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## 6 Labor markets and crime risk factors

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### Introduction

Employment and crime have a complex relationship. For an individual, they can be substitutes or complementary activities. For example, some people choose crime rather than legitimate work because of an expectation that they can make more money from crime and/or because they find it more rewarding in other ways (Katz, 1989; Bourgois, 1995). On the other hand, the workplace can offer opportunities for certain kinds of crimes that are more difficult to commit elsewhere, such as theft of inventory or selling of gambling services.

The relationship between employment and crime at the community level is equally ambiguous. Crime in a community is the outcome of the interaction between propensity and opportunity to commit crime. For example, in a given community over time, high employment may be associated with reduced presence of residents (i.e. lessened guardianship) and greater wealth, thus increasing criminal opportunities. On the other hand, low unemployment also provides better legitimate work opportunities for potential offenders, thus reducing their propensity to commit crime. Looking across communities, one can see the same potentially countervailing influences; poor communities offer weak job prospects but also (except for drug markets) financially unrewarding criminal opportunities. At this level, crime rates may depend not on the level of employment but on a much more fundamental set of social and individual characteristics.

Pure theory is not likely then to provide guidance about the strength or direction of the relationship between employment and crime. However, it is at least plausible that a strong negative relationship exists. At the descriptive level, those who commit crimes tend to be out of the labor force, unemployed or in low paying jobs. The communities in which crime, particularly violent crime, is so heavily concentrated show persistently high joblessness rates. Increasing employment and the potential for employment for individuals and communities that are currently at high risk of persistent joblessness may have a substantial preventive effect on crime. Thus a comprehensive assessment of crime prevention programs should include those aimed at increasing employment.

Our review, which covers only research done in the United States, includes any evaluated program that aims to increase the employment of individuals or populations at risk of serious criminal involvement. We

exclude general macro-economic policies (e.g. looser monetary policy aimed at lowering interest rates) though these may in theory reduce crime; such policies are driven by other factors and in any case the evidence on the aggregate relationship between employment and crime is very ambiguous. We include, however, a range of community and individual programs which do not specifically target crime, as indicated by the frequent omission of crime, or even risk-factors for crime, as an outcome measure. Thus, much of this review assesses just how effective such job training and job creation programs are at increasing employment for the targeted community or individual, even if they do not target criminal justice-involved offenders. The crime consequences are inferred from our review of the relationship between employment and crime at various levels.

For policy purposes the reciprocal relationship of crime and employment presents a major challenge. Areas of high crime are unattractive for investment. Both property and personnel are at risk; goods are stolen, premises damaged, employees assaulted and customers intimidated. Attracting capital requires a reduction in crime so as to allay the legitimate concerns of investors, employers and customers. On the other hand, crime reduction on a large scale may require the creation of employment opportunities for the large numbers of young adults that are the source of so much of the crime in the area. Unfortunately, many offenders lack the skills needed to obtain and retain attractive jobs; that is, positions that pay enough to avoid poverty (well above the minimum wage for a two-parent, two-child household with only one wage earner) and which offer potential progress and a sense of accomplishment. Thus, improving their work force skills may be essential even when capital, a prerequisite for new jobs, can be attracted into the community.

Existing programs aimed at reducing crime through employment and/or increasing employment in high crime areas fall into the following two main categories:

- Supply-side programs aim to improve the attractiveness of individuals to employers. Mostly these programs increase the potential productivity of the worker through education or job training. However, the category includes programs that take account of the fact that many high-risk individuals are handicapped by their location. These programs move people to jobs, either by transportation subsidies or by actually providing access to housing in lower crime communities nearer areas of high employment potential. The latter also may have crime prevention effects by allowing high-risk children to grow up in communities with more employed adult role models.
- Demand-side programs aim to reduce the costs of employment borne by the employer. One way to do this is through wage supplements or subsidized bonds (insuring the employer against theft by the employee) for ex-offenders. Another alternative is community development programs which lower costs for businesses locating in particularly needy communities. The influx of capital into communities characterized by low employment and high crime should generate jobs and thus, by a variety of mechanisms, reduce crime in the community.

The next section briefly surveys the theoretical and empirical literature on the relationship between crime and employment at various levels. The third and fourth sections survey supply and demand side programs, respectively. Each examines the evaluation evidence on program outcomes: Only a very few evaluations include explicit findings on the crime consequences of the intervention; the rest providing only employment measures. The final section then offers conclusions and recommendations for future research.

### The relationship between employment and crime

The relationship between crime and employment has been a long standing issue in research, involving a range of paradigms.<sup>2</sup> Fagan and Freeman (1999) and Freeman (1995) provide recent reviews, particularly focused on understanding how the returns from crime and legitimate work jointly affect the decision to engage in crime. We propose here to give more attention to the multiplicity of relationships between the criminal participation and work opportunities that operate at different levels (individual and community) and at different points in an individual's life-span (school, young adult, adult). Our goal is not to make theoretical contributions but to give a better grounding to an analysis of programmatic and policy options.

#### Theoretical perspective

Fagan and Freeman (1999) and Uggen (1994) have identified four major theoretical explanations for the link between employment and crime: economic choice; social control; strain; and labeling theory.

*Economic choice theory* (Ehrlich, 1973) posits that an individual makes choices between legal and illegal work based partly on the relative economic attractiveness of the two options. Moral values still influence actions but are assumed not to change with economic opportunities. It is, like economic theory generally, about response to changes or differences. If legal work becomes less rewarding or if illegal work becomes more rewarding, individuals may shift to crime and away from legal work. Education plays a role in framing choices; low educational attainment, which now puts young males at risk of frequent periods of unemployment and of achieving only low paying and unsatisfactory jobs, will be associated with high crime participation. This is exactly what Freeman claims happened in the late 1980s:

Given the well-documented growth of [legitimate] earnings inequality and fall in the job opportunities for less-skilled young men in this period, and the increased criminal opportunities due to the growth of demand for drugs, the economist finds appealing the notion that the increased propensity for crime is a rational response to increased job market incentives to commit crime.

(Freeman, 1995, pp. 177-8)

Notice that within this theory, the crimes in question are income-generating crimes which are used to replace income gained from legitimate means. The theory offers no account of non-income generating crime. Much

violent crime is expressive (e.g. an enactment of drunken anger) rather than instrumental (e.g. aimed at ensuring success of a robbery). However, economic theory is not entirely silent on violent crime. Employment should raise the opportunity cost of incarceration (i.e. what the individual loses with his freedom), both through loss of earnings and the loss of work experience; this might deter acts that endanger the individual's freedom.

The economic choice framework allows individuals to engage in both legitimate work and crime simultaneously. This is appropriate as most offenders also maintain some relationship to the workplace over their criminal careers (e.g. Reuter, MacCoun and Murphy, 1990). What may be affected by changes in the relative attractiveness of crime and legitimate work is the allocation of time between the two types of income-generating activities; better employment opportunities reduce the fraction of time spent in crime. Importantly, this theory has further implications beyond a simple contemporaneous choice of legal versus illegal work. The individual, particularly in adolescent years, also has to decide how much to invest in human capital (education and other workforce relevant skills). If the legal labor market opportunities appear weak, a youth is less likely to make adequate investment in acquiring the human capital necessary for success in the legal labor market. As a result, this theory can explain both participation in income-generating crime and under-investment in human capital that reduces legitimate income later.

*Control theory* claims that employment exerts social control over an individual (Gottfredson and Hirschi, 1990). The absence of employment for an individual leads to a breakdown of positive social bonds for that individual. That in turn is hypothesized to induce the individual to increase his criminal activity, both violent and income-related. This theory, expanded naturally to cover not just individuals but areas, is a key part of William Julius Wilson's analysis of inner-city problems. Using a series of carefully constructed studies of poverty areas in Chicago, he concludes that "many of today's problems in the inner-city ghetto neighborhoods – crime, family dissolution, welfare, low levels of social organization and so on – are fundamentally a consequence of a disappearance of work" (Wilson, 1996, p. xiii). Employment is seen as the main builder of pro-social bonds and institutions in a community and its absence results in large-scale disorder.

*Anomie* is another more aggregate level theory (for a concise summary targeted to this issue, see Uggen, 1994). This theory suggests that frustration caused by income inequality and other aggregate level problems will cause individuals to resort to crime out of frustration. High unemployment rates may contribute, in that unemployment also generates frustration.

One small area of theory that explicitly includes the idea that crime itself could be criminogenic is *labeling theory* (Lemert, 1951). Individuals who participate in crime acquire stigmatic labels (both to others and to themselves) and are then denied opportunities because of these labels. What is intriguing about this theory is that it suggests the very real possibility of feedback between employment and crime. This feedback suggests that cessation from crime will be difficult once criminal activity has been initiated, particularly if the offender acquires an official record (see Schwartz and Skolnick, 1964; Nagin and Waldfoegel, 1994, 1995; Bushway, 1996).

Labeling theory points also to a community level connection between crime and employment; that is, joblessness in an area may be caused by past criminal activity of the residents, as well as the converse. In a sense, the community or area is "labeled," which makes it difficult for the community to attract investment. This is a point first made forcefully by former NIJ Director James K. Stewart (1986).

These theories, potentially complementary, point to important potential feedback between crime and unemployment. Programs aimed solely at improving an individual's employability (motivated by economic choice) or solely at increasing the number of jobs in an area (motivated by all four theories) are vulnerable, the first to the failure of program graduates to find jobs and the second simply to the difficulty of providing jobs in high-risk neighborhoods. In the extreme case, a community including many individuals with low human capital, limited ties to positive social structures and institutions and negative labels is likely to be characterized by both high crime and low employment, with complex interaction between the two problems. Theory suggests that areas characterized by both high crime and low employment require attention to all three factors: weak social institutions, low human capital and negative labels.

#### *Research on crime and employment*

We now review empirical research aimed at assessing the relationship between crime and employment,<sup>3</sup> a necessary bridge between the theories and the program evaluations. This research has been conducted at many different levels of aggregation, including national time-series data, state and local cross-sectional data and individual-level data.

#### *National level*

A review by Chiricos (1986) finds that most national level analyses have yielded weak results on the crime-employment relationship. Freeman (1995) claims that this is primarily because of problems with the time-series statistical model with national data. One exception is a paper by Cook and Zarkin (1985). They report mixed results from an analysis of business cycles from 1933 to 1982. In general, crime increased over this period. However, homicide rates did not vary systematically with the business cycle. On the other hand, the burglary and robbery rates were higher during the economic downturns than during the upturns. This is consistent with the hypothesis that low employment generates an increased propensity to commit property crime while violent crime is driven by other factors. At the same time, they found that auto-theft was actually pro-cyclical - auto-theft increased faster when the economy improved and more slowly when the economy declined. This is consistent with the hypothesis that the opportunity for auto-theft increases when employment (and hence disposable income and the stock of new cars) increases. We shall present no other findings at this level of aggregation because it seems to provide least insight into those policy issues with which we are particularly concerned.

#### *Community level*

Chiricos does find, however, that at lower levels of aggregation (states, counties and cities), roughly half of all reported studies show a positive and statistically significant relationship between employment and crime, using post-1970 data.<sup>4</sup> The fraction of positive results increases to almost 75 percent of all studies when property crimes are analyzed separately from violent crimes.

#### *Individual level*

Analyses of individual level data have attracted more attention as these data have become available. Studies of the 1945 Philadelphia birth cohort have shown that unemployment is associated with crime (e.g. Wolfgang, Figlio and Sellin, 1972), a finding that is reported in numerous other studies. However, the causality is uncertain. Sampson and Laub (1993) argue that employment per se or by itself does not reduce crime or increase social control; it is only stability, commitment and responsibility that may be associated with getting a job that has crime reducing consequences. Gottfredson and Hirschi (1990) argue that the relationship is essentially spurious, a reflection of a common third factor which they call the level of individual social control.

