

JOBS PROGRAMS AND CRIMINAL DESISTANCE

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Both theory and intuition suggest that if offenders can be put to work, they will desist from criminal behavior. Unfortunately, the empirical evidence on work and crime suggests that the premise is difficult to attain and that its apparent consequence may not follow. Work programs have found it exceedingly difficult to weave ex-offenders into the economic fabric of society. Moreover, on rare occasions when programs appear to have succeeded in this goal, the negative association between employment and crime is disappointingly weak.

This paper reviews the theories, empirical evidence, and future design and implementation issues surrounding jobs programs for ex-offenders. We begin by introducing some potential causal mechanisms linking work and crime. We then consider these mechanisms in relation to various program design characteristics and offender target groups. Next, we review recent empirical studies to identify the treatment interventions that have proven most effective in reducing criminal behavior among ex-offenders. We then outline the characteristics of specific offender target populations that may be particularly amenable to jobs programs. Finally, we conclude with some general recommendations for designing and implementing future programs.

Contrary to the current and historical emphasis on youth programming, we will suggest that a greater share of employment and training resources be directed toward older ex-offenders. Prior research and relevant theory suggest that age and program status interact in their effects on criminal behavior. Of course, jobs programs are no panacea: the best they can do is extend a basic work or training opportunity. Our review of the evidence suggests that older ex-offenders will be most motivated to capitalize on that opportunity.

CAUSAL MECHANISMS LINKING WORK AND CRIME

First, we briefly consider causal mechanisms linking work and crime that are suggested by five broad theories: (1) the choice mechanism of economic theory, which provides the underlying hedonic base of jobs programs; (2) a commitment mechanism from social control theory, which addresses the bond between individuals and conventional institutions; (3) a peer and learning environment mechanism from differential association theory, which emphasizes the setting of programs to help ex-offenders; (4) an opportunity mechanism from anomie theory, which underscores considerations of job quality and social status; and finally, (5) a stigmatization and self concept mechanism from labeling theory, which stresses the consequences of deviant labels. Such theories have traditionally focused upon questions of etiology, or the causes of crime. In this paper, we are less concerned with why people commit crime than with the positive interventions that promote labor force reintegration and desistance

from crime. Since the participants have already engaged in crime, these interventions may be judged by their efficacy in subsequently inhibiting this behavior.¹

Each of these theories hypothesizes that one or more aspects of the employment relation affects criminal behavior. No criminological theory, however, has enjoyed consistent, unambiguous empirical support. The barriers to testing general theories of crime include confusion over temporal order, levels of analysis, measurement of crucial dependent and independent variables, and selection into the sample population under study. Nevertheless, there is much evidence to suggest that jobs programs have the potential to affect criminal behavior. In this section of the paper we identify the conceptual role of employment in each theory and, where appropriate, note selected non-experimental research findings bearing on this causal mechanism. In the section titled *Empirical Evidence on Jobs Programs and Crime*, we review program evaluations in which the employment conditions of subjects were under the direct control of researchers.

Economic Choice

Economic theories of crime typically begin with the assumption that individuals act as rational choice decision makers. The individual wealth maximization model, first applied to crime by Gary Becker, specifies that individuals allocate time (wealth) between legal and illegal endeavors (Becker 1968). Thus, one weighs the costs and benefits of criminal and noncriminal opportunities and chooses the alternative with the greatest net benefit. Ehrlich revised this model (1973), suggesting that increases in the anticipated costs of crime will lessen individuals' propensity for criminal activity. Similarly, increasing the anticipated rewards for conformity (i.e. via employment and training) will decrease the probability of illegal activity. A refinement of this approach, (Block and Heineke 1975), suggests that individuals vary in their ethical positions on criminal behavior and that these factors are also important in decisions to engage in crime. Ethical factors include the psychic rewards and costs associated with criminal activity and preferences for risk that vary across individuals (Block and Heineke 1975: 325; see also Danziger and Wheeler 1975).

