker advancement programs. Evaluations and studies by state and federal governments would provide information to states about the most successful initiatives. Through targeted grant provision and technical assistance, the WAGES program would reward those states that incorporate best practices from these initiatives, while providing states with the flexibility to make the choices most appropriate for them given their industries, demographics, and institutions and policy traditions. As discussed further in the next section, the evolution of this learning system is particularly important given the limited knowledge available today on the impact and cost-effectiveness of many innovative approaches.

23. Heckman, Lalonde, and Smith (1999) argue that if program participants and nonparticipants are matched within local labor markets, and if at least a few years of preprogram earnings history are used, serious selection biases in nonexperimental evaluations can be substantially reduced. This could be accomplished by any state, using its unemployment insurance earnings records and merging them with data on program participation. The ADARE project, funded by the U.S. Department of Labor in several states, has indicated how this can be done and that high-quality evaluations (like that of Mueser, Troske, and Gorislawsky 2005) can be generated by this process.

24. The evaluation of Jobs-Plus, a program to spur employment in public housing projects, develops some statistical methods appropriate for evaluating areawide systems (Bloom et al. 2005b).

4. Program Costs and Expected Benefits

I propose an annual federal expenditure of up to \$5 billion a year on the WAGES program. At least initially, costs should be kept to \$1 billion to \$2 billion a year, with grants averaging \$100 million to \$200 million awarded to each of approximately ten states. Later, as grants to many more states are awarded, the costs of the program would expand.

An annual cost of \$5 billion would exceed that of the current three funding streams of WIA combined, which is just over \$3 billion a year. It is, however, much less than what was spent on WIA's predecessors in the late 1970s and early 1980s; indeed, nearly \$30 billion would now be spent on WIA each year if real funding had remained at the 1979 level, and over \$50 billion if the program had maintained its size relative to that of the economy.²⁵ Given the enormous problems faced by the 20 million or so low-wage workers in low-income working families, any hope of having a real impact in the aggregate will require a significant expenditure up front.

What benefits might be expected to flow from these dollars? Estimates of impacts in the evaluation literature on employment and training programs for the working poor are very mixed, to put it mildly. Different programs offer very different treatments, and even the same program can be implemented very differently across sites, thus generating a wide range of estimates. Different statistical methods have also been used, some more trustworthy than others. Most promising programs have not yet been evaluated using random assignment methods in experimental designs, and questions often persist even where these methods have been used.

Nevertheless, some reasonably clear inferences can be drawn from this literature. First, *the returns to a year or more of community college training for less-educated youth or adults appear to be strong*. Econometric studies show a rate of return of 5 to 8 percent for a year of community college and about 15 to 27 percent for an associate's degree for the overall population in the 1990s (Kane and Rouse 1999). Most studies show little return for those earning less than one year of college credit. But more recent data for young people (Marcotte et al. 2005; Silverberg et al. 2004) show stronger (though somewhat mixed) returns: men with vocational associate's degrees earned 30 percent more, and women with academic or vocational degrees 40 to 47 percent more, than their nondegreed counterparts.²⁶ Those without degrees who earned occupational certificates at community colleges enjoyed significant increases as well. Returns for students with the weakest academic preparation were as high as for those with stronger backgrounds. Also, a recent nonexperimental study of TANF recipients showed strong earnings improvements for those who attended community college and attained associate's degrees or vocational certificates (Mathur et al. 2004). Attendance of low-income youth and adults at community colleges can also be raised by financial assistance or other services, as the Opening Doors project in Ohio demonstrates (Scrivener and Pih 2007).

Second, *the modest training investments funded over the past two decades by WIA and its predecessors (such as the Job Training Partnership Act, or JTPA) have generated modest earnings improvements, but a substantial rate of return per dollar spent*. For instance, the National JTPA Study from the early 1990s (Lalonde 1995), using experimental methods with random assign-

25. See U.S. Government Accountability Office (2003) for a listing of the many federal programs through which funding of employment and training can be obtained. Although the list is rather lengthy, the vast majority of funding comes from WIA, TANF, the Higher Education Act (HEA), and a few other sources.