Economic choice theory is supported by evidence showing that human capital influences earnings, and earnings influence recidivism by ex-offenders (Needels, 1996). Social control theory seems to have relevance, too, within the context of economic choice. Farrington *et al.* (1986) tie crime more directly to employment by examining the timing of crime and employment over almost 3 years for a sample of teenage males in England. They show that property crimes are committed more frequently during periods of joblessness. However, this relationship held only for those who were predisposed to crime (as reflected by self-reports on earlier criminal activity and moral values); otherwise spells of joblessness did not induce more criminal offending.

This brief review establishes that researchers have found a relationship between crime and employment, and that a number of mechanisms, operating both at the individual and community level, may explain the relationship. The key remaining question is whether or not programs aimed at increasing employment for at-risk populations can attain that goal and reduce crime.

### **Supply side programs**

#### *Job training and education*

The earliest labor market-oriented crime prevention programs followed just this logic - providing legitimate employment or employment skills to at-risk individuals in order to reduce their criminal activity. Numerous programs were developed to provide basic education, vocational training and work experience for youth in high crime and high unemployment communities.

The Training and Employment Services division of the Employment and Training Administration of the Department of Labor spends large sums (\$5.5 billion in FY 2000<sup>5</sup>) on skills-developing programs aimed at increasing the employment prospects of individuals who are at high risk of being persistently unemployed. Most of these interventions target youth, particularly adolescents, on the reasonable (but not unassailable) assumption that early interventions have higher pay-off if successful. The other large set of interventions targets those already involved with the criminal justice system, since they are also known to have little education or training.

We will consider these two groups of interventions separately, since the division corresponds to differences in institutions and outcome measures. The programs for youth generally are provided by social service agencies, while those for offenders frequently occur in correctional settings. Moreover, criminal justice program evaluations almost always include recidivism as an outcome measure, and sometimes do not include employment, while the general population programs always include employment, but rarely crime, as an outcome measure.

### *Job training programs connected to the criminal justice system*

#### *Introduction*

Targeting human capital development programs at offenders while in, or just leaving, the criminal justice system has the merit of focusing resources on the highest risk group. It is a human services equivalent of Willie Sutton's famous line about the banks; in this case, we are going where the crime is. Like Sutton's strategy, it also has an obvious weakness; just as banks are well guarded, so offenders in the criminal justice system have already developed behavior patterns that are difficult to reverse with educational programs.

We divide programs by age of the target population: juvenile and adult. That reflects the fact that juveniles seem most suitable for programs that focus on the development of human capital, as is true of education generally; adult programs give more emphasis on reintegration into the workforce. We will also distinguish programs by whether they are in prison or post-release.

#### *Juvenile offenders<sup>6</sup>*

Juvenile correctional institutions generally give more emphasis to rehabilitation than do adult correctional facilities. Education and training programs frequently fit into a broad array of habilitation and rehabilitation services generally. Indeed, it is difficult to identify the main effects of these programs alone, precisely because they are imbedded into a larger set (e.g. cognitive therapy, substance abuse treatment) which may interact with education and training. Moreover, there are only two studies that concentrate on the juvenile justice system (see Table 6.1). Both evaluations point to a problem in getting participants to complete the program once started; high drop-out rates indicate either that the program was poorly implemented or it was unattractive to many of the participants. Both programs also involved a relat-

ively low level of services for the clients; even if they were well done it would seem implausible that they could have large behavioral consequences.

For example, Leiber and Mawhorr (1995) used a variety of matched control groups to assess the impact of the Second Chance program on youth who were in court but not yet sentenced to an institution. Second Chance involves sixteen weekly group meetings aimed at developing certain social skills, along with a pre-employment training program (including how to conduct an independent job search, interview for a job and demonstrate good work habits). With 85 program entrants (only 57 of whom completed it), the test does not have much statistical power. The findings were of no significant differences in official arrests; the control group actually showed lower recidivism than the experimental group (completers or drop-outs). The evaluation pointed to the lack of treatment integrity.

An OJJDP review of correctional educational programs noted the lack of rigorous evaluation of juvenile vocational education programs within the criminal justice system (OJJDP, 1994).<sup>7</sup> The one "rigorous" evaluation cited by OJJDP is the New Pride program in Denver. New Pride is a community-based program that provides a year of intensive non-residential treatment and training, including participation in an on-site business run by the program. The evaluation consisted of tracking the success of the program participants without any comparison group. This is a poor evaluation design that does not meet minimal standards (less than a "1" on our scale). Widespread replication of this program, while encouraged by its evaluators (James and Granville, 1984), is not justified by the quality of the evaluation.

#### *Adult offenders*

Though both theory and political rhetoric emphasize juveniles as the most suitable targets for training and education, a large fraction of adult offenders in the criminal justice system have poor education and employment records. That fact was the original source of interest in the early 1960s in assessing whether recidivism might be reduced by providing these adults with additional educational and job skills. Moreover, the life course model of crime suggests that many adult offenders may be more receptive to work than adolescents.

Secondary reviews from the early 1970s, after these programs had been around for roughly 10 years, were uniformly negative. The Department of Labor's Manpower Administration sponsored research on these programs, and provided a comprehensive review of the research in 1973 (Rovner-Pieczenik, 1973). Despite strong commitment and great enthusiasm by program operators, the study reluctantly reported that very few programs led to a substantial decline in recidivism. By way of explanation, the report highlighted problems in persuading correctional institutions to focus on education and post-release objectives. The report also highlighted the great educational deficits of the offenders, generally high school drop-outs reading several years below grade level with no discernible job skills. The author concluded "that we entertain no fantasies about the degree of change which manpower projects for the offender can help to bring about. Some offenders will remain unemployed and unemployable no matter what programs are available" (Rovner-Pieczenik, 1973, p. 77).

Table 6.1 Criminal justice system programs

Studies	Scientific methods score (number of cases treatment/control)	Description of intervention and findings
<b>Youth</b>		
Greenwood and Turner, 1993, Paint Creek Youth Center	3 (73/75)	PCYC offers a comprehensive array of intervention services and activities including counseling, peer support and skills training. One year follow-up data showed no significant differences in arrests or self-reported delinquency between experimental and control groups.
Leiber and Mawhorr, 1995, Second Chance program	3 (57/56)	Rehabilitative strategy that uses social skills training, pre-employment training and job placement opportunities (4 months). Youths who received the treatment intervention are as likely to be involved in official offending as are the equivalent matched comparison (37% compared to 29%).
<b>Adults</b>		
Adams <i>et al.</i> , 1994, PERP	3 (5,608/8,001)	Participation in academic and vocational programs bore no relation to reincarceration; percentage of inmates who were returned to prison did not vary significantly across groups of program and non-program inmates.
Berk <i>et al.</i> , 1980, TARP	5 (775/200)	Intervention included the eligibility for unemployment benefits at several levels of the alternative of job counseling. Membership in any of the three experimental groups eligible for payments of job counseling had no statistically significant impact on either property or non-property arrests.
Mallar and Thornton, 1978, Baltimore LIFE	5 (216/216)	Treatment groups received either income maintenance (3 months), job placement or both. Financial aid treatment groups were re-arrested for property crimes 8.3% less (statistically significant) than control and job assistance groups; they were re-arrested 7% less for other crimes (not statistically significant).
Finn and Willoughby, 1996, JTPA	3 (521/794)	Findings suggest that ex-offender status had no effect on employment at termination or follow-up; only the barrier of being long-term unemployed negatively influenced prospect of employment.
Hartmann <i>et al.</i> , 1994, KPEP	2 (156)	Treatment included employment skills classes, job club peer support, life skills and GED training. Offenders who successfully completed the program were significantly less likely to recidivate than those who did not (felony arrest $p < .004$ ; any arrest $p < .005$ ).
Henry, 1988, CADD	3 (34/56)	Provided inmates with job training and skills along with substance abuse counseling. No difference found between industry working inmates and non-industry inmates with regard to the proportion of disciplinary reports per month in prison.
<b>Home Builders Institute</b> , 1996, TRADE	1 (219)	Involves an 8 week pre-apprenticeship carpentry training program for incarcerated adult offenders. Well over half of program graduates were placed in related jobs in 4 out of the 5 sites; 3 month recidivism rate (7.3%) is consistent or better than those of other vocational programs.
Lattimore <i>et al.</i> , 1990, Vocational Delivery System	4 (154/130)	VDS involved the use of vocational skills training, job readiness and employment skills training. Thirty-six percent of the experimental group compared to 46% of the control group were re-arrested following release (statistically significant $p < .10$ ).
Maguire <i>et al.</i> , 1988, PIRP	4 (399/497)	Intervention involved participation in prison industry for at least 6 continuous months. After controlling for differences between the two groups, the recidivism rates for industry and non-industry participants were virtually identical.
Menon <i>et al.</i> , 1992, Project RIO	3 (Evaluation not clear)	RIO provides services such as educational and vocational training pre-release and job search and placement assistance post-release. It also uses vouchers from the Targeted Jobs Tax Credit program and federal bonding as special incentives for prospective employers.
Pilavin and Masters, 1981, Supported Work	5 (2,200 ex-offenders, 1,400 ex-addicts, 1,200 youth)	Positive and significant impact on employment and negative and significant impact on recidivism, particularly for the high risk offenders.
Saylor and Gaes, 1996, PREP	3 (over 7,000)	Low-skilled and low-wage rate jobs provided for participants for no longer than 12-18 months. Found little effect on delinquents' post-program employment or on their criminal activity after program participation; for adult offenders and drug addicts, especially those over 35, increased employment and reduced crime effects were found.
Spencer, 1980, Ex-Offender Clearinghouse	4 (478/478)	Treatment group had either worked in prison industry, or had received in-prison vocational instruction. Long-term findings (8 years) show that male prison industry subgroup had 20% longer survival times (time before committing new offense) than comparison group; training program subgroup had 28% longer survival times; both results are statistically significant.
Van Stelle <i>et al.</i> , 1995, STEP	3 (89/42)	Treatment involved career counseling, job placement and special counseling services. Ex-offenders enrolled in the Clearinghouse program were significantly more likely to obtain employment and/or constructive activity than those not enrolled.
Vera Institute of Justice, 1972, Manhattan Court Employment Project	4 (214/91)	Provides in-prison training, as well as post-release transition services such as job placement assistance. There were no significant differences between graduates and controls with regard to arrest after release.
Baker and Sudd, 1981, Court Employment Project	5 (410/256)	Offers counseling and vocational opportunities such as job training or academic placement for a period of 90 days in lieu of traditional court disposition. During the initial 23 months of operation, the re-arrest rate for the successfully dismissed group was about 50% less than that of the terminated or control groups ( $p < .01$ ). No reported results for entire treatment group vs. control group.

Notes

PERP = Prison Education Research Project; TARP = Transitional Aide Research Project; LIFE = Living Insurance for Ex-Offenders; JTPA = Job Training Partnership Act; KPEP = Kalamazoo Probation Enhancement Program; CADD = Computer Aided Design and Drafting; TRADE = Training, Restitution, Apprenticeship, Development and Education; PIRP = Prison Industry Research Project; RIO = Re-Integration of Offenders; PREP = Post-Release Employment Project; STEP = Specialized Training and Employment Project.

These disappointing conclusions were communicated to a much broader audience with Martinson's (1974) widely read review of 231 rehabilitative (including employment-based) programs. Martinson concluded that "with few and isolated exceptions the rehabilitative efforts that have been reported so far have had no appreciable effect on recidivism" (p.25). This report has often been held responsible for the decline of the rehabilitative model in corrections and has limited the research done on these programs.

