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Vocational Training

Robert LaLonde and Daniel Sullivan

12.1 Introduction

It is well-documented that public investments in secondary and postsecondary schooling greatly benefit both the youths who receive the investments and the societies in which they live. Indeed, rates of return from investments in both academic and vocational schooling have been found to be on par with, if not larger than, the returns on physical capital.¹ In the United States, where the returns to education are among the highest in the developed world, researchers and policymakers have sought to understand why youths do not invest more in schooling, given that such investments have clear benefits and that labor market opportunities for the unskilled have steadily deteriorated for more than a quarter of a century.²

Although overall educational attainment in the United States remains relatively high, even compared with other Organization for Economic Cooperation and Development (OECD) countries, for those in the bottom one-third of the distribution, especially young males, the picture is quite different. The economic position of high school dropout youths, a group long targeted by government workforce development initiatives, has

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1. See Heckman, Lochner, and Todd (2006). They report that the real internal social rate of return from investments in public schooling have been about 7 percent; private internal rates of return are higher. Returns to human capital investment also may be less variable, as recent events in the financial markets highlight.

2. See French, Mazumder, and Taber (2006).

deteriorated precipitously since the 1960s. At the same time as the demand for such workers' skills has fallen, this group's skills have remained stagnant. Recent studies document that for the last forty years, roughly 30 percent of male birth cohorts do not graduate from high school.³ By comparison, in the world's second largest economy, Japan, high school dropout rates remain in the 1 to 2 percent range. There is, moreover, mounting evidence that many low-skilled U.S. workers not only lack the preparation necessary for the jobs of the twenty-first century economy, but also the skills necessary to take advantage of the many subsidized post-high school training opportunities that currently exist for them.

To address this group's failure to thrive in mainstream educational and vocational tracks, the federal government (starting in the mid-1960s) has established a variety of employment and vocational training initiatives. Current programs and strategies include vocational training opportunities with private employers, programs that focus on basic education and general life skills, employment and job readiness training, subsidized work experience, school-to-work transition programs, and more expensive comprehensive strategies that attempt to combine several strategies.

The purpose of this chapter is to assess the success of these public sector-sponsored vocational and training programs in augmenting the skills of youths and young adults and, subsequently, reducing adult poverty. We proceed in two steps. First, we survey the range of existing programs and initiatives and review what the evaluations of these programs tell us about the likelihood that youth or young adult participants will be poor when they reach adulthood.⁴ We do not summarize the evidence from all evaluations or treat the evidence from those that we do summarize equally. Clearly some evaluations are better than others. Our survey places more weight on those evaluations we believe to be methodologically stronger. Second, we link the results of the evaluation literature on the impacts and outcomes associated with these youth programs and initiatives to adult poverty. The key question here is whether these programs—some of which could be cost effective from society's perspective—raise the earnings of participants by enough to significantly reduce their risk of poverty in adulthood.

We conclude, as have others before us, that most employment and training programs targeting economically disadvantaged youths have failed to raise the skills of their participants by enough to meaningfully improve their well-being as adults. There are several reasons for this outcome. First, the resources invested in this group have been trivial compared to the size of the challenge that these disadvantaged youths face in order to escape poverty as adults. Several studies document that, on a per capita basis, public

3. Heckman, Lochner, and Todd (2006).

4. There have been many surveys during the last twenty years of evaluations of government-sponsored training for youths. These include Barnow (1987); Foster (1995); LaLonde (1995); Friedlander, Greenberg, and Robins (1997); Lerman (2000); and Lerman (2005).

investments in the skills of high school dropouts between the ages of sixteen and twenty-four are less than one-tenth of those made in the skills of their college-bound peers.⁵ Second, even though these public expenditures in training are concentrated on the relatively few youths who participate in these programs, the investment per participant is still usually too small to make a detectable difference in their economic outcomes. This result follows from a well-known result from the human capital literature that can be summarized as “big earnings gains require big investments.” Third, we find that, when they are evaluated carefully, a majority of program strategies are simply ineffective. Often they generate zero earnings gains; other times when they do generate earnings gains, they are not cost-effective.

In the near term, the current crop of vocational and employment training initiatives for out-of-school youths offers scant promise for improving these individuals’ economic well-being as adults. This is not to say that the programs necessarily are poorly designed or ineffectively implemented. There is plenty of evidence that similar strategies can cost-effectively raise the earnings of economically disadvantaged adult women who are in their thirties. Low-intensity employment and vocational training programs that have repeatedly “worked” for adult women have just as consistently “not worked” for economically disadvantaged youths. More research is needed to understand the developmental barriers that prevent these youths from acquiring skills both in classroom and in on-the-job settings.

The future success of training strategies for many economically disadvantaged youths will depend on the progress we make in understanding and implementing on a larger scale those programs that appear to “work,” but whose efficacy right now appears to be idiosyncratic and hard to replicate. One reason youth training is not as effective as it could be today is that policymakers and those in the training community have been slow to acknowledge that these programs have performed poorly.⁶ As a result they have not sought to distinguish systematically and rigorously the components that “work” from those that “do not work,” or to identify to what extent success depends on the characteristics of participants and the environments in which they live.

In the next section, we describe the characteristics of economically

5. See Katz (1994); Lerman (1996, 186, Table 1). Note Table 1 in Lerman’s paper is limited to a comparison of federal expenditures on education and training programs and does not include state subsidies for secondary and postsecondary education.

6. In the late 1990s Congress slashed funding for Youth Activities under the Job Training Partnership Act. This decision was in response to the findings from the National JTPA Study and twenty years of previous studies indicating that these initiatives produced little if any earnings gains for their participants. One rationale for taking so long to recognize these programs’ failures is that because of the uncertainty associated with these impacts that policymakers should consider that the decision to end a program that does not work should be taken only after a lot of evidence is compiled compared with what would be required when deciding whether to continue funding for a program that appears to work (Stafford 1979).

disadvantaged youths targeted for these programs. Then we describe in more detail the different elements of these programs and the skill deficiencies that policymakers intend for them to address. We next discuss the policy implications of prior evaluations of employment and training programs for youths.