26. The data in these studies are drawn from the National Educational Longitudinal Study, whose sample members were eighth graders in 1988.

ment, showed earnings increases of \$850 a year for adult women and \$700 a year for adult men (both figures in 1993 dollars), which persisted through the thirty-month follow up.²⁷ Although these gains are modest, expenditure on training was very modest as well: approximately \$1,000 and \$1,300 a year for men and women, respectively. Other studies, using fairly rigorous nonexperimental methods (such as various kinds of statistical matching techniques for participants and nonparticipants) and controlling for the most important observable characteristics of program participants, have shown similar increases for WIA participation in recent years, despite lower expenditure on training. Considerably larger earnings improvements (\$2,000 a year and above) were found under JTPA in Massachusetts later in the 1990s.²⁸

Third, *although returns to education and training for TANF recipients in most mandatory programs have been very limited, the best programs and those offering training most relevant to the labor market show stronger returns.* The National Evaluation of Welfare to Work Strategies (NEWWS), using an experimental design with random assignment at twelve sites, found insignificant improvements for those receiving education and training at most sites (Hamilton et al. 2001). But at the Portland, Oregon, site earnings improvements were much more substantial: on the order of 35 percent, or over \$2,000 a year. The Portland program combined strong pressure to find work with selective access to training at community colleges, and service providers there encouraged participants to apply for higher-wage jobs during the search process.²⁹ Also, a nonexperimental evaluation of vocational training at three NEWWS sites (as opposed to the more general

basic education in the classroom that most sites offered) showed more positive earnings improvements (Bos et al. 2001).

Fourth, *sectoral training programs have shown positive results in a few experimental studies and very promising outcomes in various nonexperimental studies.* The only sectoral program to date for which results of experimental evaluation are available is the Center for Employment and Training (CET). The original site in San Jose, California, showed strong returns in the early 1990s, with earnings increases among participants of nearly \$1,700 a year (well over \$2,000 in current dollars) for four years (Melendez 1996). In contrast, a study of an effort to replicate this model across the country found insignificant earnings improvements (Miller et al. 2005), but these results are clouded by the fact that the control group received an unusually large amount of community college training and enjoyed strong earnings growth.³⁰

Other random assignment studies of sectoral programs are currently under way, and results are pending. In the meantime various simple before-and-after comparisons of wages and earnings for participants in a variety of such programs have shown impressive outcomes, even though the studies were not very rigorous. For instance, Osterman and Lautsch (1996) show earnings increases of over \$5,000 per participant in Project QUEST, a program in San Antonio that provides training in specific sectors of the economy to adults with high school diplomas or GEDs. They argue that these results cannot be completely driven by participant self-selection. Two other studies of sectoral programs at various sites—Public/Private Ventures' Sectoral Employment Initiative and the As-

27. On the other hand, JTPA programs for youth showed no significant positive effects. Also, the positive impacts for adults diminished somewhat over time in a five-year follow-up study and ultimately became insignificant (U.S. Government Accountability Office 2005).

28. See Mueser, Troske, and Gorislavsky (2005) for an evaluation of JTPA impacts and Raphael, Stoll, and Melendez (2003) on JTPA in Massachusetts. Both studies use a variety of techniques to match workers on observable characteristics, including work history. Heckman, Lalonde, and Smith (1999) indicate that selection bias in the studies of training impacts is much less severe when individuals are matched on the basis of local labor markets and extensive employment histories. For evidence of the decline in expenditure on training under WIA, see Frank and Minoff (2005).

29. These results are fully consistent with those of Andersson, Holzer, and Lane (2005) cited above, indicating that workers of a given skill level can obtain lower- or higher-paying jobs, depending on their access to different employers and on their job search skills.

30. This might have occurred because the "high-fidelity" CET sites (those that implemented the original CET model most faithfully) were all located in California, where access to community college and other training opportunities is unusually high.

pen Institute's Sectoral Employment Development Learning Project (SEDLP)—showed average wage increases of about 30 percent and annual earnings increases of \$8,000 to \$10,000 over a two-year period (reflecting large increases in annual hours worked as well as in wages).³¹ No doubt these estimates are much too high to be considered real impacts: they are based on studies without comparison groups, with no controls for self-selection and with program participants who might well have raised their hours worked (and even their wages) on their own without program participation.³² Still, the gains are impressive and appear quite consistently across programs.

Fifth, *studies of incumbent worker training programs show improvements in employee earnings as well as in workplace productivity.* A nonexperimental study of impacts on worker earnings of the California Employment Training Panel (Moore et al. 2003) found that earnings growth among participants exceeded that among nonparticipants by as much as 20 percent in some years, although by as little as 3 to 5 percent in others. Also, a study of manufacturing firms in Michigan that compared those receiving training grants with those who applied but did not receive them (with decisions made purely on a first-come, first-serve basis among eligible firms) showed significant declines in scrap rates and in other measures of worker output (Holzer et al. 1993); given the relatively random method by which grants were distributed, the study comes close to using an experimental design.

