Helping Disconnected Youth by Improving Linkages Between High Schools and Careers

Robert I. Lerman

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I. The At-Risk Problem and the Argument for Improved School-Career Programs

Improving the educational and employment outcomes of urban disadvantaged and minority youth is critical if the United States is to reduce the nation's high rates of poverty, social and family disruption, and alienation. Unfortunately, many current patterns are not promising. As of 1992, 60% of 12th grade disadvantaged urban students have math proficiencies below the basic level. (Mullis, et al., 1993). Unemployment remains extremely high for minority and disadvantaged youth. As of March 1995, over one in four 18-21 year-old males from low income families was neither working nor in school. Even at the peak of the latest business cycle (1989), the unemployment rate of 16-24 year-old black high school graduates was over 20%. At age 23, about one in four black men and women had no earnings at all (Lerman, 1996).

These impersonal job statistics mask much more serious social problems related to the poor career options of disadvantaged and minority youth. William J. Wilson (1987) sees the deteriorating job market for black young men as the underlying cause of the rising rates of mother-headed families and a growing underclass. Between 1960 and 1989, the proportion of black children living with two parents dropped from about 67% to about 38%. To Elijah Anderson (1993, 1994), the alienation associated with what he calls "endemic joblessness" has led to an oppositional street culture that can even engulf young people from "decent" homes. Unable to gain self-respect through solid performance at school or on the job, street youth (especially young men) prove their manhood by showing their peers that they can conquer women sexually and become a father and that they can steal something from another and flaunt it. The tragic levels of street crime have made murder the leading cause of death of young black men.

Many suspects are implicated in this increasingly intractable problem. Concentrated poverty weakens the ability of schools to raise educational outcomes. Poor school outcomes for some youth can ultimately bring down others, as peer pressure works against those trying to succeed (Ogbu, 1990). The declining wages of less skilled men and even high school graduates further reduces the attraction of working hard to do well in high school, especially in a peer culture that takes a short-term view of life. Crime arises not only from direct economic incentives, but also because violent behavior is often necessary to preserve self-respect. Anderson (1994) notes that prison may enhance a young man’s reputation after the toughening experience.

These phenomena are widespread and have become worse among low income black youth. John Bound and Richard Freeman (1992) calculate that 20% of black 18-29 year-old male dropouts were incarcerated in 1989, arise of 12.7 percentage points since 1980. By the mid-1980s, nearly one in three black young women had become an unwed mother by age 21. The effects on schooling and jobs are disastrous. According to Bound and Freeman, the rising share of black dropouts with criminal records may have accounted for 70 percent of decline in employment rates between 1979 and 1989. In recent work, Freeman (1996) estimates that 10 percent of 25-34 year-old men were in jail, prison, or on probation; 12% of dropouts and 34% of black male dropouts were actually incarcerated. Crime and violence have extended to schools and affected the innocent. By 1988, nearly one in five black eighth-graders did not feel safe in their own schools.

The racial dimension complicates the problem by creating a vicious circle. The history of blatant racial discrimination and salient examples of continuing discrimination add to the bitterness of many inner-city youth against the system and to their expectations that hard work in school will not pay off. Employers, sensing that a lack of basic skills and an unwillingness to work hard is a common trait among lower class
weaknesses in our country's linkages between school and work have a much more devastating impact on the life a stable job and become productive (Klerman and Karoly, 1994), but usually at a lower wage and a mismatch between what schools provide and what the job market demands. They ultimately may be able to enter skilled careers in their late teens or early 20s. Many suffer from a lack of well-structured and demanding career options that students can enter through a combination of high school education and training.

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adolescence and an adolescent peer culture, thereby slowing the maturation process and weakening many students, who learn more in hands-on learning in realistic settings. Finally, the current system prolongs the inadequate attention to careers in high school is especially problematic for young people whose parents and friends are unemployed or in unskilled jobs. Since these students cannot learn about and gain connections to these careers through informal channels, the absence of good formal channels to these jobs becomes a major disadvantage. The emphasis on academic methods of learning works to the disadvantage of many students, who learn more in hands-on learning in realistic settings. Finally, the current system prolongs adolescence and an adolescent peer culture, thereby slowing the maturation process and weakening constructive interactions with adults.