The sheer numbers of offenders, however, have led correctional officials to continue their efforts to curtail recidivism by reintegrating ex-offenders into the workforce. Evaluators have also continued their efforts to identify the causal impact of these programs on recidivism. In this section, we rely on a recent comprehensive review/meta-analysis of 53 experimental or quasi-experimental treatment-control comparisons based on 33 evaluations of prison education, vocation and work programs by Wilson, Gallagher and MacKenzie (2000). This list includes 19 studies conducted during the 1990s and includes all of the evaluations included in our 1997 chapter (Bushway and Reuter, 1997) and listed in Table 6.1.

Wilson and his colleagues report that most of the evaluations find that participants in the treatment programs are less likely to recidivate than those who do not participate in a treatment program. The average effect is substantial. If we assume that the non-participants have a recidivism rate of 50 percent, the program participants have a recidivism rate of 39 percent, a reduction of more than 20 percent. Moreover, the studies that include a measure of employment (roughly one third also measure employment outcomes) found that program participants were substantially more likely to be employed than non-participants. Finally, the studies with the largest employment effect tended also to have the largest reduction in recidivism, validating in some sense the mechanism by which these types of programs are thought to reduce recidivism.

Wilson and his colleagues, however, include a strong caveat to these findings that is consistent with our earlier report. These results are based on studies that are extremely weak methodologically. Eighty-nine percent of the comparisons rate a 1 or 2 on the Scientific Methods Scale. What this means in practice is that there are very poor controls for pre-existing differences between program participants and non-participants. Unobserved differences in motivation (or other factors) could account for much of the resulting change in behavior attributed to the training programs. Only three studies used an experimental design and only one of the non-experimental studies, Saylor and Gaes (1996), used what Wilson, Gallagher and MacKenzie (2000) considered to be strong statistical controls for selection bias between the participants and non-participants.

A closer examination of the Saylor and Gaes (1996) study of 7,000 individuals in the US Bureau of Prisons system makes the importance of controls for individual differences clear. Inmates were considered to have participated in the program if they had participated in industrial work within the prison, or had received in-prison vocational training or apprenticeship training. One year after release from prison, 6.6 percent of the program participants had either had their parole revoked or been re-arrested, compared with 20 percent of the non program participants, a dramatic 67 percent decline in

recidivism. However, because prisoners self-select into these employment programs, it is unreasonable to assume that participants are identical to non-participants. The authors found that participants differed from non-participants in terms of age, prior records, length of incarceration, race, rate of prior violence and security level. When controls for these differences were included in the model, the program participants had a 6.6 percent recidivism rate versus a 10.1 percent recidivism rate for the non-participants, a greatly reduced difference of 35 percent. Other differences not observed by the authors are clearly possible, so even this estimate should be viewed as a liberal estimate of the program impact.

We include two of the experimental studies in Table 6.1. This experimental design explicitly controls for pre-program differences. A close look at these two programs is illustrative of the types of problems faced by rigorous evaluations in this area.

Specialized Training and Employment Project (STEP) was run by the Wisconsin Department of Corrections and was evaluated by the University of Wisconsin Medical School (Van Stelle, Lidbury and Moburg, 1995). This program randomly assigned a well-defined group of offenders to a 6-month program prior to release that included participation incentives, classroom and job training in the institution, and post-release employment assistance. This project showed no decline in recidivism after the first year of the program, but the process evaluation stressed the extraordinary difficulty in implementing a program of this intensity within the prison system. Among other problems, attrition among staff and prisoners alike was a significant impediment both to program implementation and to adequate evaluation.

Lattimore, Witte and Baker (1990) report a randomized control trial for 18-22-year-old offenders in two North Carolina prisons. Two hundred ninety-five inmates were enrolled in a Vocational Delivery System (VDS) aimed at identifying vocational interests and aptitudes, providing appropriate training for the individual and then helping with post-release employment. Subjects were picked from all inmates in the two institutions who were aged 18-22, committed for property offenses, had IQ no less than 70, were in good health and within 8 to 36 months of an in-state release. Data were available for 154 of the experimental and 130 of the controls at approximately the two-year mark.<sup>8</sup>

"(T)hose participating in the program were more likely than control group members to complete vocational training and other programs ... VDS participants were less likely to be arrested following release from prison" (Lattimore, Witte and Baker, 1990, p. 117). At 24 months the control group showed a 50 percent recidivism rate (based on arrest records) compared to 40 percent for the experimental group. The difference was only weakly significant (10 percent level) and barely that for tests on other outcome measures. This relatively large effect exists even though only 18 percent of the people assigned to the VDS program actually completed the program. This level of attrition is worrisome, despite the overall positive result, if for no other reason than because it highlights the apparent difficulty in implementing this type of program. Clearly, even the best of these evaluations has limited scope and serious methodological limitations. As noted by Wilson, Gallagher and MacKenzie 2000, it would be foolhardy to conclude on this type of limited evidence that vocational programs for incarcerated offenders work. The only

reasonable conclusion is a two-fold statement that (a) it is possible that vocational programs aimed at inmates can reduce recidivism and (b) rigorous evaluations of existing programs need to be implemented to verify that these programs increase employment and reduce recidivism.

Another approach for individuals involved in the criminal justice system was the pre-trial intervention, a major movement during the 1970s. The concept of pre-trial diversions was attached to the labor market in the Court Employment Project. This was evaluated twice by the Vera Institute, first in the late 1960s (Vera Institute of Justice, 1972), and then again during 1977-9 (Baker and Sadd, 1981). In the first less rigorous study, non-serious offenders were offered the opportunity to participate in a 90-day job training and placement program. Successful completion of the program resulted in the dismissal of all charges. Less than half of the participants successfully completed the program. Twelve months after the completion of the program, only 15.8 percent of the successful completers had recidivated, compared to 31 percent of the non-completers and the control group. Again, the problem of selection bias precludes concluding that the program worked - the difference between all the program participants (23.6 percent recidivism rate) and the control group was not statistically significant. Low dosage, problems with implementation and data collection are cited as reasons for the weak results.

By the time the more rigorous study was undertaken almost 8 years later, the program had been taken over by the New York City government and had grown significantly. Four hundred and ten arrestees were assigned to the program, while 256 controls went through the normal court process. The evaluators found no statistically significant difference between recidivism for the two groups, during the diversion period, 12 months after the diversion or 23 months after the diversion. Partial explanations for the failure of the program include the large disturbance in the program immediately before the evaluation due to New York City's budget crisis. However, the evaluators concluded that there were systematic problems with the structure of the pre-trial diversions. For example, counselors did not believe that it was realistic to change the attitude of offenders towards work in 4 months, especially since participants typically lived in criminogenic environments removed from the world of work. Therefore, the training program was not seen as a route to real employment (and hence non-recidivism) but rather as a route away from jail time. In addition, the evaluators felt that the prosecutors had started using the program to control offenders who would otherwise have their cases dismissed, instead of diverting cases which would not be dismissed away from the courts (Hillsman, 1982).

Another approach concentrates on transitional assistance after an individual leaves prison. Job Training Partnership Act (JTPA) programs have attempted to help ex-prisoners by giving them (a) job search assistance, (b) remedial education, (c) occupational skills, (d) work experience, (e) on-the-job training, or (f) customized training for a particular employer. One evaluation of these programs (Finn and Willoughby, 1996) looked at all 521 ex-prisoners who enrolled in JTPA training programs in the state of Georgia for 1 year starting in July 1989. These enrollees were compared to 734 non-offender JTPA participants. The researchers found no sign of any difference in employment outcomes for the two groups, either at program termination

or 14 weeks after termination. This result is hard to interpret. Other studies have shown a consistent difference between ex-offenders and other workers. Perhaps the finding of no difference indicates that JTPA programs have helped eliminate some of the stigma of offending. However, since JTPA programs are generally regarded as only minimally effective at improving employment outcomes, that conclusion is hypothetical at best.

Another large federally-funded program tried in the late 1970s involved the use of income supplements during post-release in order to lessen the need to commit crime for money at a time when it may be particularly difficult to find a job. These randomized experiments known collectively as the Transitional Aid Research Project (TARP; Berk, Lenihan and Rossi, 1980) showed that no combination of job training and transitional income support could reduce arrest rates. TARP built on a smaller Baltimore LIFE (Living Insurance for Ex-Offenders) experiment, carefully designed and evaluated (Mallar and Thornton, 1978; Berk, Lenihan and Rossi, 1980; Myers, 1982): The LIFE evaluations found that even combinations of job assistance and counseling for 1 year had no impact on recidivism but that the transitional payments did make a statistically significant difference. Perhaps TARP could not maintain the program integrity of LIFE once the program was expanded.

Despite the failure of TARP, long-term follow-up of the Georgia TARP subjects by Needels (1996) demonstrated that the intuition of these programs is still valid: Needels found that the ex-offenders with jobs commit fewer crimes than the ex-offenders without jobs, and those with higher earnings commit fewer crimes than those with lower earnings. Even after 30 years of trying, however, no program - in-prison training, transitional assistance (both in kind and monetary assistance) or pre-trial diversion - has consistently shown itself capable (through a rigorous random assignment evaluation) of decreasing recidivism through labor-market orientated programs, inside or outside of prison. Perhaps offenders are too deeply entrenched in crime, or the criminal justice system is not an effective delivery system for these types of programs.

Offender-based programs come late in criminal careers, simply because incarceration or even conviction tends to come late. There are strong arguments for intervening early. The next subsection reviews programs that are aimed at high-risk youth before they become involved with the criminal justice system.

#### *Job training and education programs for at-risk youth*

A large number of relatively well-funded governmental programs have tried to boost the labor market performance of at-risk youths (high school drop-outs, kids from poor households or poor communities). Although we cannot estimate total expenditures for all such job training programs, the largest single program, Job Corps, enrolled 60,000 youth at a total cost of \$1.3 billion in 1999, while youth activities under Title II-C of the JTPA (Job Training and Partnership Act)<sup>9</sup> had a total cost of \$130 million in 1999. These programs have undoubtedly attracted more federal funding than any other program category in this review. Encouragingly, there are also many rigorous evaluations, with most studies using some form of randomized experiment (methods score 4 or higher; see Table 6.2). In reviewing the findings of these