Several recent essays on criminal desistance have expanded the economic choice model to include a host of situational factors that may alter the balance of costs and rewards associated with crime (Clarke and Cornish 1985; Cusson and Pinsonneault 1986; Paternoster 1989; Paternoster and Piquero 1995; but see Akers 1990 and 1994:60). Clarke and Cornish (1985) posit a model in which negative criminal experiences and life events such as marriage cause offenders to re-evaluate their readiness to commit crime. Similarly, Cusson and Pinsonneault suggest that a "reappraisal of goals" (1986:74) occurs prior to desistance. In particular, the decision to desist from crime is made after some shock, such as seeing a partner wounded, or by a process of "delayed deterrence" (Cusson and Pinsonneault 1986:75). Delayed deterrence takes the form of a higher estimate of the cumulative probability of punishment, a decreasing

1. In his classic treatment of job training for ex-offenders, Taggart (1972) emphasizes a training perspective. Here, reducing recidivism is not the major goal: "if employability can be increased among offenders without reducing the proportion who recidivate and if this can be done at a reasonable cost, then the effort is worthwhile" (Taggart 1972: 3). Thus, jobs programs for ex-offenders may be justified on grounds other than their crime-reducing capacity. In this paper, our foremost concern is with criminal desistance. Hence, evaluative outcome criteria such as employment status, earnings, and job satisfaction are primarily important as mechanisms linking job programs to crime.

tolerance for prison, an awareness of harsher punishment for repeat offenders, and a general increase in fear and anxiety (see also Shover 1996).

As suggested above, the economic model of criminal choice predicts a strong negative relationship between work and crime. Within this framework, the opportunity costs of crime are higher, and the relative returns to crime lower, for those in the paid labor force relative to unemployed persons (Witte 1980). Therefore, these models imply criminal desistance policies that will increase the rewards of legal opportunities, such as employment and training. Specifically, jobs programs promote desistance directly by increasing the economic return to legitimate work and indirectly by increasing human capital (Schultz 1961; Becker 1962) through skill training and work experience.

Commitment

Social control theorists argue that the likelihood that individuals will engage in crime is directly related to the strength of their social bond to conventional institutions (Hirschi 1969). Employment most directly affects one's commitment to conventional lines of action, a key component of this bond. Once a person has invested time and energy in securing and maintaining employment, he has a "stake in conformity" and is hence less likely to commit acts that would jeopardize that investment. Jobs with established career ladders and restricted entry standards, for example, should engender greater commitment among workers than jobs lacking these characteristics.

Work may function as a controlling institution for the adult just as school functions as a controlling institution for the juvenile. In fact, some surveys suggest that the effects of time spent working are virtually identical to the effects of time in school in multivariate models of deviance (Tauchen, Witte, and Griesinger 1994; see also Gottfredson 1985; Farrington, Gallagher, Morley, St. Ledger, and West 1986; Sullivan 1991). In this connection, Crowley (1981, 1984) has attempted to combine control theory with an economic model of delinquency. Her analysis of the National Longitudinal Survey of Labor Market Experience of Youth suggests differences in the relationship between crime and employment depending on the life stage of individuals (Crowley 1981:18). While adults may act as rational calculators, weighing the costs and benefits of criminal activity, the relation between work and crime is mediated by school experiences for youth. If work is correlated with early school-leaving, for example, it may be a positive predictor of crime among adolescents.¹

Despite the seeming aptness of social control theory for linking work to crime, recent restatements of the model are immoderately pessimistic about the prospects of jobs programs for ex-offenders (Gottfredson and Hirschi 1990:138-139).² Here, crime is viewed as a product of low self control arising from inadequate socialization and the relation between unemployment and crime is spurious due to a common cause: the stable personality trait identified as impulsivity or low self control. Gottfredson and Hirschi further suggest that individuals will uniformly desist from crime with age, but in no way is desistance causally related to labor force behavior (for an alternative view, see Grogger 1994 and Uggen 1995).

¹ The relationship between adolescent work experiences and adult occupational attainment is equally complex (see e.g., Greenberger and Steinberg 1986; Mortimer and Johnson 1996).

2. In fact, Gottfredson and Hirschi "conclude that employment does not explain, or help to explain, the reduction in crime with age, and that it is not relevant to theories that differentiate between offenders and non-offenders" (1990: 139).