Sixth, *studies of high-quality CTE for in-school youth show impressive results.* A random assignment study of career academies found that they improved earnings by about 10 percent overall and by as much as 18 percent among at-risk young males. These earnings gains persisted for as long as four years after high school. Participants were no less likely to at-

tain postsecondary education than nonparticipants, indicating that fears about “tracking” in high-quality CTE efforts are invalid. Also, a rigorous econometric study of tech-prep by Cellini (2006) shows positive impacts on high school completion and community college attendance, confirming that the strongest CTE programs can combat the discouragement and disconnection from school and work experienced by so many low-income youth (especially young men). Fairly rigorous econometric evidence by Neumark and Rothstein (2006) also indicates that education and earnings gains are associated with a range of school-to-career efforts for secondary students.

Seventh, *rigorous studies of job creation efforts for the hard-to-employ show some positive impacts.* The “supported work” programs of the 1970s had strong positive effects on welfare recipients but not on adult ex-offenders in random assignment evaluations. However, more recent reconsideration of the data shows positive effects on older ex-offenders (those aged twenty-seven and above), who have more clearly “aged out” of crime.³³ The “transitional jobs” program at the Center for Employment Opportunities in New York City has also been evaluated experimentally. Early results show improvements in employment and earnings during the program (as expected) and much less improvement afterward, but there are large declines in recidivism for program entrants who join within three months of prison release (Bloom 2007).

Eighth, *earnings supplements and supports for the working poor clearly improve their labor force activity and annual earnings, although they do not necessarily raise wages.* Econometric studies of the EITC (Grogger 2003) clearly show strong effects on the labor force activity of current and former TANF recipients in the era of welfare reform. Experimental evaluations of Canada's Self-Sufficiency Project and the Min-

31. For a summary of these results see Conway, Dworak-Munoz, and Blair (2004). Among the programs reviewed in SEDLP was the Cooperative Home Care Associates program, described in the appendix.

32. Studies without control groups are particularly plagued by what economists call the “Ashenfelter dip,” in which many program participants are experiencing a temporary decline in their earnings that often self-corrects without any intervention.

33. See Lalonde (1995) for the strong positive results for women and Uggen (2000) for the evidence on stronger effects for slightly older men.

nesota Family Independence Program also show strong impacts on work activity, especially when the earnings subsidies are tied to full employment and when they persist over time (Berlin and Michalopoulos 2001). Child care subsidies clearly raise hours worked among low-income single mothers as well (Blau and Currie 2004). And the earnings subsidies and job guarantees in the New Hope program (described in the appendix) generated positive effects on earnings of low-income young men, especially those who were out of the workforce before the program began (Duncan, Huston, and Weisner 2007).

Ninth, and finally, *programs that combine appropriate services, supports, and financial incentives (even without training) can generate positive impacts on the earnings of the poor.* For instance, the rent subsidies, job placement assistance, and social supports for work provided in Jobs-Plus (also described in the appendix) clearly raised earnings in an experimental evaluation (Bloom et al. 2005b). A variety of modest financial incentives and services covered in the experimental evaluation of the Employment Retention and Advancement (ERA) program sites have thus far generated fairly limited results, but again some sites have had stronger results to date than others.³⁴

It seems fair to say that much remains uncertain about the exact cost-effectiveness of different advancement efforts for low-income adults and youth. Yet job training for the working poor, provided at community colleges and clearly linked to demand-side needs, seems cost-effective in rigorous studies and very promising in nonrigorous ones; high-quality

CTE for youth and incumbent worker training also appears effective; transitional jobs and supports for the hard-to-employ show promise; and the right kinds of financial supports and services can be quite effective as well.

Can the above estimates of program effects be used to roughly estimate the potential positive impacts of the kind of \$5 billion annual expenditure that I am proposing? Suppose that the program operates for ten years, in which case the federal component matched to state and local and private expenditure generates \$100 billion in total new expenditure.³⁵ Suppose further that 60 percent of that total is spent on training and income supplements to participants in training, and the rest on financial supports and services such as job placement.³⁶ In the case of training, the average cost per participant is \$6,000, equal to the average cost of a full year of community college and roughly the amount that many sectoral programs spend per participant. This amount is considerably more than has been typically spent under JTPA, WIA, or incumbent worker training. In addition to direct training costs, the WAGES program could offer an additional \$4,000 per student on income stipends to supplement Pell grants for low-income adults with children. Under these assumptions, a total of 5 million to 7 million students could receive training.