12.2 Vocational and Training Programs for Youths

12.2.1 Background: The Returns from General Life Skills, Work Experience, and Employment Services

Studies show that there are long-term economic benefits associated with early work experience. Returns to on-the-job training measured from the shapes of age-earnings profiles indicate that, on average, young workers acquire valuable skills that greatly raise their long-term earnings (Mincer 1962; Ben Porath 1967). Even work experience acquired as a teenager has been consistently shown to be associated with increased wages in adulthood. These findings do not depend very much on workers' education levels, at least among noncollege educated workers.⁷ For such men, wages rise by about 45 percent between the ages of eighteen and twenty-eight. Thus, labor market experience allows young workers, even poorly educated workers, to acquire new skills that increase their productivity by more than enough to move these individuals out of poverty.⁸

By contrast to this compelling evidence on the returns to work experience in regular jobs, government employment and training programs that provide work experience for youths and young adults who have had difficulty finding jobs on their own have been remarkably unsuccessful at improving either the short- or the long-term earnings of their participants. These initiatives include those subsidized under the Comprehensive Employment and Training Act (1973), the National Supported Work Demonstration (1975 to 1977) (NSW) and programs funded under the Youth Employment and Demonstration Projects Act (1977) (YEDPA) or the National and Community Service Act (1990). In addition to these work experience initiatives, policymakers have had about forty years of experience with subsidized public sector summer jobs programs, starting with the Neighborhood Youth Corps created during the 1960s to provide summer jobs for unemployed urban youths.⁹

7. Tricia Gladden and Christopher Taber (2000, 2009).

8. See Heckman, Lochner, and Todd (2006). Wage growth for these workers is very sensitive to the business cycle, so that during the last twenty years wage growth has been twice as high during economic expansions as during recessions. This finding underscores the importance of sound fiscal and monetary policies for reducing poverty.

9. See Manpower Report, 1969. The program enrolled nearly 1.6 million youths from low-income families from its beginning in 1964 through the end of FY68. The summer program employed nearly 700,000 boys and girls. In addition, about 500,000 were in-school youths who were given paid, part-time jobs to help them stay in school; and nearly 400,000 were out-of-school youths who were provided with jobs and other needed services to help them either return to school or find regular jobs. For a discussion of the Work Experience programs of the late 1970s, see Farkas et al. (1982).

The findings from the National Support Work (NSW) Demonstration that operated in the mid-1970s illustrate the typical results from programs designed to provide economically disadvantaged youths between sixteen and twenty-one years old with guaranteed job experience. Participants typically were allowed to hold these guaranteed jobs for up to one year. The average age of the participants was 18.3 years, they had completed on average 9.6 years of school, and 88 percent were male. Moreover, previously 54 percent had been arrested and 28 percent had been incarcerated. In this social experiment, part of the program was to raise productivity standards (relative to a control group) during the year that members of the treatment group were eligible for these jobs. After one year, participants were expected to find regular jobs on their own. Program designers intended that this work experience would help make participants more reliable employees, so that they would be able to hold on to a job longer when they found work.

To be sure, during the time treatment group members were eligible to work in subsidized jobs, their employment rates were much higher than those of the control group. As a result, exposure to the program raised participants' work experience (Kemper, Long, and Thornton 1981). In the end, however, more than seven years of follow-up data indicate that this subsidized work experience had no effect on the disadvantaged high school dropouts' employment rates or earnings (Couch 1992).

The NSW results for youths were largely replicated by an early 1980s experimental study of employment and training initiatives targeting youths at risk for criminal activity by Vera Institute, the same organization that had originally devised and tested NSW for ex-offenders. Although during the eight- to twelve-month follow-up period, youth participants were more likely to find jobs—a result largely generated by low employment rates for the control group in one site—there was no evidence that these youths found better paying jobs or held them especially long (Sadd, Kotkin, and Freidman 1983). The positive employment effects resulted largely from program participants being more likely to find a first job after exiting the program.

These disappointing results for high-risk youths contrast with those for another group targeted by the Supported Work design: long-term welfare recipients who also happened to be mostly high school dropouts with poor employment histories, but who were on average more than ten years older than the youths. These women from the same sites benefited for at least eight years from similar types of work experience (Maynard 1980; Couch 1992). So it was not that the treatment could not work, but that for some reason it did not work for young high school dropouts.

The federal government has also subsidized on-the-job training (OJT) with private employers, which in many cases also amounts to subsidized work experience. The distinction between OJT and work experience is with the former it is expected that employers will provide formal or informal skill training to young trainees, whereas with the latter it is understood that recipients are learning about the world of work and how to hold on to a

job. These initiatives have been part of the federal government's menu of employment services for the poor for more than four decades, and currently include OJT under the Workforce Investment Act (1998) (WIA) and the Work Opportunity Tax Credit (WOTC).

Programs to provide OJT were created during the 1960s specifically to address the possibility that classroom training did not work because the skills taught did not match those demanded by the private sector. Although rules have differed over time and across OJT programs, they typically offer employers who are willing to participate—and take-up rates historically have been low—a wage subsidy of approximately 40 percent for the first six months to one year that an eligible employee is on the job.¹⁰ Nonetheless, there is little evidence that these initiatives improve youths' outcomes, except during the period when they are in subsidized jobs during which their employment rates are above expected levels.

Private employers' low rates of participation in OJT programs for youths suggests that they perceive that the productivity of participating workers is about one-half of the minimum wage or less. In other words, even though employers can effectively pay these workers only one-half the minimum wage, this incentive is still insufficient to entice most of them to participate in such programs. An alternative possibility is that many employers are unaware of the program and are, therefore, "leaving money on the table."¹¹ At least one organization, Employ America, attempts to arbitrage these public resources to encourage employers to take advantage of these underused subsidies.¹² However, one study that employed an experimental design, the Dayton, Ohio Targeted Jobs Tax Credit, indicates that the prospects for arbitrage by itself to expand training or work experience opportunities for youths are limited. When employers know about the program and can identify that an applicant would make them eligible to receive a wage subsidy, they are less likely to hire this applicant. Employers behave not as if they do not know about the program, but that they do not believe the targeted applicants are worth it even if they effectively are paid a subminimum wage.

Another approach to providing youths and other economically disadvantaged people with work experience is based on the idea that youths do not live near jobs where their skills are in demand. This "spatial mismatch" hypothesis has led to programs that provide information about and trans-

10. Under the Work Opportunity Tax Credit (reauthorized in 2007), employers who hire "Designated Community Residents," eighteen through thirty-nine years of age, can receive \$2,400 for each new adult hire, \$1,200 for each new summer youth hire, and up to \$9,000 for each new "long-term family assistance recipient" hired over a two-year period. In 2007, the Welfare-to-Work (WtW) Tax Credit was merged with the WOTC. Eligible summer youth hires are sixteen- to seventeen-year-old Enterprise Zone, Enterprise Community, Renewal Community residents hired between May 1 and September 15 who work at least for ninety days. See USDOL Employment and Training website: <http://www.doleta.gov/business/incentives/opptax>.