In contrast to Gottfredson and Hirschi, Sampson and Laub (1990; 1992; 1993) posit a central role for employment in their age-graded theory of informal social control. The stability and commitment associated with work, rather than employment *per se*, reduces crime. In a series of influential reanalyses of the Gluecks' data (Glueck and Glueck 1950), Sampson and Laub (1990) claim support for their informal social control model in part because job stability and marital attachment are negative predictors of adult crime and deviance.

Peers and Learning Environments

Although social control theories assume variation in informal controls, they suggest that the *motivation* to commit crime is relatively constant across individuals and social groups (Hirschi 1969; Kornhauser 1977; but see Briar and Piliavin 1965). The third line of theoretical reasoning reviewed here suggests that certain groups, such as recently released parolees, may have opportunities and inducements to commit crime that non-offenders lack.

Differential association (Sutherland 1947) and social learning theories (Burgess and Akers 1966) argue that crime results from learned "definitions" -- specific technical skills as well as motives, drives, rationalizations, and attitudes -- that are favorable or unfavorable to crime. By this view, criminal behavior is learned just as any other behavior is learned. Surveys of the general population often reveal a positive correlation between self-reported law violation and employment for adolescents (Bachman and Schulenberg 1993) that disappears once the number of delinquent peers is held constant (Ploeger 1995; see also Mihalic and Elliott 1995). This suggests that the employment and training setting must be structured to actively encourage desistance from crime. Vocational training and subsidized work programs could presumably impart pro-employment definitions. In Sutherland's terms, employment and training programs should continue to teach "techniques" of job seeking and job keeping, but also present "motives, drives, rationalizations, and attitudes" that are unfavorable to crime.

Learning theories further suggest that suitable role models be in close contact with participants, for this facilitates dissemination of definitions unfavorable to crime; that labor force information be made available to them, for this expands participants' knowledge of conforming activities; and that the learning take place in a setting directly transferable to the external labor market. We return to these issues below in our discussion of the operational complexities and empirical results of employment and training programs.

Opportunity

Anomie (Merton 1938; Messner and Rosenfeld 1997) and opportunity (Cloward and Ohlin 1960) theories link criminal behavior and work with the causal mechanism of legitimate opportunity. According to Merton, the combination of universal cultural success goals and an unequal distribution of legitimate means to their attainment produces a societal condition of anomic stress. In modern American society, the most prominent success goals are economic affluence and social ascent, while the legitimized institutional means to these goals are educational and occupational opportunities that are unevenly distributed throughout the social structure.

Criminal offenders are seen as "innovators" who spurn low-status, low-wage work and travel illegitimate avenues in pursuit of success goals. To the extent that an individual locates employment that is economically rewarding and personally satisfying, he will perceive that he has greater access to success goals. Aside from both immediate and long-term financial gains from employment, labor market success may also serve as evidence that success is possible in other aspects of life (Piliavin and Gartner 1979:7). Opportunity theories therefore direct

attention to the status and overall quality of work that is available through employment and training interventions.

Stigmatization and Self Concept

The final theoretical mechanism we examine also directs attention to job quality and social position. Labeling or societal reaction models posit that the labels applied to ex-offenders have negative consequences that constrain future behavior (Lemert 1951, Becker 1963; but see Bushway 1996). Becker notes that deviant labels are assigned generally rather than specifically. Hence, the term "criminal" connotes auxiliary traits -- such as shiftlessness or untrustworthiness -- that stigmatize the offender and increase the likelihood of future deviance. After an individual has been labeled as deviant, he may be severed from contact with conventional groups (Becker 1963). Ex-offenders seeking employment, then, must overcome overwhelming generalized labels that may thwart their entry into attractive segments of the labor market.

To the extent that self concept is determined by occupation, the unemployed ex-offender will define himself in terms of his criminal behavior (Glaser 1964). The quality of legitimate employment may similarly influence one's self concept. The role "car wash line worker" may provide a less favorable self conception than a legitimate "small business owner" role or a deviant role as "hustler." In this way, the effects of a job or training opportunity are related to the social position and self concept of individual trainees.