I assume that the initial average increase in earnings for training participants would be \$2,000. This number is consistent with the estimates of impacts from JTPA in Massachusetts, CET in San Jose, and NEWWS in Portland, in both random assignment and rigorous econometric studies. Assuming that

34. For example, the Illinois sites provided job search assistance and higher-wage placement to TANF recipients seeking full-time employment, which generated significant earnings gains early in the project (Bloom et al. 2005a). The three sites in Texas provided modest financial incentives—no more than \$200 in monthly stipends for up to twelve months—that generated some employment gains in Corpus Christi but not elsewhere. Service provision in South Carolina and Minnesota sites have generated few employment impacts to date, but post-employment services in Riverside, California, have increased average earnings by nearly \$1,800 over a two-year period (Navarro, van Dok, and Hendra 2007). Many ERA sites have reported difficulty achieving high participation rates for their services among the working poor.

35. Although annual federal expenditure would be less than \$5 billion in the initial years of the program, for simplicity I assume here \$5 billion each year.

36. This proposed split between training and support services would generate training for roughly one-fourth of all working poor adults in the United States over a ten-year period, which is a reasonably ambitious goal. Since the evidence on the cost-effectiveness of some supports, like the EITC, is fairly strong, spending a significant fraction of resources on these is sensible as well.

the average age of a trainee would be thirty years and that the impact of training decays consistently over a working lifespan of thirty years (U.S. Government Accountability Office 2005), I estimate that the training would generate an average impact of \$1,000 a year in increased earnings over time. Assuming a discount rate of 3 percent a year, the present value of that amount over a lifetime is approximately \$20,000 per participant. With 7 million participants, the WAGES program would thus produce about \$140 billion in increased annual income.

The remaining 40 percent of program funds would be spent on financial and other ongoing supports, such as expansion of state earned income credits, child care, job placement services, and post-employment services. Spending \$4,000 per participant a year would allow financial supports and services to reach 1 million working poor.³⁷ I assume that spending \$4,000 per participant annually would generate an increase in annual income of \$2,000, which amounts to an increase of \$20,000 per participant over the decade. Then the total benefit for all participants over the decade is about \$20 billion.³⁸

Thus the proposed \$50 billion federal investment, plus the additional \$50 billion invested by states and localities and the private sector, would generate roughly \$160 billion in additional earnings, at present value. Training would be provided to roughly one-fourth of all low-wage, low-income workers,

and others would receive ongoing services and supports.³⁹ A labor market that employs roughly 150 million workers at any given time should be able to absorb these newly productive workers without generating excessive competition for jobs or downward pressure on the wages and employment of those already working in the same areas or sectors. The scale of effort proposed should thus be achievable without a loss of service quality for the low-wage workers receiving the services and without major adverse consequences for others in the labor market.

States would gain more tax revenue under such a program, and they might face lower costs associated with incarceration and Medicaid payments for poor health.⁴⁰ Employers should gain somewhat from lower turnover costs, lower vacancy rates during tight labor markets, and higher productivity as well.⁴¹ These benefits to states and employers are not captured by the estimate of higher earnings above, which should accrue strictly to the workers themselves.

Of course, this exercise should be viewed as suggestive at best, as the impact estimates on which it is based are highly uncertain. No doubt, a good deal more needs to be learned about these impacts. But even if the overall estimate of benefits is off the mark by an order of magnitude, the program would still generate a high enough social rate of return to make it a worthwhile investment.

37. On the assumption that roughly one-third of those who enroll will drop out before completing the program, and that they will do so on average after completing exactly half of the program, dropouts would consume one-sixth of these resources and generate little or no effects. But this also implies that an additional 1 million workers could be enrolled with the resources freed up. Since most studies of impacts include program dropouts in their calculations (that is, they measure the effects of “intent to treat” rather than the actual effects of receiving the treatment), it is reasonable to include dropouts in estimates of the numbers of workers affected.

38. For example, Grogger (2003) shows that a \$1,000 increase in the maximum EITC benefit generates a \$600 increase in annual earnings. Impacts of child care provision on earnings are highly varied, but at least some estimates show effects comparable in magnitude to that of the EITC. The returns to a dollar spent on job search assistance or job placement are also usually very high.

39. This assumes that the 20 million or so low-wage and low-income workers in the population at any point in time would translate into 25 million or so over a decade, given entry and exits from their ranks.

40. For states with a 5 percent income tax, the extra income would generate an additional \$8 billion in tax revenue alone, thus offsetting a significant portion of the state’s investment.

41. Employers might be able to save some money by having at least some of their current training expenditure subsidized, or even by reducing wages if the labor supply of low-income workers expands. But given the low current expenditure by employers on training for this group, and little evidence to date on wage reduction associated with the EITC, I expect these effects to be very modest.

5. Potential Objections and Responses

A number of objections might be raised to the proposal as outlined.