In my view, the country must simultaneously move toward improved academic standards and diversifying the methods of teaching both academic and technical skills. At the same time, we must create many more well-structured and demanding career options that students can enter through a combination of high school and community college education together with work-based training. Today, students with only a high school education have few options to enter skilled careers in their late teens or early 20s. Many suffer from a mismatch between what schools provide and what the job market demands. They ultimately may be able to land a stable job and become productive (Klerman and Karoly, 1994), but usually at a lower wage and a lower level of capability than they could have achieved under a better system. For disconnected youth, the weaknesses in our country's linkages between school and work have a much more devastating impact on the
young people themselves (in the form of higher unemployment and poverty) and on the rest of society (in the form of higher crime rates). We now have a chance to make fundamental changes in the relationship between educational and job market institutions. Success in these efforts is vital if we are to reduce significantly the number of disconnected youth.

II. What Employers Require of Entry Level Workers

There are many ways to assess what employers demand of entry level workers. To begin, we must recognize that the employers are heterogeneous, operate in very different markets, and thus may call on a range of different needs. This simple point is often overlooked by educators and policymakers because schools (especially high schools) use a relatively homogeneous curriculum.

One approach to determining employer demands is to ask them directly what they would like to see in an entry level employee. Unfortunately, the results can be misleading. Often, an employer will say that he or she simply wants an employee who will show up on time, be honest, listen and respond to supervision, and have a positive attitude about work. Those who have probed more deeply into this matter find that these statements are usually more indicative of the low expectations of employers rather than a listing of what employers would actually wish their entry workers are able to accomplish.

Another common view is that employers want entry workers only with solid basic skills. This view has validity for many types of jobs. But, the question is, do these workers actually use such skills on the job?

Several studies of employers have determined that indeed, the vast majority of even entry level workers do require more than basic competencies in computation, math reasoning, clear speaking, and some writing capabilities. Arnold Packer (1992) reported on a New York State study of 1,400 job holders in 300 large and small businesses. The jobs represented a cross section of positions not requiring a college degree but involve some career path. They included such jobs as practical nurse, auto body repair, inventory clerk, and salad chef. The results documented that skills well beyond minimum competency levels were necessary in the vast majority of these positions. In many cases, the job requirements went beyond those expected of those entering college. Packer cites several skills that are required but not emphasized in schools. For example, the jobs demanded more speaking and listening skills than the writing skills stressed in schools. Other important skills included: having knowledge of a system and its interrelated procedures, reacts constructively to positive or negative criticism, works well as a team member, uses information system, set priorities, and has good personal work habits. Packer argues that these topics are rarely even taught in schools and are certainly not emphasized.

Another large, recent study of employers also found that even entry level workers use what Packer calls the “extended basics”. Harry Holler (forthcoming) conducted a survey of over 3,000 employers in four metropolitan areas. Again, the jobs consisted of positions going to workers with less than a BA degree. Employers were asked about how frequently their most recently hired worker undertakes specific tasks. The tasks were as follows: dealing with customers in person, dealing with customers over the phone, reading paragraphs, writing paragraphs, doing arithmetic, and using computers. The vast majority of non-college jobs required several of these skills on a daily basis. Over half the non-college jobs even required working daily with computers. Over half involved reading paragraphs on a daily basis and nearly half had to write paragraphs at least once per week. About three-fourths had to do arithmetic at least once per week, with 65% having to do arithmetic on a daily basis. Nearly 80 percent involved working with customers.

The Holzer survey also asked employers about hiring requirements for non-college jobs, such as requiring a high school diploma, general job experience, specific experience, references, and previous training. For nearly three of four non-college jobs, a high school diploma, general experience, and references were either “absolutely necessary” or “strongly preferred” by employers. In addition, employers demanded or strongly preferred specific experience as qualifications for two of three of the non-college jobs in the central city. Over 40% wanted vocational or other training as well. Thus, those without a range of skills and qualifications face great difficulties even finding non-college jobs.

The recruitment and hiring strategies of employers are also relevant to the ability of disadvantaged youth to begin careers. According to the Holzer survey, employers frequently give tests, check the educational attainment, and check the criminal record of applicants. Nearly all interview the candidate and expect good English and verbal skills, politeness, and motivation on the part of the job candidate.