THE DEFINING "DETAILS" OF JOBS PROGRAMS FOR EX-OFFENDERS

Although providing "good jobs" may be warranted as a means of crime control on theoretical grounds, there are practical obstacles to providing quality employment to ex-offenders. As a group, ex-offenders are severely handicapped in the labor market by undereducation, lack of marketable skills, and unstable work histories. What program could vault these persons over applicants without such barriers and into the type of high-skill, high-status, satisfying positions that criminological theory prescribes? Furthermore, given scarce employment and training resources for non-offenders, on what ethical grounds could such a program be justified? Though special policies benefitting ex-offenders may be warranted in part by the high costs of crime to society, there are practical limits on both the absolute level of jobs interventions for this group and the discrepancy between the opportunities extended to ex-offenders and those extended to disadvantaged non-offenders.³

Despite practical, ethical, and political limits on the quality of employment they may offer (Morris and Hawkins 1969), jobs programs may nevertheless expand the legitimate opportunities available to ex-offenders. The fundamental point in this regard is that outcomes are determined by the *interaction* between program characteristics and participant need and motivation; the closer the fit between the intervention and the target population, the better the result. As we discuss below, the most successful programs appear to capitalize on the motivation of offenders who already see their criminality as a problem and are in the market for a solution. For these individuals, jobs programs may provide a basic legitimate opportunity for social and economic reintegration. By targeting these more amenable candidates and addressing their labor market needs, jobs programs have the potential to hasten desistance from crime.

3. An additional practical implementation problem, not unique to programs for ex-offenders, is potential opposition by organized labor.

Before discussing specific empirical studies, we briefly highlight some of the most important components of program design: the type, remuneration, setting, and timing of services. Program variation, or lack of variation, across each of these dimensions may well determine the success of an intervention.

Program Types

In devising a jobs program, the most basic consideration is whether to provide employment, training, financial aid, or some combination of these services. Substantial variation exists within each type of service. In some employment programs, participants may be offered work with an identifiable career ladder or mobility cluster within an internal labor market. In others, the jobs may be “dead end” in character. Training program content may include basic remediation, classroom, or job-specific skills training. In sequential approaches, trainees may progress through assessment, training, and job placement components in succession.

Finn and Willoughby’s (1996) analysis of offender and non-offender Job Training Partnership Act (JTPA) trainees suggests that program type exerts important effects on subsequent employment. Those receiving employer-based training, such as on-the-job training or customized training, were more than twice as likely as those receiving job search assistance to be employed at termination from JTPA services and at a three month follow-up interview. These results should be interpreted with caution, however, since the type of training participants receive is partly a function of their personal attributes and barriers to employment. Nevertheless, programs addressing a specific employer’s needs or imparting particular job-related skills appear to be promising for offenders and non-offenders alike (Barnow 1989).

Remuneration

The levels and conditions of remuneration may affect both participation (whether the targeted individuals enter, continue, or abandon the program) and outcomes (whether the treatment actually leads to criminal desistance). For remuneration to be effective, pay scales must be constructed so that offenders’ economic needs are met upon release from incarceration and program rules must avoid penalizing those who find unsubsidized employment (see Rossi, Berk, and Lenihan 1980). The program interventions that we review show little variation in remuneration; when participants are paid at all, they generally earn a stipend or hourly wage near the national minimum wage. Given this limited range on an important independent variable, we cannot speak to hypothetical programs that would offer jobs at, say, the wage level of journeyman workers in the skilled crafts. Although it is unlikely that such a well-paying program could ever be implemented for offenders, research exploration of potential “earnings thresholds” governing legal and illegal behavior could advance both scientific and policy goals.

Setting

A key distinction arises between programs for offenders who are currently incarcerated and programs for releasees. Because of the generally poor quality of evaluation research on prison programs, and the difficulties involved in transferring skills from an institutional to a community setting, this paper most directly addresses programs for released ex-offenders. Another facet of the program setting is the work or training environment, such as the residential approach of the Job Corps model (Taggart 1981) and the philosophies of peer support and graduated stress that guided the Supported Work experiments (Piliavin and Gartner 1981).