Does this proposal duplicate activities that could be, or are now, undertaken with funding from WIA or elsewhere?

Although there might be some overlap, the new effort would mostly complement, not duplicate, current WIA-funded efforts. It would also free up some funds within WIA for other activities not covered now by this proposal.

It is important to remember that funding for WIA (relative to its predecessor programs, such as JTPA) has declined dramatically—by nearly 90 percent in real terms—since the late 1970s. Title I of WIA currently provides just over \$3 billion in formula funding for adults, youth, and displaced workers (in addition to funding for the Job Corps and some other smaller programs). By most accounts, current funds are stretched very thin (Frank and Minoff 2005); they fund the operation of local one-stop centers and are mostly spent on the core and intensive services now mandated by WIA. Over half of those served currently by WIA adult services are not low-income workers (U.S. Department of Labor 2007), and the displaced workers are even less likely to be low-income.

Thus most current expenditure under WIA overlaps relatively little with the programs proposed here, and it falls far short of building the kind of advancement system envisioned here. But expenditure on one-stop offices and other efforts of local workforce investment boards might actually be viewed as complementary with the advancement efforts outlined above, since these would be part of the institutional system that this proposal would build. Furthermore, maintaining some formula funding within WIA for training gives the local and state boards flexibility to fund certain services

that might not fit as well under the effort proposed here. And given the relatively positive evaluation results to date on both JTPA and WIA (described above), *funding for Title I of WIA should not be further squeezed to pay for this advancement proposal.*

Of course, several other sources of funding for workforce development have grown over time and now dwarf WIA in magnitude (U.S. General Accounting Office 2003). For instance, Pell grants now fund much of the training of low-income youth and adults at community colleges. But as noted above, they have failed to keep pace with tuition increases, and eligibility is limited for a variety of groups, such as those going to school part-time and those with criminal records. And Pell grants cannot fund support services for low-income students or innovative efforts to build linkages between community colleges and employers.

As for other federal sources of funds for workforce development, some funds are generated through the TANF block grant. But these funds have many competing uses, and it appears that relatively little is spent right now on worker training (Rubenstein and Mayo 2006). The Perkins Act now provides just over \$1 billion a year to states for CTE. But these funds cover a very small percentage of actual CTE expenditure in the United States. They currently do little to encourage innovation and private sector involvement, as did the funding from STWOA in the 1990s, which has expired.

In the past few years the U.S. Department of Labor has spent several hundred million dollars supporting initiatives that overlap somewhat with what has been described here. These efforts include its High Growth Job Training Initiative (targeted at fourteen economic sectors nationwide), its Community-Based Job Training Grants, and its Workforce Innovations for Regional Economic Development (WIRED) program. But to date there is little evi-

dence on the cost-effectiveness of these efforts, and little sign of accountability in how these funds have been administered (Lordeman and Levine 2007). The goal of the present proposal is to substantially build on these efforts and to make them more accountable and more demonstrably cost-effective.

Finally, current state expenditure on incumbent worker training and other workforce development efforts remains quite modest. State expenditure on the first category appears to total less than \$300 million (Osterman 2007), mostly concentrated in California and a few other states. As shown above, most other state workforce development expenditures are also quite small and reach very few workers with needs in these areas.

Is there enough evidence of the cost-effectiveness of similar programs now to merit this expansion of federal funding?

As indicated earlier, a reasonably strong body of research evidence now exists to support a moderate expansion of funding in this area. Of course, evidence on the cost-effectiveness of programs remains quite mixed, and many of the programs that target particular sectors and employers have not yet been rigorously evaluated.

Still, many approaches do appear to work, and researchers have some sense of what characterizes the most effective programs. For instance, training that provides a community college credential and that fits local labor demand, while providing the appropriate incentives and supports to low-wage workers, appears to characterize the most successful efforts. The general effectiveness of high-quality CTE for youth is becoming clearer over time as well.

A few other points are worth emphasizing here. First, the costs of undertaking these efforts, and the lingering questions about their likely cost-ef-

fectiveness, must be balanced against *the clear costs of doing nothing* about a large and very serious problem that today affects many millions of U.S. workers and their families. Indeed, the costs borne today by American society as a result of children growing up in low-income families, with parents who either have poor earnings or are disconnected from work, are simply enormous. The costs suggested here of investing in enhanced worker employment and productivity appear very modest indeed relative to the benefits that can reasonably be expected.⁴² And it is important to continue to enhance our knowledge of what works best as these investments proceed, and to adjust expenditure on the basis of this information.