Table 6.2 Non-criminal justice system: at-risk youth

Studies	Scientific methods score (number of cases treatment/control)	Description of intervention and findings
<b>Summer jobs/subsidized work</b>		
Ahlstrom and Havighurst, 1982, Kansas City Work/Study	3 (~100/~100)	Combines work experience program with a modified academic program. There appeared to be a negative effect on arrest, as the experimental group was more likely to be arrested by the age of 16 than was the comparison group (51% versus 36%).
Cave and Quint, 1990, Career Beginnings Farkas <i>et al.</i> , 1982, YIEPP	5 (621/612) 4 (2,778/1,255)	Services of Career Beginnings include summer jobs, workshops and classes, counseling and the use of mentors lasting from junior year of high school through graduation. Experimentals were 9.7% more likely to attend college than controls (statistically significant); they therefore worked less and earned less. Guaranteed full-time summer jobs and part-time school-year jobs to disadvantaged youth who stayed in school. School-year employment doubled from 20% to 40%, while summer employment increased from about 35% to 45%; however, YIEPP was unable to attain its goals of increased school enrollment and success despite the school enrollment requirement.
Grossman and Sipe, 1992, STEP	5 (1,613/1,613)	Program, lasting 15 months, involves remediation, life skills, summer jobs over 2 years and school-year support. STEP had little or no impact on youth's educational experience and had not altered employment patterns for either in-school or out-of-school youth.
Maynard, 1980, Supported Work	5 (570/682)	Structured transitional employment program which offers limited term employment at relatively low wage rates for up to 12 or 18 months, combined with peer group support and close supervision. Up to 18 months post-program, there was a significantly larger percentage of treatment group youth employed; there was no significant impact on arrest rate of youths.
Summer Youth Employment and Training Program (SYETP)	N/A	Provides summer jobs for youth. Program appears to greatly increase summer employment rates among disadvantaged youth in sites where jobs are provided; have not investigated whether SYETP creates positive long-term impacts on employment after participants leave their summer jobs.
<b>Short-term training programs</b>		
Kemple and Snipes (2000) Career Academy (CA)	4 (959/805)	Academic and career-related high school (HS) courses provided students with work-based learning experiences. CAs produced little change in outcomes for students at low or medium risk of HS drop-out. For students at high risk of HS drop-out, CA was associated with 33.9% lower rate of school drop-out, 36.6% lower rate of arrest and higher rates of school performance and attendance.
Fogg and Sum (1999), Youth Opportunity Areas (YOAs)	2 (990, No comparison)	Targeted out-of-school youths in high-poverty neighborhoods for education, employment and training programs. Pre/post comparison found a 6.3% increase in labor force participation, 6.9% decrease in unemployment, and similar increases in weekly hours of employment and wages. There was also a 9.2-21.0% decrease in high school drop-out, 7.0-63.1% increase in high school graduation, and similar increase in
Needels <i>et al.</i> , (1998), Youth Fair Chance (YFC)	3 (1,365/1,225)	post-secondary education. No significance testing reported. One-stop employment and education services to persons living in high-poverty areas. Youths in YFC areas relative to youths in non-YFC areas had an increase in employment (12.5% vs. -1.8%, NS) but a decrease in school enrollment. No differences for rates of public assistance, substance abuse, criminal or gang involvement, or single parenthood.
Bloom <i>et al.</i> , 1994, JTPA	5 (total of 4,777)	Federal government's major training program for disadvantaged youth which provides average of 5 months of services including on-the-job training, classroom training, and job search assistance (average of 420 hours of service). After 30 months no increase in earnings was found, and there was no decrease in crime rates.
Hahn <i>et al.</i> (1994), Quantum Opportunities Program (QOP)	4 (125/125)	Offered disadvantaged high school students mentoring combined with financial incentives. QOP youths, relative to control youths, were 53.8% less likely to be in trouble with police, less likely to need help with a substance abuse problem, and 54% less likely to be a HS drop-out. QOP youths were also more highly involved in school and volunteer activities, and were more optimistic about the future.
Cave <i>et al.</i> , 1993, JOBSTART	5 (988/953)	Provides instruction in basic academic skills, occupational skills training, training related support services and job placement assistance. JOBSTART led to a significant increase in the rate of GED attainment, or completion of high school. In the final 2 years of the follow-up, experimentals' earnings appeared to overtake those of controls, but the magnitude of this impact was not significant.
Wolf <i>et al.</i> , 1982, 70001 Ltd.	4 (535/440)	Provides job search assistance, educational services and job preparation classes to high school drop-outs (average of 80-90 hours of services are given). On long-term follow-up (24-40 months), there were no significant earnings impact reported; however, significant positive impact on GED attainment.
<b>Intensive residential programs</b>		
Mallar <i>et al.</i> , 1982, Job Corps	3 (4,334/1,457)	Residential program provides intensive skills training, basic education, support services and job placement for 1 year. Average over first 4 years after program exit of 15% earnings increase and 15% reduction in serious (felony) crime. Also, a large and significant increase in GED attainment and college enrollment.
Schochet <i>et al.</i> (2000), Job Corps	5 (9,409/5,977)	Experimental evaluation on average 22 months after enrollment. JC youths, relative to non-JC youths, had a 16% lower rate of arrest or being charged with a criminal complaint and a 21% lower rate of conviction. JC youths were more likely to receive a GED or high school diploma and to be employed at 30 months post-assignment, but were no more likely to attend college. There was an 8% increase in earnings by the end of the follow-up period.
Wolf <i>et al.</i> , 1987, California Conservation Corps (CCC)	3 (943/1,083)	Combines work sponsored by various public resource agencies with youth development activities for up to 1 year. CCC is not an effective way of raising the earnings of all participants when they first enter the labor market; however, it did improve earnings of disadvantaged residential corps members and significantly increased their hours worked, post-program.

Notes

CA = Career Academy; JC = Job Corps; JTPA = Job Training Partnership Act; QOP = Quantum Opportunities Program; STEP = Specialized Training and Employment Project; YFC = Youth Fair Chance; YIEPP = Youth Incentive Entitlement Pilot Project; YOA = Youth Opportunity Area; N/A = not available.

evaluations, we rely primarily on three reviews of the literature: Donohue and Siegelman (1996), Heckman (1994) and US Department of Labor (1995).

Programs aimed at youth tend to take three forms, arrayed below in order of increasing expense and program intensity.

- 1 *The provision of summer work or other forms of subsidized employment in either public or private sector organizations.*<sup>10</sup> These programs typically cost about \$1,000 (in terms of 1995 US dollars) per participant and lasted about 3 months. The Summer Youth Employment and Training Program (SYETP) is the Department of Labor's current summer jobs program, providing minimum wage summer jobs and some education to hundreds of thousands of disadvantaged youth, aged 14–21. Less typical is the more intense Supported Work program from the late 1970s, which provided about 1 year of full-time public sector employment to minority high school drop-outs aged 17–20, with job search assistance at the end of the work period.
- 2 *Short-term training with job placement for out-of-school youth.* These programs typically last about 6 months and cost \$2,500 to \$5,000 per participant. For example, the federal government's principal program for disadvantaged youth, JTPA, enrolled 125,000 out-of-school youth aged 16 to 21 for 5 months, during which they received on-the-job training, classroom training and job search assistance. JOBSTART was a large scale demonstration program, designed as a more intensive version of JTPA, lasting 7 months and including more classroom training, at a cost of \$5,000 per participant.
- 3 *Long-term, intensive residential programs providing vocational and life skills training, general education and job placement after graduation.* The most prominent of these programs is Job Corps, a residential program aimed at extremely disadvantaged populations. In 1999, Job Corps received \$1.3 billion and enrolled 60,000 new youth in tailored 1-year programs that included classroom training in basic education, vocational skills and a wide range of supportive services (including health care), at a cost of roughly \$15,000 per student.

Very few evaluations of these programs measure change in criminal behavior, simply because crime prevention is not generally a primary objective and its measurement requires substantial and complex additional data collection.<sup>11</sup> Crime control is a secondary effect which may result from increased employment, the primary objective. The remainder of this section will briefly review the principal evaluations of these programs, starting with the subsidized work programs.

Subsidized work programs are the cheapest and least intensive of any of the training programs aimed at at-risk youth. Although all subsidized work programs show a marked increase in employment for the targeted population over the time period of the subsidy, no evaluation has shown any long-term effect on employment. For example, Piliavin and Masters (1981) used a randomized assignment of 861 youth (average age 18) in five sites to evaluate Supported Work. The program lasted 12–18 months and provided work

experience along with a stipend in a sheltered work environment. Two-thirds of the youth had an arrest before entry into the program and 28 percent had been incarcerated, for an average of 20 weeks; they were predominantly Black (78 percent) and Hispanic (16 percent).

The labor market outcome differences were non-significant and small; e.g. at 36 months the experimental group worked 83.3 hours per month, compared to 75.8 for the control group. The crime differences were weakly significant (10 percent level). At 27 months, 30 percent of the experimental group had been arrested, compared to 39 percent of the control group; the difference was larger and had greater statistical significance for those without prior arrest. Although this effect size is relatively large (a 30 percent difference between controls and experimentals more than 2 years after the program ended), the evaluators concluded that there was no evidence of an effect for youth. As in the VDS case, the evaluators point to failure of most participants to complete the program as one of the sources of error in the study. Overall, the conclusions from this literature seem robust – subsidized work does not increase productivity in any appreciable way and these types of jobs do not appear to be supportive of non-criminal behavior.<sup>12</sup>

The picture is only slightly less gloomy for short-term skill training programs. None of the rigorous evaluations in this category have shown any lasting impact on employment outcomes, although some of the programs show a short-term gain in earnings. It is again not surprising then that the one evaluation that looked at crime shows no lasting impact (JOBSTART). A slightly more detailed look at the data shows that while there are no employment gains, there are some educational gains from these programs. JOBSTART and other programs effectively doubled the fraction of GED recipients. Although GED completion is in fact correlated with higher earnings, it apparently serves as a credentialing device rather than a training device (i.e. the fact of earning a GED indicates an ability to sustain consistent effort but working toward the diploma does not actually develop skills). This helps explain why the earnings gains showed in these programs are not long lasting. Eventually, those without GEDs are also able to acquire similar jobs; it just takes them longer without the GED credentials. These programs are generally unable to increase productivity in any meaningful way within the constraints of a short-term non-intensive program.

#### *Job Corps*

The most rigorously evaluated program, and one of the longest lasting programs in this area, is Job Corps, a long-term, primarily residential training program with emphasis on academic and vocational credentials. The residential component is seen as a key feature of the program because it provides people who are drawn from largely debilitating environments with the experience of living in a structured community committed to learning. The idea is that this environment is what makes the vocational and educational components actually work. The non-residential programs are seen as a way to reach individuals – primarily women with children – who would otherwise not be able to take advantage of Job Corps. Job Corps is by far the most intensive and expensive non-military training sponsored by the federal

government. The high cost is a consequence of the residential element of the program and its severely disadvantaged population (over 80 percent are high school drop-outs).

There have been two major evaluations of Job Corps, one in 1982 and one in 2000. The 1982 Job Corps evaluation was not a randomized experiment. It had to use a comparison group drawn from persons eligible but not likely to participate in Job Corps because of geographic location. Despite these limitations, the study was carefully done and generally regarded as credible, although Donohue and Siegelman (1996) raise serious questions about the magnitude of the decline in the homicide rate for enrollees.<sup>13</sup>

The evaluation found that 4 years after graduating from Job Corps, enrollees earned on average \$1,300 more per year than the control group, a difference of 15 percent. These achievements corresponded with real increases in educational achievement. Enrollees were five times as likely to get a GED or finish high school, and twice as likely to go to college. Also, there was a significant decline in arrests for serious crimes, especially theft. However, there was also an unexplained increase in minor arrests, especially traffic incidents.

The 2000 evaluation (Schochet, Burghardt and Glazerman, 2000) was a large experiment involving random assignment based on all 80,883 applicants who applied to Job Corps between November 1994 and February 1996. Almost 6,000 subjects (N = 5,997) were assigned to a control group and not allowed to sign up for Job Corps for 3 years. They were allowed to participate in other training programs, and during the follow-up period 64 percent participated in some type of education program, receiving on average a half year of education, including vocational training. It deserves noting that the control group in this more recent study, unlike the first study, is composed of motivated youth, since they applied to participate in Job Corps. The fact that they can and do make use of other educational opportunities should be kept in mind in considering the results of this study.

The treatment group included 9,409 applicants. Of these, 27 percent did not enroll, and another 28 percent participated for less than 3 months. The average participant enrolled for 8 months and received roughly one additional school year of education, including vocational training. The study participants were interviewed at 12 and 30 months after random assignment with reasonable response rates. The results are based on the 11,787 control and treatment members who completed the 30-month interviews. Due to the large sample, even small differences are statistically significant. Outcomes studied include education, work, welfare receipt, crime, health and living arrangements. At the 30-month interview the average youth had been out of the Job Corps for 20 months. As a result, the outcomes must be considered short-term, especially when compared with the earlier study. A 48-month follow-up is currently underway.