11. Burtless (1985).

12. See <http://www.employamerica.org/>.

portation to jobs in the suburbs for economically disadvantaged youths who reside in the central city. Careful analysis, including at least one social experiment, known as Bridges to Work, has shown this strategy to be largely ineffective (Roder and Scrivner 2005). These results suggest that the job market hurdle these young people face has more to do with their lack of marketable skills than with their geographical location.

12.2.2 Formal Training Opportunities for Economically Disadvantaged Youths

Since the passage of the Economic Opportunity Act of 1964, economically disadvantaged youths have been targeted for various low-intensity public sector-sponsored employment and training initiatives that seek (a) fuller utilization of participants' existing skills and abilities and (b) the development of new occupational skills and abilities.¹³ Since the mid-1960s, these initiatives have been incorporated into successive legislation governing the provision of basic skills, job search assistance, work experience, and occupational training in a classroom or on-the-job setting to young people fourteen to twenty-one years old (and more recently sixteen to twenty-four year olds) with very poor job histories or prospects for employment.¹⁴

Perhaps the most ambitious government job training program for youths is Job Corps. This program provides a comprehensive set of services to low-income youths in a "structured residential environment for learning and development" for up to two years. This strategy was originally advocated by Senator Hubert Humphrey during the 1950s and, along with Head Start, became one of the most enduring Great Society programs after it was established during the mid-1960s (LaLonde 2003).

Job Corps has four features that distinguish it from other government-sponsored employment and training services. First, the federal government continues to administer and operate the program, whereas programs under WIA are administered by the states through Workforce Investment Boards. Second, Job Corps provides a comprehensive array of services. Participants receive counseling, education, training, work experience, health care, and job placement services. The assumption underlying Job Corps is that economically disadvantaged youths need to address a range of deficiencies before

13. Manpower Report (1963, 10–11). The 1966 amendments to MDTA further focused training policy on the skill deficiencies of the economically disadvantaged. See Manpower Report (1967, 47).

14. The Manpower Development and Training Act (1962) (MDTA), the Comprehensive Employment and Training Act (1973), the Job Training Partnership Act (1982), the Workforce Investment Act (1998). The MDTA began by addressing policymakers' concerns about "technological displacement." As unemployment declined during the 1960s, concerns about persistent youth unemployment and the transition from school to work led to the development of special youth programs. The 1964 and 1966 amendments to MDTA reoriented the program away from retraining displaced workers toward providing employment and training for the economically disadvantaged.

they can become “job ready,” and that these services can only be effective when participants are removed from their home environment. Third, Job Corps usually provides these services in residential training centers. Job Corps centers usually house sixteen- to twenty-one-year-old participants away from their neighborhoods, sometimes in remote rural settings. They receive most of their education and vocational training on site, and these services are not often integrated with the existing educational establishment.¹⁵ Finally, a fourth unique feature of Job Corps is its cost. It is by far the most expensive public-sector training program and constitutes a significant investment in participants’ skills, with expenditures exceeding \$20,000 per participant year.¹⁶

12.2.3 Who are the Youths Targeted for Government Training Programs?

Government job training programs for youths are designed mostly for those who are not “job ready.” By providing them with skills, policy makers expect to make them employable and give them the ability to acquire new skills on-the-job just as other workers do. The United States Department of Labor, which administers these “Youth Activities” under the Workforce Investment Act (WIA), provides the following description of the youths it targets:

WIA Youth programs serve eligible low-income youth ages 14–21 that face barriers to employment. These include youth who have deficiencies in basic skills or meet one or more qualifying criteria: homeless, runaway, pregnant, parenting, an offender, school dropout or a foster child. The programs also serve youth with disabilities and others who may require additional assistance to complete an educational program or to secure employment.¹⁷

The WIA administrative data indicate the program has attempted to address basic skill deficiencies among youths who do not appear to be job ready. The vast majority of WIA’s youth participants were lacking basic skills, had not graduated from high school, and were jobless when they entered the program. About 70 percent of both younger (fourteen to eigh-

15. By contrast, the program’s twenty-two to twenty-four-year-old participants and young female participants with children are usually trained in nonresidential settings located close to where they live.

16. These expenditures are scaled down from the late 1960s, when outlays per participant averaged roughly \$8,000 per participant in 1967 dollars. Adjusting for inflation this amount totals nearly \$50,000 in 2007 dollars. No surprise then that at the time, the cost of Job Corps was compared to the cost of a Harvard education! Another program that provides comprehensive services to youth in a residential setting is the National Guards’ Youth ChalleNGe Program. This program includes a 20 week residential component often at a military facility followed by a year long mentoring component. Its costs have averaged \$10,000 to \$15,000 per participant (National Guard 2006). It has shown enough promise that several prominent foundations are funding an evaluation that uses an experimental design (Bloom, Gardenhire-Crooks, and Mandsager 2009).

17. Employment and Training Administration (2008, 29).

Table 12.1 Characteristics of WIA youth participants^a and outcomes at program exit

	Younger youth, ages 14 to 18 years Exiters from April 2006 to March 2007			Older youth, ages 19 to 21 years Exiters from April 2005 to March 2006		
	Number of exiters	Percentage of exiters (%)	Diploma attainment rate (%)	Number of exiters	Percentage of exiters (%)	Employment retention 3rd quarter after exit (%)
All younger/older youth	88,539	100	67.1	33,149	100	82.5
Male	40,872	46	65	13,018	39	82
Female	47,628	54	68.9	20,124	61	82.7
Black or African American	30,635	35	62.3	12,945	39	80
White (only)	25,478	29	70.8	10,608	32	84.2
Hispanic	26,111	29	69	7,696	23	83.8
Offender	7,234	8	47.4	3,738	11	76.7
Ever in foster care	4,190	5	61.2	437	1	78.7
Individual with a disability	14,770	17	75.2	3,020	9	82.9
Pregnant or parenting youth	5,942	7	54.2	10,189	31	82.3
Highest grade completed						
8th or less	18,338	21	52.9	1,159	3	76.7
Some high school	62,422	71	69.5	13,727	41	78.2
High school graduate	5,237	6	0	13,443	41	85.7
High school equivalency	847	1	0	1,696	5	82.1
Some postsecondary, no degree	355	0	0	2,109	6	89.1
Attending school	67,392	76	77.4	5,332	16	86.8
Not attending school	21,048	24	45.3	27,531	83	81.6
Basic literacy skills deficiency	56,397	64	64.2	17,350	52	81.2
Limited English-language proficiency	8,542	10	80.4	1,458	4	85.9
Employed at registration	5,815	7	71	5,162	15	88.7
Public assistance recipient	19,633	22	65.2	7,809	16	65.2

Sources: PY 2006 WIA Performance Measures for Demographic and Service Groups—Younger Youth (derived from PY 2006 WIASRD Records), February 4, 2008. PY 2006 WIA Performance Measures for Demographic and Service Groups—Older Youth (derived from PY 2006 WIASRD Records), February 4, 2008.