Furthermore, the competitive nature of the granting process described here would allow initial and especially continuing funding to be contingent on the prospects and achievement of good performance over time. Expansion of the program and greater funding over time for any state would be contingent on developing stronger evidence from evaluations that are currently under way, and from the outcomes of state-level programs on exactly what is cost-effective. Efforts to provide technical assistance and disseminate what appear to be best practices at the state and local level should be part and parcel of any such undertaking.

Would the program provide adequate incentives for states to redirect funding toward more efficient uses over time, particularly when the competitive process ends and federal funds are instead distributed across states by formula?

Given the gradual nature of the process by which grants would be distributed across states, and by which local efforts would be brought to scale, it makes sense to maintain a competitive process for federal grant distribution for at least a few funding

42. Holzer and coauthors (2007) calculate that \$500 billion worth of output each year is either lost or wasted because of the lower productivity, poorer health, and higher crime rates of people who grew up in poverty. These estimates do not include the additional fiscal costs of several hundred billion dollars each year in means-tested transfer payments, which would decline as well if poverty were reduced.

cycles (each of which would last three to five years per state grant), if not longer. This would maximize federal leverage over the states to develop cost-effective approaches that incorporate the latest information from evaluations on exactly what works and for whom. During that time, what is mandated by the federal government in terms of program coverage should itself evolve. Eventually, when it appears that most or all states have effective programs up and running at significant scale, the transition to formula funding might occur. But even then some significant performance incentives (through bonuses for high performance based on wider populations of the disadvantaged) should be maintained.

6. Concluding Comments

The proposal that I have outlined would create the Worker Advancement Grants for Employment in States, a new federal funding stream for innovative and promising efforts at the state and local levels to improve the workplace advancement of low-wage workers. The WAGES program would distribute funds in a competitive manner, match new state and local public expenditure and private expenditure, require serious evidence of progress for funding renewal, and reward impressive performance with major bonuses. It would also generate new evidence on exactly what works and what does not, and it would encourage the states to incorporate what works. The program would thus encourage states to implement effective programs and bring them to scale.

The proposal outlined here should thus be effective in improving both earnings and labor force participation among low-income youth and adult workers. The modest federal expenditure envisioned, in combination with state and local expenditure and private expenditure by employers, could have a real impact on the advancement prospects of low-wage workers. It should also discourage many low-income and minority youth from disconnecting from school and work, by generating more pathways to successful careers for them. And those who have become hard to employ, because of either personal disability or previous incarceration, might benefit through more regular labor market attachment, as would their families and communities.

In addition to the benefits provided to low-income workers and those disconnected from the world of work, benefits would flow to several other entities and constituencies, who would likely be very supportive of this effort. For instance, state and local governments would almost certainly benefit and likely would be broadly supportive. Indeed, since many states now see workforce development as part and parcel of their economic development strate-

gies, and since this proposal is designed to give states the flexibility they need to generate workers in growing fields where qualified workers are sometimes hard to find, states are likely to find the proposal very much in line with their current hopes and plans.

For similar reasons one can expect the business community to be supportive of these efforts. Businesses in many key sectors frequently express concern about their ability to attract and retain highly qualified workers; they seem particularly worried about how they will adapt to the retirement of their current Baby Boomer workers (Holzer and Nightingale 2007). Some will, no doubt, choose other methods of responding (such as hiring low-wage immigrants or offshoring their more skilled jobs), but these options will be less available in industries where significant noncollege skills are required and where labor must remain locally based (in health care, construction, and the like). And the efforts described here will be much less plagued by the frequent doubts that employers harbor about the effectiveness of the public workforce system (Holzer 2007), because they target the private sector and directly involve employers to a much greater extent than has typically been the case in publicly funded workforce development efforts. By providing further funding and support for their own efforts to hire and retain qualified workers, the proposed program should please employers in key industries, who will then likely support it politically.

The WAGES program could be even more effective if combined with complementary policy extensions. Expanded Pell grant funding, especially for low-income adults, and expanded funding for support services would raise education and training enrollment among low-income adults, perhaps more than among youth (Turner 2007). Efforts to make Pell grants simpler and more transparent (Dynarski and Scott-Clayton 2007) would also be

very valuable. Other strategies include fully funding Pell grants every year for eligible recipients, removing restrictions on part-time enrollees and expanding eligibility to groups currently barred (such as people with criminal records), and providing direct funds for support services at colleges.⁴³