Overall, Holzer estimates that only a small proportion of non-college jobs in central cities involve the types of educational levels and other qualification levels currently held by disadvantaged youth. For example, only 4% of non-college, central city jobs do not require a high school diploma, training, experience or references. Only about 10% require only a high school diploma and general experience. As a result, many disadvantaged youth will have difficulty qualifying for positions because of their inability to meet the employer’s expectations. Of course, in a tight labor market or when wages are low, employers may be willing to accept a worker who on the surface appears less qualified than the employer wishes.

Before the young worker has a chance to get a job, he or she must be able to apply. Yet, given employee recruitment practices, even the more active disadvantaged job-seekers may be unable to find out about the job. In the Holzer survey, employers often filled jobs through informal channels. About 26% of hires came through as referrals from current employees and another 12% from acquaintances or others. Private employment services referred about 10% of the successful hires. Thus, nearly half the hires obtained jobs through mechanisms frequently inaccessible to disadvantaged young people. Employers are sometimes unwilling to take a chance even on people in the same neighborhood who lack a credible reference. In his study of the Red Hook neighborhood of Brooklyn, Philip Kasinitz (1992) found that employers discriminated
against local residents because they associated them with crime and poor work attitudes. The discrimination was not entirely racial since members of other racial groups in the area were also cast as undesirable and since employers did hire black West Indian immigrants. Employers relied on referrals from existing workers to allow them to determine which workers would be reliable and honest.

The job requirements, screening devices, and recruitment strategies clearly place at-risk youth at a serious disadvantage in the job market. Although black males are a heterogeneous group, their average attributes unfortunately weaken their chances to find jobs. Holzer reports that the more jobs require the various types of tasks described above, the less likely it is for a black male to obtain the job. He reports that each task lowers the hiring of black males by 1-8 percentage points and each required credential by 1-3 percentage points. In addition, differences in the job task associated with various groups of workers accounts for a large proportion of the wage differences among labor force groups.

The work of John Bishop (1995) strengthens these findings. In a survey of members of the National Federation of Independent Business, employers cited occupational skills as the ability that mattered more than any other single factor in their hiring decisions. Fully 40% rated already having the occupational skills as the most important attribute. Another 14% of employers placed this skill second. Moreover, it is not simply some employer bias, but rather their actual experience with entry workers that influences their preferences. Of new employees who had been on the jobs for at least a year, employers found that those with occupational skills performed better than those with more academic skills. Moreover, wage gains of the occupationally skilled rose most rapidly among those with occupational skills (Bishop, p. 7-9). Although Bishop finds that verbal and math abilities did not directly effect the productivity of most workers, these general skills do contribute indirectly by affecting the individual’s ability to attain the necessary occupational and job specific knowledge that produces good performance (Bishop, p.11).

According to Bishop, there is considerable evidence that it is the effect of specific skills on the productivity of workers that generates the higher wages for more skilled workers. The evidence comes from studies on the effects of relevant work experience on job performance and wages and on the effects of occupationally relevant job knowledge on productivity and performance on the job. Bishop cites work summarizing hundreds of studies documenting these relationships. He points to evidence that assessments of technical competence and other cognitive abilities do better in predicting job performance in technical, craft, and operative than personality traits.

In the early 1990s, the US Department of Labor sponsored the Secretary’s Commission on Achieving Necessary Skills (SCANS) to define the skills needed for employment, propose acceptable levels of proficiency, suggest effective ways to assess proficiency, and develop a dissemination strategy for the nation’s schools, businesses and homes (SCANS, 1992). SCANS used a sample of 50 jobs and studied how proficient workers needed to be in each foundation skill and competency by asking 20 people to rate the skill levels required for tasks identified by the job analysis. On the basis of their analyses, SCANS called for moving beyond standard school curricula in several ways. The report specified foundation skills that included such capabilities as listening, speaking, decision-making, problem solving, mental visualization, knowing how to learn as well as reading, writing, and math skills. In addition, the SCANS report specified a large number of workplace competencies, including such skills as: manages time, money, material and human resources; acquires, evaluates, organizes, interprets and communicates information; uses computers to process information, participates as a member of a team, teaches others, serves clients, exercises leadership, negotiation skills, works with cultural diversity, understands systems, monitors and corrects performance, and selects, applies, and maintains technology. The project described number of innovative methods for teaching these skills in schools and training programs.