^aExcludes younger youth who were high school graduates or the equivalent at registration and younger youth who were still attending high school at exit.

teen years old) and older (nineteen to twenty-one years old) participants have been from low-income households. However, as shown by the figures in table 12.1 indicating the percentage receiving public assistance, not all trainees have been low-income youths. One reason for this is that the program also serves disabled youths (about one-fifth of younger participants, as shown in the table), whether they are from low-income households or not.

Nearly all participants were not employed when they entered the program. Whether they were unemployed or making the transition from out of the laborforce often is unclear, though prior research indicates that it is informative to distinguish between these distinct labor market states. That these youths often are not employed at the time that they enter the program is not surprising, because they are apparently not job ready to begin with and the younger ones include many who were still in school. Although children can work, it also is the case that teenage labor force participation has dropped markedly during the present decade. If, as some have argued, there are longer term benefits from such teenage work experience in regular jobs, this development should be considered to constitute an additional challenge that policy makers face when they design employment-related interventions for teenaged at-risk youths.¹⁸

Besides the lack of recent, or possibly any, prior employment experience, another barrier to employment faced by economically disadvantaged youths is their low levels of literacy. About 64 percent of the younger youths and more than 80 percent of the older youths were designated by program administrators as having a “basic literacy skills deficiency.” As shown by table 12.1, participants’ limited English proficiency can not explain much of this high percentage of participants who lack basic skills. Although it is not surprising that many younger youths are not high school graduates, more than one-fifth had not completed eighth grade. Among the older youths, 45 percent were high school dropouts. But the low rate of literacy for this older group indicates that even many of the high school graduates also lack high school graduate skills. For youths targeted by government employment and training initiatives, years of schooling is a misleading indicator of their actual level of basic skills. These individuals likely perform much worse on standard instruments that measure these skills than comparably educated peers who are job ready.

Among older out-of-school youths, post-program employment is a “performance standard” used by officials to assess the effectiveness of their services and service providers. As shown by table 12.1, 82 percent of these older participants were employed during the third quarter following the quarter that they exited from the program. These employment retention rates vary by participants’ prior skill levels. Among participants who had completed

18. Well-known contributions to the literature on the value of working while in school include Ruhm (1997) and Stinebrickner and Stinebrickner (2003).

the eighth grade or less prior to entering the program, 76.7 percent were employed during the third quarter after exiting from training; among participants who had attended some college, this percentage was 89.1 percent. This finding is expected and has little to do with the effectiveness of training. It has been shown not to imply that more skilled participants benefit more from these programs. Instead, these figures indicate that more skilled participants—at least in the short-term—would have had better employment outcomes whether or not these programs raised their earnings.¹⁹ Although schooling can be a misleading indicator of basic skill levels, among this population it is still the case that more years of schooling are associated with increased employment rates even in the absence of training.

To recruit youths for these government programs, operators have relied on private recruiters, local community organizations, and the state Employment Service. One-Stop Centers also identify participants and sometimes offer programs that provide youths with career development, job search, and basic and leadership skills, while at the same time referring youths to vocational or basic skills training. In addition to these standard services, the centers sometimes provide training in a range of general life skills that enhance participants' employability, financial knowledge, time management, citizenship, and etiquette. Some centers and community organizations also provide or refer participants to teen pregnancy prevention programs and mentoring activities, such as Big Brothers Big Sisters, that provide companionship and assistance with homework and preparation for standardized assessment examinations.²⁰ Some One-Stop Centers also establish "mini one-stops" at local high schools to target younger at-risk youths fourteen to eighteen years of age.

12.2.4 High School Vocational Programs

The characteristics of WIA participants observed in the previous subsection underscore the point that a major challenge in providing economically disadvantaged youths with occupational training is their lack of basic skills. This observation implies that primary and secondary schools—especially the public schools—have large roles to play in improving the vocational skills of this portion of the U.S. workforce. Policymakers have long recognized this problem. As a part of its mandate to improve access to vocational training for individuals lacking basic skills, the Carl D. Perkins Vocational and Technical Education Act of 1984 stipulated that if these individuals required additional programming to make them eligible to participate in vocational education, federal vocational funds may pay up to 50 percent of the cost of these supplemental programs' services.

19. See, for example, LaLonde (1986); Heckman, LaLonde, and Smith (1999).

20. See, for example, <http://www.onestopahead.com/onestop/youth/>. For a description of Big Brothers, Big Sisters programs and their effectiveness, see, for example, Tierney, Grossman, and Resch (2000).

The important role of the public schools in preparing future workers for the labor market and for vocational training was the theme of the U.S. Department Of Labor's Secretary's Commission On Achieving Necessary Skills (SCANS) Commission Report released in June 1991. This Commission was established to address the problem that "more than half of our young people leave school without the knowledge or foundation required to find and hold a good job" (i). (Another report, published a few years later, that highlighted some of the same concerns as the SCANS report is that of the Carnegie Council on Competitiveness [1996].) In response to this deficiency, the Commission made three recommendations:

1. All American high school students must develop a new set of competencies and foundation skills if they are to enjoy a productive, full, and satisfying life.
2. The qualities of high performance that today characterize our most competitive companies must become the standard for the vast majority of our companies, large and small, local and global.
3. The nation's schools must be transformed into high-performance organizations in their own right.

To implement these recommendations the SCANS Commission identified "eight areas that represent essential preparation for all students, both those going directly to work and those planning further education" (SCANS 1991, ii). Among these areas, basic skills, critical thinking, and developing personal qualities, such as "sociability, self-management, and integrity" were deemed essential for preparing students for the world of work and the opportunity to acquire high-paying jobs. Policymakers recognize the central role that public schools must play in order to address these broadly defined skill deficiencies of the workforce.