Another set of important policies that would complement the WAGES program is a range of public efforts to encourage the creation of more high-wage jobs for less educated workers in the private sector. Although the WAGES program targets the supply side of income inequality, the problem of low-wage employment is also a result of demand-side issues, especially a decline in the number of relatively high paying jobs in firms and sectors, such as durable goods manufacturing, that used to employ less-educated workers, especially men, in greater numbers. The recent widening of wage inequality at least partly reflects the weakening of institutions—such as minimum wages and collective bargaining ar-

rangements—that traditionally protected low-wage workers from the full brunt of market forces. Most evidence suggests that these protections were provided without great cost to the economy, in terms of lost employment or efficiency (Freeman 2007a; Card and Krueger 1995).⁴⁴ Policies to reinstate these protections include increasing the federal minimum wage, making union organization easier, and exploring alternative worker institutions and other high-wage local development strategies such as the “Community-Building Agreements” in Los Angeles.⁴⁵

The WAGES program outlined in this paper should find political support among states, local communities, and businesses. In addition to this program, which targets and funds improvements in worker advancement, other policies may be useful to help low-wage workers provide for their families in a society in which low-wage jobs will always exist.

43. For more complete discussion of these and other options, see Duke and Strawn (2007).

44. In contrast to Card and Krueger, Neumark and Wascher (2006) review the empirical literature on the employment effects of minimum wage increases and find more evidence of negative effects. But even the estimates they cite are quite small, on average.

45. See Freeman, Hersch, and Mishel (2006) for a discussion of what is currently known about alternative institutions for workers.

Appendix: Promising Examples of Workplace Advancement Approaches at the Local and State Levels

Among the best-known and most promising local sectoral and career ladder efforts that target the working poor are the following:*

Project QUEST. Based in San Antonio (and recently replicated elsewhere in Texas), Quest targets adults with high school diplomas or GEDs and provides training for jobs in targeted sectors such as health care and aviation technology. Participating employers are required to pay workers at least \$13 an hour after training. Over 200 workers participate each year.

Cooperative Home Care Associates (CHCA). Developed by the Paraprofessional Health Care Institute in the Bronx, New York, CHCA is a worker-owned cooperative that provides training as well as employment for nursing and home health aides. Internal career ladders have been developed to provide advancement opportunities. Over 900 workers are members of the cooperative, and over 200 join annually and receive training.

AFSCME 1199c Training and Upgrading Fund. Funded through the contribution of 1.5 percent of gross payroll by participating hospitals, nursing homes, and other providers in Philadelphia, this program creates career ladders and training for certified nursing assistants (CNAs) and licensed practical nurses (LPNs). Over 100 aides in the program have become LPNs to date, and many more have become CNAs.

WIRE-net. Based in Cleveland and designed to provide training for machinists and other skilled manufacturing positions for small companies, this small program has trained over 200 workers to date and placed most in high-paying machinist jobs.

Portland Community College Career Pathways. Portland Community College in Oregon has developed thirteen career pathways that begin with adult basic education and ultimately lead to certificates and degrees in a variety of fields, all with employer participation. It now trains roughly 250 people a year.

Denver Community College Essential Skills. Enrolling about 250 students a year, this program trains workers for jobs in information technology, financial services, accounting, early childhood education, and community health. Internships with employers and a range of support services are provided.

Some newer efforts also try to make it easier for the working poor to access publicly available benefits and thus more fully supplement the relatively low wages and benefits they receive on the job. For instance, Work Advancement and Support Centers are part of a demonstration project housed at several one-stop offices around the country, where staff help workers access local training as well as financial supports. Another program, EarnBenefits, is operated by a private intermediary (SEEDCO) in New York. It helps workers access publicly available benefits and financial supports. Over 3,000 workers have received benefits through this program in local one-stop offices.

Career academies and tech-prep programs for youth are relatively widespread, although the latter model is undergoing some changes to better link curricula in these programs to growing skill demands in a variety of industries (Jenkins 2006). The apprenticeship model is also widespread in the private sector, but disadvantaged youth and adults often lack access because of poor basic skills and

*See Osterman (2007) and Martinson and Holcomb (2007) for more details.

lack of acquaintance with contractors in construction and other employers who provide apprentice training. Some programs that attempt to improve the access of low-income youth and adults to construction apprenticeships include

Project CRAFT. This program serves about 400 youth each year in fifteen sites around the country. It is run by the Home Builders Institute, the workforce development arm of the National Association of Home Builders. It combines classroom training to teach basic skills (according to the industry's pre-apprenticeship certificate training standards) with work on community service construction projects.

Construction Gateway Program. Run by Austin Community College in Texas and the local construction industry, this six-week program targets underemployed and previously incarcerated adults. Participants earn a certification and some credits towards an associate's degree. Placement rates in employment after completing the program are as high as 85 percent (Workforce Strategy Center 2002).