Another approach to learning about what employers want is to use focus groups. While focus groups are too small for generalizability, they permit a more in-depth and potentially more revealing set of motivations by employers. Robert Zemsky (1994) summarizes relevant parts of the discussions of focus groups of small and large employers in eight cities. A major purpose was to determine what incentives might best encourage employers to participate in youth apprenticeship programs. Zemsky reports that employers in the focus groups are generally not interested in and often highly averse to hiring young people in high school or immediately out of high school. At the time the interview took place, the nation’s unemployment rate was well above the current 5.6 percent. As a result, most employers did not have to reach into the pool of inexperienced youth not were many interested in developing a youth apprenticeship program. Many of the employers provided examples of their frustration with young people. They were said to lack discipline as well as communication, numeracy, and literacy skills; to be unwilling to do dirty jobs; and to show little respect for authority. A common complaint was that they had to go through hundreds of job applications to find someone who had the appropriate skills and attitudes.

Employers stated their strong preference for workers who had demonstrated their reliability and basic skills in other jobs, including fast food and retail establishments or with temporary help agencies. Apparently, the temporary help agencies were able to offer credible references about the individuals applying for jobs. Firms did not wish to try out young workers, but wanted instead to wait until the aging and sorting processes made clear which workers had the requisite skills, discipline, and motivation. One employer admitted that it was not what the high school did or did not do, but the reality that he could only be confident with a worker who had already reached his mid 20s. When asked about possible motivations for participating in a youth apprenticeship activity, the employers generally responded by emphasizing the program’s ability to serve as a screening device to find the best of the young workers.

A different picture about whether young workers can meet the demands of employers emerges from a
companion study of employers participating in cooperative education programs. Irene Lynn and Joan Wills (1994) surveyed employers who had hired students to discuss their views on the ability of young people to meet job requirements as well as on their perceptions about how a major traditional school-work program operates. These employers generally reported a favorable attitude about their young employees. When asked whether the students are productive workers, 60% strongly agreed and 33% somewhat agreed. About 86 percent of employers stated they were satisfied with the school’s ability to provide students with the necessary skills and 70% reported no significant problems with students. Nearly half expressed interest in expanding their participation in the cooperative education program; the major reason the other employers had little interest was their lack of available work to do. As reported by Zemsky, Lynn and Wills found that the screening function of the programs was extremely important for participating employers.

Certain conclusions follow from this discussion about the relationship between employer requirements and the access to jobs among disadvantaged youth. First, there is clear evidence that the vast majority of non-college jobs require more than the most basic skills. Indeed, most demand specific experience, credible references, certifications, often the ability to pass a test and to be able to report no criminal record. General skills must exceed the basics, specific skills are a major advantage, and other job-related attributes are important. Second, many employers have little confidence in young people to obtain a credible reference, many disadvantaged youth are unlikely to obtain entry-level jobs. Third, the experience of employers participating in existing and limited cooperative education programs suggests that under the appropriate circumstances, a wide array of firms will hire young workers.

III. Improving the Match Between What Schools Teach and What Disadvantaged Youth Need

Young people who drop out of high school experience the most serious problems in the job market, account for a high proportion of criminal activity and have the highest rates of non-marital parenting. Further, those who have low academic achievement, as indicated on the Armed Forces Qualifying Test, are most likely to experience long-term disconnectedness. According to Besharov and Gardiner (1996), 30 percent of the men and 40 percent of the women scoring in the bottom 25% of the AFQT were disconnected from school, work, and marriage for at least three years.

Certainly, the limited success of these young people results from many factors, including family background, neighborhood devastation, and peer pressure. However, it is important to ask whether educational policymakers and school officials have adopted the appropriate strategy to improve the chances that these young people can achieve some success in the job market and in other constructive aspects of their lives. In particular, do schools offer these young people the types of education, training, and other support that will help them effectively respond to the demands of the job market?

The overall thrust of school reforms has been to raise academic standards for all students. While high standards for all students is a sound goal, too many educators have viewed the means in a narrowly structured, school-based setting. As a result, little attention has gone to the specific career needs of disadvantaged youth and others at high risk of dropping out. None of the National Education Goals specify any occupational or career outcomes for students or any systemic changes that improve school-employer linkages or develop work-based learning. The recent education summit did call for employers to give added weight to school transcripts and other measures of school performance, partly as a way of improving incentives for youth to perform well in high school.