In the 2000 study, the participants were 70 percent more likely to receive a GED or high school degree, and more than twice as likely to have vocational certification than non-participants. Unlike the earlier evaluation, Job Corps participants were no more likely to attend college. Employment is rather more difficult to evaluate, since participants were less likely than non-participants to work during their participation in Job Corps. As a result, it

takes the Job Corps workers some time to "catch up" to peers who have been working the entire time period. It appears that this finally occurs in the last 4 months of the study. Job Corps participants were only 3 percent more likely to be working than non-participants but the weekly wages of Job Corps participants were 8 percent higher than the control group. This is comparable to the academic estimates of 5–8 percent increase in wages for every additional year of schooling. It remains to be seen if these gains are stable over a longer period of time.

In the 30-month follow-up period 23.3 percent of the treatment group were arrested compared to 27.7 percent of the control group, a difference of 15.9 percent. The treatment group was also 17 percent less likely to be convicted. As in the 1982 study, the biggest difference occurs during the first year of follow-up, when the treatment group is enrolled in Job Corps. Because Job Corps is a highly structured program that is usually residential, this finding is not surprising. It is tempting to dismiss this finding as the result of "incapacitation" and not real behavioral change.<sup>14</sup> However, if, as suggested in the introduction, involvement in the criminal justice system leads to future problems through labeling, this small difference could be meaningful for later outcomes. Furthermore, unlike in the 1982 study, it is also true that there is a 17 percent difference in arrests during the last 6 months of the 30-month follow-up when virtually all applicants have graduated from Job Corps. This result at least suggests a true impact of work on criminality. The 2000 study also replicates the finding from the 1982 study that Job Corps participants who do commit crimes tend to be involved in less serious events than the non-participants who commit crimes.

Although the effects are basically uniform across most of the examined subgroups, young men (16–17 year olds) and older men (22–4) without high school credentials saw the largest employment gains and crime drops among male participants. The link between employment gains and crime drops is an encouraging sign that real progress is being measured. However, there was little evidence that Job Corps had any impact on drug use. In fact, there was little meaningful difference between participants and non-participants in lifestyle issues like family formation and place of residence. This finding raises some doubt about the lasting impact of this program since movement out of disadvantaged neighborhoods and better family relationships are thought to be highly correlated with long-term declines in criminality. The 48-month follow-up should provide a better overall picture of long-term employment gains and drops in criminal activity.

#### *School-based programs*

The failure of all but the most intensive job training programs for at-risk youth to have any effect on either employment or crime is troubling. There are several possible explanations for this finding:

- 1 The first, and simplest, explanation is that low dosage programs over a 6-month period (or less) lack statistical power to make a measurable impact.
- 2 More substantively, these lower dosage programs simply might not be

enough to counterbalance a failed academic career that often finds 15- and 16-year-olds reading at the fifth grade level. Extensive training is required to raise reading levels four grade levels or more.

- 3 A structured positive environment is an important component of any successful program, especially for young males.

The second and third points, taken together, suggest that the vast majority of at-risk youth will not benefit from after-the-fact job training without a highly structured environment that affects more than their job skills. In some ways, this conclusion suggests that someone's orientation towards learning is just as important as their access to learning.

This finding is consistent with the Clinton Administration's effort to make schooling more relevant by connecting training to real jobs to a school environment through the enacted School to Work Opportunities Act. The emphasis on the school-to-work transition is supposed to make students and schools more motivated to learn, and decrease drop-outs (Rosenbaum, 1996). This belief is based in part on the success of Job Corps in connecting education to success in the labor market. A recent evaluation of the School to Work (STW) implementation (Hershey *et al.*, 1999) attempts to assess the implications of this philosophy on education in the United States. Although 4 years is too short a time to expect dramatic changes in orientation in the decentralized educational system found in the United States, the main findings are no doubt discouraging to proponents of this approach. In general, the report finds that any change in focus is small, and incremental. Overall participation in STW programs remains low, with most participation focused on short-term activities, such as job shadowing, rather than career skills development. On the more positive side, student surveys demonstrated a doubling in the number of African-American students who participated in career-related academics. In general, the authors report that the energy behind the STW initiatives is fading, the victim in large part of the perception that these programs are primarily vocational in an age where college non-vocational education is growing in importance. This perception persists despite an effort to emphasize a broader career orientation aimed at all students. It is unlikely that this type of perceptual hurdle can be overcome, especially in the absence of concrete evidence that more career focused academic orientations lead to better life outcomes for any large, defined group of students.

Some school-based programs are not based on the school-to-work model. Evaluations of these programs are neither as numerous nor as rigorous as those for job training programs. The evidence also suggests that anti-drop-out programs, because they involve working within the complex environments of schools (see Chapter 4), are extremely difficult to implement.

The strongest positive evaluation is for the Quantum Opportunities Program (QOP), a demonstration program offering extensive academic assistance, adult mentoring, career and college guidance, a small stipend and money set aside for a college fund. Services totaling 1,286 hours over 4 years (equivalent to about 6 hours per week) were provided to children from AFDC (Aid for Families with Dependent Children) families throughout high school, at a total cost per participant of \$10,600. The rigorous evaluation of

100 students in four sites (random assignment, scientific methods score = 4) found that 42 percent of the QOP students were in post-secondary education versus only 16 percent of the controls; a total of 63 percent of the QOP students graduated from high schools, versus only 42 percent of the control group (US Department of Labor, 1995). This evaluation has no long-term follow-up of employment outcomes. However, the increase in enrollment in college is likely to be a good predictor of improved labor market performance.

In this evaluation, adult mentors were assessed to be the most important element. Apparently, the mentors provide the necessary focus and motivation for students to change their behavior and perform better in school. Yet notice that in QOP, the key elements of the school-to-work philosophy – direct connections to the labor market, and contextual learning – were not used. As in Job Corps, QOP students were in routine contact with adults who projected a positive attitude about meaningful employment.

It is impossible within the context of the current literature to determine if mentoring or a school-to-work program (or some combination) is better able to change the motivation of the at-risk youth. However, it is clear that individuals need to become focused on obtaining meaningful and productive employment as an important goal before they will/can take advantage of job training or schooling. We will discuss ways to change the orientation of youth later in this section.

#### *Job training for adults in the general population*

Mother Nature has her own way of changing motivation, called aging. It is possible that the same individuals who are not reachable as at-risk youth may be reachable by similar programs when they have reached adulthood. Programs aimed at adults in the general population within the context of a crime prevention discussion, however, are not as interesting as programs aimed at youth, since adults who have not offended by age 25 are at low risk of offending. And, if they have offended by age 25, chances are they will be already involved with the criminal justice system. But some people out of the criminal justice system may benefit from training in order to find meaningful employment. These older adults may have a reduced propensity to commit crime due to maturation. As a result, the number of crimes prevented by such a training program might be less than for younger participants, but at the same time, these individuals may be finally ready to take advantage of training programs that are offered. In reviewing the extensive literature on job training for the general population, Heckman concludes the following:

Employment and training programs increase the earnings of female AFDC recipients. Earnings gains are (a) modest, (b) persistent over several years, (c) arise from several different treatments, (d) are sometimes quite cost-effective ... For adult males the evidence is consistent with that for adult women.

(Heckman, 1994, p.112)

Consistent with these findings, older ex-offenders in the Supported Work program appear more responsive to the program than younger ex-offenders. In addition, older subjects in the Baltimore Life experiment also recidivated less often relative to their controls than did younger subjects. The authors of the Supported Work program conclude "the evidence in this experiment and elsewhere suggests older disadvantaged workers, including those who are known offenders, may be much more responsive (than younger workers) to the opportunity to participate in employment programs" (Piliavan and Masters, 1981, p. 45).

### *Housing dispersal and mobility programs*

Much of the above discussion has been focused on at-risk individuals, rather than places. But depressed urban areas deserve special attention in this chapter, given the simultaneous existence of high crime and low employment in these areas. A decade ago, William Julius Wilson (1987) identified the movement of jobs from the inner city to the suburbs as the key factor in the growing concentration of African-American poverty and the social problems related to that hyper-segregation. More recently he has argued that only an employment oriented policy can reduce the social problems of these communities (Wilson, 1996). Yet, as we will see in the following section, stimulating true economic development in the inner city through tax incentives or direct capital subsidies has proven very difficult. Substantial economic forces<sup>15</sup> have led to the movement of businesses to the suburbs, and these forces are extremely difficult to counteract (Hughes, 1993).

As a result, policy makers have recently begun to develop ways to change the supply of labor by bringing inner-city residents to suburban jobs, instead of bringing jobs to inner-city residents. One way to do this is to physically relocate inner-city residents to the suburbs (housing dispersal programs).

The only published outcome evaluation of the housing dispersal concept is based on what is known as the Gautreaux housing mobility program in Chicago. Starting in 1979, the Gautreaux program has given 6,000 inner-city families (primarily single mothers) vouchers that allow them to relocate to low poverty neighborhoods throughout a six county area in and around Chicago. The program, started as the result of a federal court ruling in a housing discrimination case, also allowed families to move within the city of Chicago. Families were assigned to the suburbs or the city based on the location of apartment openings when they became eligible for the program. Because the waiting list was long, and because families were placed at the back of the list when they rejected an opening, very few families rejected an apartment when it was offered, regardless of the location.

Rosenbaum (1992) took advantage of this natural experiment to compare the employment and educational outcomes of the city movers with the suburban movers (scientific methods score = 4). He found that women who moved to the suburbs were 28 percent more likely to be employed than the women who moved inside the city, on average 5.5 years after moving. This was true even though the wage gains attributed to the move were the same for all women who worked, regardless of their location. In addition, he found that 9 years (on average) after the move, the children of the suburban movers were

doing significantly better than the children of the city movers (scientific methods score = 3<sup>16</sup>). Although criminal activity was not measured, the children of the suburban movers dropped out of high school only 25 percent as often as the city movers, were in college track courses 1.6 times as often as the city movers, were 2.5 times as likely to attend college, were more than 4 times as likely to earn \$6.50 an hour if working, and only 38 percent as likely to be unemployed. These results suggest that for children in these environments, relocation can be an effective tool to change their focus towards positive outcomes like meaningful employment.

These large positive results led to significant optimism on the part of policymakers about the benefits associated with simply relocating poor families to non-poverty areas. Several programs modeled on the Gautreaux programs were spawned and now operate in Cincinnati, Memphis, Dallas, Milwaukee and Hartford. In 1992, the US Department of Housing and Urban Development (HUD) provided \$168 million to fund Moving to Opportunity as a demonstration program for the housing mobility concept. Moving to Opportunity has five sites in large cities – Baltimore, Boston, Chicago, New York and Los Angeles – and is funded for at least 10 years. The project has been set up with a rigorous evaluation component (scientific methods score = 4) – households were randomly assigned to either placement in a suburban location with less than 10 percent poverty, placement in the central city, or no treatment. About 1,300 families were given vouchers to allow them to relocate in low poverty suburbs, along with extensive counseling about relocation and assistance in finding a new apartment.

Several evaluations of these programs are now available and are listed in Table 6.3. Perhaps not surprisingly, in each case, households assigned to the experimental treatment were less likely to move than the households assigned to the comparison group, suggesting that moving to low poverty neighborhoods is a non-trivial exercise for impoverished single-parent households. Katz, Kling and Liebman's (1999) study of the Boston experiment found that the families who were assigned to move to low poverty neighborhoods had better life outcomes than the control groups and the unrestricted movers, despite the fact that less than half of the assigned households actually moved. In general, the mothers had significant improvements in their mental health, feelings of safety, and victimization relative to the control group. The boys in the sample had 10 to 15 percent reductions in their problem behavior relative to the boys in the control group.