One model developed to provide both basic skills and vocational training within high schools is the Career Academy (CA). These institutions are set up inside public schools and offer participating high school aged students a mixture of academic and vocational courses. Participating students also are exposed to various career development interventions, including resume writing and exposure to potential employers.

The evaluation of Career Academies by MDRC offers perhaps the most promising evidence of an effective strategy for enhancing the skills of disadvantaged male youths.²¹ This experimental evaluation indicates that substituting vocational courses for academic courses does not affect standardized test scores and, among high risk students, it increases graduation rates and numbers of completed courses. These findings on test scores imply that there is no loss in basic skill acquisition associated with attending a Career Acad-

21. Career Academies have been around for at least thirty-five years. They usually have been organized around cohorts of thirty to sixty high school students who take career-related classes together. Earlier nonexperimental evaluations are found in Stern et al. (1989) and Stern, Raby, and Dayton (1992).

emy program. Consequently, high school vocational programs likely do not create a “road not taken” dilemma, where in the future participants are less likely to qualify for other training opportunities, such as those offered in community colleges, because they sacrificed their basic skills in order to acquire vocational skills when in high school.

Attrition rates from these vocational training programs are considered high. However, they are not out of line with those of government-sponsored training programs or community colleges and nonselective public four year universities. For instance, MDRC’s Career Academy evaluation found that 15 percent of candidates were no-shows, and an additional 30 percent dropped out prior to the end of high school. The evaluation is unclear about the number of participants who left the Career Academy program because they found a job related to the skills that they learned when in school. This pattern of dropping out of vocational programs is common in community colleges, which serve a similar function for older youths and adults as Career Academies do for those in high school.

As with community college dropout rates, there is concern that high dropout rates from Career Academies result from program flaws rather than from productive experimentation by students. These dropout rates from CA programs may simply mimic the practice of young people sampling college majors or jobs looking for opportunities that match their interests and skills. Indeed, when surveyed, most dropouts reported that they voluntarily left the program for another high school or for the academic track within their high school. After trying the vocational course work, they decided that these skills were not for them. In an uncertain world, this behavior can be thought of as a form of job shopping. Workers sample different jobs early in their career in order to find occupations that match their skills and their tastes. Such job shopping early in young workers’ careers is often thought to contribute to a significant share of their wage growth. Therefore, by analogy it seems likely that some attrition from CA programs is desirable. As a result, program performance measures based on completion rates are likely to be counterproductive and lead to a misallocation of resources.

An eight year follow-up report by MDRC indicated that the Career Academy model generated large impacts on men’s earnings, but small impacts on women’s earnings. Among males, the treatment group’s earnings were about \$500 per month, or nearly 20 percent greater than those of the control group during the eighth year following their scheduled graduation. This is a very large impact—likely larger than we would expect for these youths had they stayed and completed two years of high school. By contrast, among women, the gap was about \$100 per month, or less than 5 percent of expected monthly earnings.²² The difference between the long-term earnings impacts for young men and women is puzzling as it appears that both the training and academic experiences that women received were similar to those received

22. See Kemple (2008, Exhibit 5, 21).

by men. Possibly, the training received is more suitable for the typical labor market experiences of men than women.²³

The gender gap in program impacts results entirely from CA apparent impact on hours worked during the year rather than on wages. Among men the program raised the number of months employed by about 7.3 percent (i.e., 2.8 months divided by 38.2 months worked by the control group) during year five through eight of the follow-up period, it raised weekly hours worked by 12.3 percent (i.e., 4.1 divided by 33.3 the average weekly hours worked by the control group). By contrast, the program had no effect on hours worked for female participants.²⁴

The CA program was associated with nearly identical and statistically insignificant gains in hourly wages for both male and female participants. During years five through eight the experimental impacts of CA on earnings per hour were \$0.59 for males and \$0.65 for females.²⁵ Although these impacts are statistically insignificant, they still might be potentially economically meaningful. These figures imply a 3.7 percent and a 4.9 percent impact on the hourly wages of males and females, respectively. As we will subsequently explain in the section on cost-benefit analyses, given the small incremental costs of the CA program, if these percentage impacts were to persist throughout individuals' working lives, they would constitute very large gains per dollar spent. At the same time, these modest percentages underscore the point that despite the large gender differences in earnings impacts, the impacts of the CA program on the productivity of young adults are modest in size and similar for males and females.

The earnings history of the Career Academy control group reveals that advocates of this promising approach should be cautious about the efficacy of this strategy for the most disadvantaged out-of-school youths long targeted by government job training programs under WIA. In the eighth year following random assignment, the control group's earnings averaged more than \$26,000, or a few percentage points greater than the earnings of their peers who attended urban public high schools at the same time. Although such urban students may be disadvantaged relative to the general population of high school students, Career Academy students are not disadvantaged relative to the population of urban high school students. The same cannot be said for participants in WIA's youth activities or Job Corps.

12.2.5 Subsidized Investments in Job Training Programs: WIA Youth Activities and Job Corps

An important shortcoming of subsidized job training programs for youths is that they have provided participants with too little training to

23. See Kemple (2008, Exhibits 3.7, 4.7-YM, and 4.7-YW, 51, 67, 81–82).

24. See Kemple (2008, Exhibits 3 and 4, 18–19).

25. See Kemple (2008). Adjusted for inflation between 2006 and 2007, these figures become \$0.61 and \$0.67, respectively.

meaningfully increase their skills. In the National JTPA Study, evaluators reported that youth participants received on average 180 hours of employment and training services. For comparison, consider that had these youths not dropped out of school, they would have spent more than 1,000 hours in school over a nine to ten month period.

As previously indicated, studies show that much additional schooling is associated with approximately a 10 percent rise in annual earnings during their subsequent careers. As a result, because training amounts to about only about one-fifth of a year of schooling, we might reasonably expect these programs (if effective) to generate an approximately 2 percent increase in earnings. There are many reasons why the actual impacts might differ, but our main point is that we should be surprised if the impact of a small investment were to raise earnings by, say, 10 percent, because it would imply that government investment in low intensity WIA-type training is dramatically more cost-effective than formal schooling. Therefore, when evaluating these programs, it is reasonable to expect that even if they are cost effective—as they have been repeatedly shown to be for adult women—their impacts will be small (LaLonde 1995, 2003).