Most dropouts report that lack of interest is one of their primary reasons for leaving school. Why should the additional requirements increase their interests in school or their incentives to perform well in school?

There is an increasing recognition that student effort is at least as important as physical facilities, class size, and even the educational level of the teachers. A 1994 Department of Education sponsored monograph, Education Reforms and Students at Risk: A Review of the Current State of the Art, (Rossi and Montgomery, 1994) states the issue this way:

Researchers increasingly conceptualize poor educational performance as the outcome of a process of disengagement that may begin as early as a child’s entry into school (Finn, 1989; Kelly, 1989; Merchant, 1987; Rumberger, 1987; Natriello, 1984). According to this model, students who do not identify, participate, and succeed in school activities become increasingly at risk of academic failure and dropout. In order to improve student achievement and persistence, the model suggests that the school climate must foster "investment" behavior -- schools must encourage student involvement in academic and extracurricular activities by stimulating their interest, increasing their personal resources (e.g., remediating skill deficiencies), and rewarding their efforts.

Simply adding standards that have little relevance to at-risk students is unlikely to create this type of "investment" behavior, especially in light of peer pressure that often turns students away from working hard in school. Peer pressure and its impacts on behavior increase significantly as young people enter adolescence. It becomes critically important in the high school years. For at-risk students to become invested in their learning, the payoff to learning must become clearer and more immediate and ideally, must reorient an entire peer group.

The primary emphasis of today’s education reformers is high and clear standards. A study by investigators at Public Agenda (Immerwahr and Johnson, 1996) reports strong public support for standards and for applying them to students in inner cities as well as middle-income and affluent districts. Minority parents and teachers also want schools to raise academic expectations for inner-city children. A majority of parents believe that
higher expectations will encourage improved performance. But, parents attach an even higher priority to the role of schools in emphasizing good work habits such as being responsible, being on time, and being disciplined as well as the value of hard work. They see education reformers as out-of-touch with average people by stressing "creativity" without teaching children the basics, having students use calculators when they cannot yet do basic arithmetic, mainstreaming children who have special educational needs, and instituting bilingual education.

While providing high and clear standards is important, they are unlikely to have a major impact on at-risk students. Although teachers generally support the establishment of standards, only a small proportion (17%) view the absence of clear standards as a major problem. Some are skeptical of standards as the latest fad and as failing to deal with more fundamental resource scarcity problems. Moreover, most teachers believe their students already are achieving adequate standards.

Another issue is that standards for high school students and the associated course are primarily driven by entry requirements. Since schools wish to avoid tracking and students see few options other than college, the courses emphasized by colleges and universities are extended to the entire student body, but often in a form that varies substantially in the level of sophistication and quality. The results have too often been to de-emphasize practical steps that could improve the motivation and the schooling outcomes of disadvantaged youth. Rarely are the standards linked to a concrete, nonacademic objective that students find compelling. (One exception is the NCAA standard for performance on the SAT.)

The SCANS skills are better grounded in the world of work than traditional academic standards. One hopeful sign is that some schools are beginning to utilize the concepts and approach embedded in SCANS, even for young students. A 4th grade class puts together all of the tasks required to publish a book, including preparing budgets, schedules, and materials. Educational consulting organizations, publishers, and software companies are developing products based on the SCANS skills. At this point, it is still too early to determine whether this effort to improve the match between what schools teach and what employers require will be widely implemented and, if implemented, will succeed.

In general, however, schools still assign far too little importance to preparing young people for careers, especially students from disadvantaged areas. Only one in three teachers believe that a high school education is important in providing knowledge and skills that help young people on the job. Despite the large share of young people working part-time or moving into the job market immediately after high school, most schools ignore the role of the work place as possible learning environments.

There is a large body of research (Stern, 1990) documenting the earnings gains of young people from having a job during their school years. Recent evidence indicates that at-risk students gain even more from working than do other students. Chaplin and Hannaway (1995) demonstrate that, even though working in high school often reduces or delays the completion of young person's years of education, the overall impact of working during high school on earnings is still positive. Among at-risk youth, working between 15-29 hours per week as a sophomore in high school resulted in more than 25% higher earnings 8-11 years later as compared to those who had not worked while in high school. The impact was only about a 10% earnings gain among all other sophomores. Despite the positive effects of jobholding and despite the high rates of employment among American teenagers, schools have generally ignored the work patterns of their students and paid little attention to those wishing to enter careers immediately after high school.