Finally, some well-known local programs that provide financial incentives, case management, and/or transitional jobs for the hard-to-employ include the following:

Center for Employment Opportunities (CEO). Located in New York City, CEO focuses on ex-offenders leaving Rikers' Island. It provides a transitional job to every participant, as well as job placement assistance and a range of other support services. Over 2,000 ex-offenders are served each year.

New Hope. Begun as a demonstration project based in Milwaukee, New Hope has served several hundred low-income young men and women. It supplements the low earnings and benefits in private sector jobs with health insurance and other benefits, while providing transitional jobs for those who have difficulty finding employment on their own.

STRIVE. Begun in New York City's East Harlem before spreading to Chicago and a variety of other sites, this program provides job readiness and attitudinal training, job placement, and post-employment follow-up for hard-to-employ workers, including large numbers of ex-offenders. STRIVE now places over 3,000 workers into jobs each year.

Project Match. Based in Chicago, Project Match has enrolled over 1,700 workers over twenty years. It provides participants with a variety of job placements over time, seeking to improve retention on the job and mobility across jobs over a period of many years.

Jobs-Plus. A demonstration program operated in a series of public housing projects around the country, Jobs-Plus combines financial assistance (through reductions in rent), job placement services, and social supports for work.

A few cities and several states have developed programs on a larger scale that show some potential for benefiting much larger numbers of workers. Some of the most promising of these efforts include:

Kentucky Career Pathways. Operating at all sixteen community and technical colleges in the state, this initiative generates partnerships with businesses and has developed "pathways" to employment in health care, manufacturing, construction, and transportation. It mostly targets incumbent workers for training and upgrading within their companies. Currently over 1,100 workers are participating.

Kentucky Ready to Work. This program provides case management, training, and work study experience at community colleges to TANF recipients. In fiscal 2005 over 2,500 TANF recipients were served.

Arkansas Career Pathways. Instituted at 11 of the state's 22 community colleges, this program has created pathways to employment in a variety of sectors and has served about 2,000 workers during its brief existence.

Massachusetts Extended Care Career Ladder Initiative. Partnerships under this program involve fifteen community colleges around the state and over 150 nursing homes (about 20 percent of the total). Over 7,500 workers have participated to date. Most are CNAs seeking to upgrade their skills and perhaps become LPNs.

Wisconsin Regional Training Partnership. This partnership among unions, employers, and community colleges works closely with local workforce investment boards. Nearly 100 employers with about 60,000 workers participate. Targeted industries include manufacturing, health care, construction, and hospitality.

New Jersey Workforce Development Program. Operated by the New Jersey Department of Labor and all 19 community colleges in the state, this program funds incumbent worker training through grants to employers. It also includes the Supplemental Workforce Fund for Basic Skills, which finances basic education related to work. In fiscal 2006 the latter program alone funded schooling for over 14,000 individuals. The programs are financed by unemployment insurance taxes on both employers and workers.

Pennsylvania Incumbent Worker Training Fund. Over 800 employers from around the state in key target industries participate in this program, along with 28 community colleges. Over 4,400 workers have been trained in the two years since the program's inception.

California Employment and Training Panel. In fiscal 2005-06, the state administered contracts to over 500 firms and provided training to roughly 165,000 employees.

Georgia HOPE Grants. These grants provide financial assistance to Georgia residents attending

any of the 33 technical and community colleges in the state. About 112,000 individuals received these grants in 2005. They cover full tuition, books, and fees, and even students attending less than half-time are eligible.

Virginia Path to Industry Certification. This is a new statewide CTE program that provides high school students with sectoral training during the summer and after graduation at a local community college. The state has also established teacher-training academies, in which over 1,000 teachers have participated to gain industry certification. The sectoral training program is complemented by a new effort, Project Graduation, which provides tutorial services and mentoring to students who have difficulty passing the high school exit examination in Virginia (Warner 2005).

Instituto del Progreso Latino. With strong support from Chicago's workforce board, this institute operates health care and manufacturing programs at several sites around the city that are targeted toward Latino immigrants. Nearly 900 workers have been served in its few years of operation.

Philadelphia@Work. Run by the Transitional Work Corporation in conjunction with the City of Philadelphia, this program provides transitional jobs each year to approximately 2,500 current or former TANF recipients who have poor employment records and/or disabilities and other work barriers.

Wellness Comprehensive Assessment, Rehabilitation and Employment (WeCARE). The Human Resources Administration of New York City partners with local providers to serve TANF recipients who face barriers to employment. Over 68,000 individuals have been referred for assessments, and 36,000 have been referred for services since 1999.

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