The foregoing analysis highlights one problem with youth training initiatives: even if they are effective, the interventions are too small. This shortcoming has been shared by many programs targeted toward youths, including the Department of Labor's YouthBuild program.²⁶ The Department advertises this program as having allocated "more than \$700 million in federal funds since 1994 to low income communities for 226 YouthBuild programs." At approximately \$3 million per program, this approach is best thought of an "incubator" program designed to foster innovation of new strategies to improve the skills of out-of-school youths, rather than as a program that directly contributes to this group's skill development.

12.2.6 Earnings Impacts of Job Corps

Job Corps stands in contrast to most government training programs, because it is designed to make a meaningful investment in skills. Are the benefits from this investment worth the cost? One reason Job Corps is so expensive is that it includes residential centers. How important are these centers to the efficacy of the program? The evidence on this point is mixed. The National Job Corps Study reported that by far the largest earnings impacts were for older participants who usually are not assigned to the residential centers. As a result, this finding may signify instead that Job Corps is more effective for older participants, no matter whether they receive services in a residential center or in their communities.

26. YouthBuild is a community-based program that provides participants with job skills through renovating abandoned buildings, counseling, academic instruction and test preparation, and leadership skills. See <http://www.huduser.org/Publications/PDF/YouthBuild.pdf>. See also Jastzrab et al. (1996) YouthBuild evaluation.

On balance the evaluations of Job Corp indicate the program can raise participants' future earnings. In the recent National Job Corps Study, during the fourth year following random assignment, the program raised the earnings of male youths by \$1,695 per year and the earnings of female youths by \$1,466 per year.²⁷ These gains for young men were about one-half the size reported nearly a generation earlier in a well-known and influential nonexperimental evaluation also by Mathematica Policy Research, Inc. (Mallar et al. 1982). The impacts reported for the recent cohort of young women were nearly the same as those reported a generation earlier.

These earnings gains associated with an expensive program such as Job Corps demonstrate that public-sector programs can improve labor market outcomes. Unfortunately, these earnings increases by themselves do not make the program cost-effective. The original cost-benefit analysis for the National Job Corps Study reported substantial net benefits for society from this program. However, the reason for this finding was that the evaluation assumed that the fourth-year earnings impacts would persist through these youths' careers. Although this assumption may prove to be true, early indications are that these earnings impacts have dissipated with time. Without them, and because Job Corps does not appear to have the same large impact on male youths' use of the criminal justice system as it did a generation earlier, Job Corps—though it does raise earnings—does not appear to be a cost-effective intervention.

The earnings impacts of Job Corps are even more discouraging when the impacts from the National Job Corps study are analyzed by age and ethnic group. As shown by table 12.2, the large positive earnings impacts we previously reported for the program result in large part from the extraordinarily large impacts reported for white and black twenty- to twenty-four-year-old participants. The fourth-year impacts were \$7,333 and \$4,271, respectively. By contrast, the program did not raise the earnings of Hispanic participants, and the impacts for African American sixteen- to seventeen- and eighteen- to nineteen-year-old youths were \$712 and \$926, respectively. Neither of these impacts for African American teens was statistically significant. Consequently, the results from the rigorous National Job Corps Study are consistent with the view that the Job Corps program is not an effective strategy for improving labor market outcomes of minority youths.

12.2.7 When Considering Replications of the Job Corps and Career Academy Models

When considering whether to fund Job Corps at its current levels or even to expand it, policymakers should consider whether these resources would be better spent increasing training opportunities for prime-aged workers,

27. These figures are expressed in 2007 dollars; the original figures from the Mathematica report were \$1,362 and \$1,178, respectively. See Burghardt and Glazerman (2000).

Table 12.2 Taking apart the earnings impacts from the National Job Corps Study (annualized impacts during the 4th year after the baseline, by ethnicity, age, and Latino center)

Participant Age/center type	Ethnicity		
	Whites	Blacks	Latinos
16–17	\$3,915*	\$712	–\$925
18–19	–\$712	\$926	\$0
20–24	\$7,333*	\$4,271*	\$2,421
Latino center	–\$427	\$926	–\$1,742

Source: Schochet, Brughardt, and Glazerman (2001).

Notes: Impacts have been converted from 1999 to 2007 dollars. Annual earnings equal estimated impact on weekly earnings times 52.

*Significant at the 10 percent level.

especially economically disadvantaged women. As indicated previously, evaluations of low-cost programs for adult women have consistently shown cost-effective earnings gains (LaLonde 1995, 2003; Heckman, LaLonde, and Smith 1999). For these adult women, these gains, measured in terms of gains per hour of training, are arguably larger than those expected from completing an additional year of schooling. As a result, policymakers currently contemplating new employment and training initiatives are faced with the choice of whether to appropriate scarce workforce development resources to unproven new or existing programs for youths or to proven strategies for mothers, many of whom are parenting the children who are targeted by the other programs and initiatives discussed in this volume.

Additional concerns about the Job Corps program include the cost of recruiting applicants and its relatively high turnover rates. From the start, state employment services received a per capita bounty for each Job Corps applicant. On the one hand, it is not surprising that even a well-known program such as Job Corps has to recruit eligible applicants whom its operators believe would likely benefit from the program. After all, these operators must meet performance standards to fulfill their contractual obligations to serve this population. Accordingly, Job Corps performance standards suggest that the program's operators have an incentive to create a desirable pool of applicants. Early on operators screened out younger applicants and applicants prone to behavioral problems. On the other hand, that such a well-known comprehensive program is not oversubscribed and operators must recruit is consistent with the contention that the target population expects on average small (private) net benefits from these services.

Another indication that participants do not expect to benefit economically from a program that provides both basic skills and essentially entry-level vocational training is high program turnover. As shown by table 12.3, roughly one-fourth of the treatment group in the National Job Corps Study

Table 12.3 Participation in Job Corps by program group in the National Job Corps Study

	Males (%)	Females w/ children (%)	Age 16–17 (%)	Age 18–19 (%)	Age 20–24 (%)	All (%)
% of program group that did not enroll	24.7	36.4	21.4	29.8	32.5	27.1
% of program group that dropped out						
Within 1 month	6.9	5.2	6.8	6.7	5.6	6.4
After 1 to 3 months	15.1	12.8	17.1	12.6	10.5	13.9
After 3 to 9 months	27.0	23.7	29.2	25.3	22.4	26.2
After 9 months	26.4	21.9	25.5	25.6	28.9	26.5
100	100	100	100	100	100	100
% of program group that enrolled in academic classes and vocational training for						
500–1,000 hours	15.6	12.7	17.2	15.0	11.9	15.1
> 1,000 hours	30.9	23.9	30.5	28.5	31.3	30.1
% of program group that enrolled in academic classes for						
500 to 1,000 hours	13.0	10.2	15.6	11.2	9.2	12.5
> 1,000 hours	8.6	7.4	9.6	7.4	8.7	8.7
% of program group that enrolled in vocational training for						
500–1,000 hours	16.3	12.7	17.1	14.7	14.6	15.6
> 1,000 hours	18.6	13.7	15.8	18.5	21.0	18.1