I am not suggesting that schools become employment agencies. However, schools could do more to recognize what employers require of career workers as well as take advantage of the interests of students in jobs and careers to motivate them to learn more effectively and to encourage work-based learning that can ultimately improve the ability of young people to achieve academic goals. Postsecondary education is certainly a desirable activity, but it should not become the enemy of improved career-based programs for those who do not wish to attend college immediately after high school or for those who might otherwise drop out before completing high school. Indeed, initial results from pilot projects suggest that those inner-city students who participate in well-structured school-to-career programs are actually more likely to enter college than they would have had they participated only in the standard classes (Jobs for the Future, 1995).

The Education Department review of education reforms for at-risk youth cites research on dropouts that stresses the importance of engaging students in a range of school-related activities. Linking schools with work-based learning is an approach in which schools can build on the interests of young people and engage them in school-related activities. By the time students are in high school, many choose to work for pay. At-risk students are especially eager to earn some money to help support their families and pay for their own activities. In general, schools have nothing at all to do with the jobholding activities of high school students. However, some programs, such as cooperative education programs, manage to develop some linkages between the schools and employers. Access to and success in these jobs depends on maintaining adequate school performance and thus school-based linkages with employment is one way engaging young people.

Although the evidence provides mixed findings regarding the special efficacy of cooperative education over other types of employment, we have studies showing that school-linked part-time jobs provide better learning opportunities, reinforce learning in school, and improve work attitudes more than unsupervised work. In a survey of students in jobs that were school-supervised and jobs not supervised, Stern (1990) reported that 63% of students in school-supervised jobs reported they "make good use of special skills...learned in school" as compared to only 20% in not supervised settings. Those in school-supervised settings were more than twice as likely (77% to 36%) to say that the jobs taught new skills useful in future work. High proportions of both groups said that their jobs let them get to know people over age 30, but the proportion was still substantially higher (89% to 70%) in school-supervised settings. Stern found that job characteristics of the
type emphasized in school-supervised placements were positively and significantly related to the work attitudes of students. Such attitudes as having a responsibility to do a decent job whether the supervisor is around and a person should feel a sense of pride in his/her work were closely linked to job quality. Cynical attitudes (like, working is nothing more than making a living and people who take work home don’t have a very interesting home life) were much less likely among those holding jobs with characteristics promoted in school-supervised programs.

The underlying goal embedded in the School-to-Work Opportunities Act (STWOA) is to expand beyond existing school-employer linkages, to move beyond traditional vocational education and cooperative education toward a school-to-career concept. At this point, we have a long way to go.

Recently, I spoke with a career counselor at an inner-city high school in Washington, DC. This counselor teaches students about the job market, helps prepare students for jobs, places them in part-time positions, asks graduating seniors about their post-graduation plans, and attempts to find full-time positions for those not going directly into college. The counselor was overwhelmed, having to deal with large numbers of students and faced an acute shortage of the most basic resources. Still, for qualified students, he had plenty of access to part-time and entry jobs. Unfortunately, the peer culture within the school and the weak academic preparation of many students limited the numbers of students who would perform adequately on the job. Some of his referrals had such bad work habits and demeanor that the counselor lost credibility with the employer.

The overall culture of the school limited the success of this counselor. The school did not demand modes of dress and behavior that are important in the work place. The school did not have any well-developed mechanism for helping young people focus on career streams and relate their studies to subsequent success. The orientation of the school was only higher education for some groups and jobs (rather than careers) for others. Few young people in the school gained a realistic understanding of the earnings and job attributes of various occupations. As a result, when genuine opportunities for entering apprenticeships in high paid construction occupations arose, few students even looked into the area.

The benefits of school-supervised employment and, even more importantly, well-structured school-to-work programs are of special significance for at-risk students. First, the utilization of learning in context not only helps students see the relevance of what they are studying but also gain the self-confidence many at-risk students lack access through their capability to accomplish tasks. Early experimental evidence from New York City’s Career Magnet Schools (Crain, et al., 1992) indicates that programs that give students a career focus improve their achievement in general subjects, including reading and math. Students in well-structured STC programs report their classes are more interesting, they have gotten more help planning for college, and they have better relationships with their teachers (Jobs For the Future, 1995).