Ludwig, Duncan and Hirschfield (1999) and Ludwig, Duncan and Pinkston (2000) evaluate the MTO experiment in Baltimore. Once again only half of the experimental households actually took advantage of the vouchers to move. They find that the mothers in the experimental settings were 9.2 percent less likely to be on welfare 3 years after moving than the control groups. Children in the treatment and comparison groups were both less likely to be arrested for violent crimes than the children in the control groups. Contrary to predictions, members of the treatment group had higher arrest rates than the comparison group. In addition, children in both groups had more arrests for property offenses than the control group, perhaps because of the increased opportunity.

Both sets of authors warn against making too much of these early results,

Table 6.3 Moving to opportunity

Studies	Scientific methods score (number of cases treatment/control)	Description of intervention and findings
Ludwig <i>et al.</i> (2000), Moving To Opportunity - Baltimore (MTO)	5 (Exp./Comp./Con. 252/188/198)	Eligible families with children who resided in public housing were randomly assigned to a control group or one of two treatment groups: experimental group received housing subsidies valid only in low poverty areas; comparison group received unrestricted housing subsidies. Experimental treatment relative to controls had 6.7% decrease in welfare receipt first year post-program (9.2% decrease 3 years post-program) and with 5.6% increase in welfare-to-work exits. Smaller decreases were evident for comparisons relative to controls. Experimental treatment relative to controls had 10.6-15.0% reduction in problem behavior in boys, 6.5% reduction in criminal victimization, and similar improvements in feelings of safety, child's physical health and adult mental health. Smaller changes were evident for comparisons.
Katz <i>et al.</i> (1999), Moving To Opportunity - Boston (MTO)	5 (Exp./Comp./Con. 240/120/180)	
Ludwig <i>et al.</i> (1999), Moving To Opportunity - Baltimore (MTO)	5 (Exp./Comp./Con. 252/188/198)	Treatment families that relocated had children at higher risk for criminal involvement. Experimental treatment relative to controls had 7% decrease in violent crime arrests (10% decrease for comparisons relative to controls) in first year post-program, but property crime arrests increased 8% for experimental youths. No change was evident among comparisons.

## Notes

MTO = Moving To Opportunity

Exp. = experimental group

Comp. = comparison group

Con. = control group.

but it would appear safe to conclude that moving to lower poverty areas does have the potential at least to marginally help poor urban women and their children isolated in inner-city public housing communities. It bears repeating that housing dispersal programs have met significant opposition from suburban residents afraid of the impact of poor minority families on their communities. For example, the expansion of Moving to Opportunity to include more than 1,300 families was defeated after it became a political issue in the 1994 election. The Mount Laurel decision in New Jersey, a two-decade-old, court-enforced dispersal strategy, is now being undermined by legislators. In addition, minorities sometimes voice a concern that the dispersal of minorities to the suburbs will weaken minority political power (Hughes, 1993). Given these problems, it seems politically unlikely that housing mobility programs will ever include a large fraction of the residents of poor inner-city neighborhoods.<sup>17</sup>

This reality, however frustrating, suggests that perhaps a strategy aimed at integrating workplaces instead of neighborhoods might be easier to implement. Using this logic, a useful approach to the problem of inner-city poverty is mobility programs which provide transportation for inner-city residents to the suburbs (Hughes, 1993). Such a program recognizes (and takes advantage of) the power of the suburban labor markets to increase residents' incomes while avoiding the political problems associated with housing dispersal. This idea is relatively new, and as a result only a small number of programs are in operation in the United States.<sup>18</sup>

HUD has funded an \$18 million demonstration program in five sites starting in 1996 and running for 4 years. The strategy has three main components: a metropolitan-wide job placement service to connect inner-city residents with suburban jobs, a targeted commute mechanism to provide transportation to the jobs, and a support services mechanism which will try to ameliorate some of the problems that may result from a long-distance commute into a primarily white suburban location. Rigorous evaluation with random assignment is currently being undertaken by Public/Private Ventures. Mid-stream process evaluations (all that is available now) suggest that implementation and operation of this type of program is difficult, particularly in tight labor markets. Tight labor markets mean that motivated workers can find decent jobs on their own close to where they live. The remaining workers often need serious training and skill development. As a result, these reverse commuting programs are spending time and resources on both worker training and job development.

The mobility programs are rooted in theoretically very different approaches to reducing central-city crime. Housing dispersal programs attempt to break up the poverty community. Reverse commuting preserves the community but at a cost: the long commuting causes reduced guardianship and parenting that have potentially negative effects in the home communities. Children also do not benefit in the same way because they continue to live in depressed environments. These reverse commuting programs might serve to increase employment and decrease the criminal activity of a particular person, but the programs will probably not have the indirect anti-criminogenic effects of housing dispersal programs.

## Demand-side programs

### *Bonding and wage supplements*

All the programs described in the previous section focused on changing individual behavior. Yet employers may feel that certain individuals, particularly ex-offenders, represent a potential risk. A criminal history record appears to be a predictor of low job attachment (in part because of the risk of future arrest and incarceration), poor performance, theft and malingering. To overcome these barriers, a number of programs offer to compensate employers for the risk associated with hiring workers with a criminal record, thus increasing the demand for this kind of labor.

One class of programs directly lowers the employer's wage payments, either with a subsidy or through a targeted job tax credit (i.e. the employer of a particular class of worker is able to deduct the payments or some portion of them, from taxable income). This reduces the employer's labor cost since the government pays part of the wage. The programs are transitional and are intended to last just long enough for the offender to acquire a work history that of itself will increase future prospects. The second class of program is more indirect and takes the form of subsidized bonding of offenders, thus reducing the cost for the employer of insuring himself against specific crimes, such as inventory theft; such bonding is normally provided by private corporations.

The federal government, however, has provided little funding for these programs. In 1995, the Department of Labor discontinued the Targeted Jobs Tax Credit, for which the annual budget never exceeded \$10 million, with most of that targeted to other disadvantaged groups. Some state Departments of Corrections (e.g. Texas) do offer wage subsidies. However, no evaluation identifies the impact of these on either employment or crime. In addition, some researchers (US Department of Labor, 1995) feel that these programs actually hurt ex-offenders by clearly identifying their ex-offender status. The one independent review of the Targeted Jobs Tax Credit was not optimistic that these programs improved employment among ex-prisoners (Jacobs, McGahey and Minion, 1984).

### *Enterprise zones*

Community development programs use demand-side policies to help particular neighborhoods. Although these programs are focused on depressed areas, community development programs, like housing dispersal programs, can be used in a wider array of settings. They are of particular interest for crime prevention because they propose to help both individuals and neighborhoods. New jobs present more opportunities for legitimate work to compete with illegitimate opportunities often present in these communities. Jobs visibly available in an area may also provide motivation for young people to continue their education and to enroll in training programs. The economic activity that new or expanded businesses represent can also lead to increased social interactions among residents and strengthen social institutions (churches, business organizations, schools), which can exert a positive influence on individuals who might otherwise revert to crime.

Enterprise zones are one relatively new policy tool focusing tax incentives at generally small, economically depressed geographic areas (Papke, 1993; Erickson and Friedman, 1991). These programs typically use investment incentives, labor incentives and financial incentives to encourage job development (Erickson and Friedman, 1991). The investment incentives include credits for property taxes, franchise taxes, sales taxes, investment taxes and other possibly state-idiosyncratic employer taxes (e.g. inventory tax credits). The labor incentives include a tax credit for job creation, for hiring a zone resident or some other disadvantaged person, and for training expenditures. Finally, the finance incentives sometimes include an investment fund associated with the program and preferential treatment for federal bond programs. These programs are based on the assumption that employers are sensitive to state and local tax incentives in their location decisions. The academic literature shows mixed results about the validity of this claim, although recent evidence suggests that investment is more responsive to state and local taxes than previously thought (Bartik, 1991).

As of 1995, 34 states had a total of 3,091 active enterprise zone programs (median = 16), and the Federal Empowerment Zone and Enterprise Community Program has introduced 106 more zones (Wilder and Rubin, 1996). The state zones are limited in the value of the incentives they can offer, precisely because federal taxes (e.g. corporate profits tax) are so large and cannot be waived by the state. According to Erickson and Friedman (1991), the median zone population for the state programs is about 4,500 persons and the median zone size is about 1.8 square miles. Zone designation is usually based on unemployment rates, population decline, poverty rates, median incomes, the number of welfare recipients or the amount of property abandonment. The federal government provided direct funding of about \$40 million in 1999. Beginning in 2000, the government will provide \$1.5 million each year for the next 10 years. The federal evaluation will be completed by Abt Associates in December 2000.

All evaluations consider only the immediate economic outcomes of these programs, and do not examine the larger social implications, such as crime reductions (see Table 6.4). Only Bartik and Bingham (1997) show an awareness of this shortcoming. The evaluations also do not attempt to determine the impacts of individual incentives. The incentives are typically used in concert, so that the economic growth in any given zone cannot be attributed to any one incentive; nor is it possible to separate out component effects using econometric techniques.

The main theoretical concern about enterprise zones is that they will simply relocate existing jobs rather than create new jobs. In fact, the British government, which pioneered these zones, abandoned its enterprise zone program after researchers found that nearly all jobs in enterprise zones (86 percent) represented relocation from neighboring communities. The US experience is somewhat more optimistic: the literature seems to agree that, of all the new jobs found in enterprise zones, roughly 25 percent are due to relocation, 25 percent are due to new business and 50 percent are due to expansion of existing businesses (Wilder and Rubin, 1996). Of course, not all the jobs that appear in the enterprise zone should be attributed directly to the zone incentives. However, the primary modes of evaluation in this field,

Table 6.4 Enterprise zones

Studies	Scientific methods score (number of cases treatment/control)	Description of intervention and findings
Bondonio and Engberg (2000), Enterprise Zone Greenbaum and Engberg (2000), Enterprise Zone (EZ) Engberg and Greenbaum (1999), Enterprise Zone (EZ) Greenbaum and Engberg (1999), Enterprise Zone (EZ) Boarnet and Bogart, 1996, Papke, 1994	3 (Ns unclear) 3 (341/3,241) 3 (303/1,102) 3 (345/2,897) 3 (7/21) 3 (15/24) 3 (5/27)	Targeted tax breaks and other incentives to depressed economic areas to encourage growth. The impact of EZs at zip code level in five states found no effect of the presence of EZ, level of monetary value of incentives, or other program characteristics on local employment growth. The impact of EZs at zip code level in six states found that areas that were worse off economically were most likely to be designated as EZs. Comparison of EZs with a matched sample of non-EZs found no impact on housing values, rent, ownership, occupancy, income or employment. The impact of EZs at place level in 22 states found that EZs raised housing values in areas with low housing vacancy rates, but had a negative impact in areas with high vacancy rates.
Bostic, 1996	3	Comparison of EZs with a matched sample of non-EZs found no overall employment growth, but a positive impact on employment growth among new establishments which was offset by losses among existing establishments.
Office of the Auditor General, California, 1988	1 (13)	New Jersey EZs have no impact on employment and business growth. Indiana EZs decrease zone unemployment by 19%. California EZs in small cities increase business construction.
Dowall <i>et al.</i> , 1994	2 (13)	Survey of firms indicates small net increase in economic activity with wide variability across zones.
Erickson and Friedman, 1991 GAO, 1988	1 (35) 2	Although employment growth and increased business activity increased in all CA zones, researchers concluded that zone incentives could not be linked to growth. EZs in 17 states appear to create jobs in areas with development potential. EZs are ineffective in highly distressed areas.
HUD, 1996	3 (3)	Three rural Maryland EZ zones showed significant increases in employment and investment after zone designation.
Jones, 1985	1 (10)	Interviews with zone managers in ten zones in nine states show zones lead to significant new investment and job growth.
Jones, 1987	2 (1/1)	Connecticut EZ has no impact on building activity.
Wilder and Rubin, 1996	2 (1/1) 1 (1)	Illinois EZ has an impact on building activity. Firm-level survey data show increase in jobs due to Indiana EZ in Evanston.

correlation and before-and-after without comparison group (scientific methods score 1 and 2), do not allow researchers to isolate the contribution of the zone incentives.