Sources: Schochet, Burghards, and Glazemen (2001)—Tables IV.1–IV.4 Table iv.1, enrollment in job corps, timing of enrollment, and month of participation for the program group, p. 55; table iv.2 combined academic and vocational training participation measures for program group enrollees, p. 61; table iv.3, academic experiences in job corps for program group enrollees, p. 63; table iv.4 vocational training experiences in job corps for program group enrollees, p. 64–65.

were no-shows and did not enroll in the program, one-fourth of the treatment group dropped out within the first three months, and another one-fourth dropped out between three and nine months after enrolling. Only about one-fourth of the program group remained enrolled for at least nine months and received the program's comprehensive services as intended by the program's design. Although it is tempting to contend that this pattern of turnover reflects the same kind of job shopping behavior identified previously in the chapter, this is a less compelling explanation for a more homogeneous long-running program like Job Corps that, among other things, provides its participants with a range of essential basic and life skills.

As a result of this turnover, only about 40 percent of Job Corps enrollees and 30 percent of the treatment group received at least 1,000 hours—the equivalent of one academic year—of instruction in academic or vocational skills. Male participants received roughly two-thirds of this instruction in vocational skills. Among the youngest Job Corps participants, this fraction was closer to one-half. One implication of these patterns of training is that Job Corps instruction resembles somewhat the training provided by a Career Academy, although Job Corps targets a much harder to serve, more economically disadvantaged population.

To appreciate the difference in the populations served by Job Corps and those likely to be served by Career Academies, it is instructive to compare the characteristics of the control groups from the National Job Corps Study and from the Career Academy Demonstration. Although the Career Academy Demonstration control group is younger than the Job Corps control group, it is more skilled. Among these controls, 73.3 percent graduated on time, and an additional 10.3 percent graduated late. These percentages do not include those controls who received a GED, a qualification whose market value (at least for males) is questionable.²⁸ Further, during the four years after their scheduled graduation dates, these controls earned on average about \$1,235 per month.²⁹ By contrast, only 14.8 percent of the control group in the National Job Corps Study received a high school diploma or higher degree. On average, the Job Corps control group completed only 10.7 years of schooling. Further, by the tenth quarter following random assignment, the Job Corps control group participants, despite being older, earned about \$1,125 per month—or about 8 percent less—than those in the Career Academy control group.³⁰ These differences between Job Corps and Career Academy

28. See Heckman et al. (1993), which shows that the earnings of male GED recipients closely track those of male high school dropouts.

29. See Kemple and Willner (2008, 18, 19, and 28, Exhibits 3, 4, and 7).

30. See Schochet, Burghardt, and Glazerman (2000, 96, and 122, Tables V.7 and VI.4. Table VI.4), who report that during the tenth quarter after random assignment, the controls earned \$213.3 per week (or \$167.7 per week in 1998 dollars). To convert this figure to monthly 2007 dollars, we multiplied 167.7 dollars times 4.35 weeks per month times 1.27 to account for inflation in the Consumer Price Index (CPI) between 1998 and 2007. See also <http://data.bls.gov/cgi-bin/surveymost> for CPI statistics.

participants suggest that one reason for the differences in outcomes between the two programs is that they serve different people, and these youths “self-selected” to be different: Career Academy participants stayed in high school; Job Corps participants had dropped out of high school.

The Career Academy evaluation conducted by MDRC shows that a vocationally-oriented high school curriculum can effectively transition economically disadvantaged male youths into the labor market. Further, these impacts were larger for the high- and median-risk youths and smaller for youths deemed to have been at low risk for dropping out of school. At first, these observations suggest that perhaps the Job Corps and Career Academy groups are not all that different. But even the controls in the high-risk Career Academy control group graduated from high school at a rate more than 55 percentage points above the rate for the Job Corps controls.³¹

As prior research indicates, graduating from high school, as opposed to obtaining a GED, is associated with improved labor market and other socially desirable outcomes throughout a person’s life. This observation is important for policies that target idle youth dropouts. Career Academies, like the initiatives launched and supported as part of the School-to-Work Act of 1989, target in-school youths and, apparently, as we observed from the characteristics of the control group in the Career Academy Demonstration, youths who have a good chance of finishing high school. It is still unclear to what extent these initiatives work by encouraging kids to stay in school who might otherwise drop out or by leading to better labor market outcomes later in life among those likely to graduate anyway.³²

12.3 Required Investments in Public Sector-Sponsored Training for Economically Disadvantaged Youths

12.3.1 Comparing Previous Program Costs to Program Benefits

As discussed in the previous section, over the last four decades it has proven difficult to identify and to replicate strategies that improve labor outcomes much less reduce the risk of poverty for economically disadvantaged youths. The Career Academy Demonstration’s success demonstrates the potential benefits of blending academic and vocational education within public high schools for young at-risk males. A study by MDRC indicates that the incremental cost of moving a child from regular high school to a Career Academy model is approximately \$700 per year of high school. During the first eight years, members of the CA treatment group earned about \$17,000 more than their counterparts in the control group. With real interest

31. See Kemple and Willner (2008, Exhibit 5.4 HR, 94).

32. See studies by Joyce and Neumark (2001); Neumark and Joyce (2001); Neumark and Allen (2003).

rates at about 2 percent, discounting will not shave off much off this gross benefit of CA.

As we indicated previously, the CA impact evaluation revealed economically different earnings impacts for male and females. During the first eight years after scheduled graduation, CA raised males' earnings by about \$30,000, but raised females' earnings by only about one-third as much.³³ This means that the cost-benefit calculations differ substantially for male and female CA participants. However, given the relatively small direct and indirect cost associated with this intervention, the cost-benefit ratios are potentially still impressive even for female participants.

Successes such as we have seen with the MDRC's Career Academy model have been the exception rather than the rule for economically disadvantaged youths. The exception largely centers the cost-benefit studies of the Job Corps. Mathematica Policy Research's nonexperimental evaluation of the 1977 Job Corps cohort reported that for every \$1 spent on youths in Job Corps, society gained \$1.48. This substantial gain resulted from participants' increased earnings and from their reduced criminal activity. The more recent National Job Corps Study also reported a similar—if not a more impressive—cost-benefit ratio. In contrast to the earlier study, these gains resulted almost entirely from participants' increased earnings. For the 1995 Job Corps cohort, the program's impacts on criminal activity were small.