Second, by improving the formal system of placement in training and jobs, STC programs can reduce the disadvantage of poor youth with respect to informal channels to jobs. Inner-city youth lack knowledge of middle range of jobs and lack through informal channels. Many firms hire by word of mouth or through informal channels. As noted above, employers increasingly require credible references, especially for inner-city applicants. Those with the fewest connections to jobs—without a working father, or uncle, or aunt—are at a serious disadvantage in learning about jobs and in gaining the experiences that yield positive, credible references. STC programs offer a formal mechanism in which employers can have confidence and can try out marginal workers. A career-based system can also help inner-city high school students learn more about job and career opportunities in suburbs or other parts of a city. Without this orientation, inner-city youth will become increasingly disadvantaged, as the spatial mismatch between the inner-city and suburban labor markets worsens.

Third, school-employer programs can reduce the negative influence of peers by exposing young people to constructive adult peer groups. The peer pressure to become involved in crime, drugs and to parent children outside marriage can be intense. When he child has only one parent present and he or she is poor, overcoming these influences is extremely difficult. School-to-career programs lead to a natural mentoring in which the mentor/trainer has a stake in the success of the apprentice not only at the work site but in academic studies as well. Apparently, school-linked employment experiences are more likely to involve these constructive relationships than other jobs and certainly than relating entirely to other students.

Fourth, by starting early, STC programs help inner-city youth before they experience serious trouble. Given their poverty, few disadvantaged young people are willing to accept long delays for uncertain returns that might come several years into the future. Moreover, the wait could prove disastrous for those inner-city youth who might otherwise become involved in crime or unwed teenage parenthood.

Fifth, intensive STC programs give employers the chance to swatch young people as they learn critical skills. The young at-risk or minority worker has a chance to demonstrate his or her individual strengths during a probationary period after which employers can make their long-term hiring decision. In the absence of this try-out period, minorities and disadvantaged youth generally suffer most from stereotypes held by employers concerning a lack of motivation and basic skills. Unlike other programs for at-risk youth, STC programs are broad-based and intended to encompass a abroad segment of students.

Finally, while much of the STC approach aims at a broad segment of high school students, including average graduates, improved outcomes for this broader group is important. Unless the job and career prospects improve for those the typical students completing high school and no college, it will be exceedingly difficult to improve the careers of potential dropouts or persuade them that it is worthwhile to study hard and to resist other temptations in order to complete high school.
Early indications are that school-to-work programs motivate students and reduce the mismatch between what schools do and what employers demand. They are helping young people gain recognized work experience, specific as well as general skills, and access to supervisors who could provide credible references. In addition, such programs are teaching the informal skills required to succeed on the job, including the discipline and demeanor employers demand. They are providing informal mentors at the work sites. They are exposing young people to the technologies in actual operation, as opposed to the often obsolete equipment found in schools. They are broadening the interests of young people and making them more aware of a wide range of careers. Moreover, they seem to be stimulating students to do better in school and to increase their chances of entering a postsecondary education program.

A number of high school academy programs provide compelling stories of reorienting young people, even in difficult communities. For example, Oakland Technical High School in California, which serves a largely at-risk population, developed a Health Academy Program and has apparently been able to increase the motivation and career success of many young people entering the program. The Finance Academy Program in Baltimore, operating in an inner-city school with mostly low income students, has managed to develop standards and a high status program. The program has entry requirements, a dress code one day a week, four days of job shadowing, and a summer internship with an insurance company, bank, or other financial institution. Despite their modest supplements to the standard high school education, these programs have already created such an appeal that more students apply that can be served and many students increase their efforts while in 9th and 10th grades in order to have a chance to enter the programs. One unfortunate aspect of the Baltimore program is that relatively rigid high school graduation requirements set by the state of Maryland appear to limit the ability of students to take advantage of work-based learning opportunities employers would offer during the school year. Here is a case in which standards set from above may be weakening student outcomes.

Even more elaborate and extensive programs have begun to operate in Wisconsin through their youth apprenticeships programs. The state has established well-developed curriculum for school-based and employer-based education in occupations ranging from finance to printing, from biotechnology to auto technology. Already, over 700 students have already begun their apprenticeship sequence. The programs are all oversubscribed.