In addition, most of these studies use data from surveys of zone firms or zone managers; these lack credibility as measures since both groups have an incentive to place a positive bias on the outcomes.<sup>19</sup> These studies generally conclude that the zones increase jobs and investment, although results vary by zone.<sup>20</sup>

Three studies (Papke, 1994; Boarnet and Bogart, 1996; Bostic, 1996) attain a level 3 scientific methods score by performing before-and-after studies of a particular state's enterprise zone (EZ) program (Indiana, New Jersey and California, respectively) with comparison groups from other eligible areas in the state. Each study also uses data collected by independent agencies, so the data is unlikely to be biased by EZ participants. The first two studies used econometric methods to control for selection bias; the study by Bostic did not.

The results of the first two studies contrast strongly – the New Jersey study found that the zones had no impact on total employment or property values in municipalities with zones,<sup>21</sup> while the Indiana study found that the zones led to a long-term 19 percent decline in unemployment rates in municipalities with enterprise zones. The Indiana researcher was somewhat surprised by the magnitude of this effect, given that the employment incentives were limited in the Indiana zones. But the study also found that firms responded to reductions in inventory taxes by increasing inventory by 8 percent and reducing capital machinery by 13 percent. These changes in inventory and machinery may represent the conversion of firms from manufacturing to more emphasis on distribution, generating a positive impact on employment. Bostic's study used investment growth rather than employment as the principal outcome measure. He found that the EZs had a significant but small impact on commercial construction permits and an insignificant impact on the number of businesses in an area.

More recently, there have been four studies by a group of researchers which attempt to go beyond these single state studies to look at variation across states for state enterprise zones (Bondonio and Engberg, 2000; Engberg and Greenbaum, 1999; Greenbaum and Engberg, 1999, 2000). These studies include the most rigorous econometric controls yet employed for pre-existing differences between places with enterprise zones and places without enterprise zones. These studies also made use of impartial Census Bureau data from 1980 and 1990 on housing values, housing vacancy, employment and area income. The broadest study (Engberg and Greenbaum, 1999) looks at 303 enterprise zones located in places with between 5,000 and 50,000 people in 22 states. The study finds that the enterprise zone has no overall impact on housing markets. They do find that zones with low vacancy rates see an increase in housing values after the start of enterprise zones, while zones actually reduce the housing value growth rate for places with high vacancy rates. This suggests that enterprise zones are actually harmful in the most depressed locations.

A similar analysis was conducted for zones located in larger metropolitan urban areas based on zip code data for six states (Greenbaum and Engberg,

2000). Once again they find that zones have no impact on the overall housing values, and in fact lead to declines in the average growth in housing values in California and Virginia, rents in California and Florida, and occupancy rates in Florida and Pennsylvania. Zone impacts on income and employment outcomes are either negative or insignificant. Unlike the previous report by Engberg and Greenbaum (1999) the results did not appear to depend on the initial values of the zones in 1980.

Bondonio and Engberg (2000) did a similar study with advanced controls for selection bias on enterprise zones in five states and found no effect of the zones on employment outcomes. Bondonio and Engberg also looked at separate components for each of the enterprise zones and found that the monetary value of the incentives did not increase the probability of success. This result contrasts with the suggestions of reviewers like Bartik (1991).

Finally, in attempt to peel back the layers of the onion on what may be going on in these enterprise zones, Greenbaum and Engberg (1999) look at establishment level employment statistics for enterprise zones in metropolitan areas in six states using a matched sample difference-in-difference approach. They found that enterprise zones increased employment and business activity in new establishments while decreasing employment and business activity in old establishments. The net effect was a small decrease in employment. Essentially, this study finds that, as in the UK, zones lead to increased churning of business activity without any net gains in employment. They suggest that perhaps the political nature of the zones tends to over-emphasize new businesses without paying much attention to existing businesses. It is also possible that depressed areas that did not get zones (the matched comparison places) received other types of public investment tailored to existing businesses.

This new body of rigorous research on many zones over a number of states certainly raises serious questions about the ability of enterprise zones to significantly change the business environments in depressed urban areas. The upcoming evaluation of the Federal Empowerment Zones, due to be released in December of 2000, should either validate this negative conclusion or suggest that federal zones, as opposed to state zones, have the ability to make an impact.

#### *Community Development Block Grants*

The 1974 Community Development Block Grant (CDBG) Program represents the other major federally funded program aimed directly at revitalizing distressed neighborhoods. Instead of relying on tax credits as incentives, this program provides direct funding to local governments. In 1992, CDBGs provided local jurisdictions with \$4.8 billion to be spent on activities that support any one of three objectives: benefiting low- and moderate-income persons, preventing or eliminating slums or blight, or addressing other urgent community needs. The program funding breaks down broadly into five main areas: housing (38 percent), public facilities (22 percent), economic development (12 percent), public services (9 percent), and acquisition and clearance (6 percent). The remaining 13 percent is for administration of the program. Although there are no outcome evaluations

of this program,<sup>22</sup> the sheer size of the economic development component of this program (\$251 million in 1992) demands inclusion in this section.

Most of what follows is based on a 1995 funding process evaluation sponsored by the Department of Housing and Urban Development (Urban Institute, 1995). The evaluation, like those for Enterprise Zones, considers only economic outcomes. A full 78 percent of the \$251 million economic development grant money was spent on loans and grants to private businesses. Most of the recipient businesses were small, and 37 percent of these businesses were minority owned. These loans seemed to perform better than the non-geographically targeted Small Business Administration loans. According to the HUD report, these loans were more important to the business activities of the recipients than the EZ tax incentives,<sup>23</sup> but neighborhood residents held a comparable number of the newly created jobs under both programs (approximately 30 percent).

An effort was made to provide a before-and-after study of 250 census tracts in the CDBG program (scientific methods score = 2), using a survey on all CDBG funding and census data from 1980 and 1990. This study found a clear relationship between the level of funding and tract income: tracts that saw an increase in income received \$1,247 per capita, tracts that were stable between the two time periods received \$844 per capita and tracts that declined received \$737 per capita. Improvement in low-income tracts usually only occurred through gentrification or out-migration of low income people, but in several instances the arrival of major industrial facilities resulted in an increase in income for the tract residents.<sup>24</sup>

In more general terms, the researchers concluded that the existence of an income-mix among neighborhood residents and a healthy commercial district appeared to help development. Within the context of this review, these factors could signal the existence of a certain level of social control that would allow community programs to be effective. Neighborhoods without these factors may not have enough social capital to take advantage of any community-based program.

#### *Weed and Seed*

The demand-side programs (Community Development Block Grants and Enterprise Zones) involve such a broad array of incentives and funds that it will be hard to determine what might explain any positive findings and thus what is worth replicating. Furthermore, neither represents a focused effort to solve the crime problems present in the inner city. Policymakers focused on this problem within the Department of Justice have observed that these areas are characterized by weak attachment of individuals and communities to the legal labor market (Wilson, 1987). This means that resources are not being directed towards success in that market. For example, low employment rates provide little incentive for individuals to make the necessary investments in human capital, limit the adverse consequences of arrest and incarceration, and limit the number of pro-social role models who may support an individual in the common struggles of working life. Neighborhoods where many males support themselves through some drug selling will not have many of the social institutions that support legitimate work, making it more difficult

for individuals to make the transition to legitimate work. Wilson (1996) argues that youth who grow up in communities where people do not regularly work do not learn necessary job skills, such as how to dress or how to arrive on time. Rosenbaum (1996) also argues that youth have difficulty finding employment when they live in impoverished neighborhoods because their friends and family are not likely to provide many job connections. The perceived returns from continuing in school or from acquiring human capital in other ways is therefore low. This leads to low rates of high school graduation rates and high attrition in training programs, maintaining the under-investment in human capital of the previous generation in high poverty neighborhoods.

In this environment, criminal activity is both a reason for the poor attachment and an obstacle to creating a stronger bond with the legal labor market. For example, high neighborhood crime rates provide individuals with an alternative economy in which to earn a living while deterring employers from seriously considering locating in these areas. Criminal activity is a major obstacle for any positive programs aimed at creating legal employment. A large fraction of adult criminal offenders are substance users; their involvement with expensive illicit drugs, such as cocaine and heroin, is distinctive. This represents a major employment handicap, which has to be addressed before realistic employment can occur. The same forces are at work in the community at large. Evidence from Bostic (1996) shows that places with high crime rates have a hard time attracting employers. Crime has to be addressed before businesses will invest in an area.

Policymakers have concluded that if they want to "reattach" communities or individuals to the legal labor market, then they must simultaneously "detach" these communities or individuals from crime, and provide opportunities for legal activity. This line of reasoning represents the basic premise of Operation Weed and Seed.

Operation Weed and Seed represents an ambitious federal, state, and local effort to improve the quality of life in targeted high crime areas in urban settings, launched in 1991 by the Department of Justice. Weed and Seed programs can be found in over 200 sites nationwide with an average funding level of about \$225,000. There are some key components of this strategy, including a) enhanced coordination among local actors to solve local problems, b) weeding out criminals from target areas through concentrated efforts of local law enforcement, c) proactive community policing intended to maintain a stable low crime equilibrium and d) seeding efforts, consisting of human service provision and neighborhood revitalization effort to prevent and deter further crime.

A major national evaluation of Weed and Seed was released in 1999 (Dunworth *et al.*, 1999; see Table 6.5). From our perspective, this evaluation is unfortunately weak, consisting of a before-and-after (scientific methods score = 2) study of only eight Weed and Seed sites. This poor design is the result of the political process which moved forward on the attractive notion of Weed and Seed without an evaluation strategy.

Weeding activity tended to predominate, with increased special operations for targeted law enforcement. In general, local prosecutors' offices were not brought into the program, resulting in a fair amount of churning: arrests

Table 6.5 Weed and Seed

<i>Studies</i>	<i>Scientific methods score (number of cases treatment/control)</i>	<i>Description of intervention and findings</i>
Dunworth <i>et al.</i> (1999), Weed and Seed	2 (No comparison)	Interagency effort to remove offenders from target areas and to deter further crime through community revitalization. Pre/post comparison after 2 years found a 6.1–45.9% decrease in index crime rates in 6 of 10 target areas relative to surrounding city (in 3 target areas an increase of 1.9–13.8%). Significant decreases in the percentage of respondents reporting crime as a big problem (4 of 8 sites) and victimization (3 of 8 sites). Significant increases in the percentage of respondents indicating greater police effectiveness (5 of 8 sites) and improved quality of life (6 of 8 sites).

without incarceration. The Boston Gun Project has clearly demonstrated the value of including the prosecutor's office in any local law enforcement crackdown. Youth programs in a wide array of categories including job training tended to dominate the seeding activity, followed by a neighborhood beautification program. Adult employment and economic advancement programs only played a minor role in most sites. Seeding activity tended to be less well implemented relative to weeding, and usually followed the weeding program sequentially, instead of occurring simultaneously. Weeding activities without seeding tended to alienate community residents. In terms of the desired outcomes, five of the eight sites had decreases in Type 1 offenses<sup>25</sup> reported to the police 4 years after the implementation of Weed and Seed. These decreases exceeded the rates of decline in the cities as a whole. This comparison is not wholly satisfying, as the authors recognized, because of the differences between a small inner-city neighborhood (the target area) and a large metropolitan area. It is noteworthy that the pattern of crime in the Weed and Seed site was consistently in the same direction as the observed pattern for the city as a whole, making it possible that the observed pattern is simply the result of city-wide changes in crime rates.