A closer look at the National Job Corps Study's cost-benefit analysis reveals that about 95 percent of the earnings gains used in the cost-benefit analysis were based on projected out-of-sample impacts. During the first four years, Job Corps treatments earned in total about \$1,500 more than Job Corps controls. The program cost about \$17,000 per participant. The large benefit attributed to the program results because the study assumed that the earnings gains during the fourth year after the baseline would persist for the remainder of participants' working lives. The present discounted value of these projected gains were estimated to be roughly \$35,000. In addition, given the concentration of the four-year gains among the older participants who were over twenty years old, and the relatively meager gains reported for most of the teenage demographic groups, there is scant evidence from the National Job Corps Study that economically disadvantaged high school dropout teens benefit from Job Corps enough to justify the high costs of the program. The results of the rigorous National Job Corps Study suggest that this model would be more cost-effective if it focused more of its resources

33. A hard to quantify but potentially important social benefit of CA was from the 33 percent rise (i.e., 27 percent compared to 36 percent) in the percentage of men who were married and living with their spouses. This increase was nearly matched by a corresponding decline in the percentage of men who were divorced or separated. These changes resulted because those men who had children were much more likely to be living with their children than were men in the control group. Men in the treatment group were a little less likely to have had children during the study period. By contrast to the young men, the program had no apparent effects on family formation for young women (Kemple 2008, 35–38).

on serving participants over twenty years old who are not in the program's residential centers. The JOBSTART Demonstration from the early 1990s found no effect of Job Corps-like services when provided to youths under twenty-one years old in their communities. (See Cave et al. 1993.)

12.3.2 Grounding Expectations about Program Impacts

One problem raised in the previous section is that policymakers have had unrealistic expectations about the impact of their youth employment and training initiatives (Heckman, Roselius, and Smith 1994). To understand this point it is helpful to consider the size of the investment required by society in order to raise the skills of the some five million at-risk youth, such that they would be capable of earning \$10.00 per hour, or \$20,000 as a full-time worker. We assume conservatively that each of these youths would be capable of securing a full-time job at the current federal minimum wage of \$7.25 per hour.³⁴ This estimate is conservative because in fact many of these youths' skills are such that they are unlikely to be employed full time at the minimum wage. Indeed, as we discussed previously, government training programs target these youths largely because they are not "job ready."

The goal just described is to raise the skills of at-risk economically disadvantaged youths by roughly \$2.75 per hour, or \$5,500 per year.³⁵ This desired impact is on par with those reported for 20- to 24-year-old African American and white participants in the National Job Corps Study. Given conventional estimates of the return to investments in formal schooling, we expect an effective employment and training or education program to generate a real rate of return of 10 percent per year. Accordingly, we should expect a program that permanently increases young participants' earnings by this amount to cost roughly \$55,000 per participant. Such a program might require participants' full-time participation for eighteen months at a direct cost of \$34,000 and indirect costs of \$19,000 associated with lost time from work while in training.

How much would government expenditures on training have to be in order to achieve the foregoing objective of raising the skills levels of economically disadvantaged 14- to 24-year-olds? We estimate that it would require approximately \$160 billion dollars (i.e., \$34,000 times 5 million youths) or more than 1 percent of our national gross domestic product (GDP). This figure is our estimate of required government expenditures. It does not include our estimate of trainee's forgone earnings while they participate in such intensive training; we estimate this cost could be as much as an additional \$100 billion (i.e., \$19,000 times 5 million youths). In any case, the combined total could amount to nearly 2 percent of GDP.

34. The current federal minimum wage of \$6.55 per hour was effective July 24, 2008; see www.dol.gov/esa/whd/flsa.

35. We arrive at \$2.65 as the difference between \$9.00 and \$6.55 times 1.075, accounting for employers' additional contributions to Social Security and Medicare.

There are two caveats to keep in mind when interpreting these figures. First, these calculations assume that policymakers have identified and implemented programs that generate standard returns to human capital—an assumption that for this population appears to be exceedingly optimistic. Second, this total only addresses the skill deficiencies of the existing cohort of youths. Unless other interventions such as those discussed elsewhere in this volume are successful for younger children, these expenditures and costs would have to be repeated with successive cohorts of fourteen- to twenty-four-year-old youths.

12.4 Concluding Remarks

Most youths graduate from high school, and a majority of these acquire some postsecondary schooling or training either immediately after high school or later on as adults. Many studies document that both youths and society benefits from these investments. The existing array of community colleges, private vocational schools, and private and public colleges and universities, on balance, successfully augment the human capital of this segment of the U.S. population.

By contrast, we conclude, as have other surveys, that employment and training initiatives that target economically disadvantaged youths who are at risk of dropping out of school or have already dropped out of high school have not usually been effective. Not only have they not been cost-effective, but also their impacts on youths' short- or long-term earnings often have been nil. As currently configured, nearly all of these programs—including Job Corps—offer no promise of reducing adult poverty. Therefore, despite the enormous social problems associated with this group's daunting skill deficiencies, it will be difficult to make a case for expanding intervention until policymakers can identify effective strategies.

To this end, we recommend that increased attention be given to carefully designed demonstrations. After the process analyses of these demonstration programs indicate that they have been implemented as intended, they then can be subjected to a rigorous impact evaluation. Unfortunately, at this point there are not many compelling designs that are ready for such evaluation, much less ready to be brought to scale. Instead, if training strategies are to have any impact on adult poverty, policymakers need to return to the drawing board and devise strategies that account for the many challenges posed by this population segment over the last four decades. One element that appears to need more attention is these youths' developmental delays. Perhaps one way to understand the failures of these programs is to ask a simple rhetorical question: does anyone think we can address problems that such a youth has accumulated over a lifetime with a \$3,000 program?

The lessons to date underscore the importance of the public schools. Once a student has dropped out of school, policymakers have no ready answers

to address his or her skill deficiencies, other than to wait until the person is older and, when existing programs appear, to generate modest benefits, at least for adult women. In the meantime, improving basic skill levels in primary schools and keeping kids in secondary school through a range of options from Career Academies to athletic programs appears—at least for now—to be the most effective strategy for reducing the risk of adult poverty among at-risk youths.

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