Other leading school-to-career systems are operating in several cities, especially in Austin, Boston, Louisville, Milwaukee, and Philadelphia. Many offer worksheet learning integrated with a strong academic curriculum in several industries. In Louisville, over 7,000 students are currently pursuing integrated academic and technical studies in the fourteen magnet career academies. Each academy is structured to provide students with the breadth and depth of knowledge required for both postsecondary learning and employment. In Milwaukee, students are engaged in community or work-based learning experiences. Students are expected to spend at least 25 percent of their time engaged in projects that are multidisciplinary, directly connect academic skills and work, and lead to complex learning and problem solving. Philadelphia's small learning communities (SLCs) generally operate as part of the Philadelphia High School Academies system. This school-within-a-school approach to education reform enrolls students beginning in the ninth and tenth grade and provides them with an integrated curricula and a range of career exploration opportunities, including paid work experience during school and possibly a job upon graduation.

In emphasizing STC programs as an important element in helping at-risk as well as mainstream youth, I do not mean to say that the education and skill development is not essential in the early grades. But even the other approaches recommended by the Education Department monograph for at-risk students seem to build on the same concepts present in the STC approach. Among them are: curriculum changes that emphasize “real-world experiences to attract student interest…” and “…integration of academic and vocational skills so that students are well-prepared for both college and the job market…”; assessments based on the recognition of student accomplishments and demonstrated mastery of various tasks; use of smaller academic units within large schools, or “schools-within-schools;” team teaching; nonstigmatizing youth programs involving mentoring and skill development; and, again, connections to work and college through school-to-work apprenticeship programs and university outreach.

A final set of gaps between schools and employers is the use of technology and materials. Since at-risk students are much less likely to have personal computers at home, they may need more school-based or work-based outlets to become adept at using the computer. Even more basic is the use of textbooks. Unfortunately, in some inner-city schools, students are not allowed to take their textbooks home. Fear of theft is understandable, but the overall result is to deprive students of the chance to learn and to demonstrate their foundation skills in such areas as honesty and managing materials.

**IV. Making the New Models a Reality for At-Risk Youth**

A large number of purely school-based improvements could prove effective. The expanding private and public sector efforts to move the skills identified in the SCANS report into the mainstream of teaching practice is a hopeful development. Such an effort could prove particularly beneficial to at-risk youth and should be promoted. Other approaches to improving basic skills are critical and, according to the modest but real gains in NAEP scores, beginning to pay off.

Yet, without a fundamental change in the underlying incentives and peer influences students face, the improvement in basic skills is likely to prove inadequate to the task of expanding job options for at-risk youth. High schools are a critical time in which at-risk youth can either succumb to negative peer pressure or move constructively into adulthood. Expanding education about and experience with careers, linking schools with career options, and developing serious work-based learning programs are all vital components of an overall effort to give hope to at-risk students. Such experiences will help them see directly how working hard in
school, developing good work habits and personal skills mastering fundamental competencies and a least some specific skill, and resisting negative peer pressure will pay off. 

The modest demonstration efforts in these directions are promising. But, leadership at all levels is required to assure that the school-to-career movement induces substantial employer participation and does not simply become another ineffective school reform.

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**About the Author**

**Robert I. Lerman** is the director of the Human Resources Policy Center at the Urban Institute. He has served as professor and chairman of the Department of Economics at The American University from 1989 to 1995. Dr. Lerman is nationally recognized for his labor economics research, particularly in the areas of youth employment and apprenticeship programs. His current research includes studies comparing U.S. and German educational stratification, studies of alternative ways of structuring benefits and implications for welfare reform, and research into the role of child support payments and welfare programs on the employment, schooling, and family structure outcomes of young men and women.

Prior to his tenure at The American University, Dr. Lerman was director of research at the Center for Human Resources, Heller School of Social Welfare, Brandeis University, and a special assistant for youth and welfare policy at the Office of the Assistant Secretary for Policy, Evaluation, and Research, U.S. Department of Labor. He has published extensively in academic journals and other periodicals on the subjects of income inequality and income stratification, child support policies, and youth training, and has testified before Congress on many occasions. He is co-editor of *Young Unwed Fathers: Changing Roles and Emerging Policies* (Temple University Press, 1993). Dr. Lerman received his B.A. from Brandeis University and his doctorate in economics from the Massachusetts Institute of Technology.

**Other Publications by the Authors**

- Robert I. Lerman

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