Results of a neighborhood survey conducted at 2-year intervals showed that four sites had substantial reductions in perceptions of neighborhood declines, but only one site showed a decline in the victimization experiences of the respondents. In general, although there were no negative findings, the survey results showed little impact. This could reflect the difficulties associated with this part of the evaluation, which had substantial non-response rates. The problems led to the use of in-person interviews in the first wave and phone interviews in the second wave, which may not be comparable.

A fair review of Weed and Seed based on this evaluation must conclude that there has been little sustained impact. This could be the result of many factors, including the relative paucity of the funding initiative, the lack of coordination of the Weed and Seed components, and the relative failure of

the seeding initiatives. Funding at \$225,000 per area is simply not enough money to make a difference with such a large and structurally complex problem.

### Conclusions

We feel confident in stating that programs that aim to shift more poor people out of crime and into employment must accomplish at least these three steps:

- Step 1. Reduce the attraction of crime.
- Step 2. Treat substance abuse problems.
- Step 3. Provide social and educational supports to help high-risk individuals obtain employment.

At the individual level, Job Corps is the "poster child" for this approach. Step 1 is accomplished by removing youth from their neighborhoods and placing them in an intensive, pro-social, residential environment. Step 2 is accomplished through the provision of substance abuse treatment at most of the centers as part of the program. Step 3 is accomplished through the development of bonds with the program leaders, the use of the extensive job networks developed by Job Corps, and the actual education and training that takes place at the Job Corps centers. Gautreaux and Moving to Opportunity accomplish Step 1 and Step 3 simultaneously (women with obvious substance abuse problems are not eligible for the program) by moving families out of the inner city and into the suburbs; crime is less attractive because the networks of offenders are less dense. Mentoring was found to be the most important part of the Quantum Opportunities Program – perhaps because it provided students with an older role model who could help them redirect their attention towards school and away from less "productive" alternatives (Step 3).

The preponderance of individual-level programs in the above examples is not a coincidence. Implementation of programs at the community level is almost by definition difficult (see Chapter 5). The community-level program that is closest to this logic, Weed and Seed, has had difficulty implementing the Seed (which includes job training) part of the program systematically. Detaching a community from crime without providing alternatives is unlikely to be effective, and will probably antagonize local residents.

One reason that implementing programs at the community level is more difficult than implementing programs for individuals is simply scale. It is always easier to affect change with one person rather than 1,000 people. But we do not believe that the problem is just one of scale. It is also possible that at the community level the process is not linear. In other words, one cannot expect to reconnect people to legal work one at a time until the majority of people in the community are focused on work rather than crime or other enterprises. Perhaps, instead, it is necessary to create large-scale change before people are willing to tackle the types of changes these different programs will inevitably inspire. This problem is a natural result of the type of neighborhood effects discussed above. Since what your neighbors do

matters, policymakers might need to get substantial numbers of people moving together, in order to allow them to support one another. This conclusion is the basis for the US Department of Labor (1995) recommendation that poor neighborhoods should be saturated with a range of interventions intended to alleviate poverty so that "the employment outcomes of some person within a community can lead to 'spillover effects' as other people in the neighborhood are influenced by the positive actions of their peers" (p.63).

The Youth Opportunity Act is the Department of Labor's response to that charge. The goal is to saturate low-income, high crime communities with educational, employment and training programs aimed at 16–24 year old out-of-school youth. The level of funding is impressive (\$250 million a year targeted at 42 sites). For the first time ever, community-level outcomes will be studied along with individual-level outcomes, formally recognizing the link between individual-level and community-level outcomes. Results from a three-site pilot study started in 1996 are cautiously optimistic (see Table 6.2). An audit of the process at the three pilot sites, however, showed that implementing intensive programs in highly disadvantaged areas can be a very difficult process, a lesson learned earlier in the Community Block Grant Program and Weed and Seed (Office of Inspector General, 2000).

One final caveat about community-level programs seems worthwhile. The very programs that are the most successful at the individual level may be harmful at the community level. Programs like Gautreaux and Job Corps which take people out of the community at least temporarily also paradoxically may worsen the situation of those who remain, since the movers are likely to be among the more forward looking adults in these fragile inner-city communities. Similarly, programs like reverse commuting, though they may bring important benefits for individuals, may exacerbate problems if the long commutes reduce still further the extent of adult supervision of children that is such an important component of effective community. This of course suggests the attractions of the converse, bringing some middle-class households back into the neighborhoods that are so devastated. But this type of strategy places the burden on Step 1 far more than in any individual-based programs. It is relatively easy to "detach" an individual, particularly a motivated individual, from crime. But it is still unclear whether police have developed effective strategies that can reduce crime dramatically over a long enough time to encourage capital investment by new residents and businesses. These are the types of questions that need to be addressed in future research.

### Notes

- 1 The authors would like to recognize the excellent research assistance of Jennifer Borus and Robert Apel.
- 2 Employment, like crime, has many dimensions. Jobs vary in wage rates, work satisfaction and duration. Measured correlation between employment rates and crime may be confounded by failure to measure variation in job quality adequately.
- 3 We focus here on employment measures rather than unemployment because in many areas the problem is less a matter of formally defined unemployment than low labor force participation rate. In the face of persistent unemployment, discouragement may lead many to drop out even from job search.

- 4 This may reflect the higher quality of post-1970 data, itself a consequence of the activities of the Law Enforcement Assistance Administration (as well as its successor federal agencies) and the criminal justice system investment in computers, among other factors.
- 5 It is difficult to classify all job training programs in terms of our programmatic interest. For example, Job Training and Partnership Act (JTPA) Title-IIA (\$955 million in FY, 1999) is aimed at economically disadvantaged adults; some of those adults may be involved with the criminal justice system and others may still be young enough to be reasonably classified as "youth," but many may be at slight risk of serious criminal involvement. Given the large number of other JTPA Titles that were more directly targeted at disadvantaged youth, we did not include any of Title-IIA.
- 6 We identify the targets as offenders rather than ex-offenders because in fact what is known is that they have committed a crime. The ex-offender status is a goal rather than a description.
- 7 Note once again that the Vocational Delivery System and Supported Work programs cited above are not technically part of the juvenile criminal justice system.
- 8 Differences in release date meant that a uniform follow-up period would have excluded significant periods of post-release exposure for some participants.
- 9 JTPA is the main federal funding source for job training programs in the US. JTPA funds a number of discrete program types including a) job search assistance, b) remedial education, c) occupational training, d) work experience, e) on-the-job training and f) customized training for a particular employer.
- 10 Strictly speaking, the provision of a job is not a job training or education program. However, many employment skills are learned on the job; employment increases future employability.
- 11 Self-report from program participants about crime involves inquiring about sensitive behaviors. Official record checks of criminal histories requires information from a different set of agencies, with different sensitivities, from those providing the other outcome data.
- 12 This result is consistent with the conclusion of Sampson and Laub (1990) who find that the critical variable is not the job but the social bonds of the workplace, bonds that probably are absent in a short-term subsidized work environment.
- 13 The reported reduction in homicide rates suggests that the control group had extraordinarily high homicide rates compared to their peers, thus making suspect the claimed reduction in homicides for the experimental subjects. Homicide reductions accounted for a large share of the dollar benefits estimated in the evaluation. On the other hand, the figure used for estimating the value of a life for homicides was much lower than reported elsewhere in the literature; it is possible that the errors roughly cancel out.
- 14 In fact, the males who are in the non-residential programs are no less likely to be arrested than the control group.
- 15 Massey and Denton (1993) argue that the strong desire for racial segregation has also been an impetus for the exit of jobs.
- 16 The sample is different for the children and the mothers. The children come from a sample originally composed in 1982. They were re-interviewed in 1989. Only 59 percent of the original sample could be relocated, and most of those relocated had moved from another location, not the location where the first interview was done. The potential for bias exists because the harder to locate families might vary by suburban or urban location.
- 17 Of course, many of the same objectives met by housing dispersal programs could be met by encouraging gentrification of older depressed neighborhoods, though gentrification often involves the exit of current residents.
- 18 Within this area, we noted the absence of any discussion of the role of crime in driving business to the suburbs, or the potential crime prevention effects of new job connections in the suburbs.

- 19 In an attempt to determine what would have happened if the zones had not existed, these surveys ask zone firms and zone managers how many of the jobs were due directly to the incentives. It is in the self-interest of both sets of agents to provide positive answers.
- 20 The surveys did provide useful insight into the elements of programs which seemed to work best. Bostic (1996) concludes that the incentives provide only marginal incentive for firms to locate in zoning areas. Program success in California depends on supplementing the tax incentives with an active local government or community effort, mainly with marketing. Wilder and Rubin (1996) conclude that places with severe economic blight need additional assistance beyond enterprise zones, and autonomous management of the zone is effective. Finally, Erickson and Friedman (1991) conclude that the most successful state programs restrict the number of zones, use a competitive award process (which pulls together local resources), and provide significant incentives to these limited, targeted areas.
- 21 This result is especially interesting given that a before-and-after study by Rubin (1990) found substantial effects in New Jersey.
- 22 The lack of outcome evaluations is attributed to the flexibility of the programs, the lack of credible evidence about what would have occurred in the absence of the program and the inability to conceptualize and measure clear outcomes at a neighborhood level.
- 23 A full 80 percent of recipients said that the loan was crucial to their activity, while EZ incentives are typically important for 30 to 40 percent of all EZ businesses (Wilder and Rubin, 1996).
- 24 Although these numbers appear to suggest that higher CDGB funding generates improvements, this conclusion is not possible without some other comparison. For example, there may be selection bias; better organized communities, which are more likely to be improving economically anyway, may do better in the grant application process.
- 25 Under the Uniform Crime Report, there are eight Type 1 offenses: homicide/non-negligent manslaughter, forcible rape, robbery, assault, burglary, larceny, motor vehicle theft, and arson.

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## 7 Preventing crime at places

John E. Eck<sup>1</sup>

### The importance of places for prevention

Individual behavior is a product of an interaction between the person and the setting. Most criminological theory pays attention only to the first, asking why certain people might be more criminally inclined or less so. This neglects the second, the important features of each setting that help to translate criminal inclinations into action.

(Felson and Clarke, 1998, p. 1)

Some locations are crime hot spots. Offenders and targets repeatedly meet there at the same time and with little supervision. These places are the sites for a very large proportion of crime. If we can prevent crime at these high crime places, we then may have a substantial impact on crime. Because place strategies are applied close to situations in which crime is likely to occur, potential victims are more likely to use them, and offenders are more likely to be influenced by them. In this chapter, we will see that there are a large number of place-focused prevention tactics with evidence of effectiveness.

Place-focused strategies work in ways similar to those of hot spot police patrols (see Chapter 8, this volume). Police hot spot patrolling and place strategies are employed when and where they are most likely to be needed. In fact, police hot spot patrolling is a place-focused strategy. The principle differences between place strategies considered here and hot spot patrols are that they are far more varied than hot spot police patrols, they can be applied by a greater variety of people and organizations, and they usually require little use of enforcement.

A place is a small area reserved for a narrow range of functions, often controlled by a single owner, and separated from the surrounding area. By "small" we mean that a location is smaller than a neighborhood. Often, a person standing anywhere within a place can see or hear activities in any other part of the place. Technology can extend these senses. Because they are usually small and have a single owner, it is easier to control activities within places. Places include stores, homes, apartment buildings, street corners, subway stations and airports. There are mobile places as well, for example buses, subways, ships and planes.

The concentration of crime at places is predicted by routine activity theory (Cohen and Felson, 1979; Felson, 1994) and offender search theory (Brantingham and Brantingham, 1981). Some of the original evidence for