Timing

Programs must address participant needs that vary over the life course. The meaning of work will change for individuals as they move from adolescence to young adulthood to mature adulthood. Similarly, crime and delinquency may reflect youthful rebellion at one stage and economic opportunism at another. Whereas broad-based youth programs have the goal of delinquency prevention, efforts specifically targeting ex-offenders are designed instead to encourage desistance from crime. In addition to the chronological age of participants, programs may also be timed to coincide with particular events, such as the offender's release from jail or prison. Jobs programs are especially pertinent for new releasees, since they are likely to be destitute, unemployed, and estranged from community life.

In brief, program type, remuneration, setting, and timing must all be tailored to the needs of offenders if interventions are to maximize their participation, enhance their social and economic reintegration, and reduce their criminal behavior. We now review empirical analyses of existing programs and the evidence pointing to the most promising prospects for future intervention.

EMPIRICAL EVIDENCE ON JOBS PROGRAMS AND CRIME

Our review addresses the most carefully executed program evaluations with a particular emphasis on those studies conducted since earlier reviews by Taggart (1972) and Piliavin and Gartner (1979). Since programs may offer a range of services to a diverse group of participants, they do not fall neatly into discrete analytic categories. We structure the discussion by the age of the target group and the nature of the intervention. After considering preventive programs for disadvantaged youth, we examine vocational training and work programs for young offenders. Next, we discuss analyses of adult job placement, supported employment, and transitional financial aid programs.

Though we are reluctant to invoke the findings of earlier non-experimental studies, these investigations are important because they set the agenda that gave rise to more definitive experimental evaluations. Early studies often observed a strong association between labor market success and criminal desistance, but their designs did not permit researchers to make definitive statements about causal relationships (e.g. Glaser 1964; Evans 1968; Pownall 1969; Cook 1975). The subsequent efforts that we discuss employed experimental or matched comparison designs better suited for causal inference.

Programs for Disadvantaged Youth

Jobs programs serving youthful offenders are founded on three related bases: the human capital theory prediction that the lifetime returns to training will be greatest for the youngest participants; the widely-reported success of the Job Corps model; and the prevailing cultural belief that youth will be more receptive to anti-crime interventions than adults.

Job Corps provides out-of-school 16- to 21-year-olds with basic education, vocational training, and health care services in a residential setting. Job Corps evaluations have estimated program effects on criminal behavior from self-report arrest data contrasting Corps members with persons in a comparison group not provided services. Job Corps supporters contend that the program successfully reduces crime among its participants, though the empirical evidence on this question is uneven.

The youth accepted to Job Corps are removed from their neighborhoods and peers and placed with nondelinquents in a learning environment that is actively organized against crime. During the period of program participation, total arrests and incarcerations are significantly lower for Job Corps members than for comparison group members (Mallar, Kerachsky, Thornton, and Long 1982). In postprogram follow-up studies, however, the "total estimated

effect of Job Corps on arrests or being in jail is approximately zero" (Mallar et al. 1982:194). This pattern of results leads some analysts to claim that the "isolation effects" of Job Corps' residential setting, rather than employment or training itself, may be responsible for reducing in-program crime among participants (see, e.g., Cave and Doolittle 1991:158). Since evaluations show that corps members may be committing crime that is less "costly" to society (e.g. fewer robberies and murders), the program may still provide a substantial net benefit.

Even with more definitive results, however, the relevance of Job Corps for crime desistance efforts may be limited. Since the program targets disadvantaged youth rather than offenders, there may be obstacles to extending and replicating the model to members of the latter population. Applicants with court histories have traditionally been considered "questionable" for enrollment in Job Corps and those with "histories of violent or property crimes" are usually rejected (Goldberg 1978:60). Thus, it remains to be seen whether program effects on participants with crime histories can be generalized to the broader population of young offenders.

Because of the high costs of the Job Corps model of comprehensive services within a residential setting (Kellam 1992; Wells 1995), the Jobstart Demonstration Project was begun in 1987.⁴ Jobstart attempts to apply the Job Corps approach within a non-residential program for 17- to 21-year-old dropouts (Cave and Doolittle 1991; Cave, Bos, Doolittle, and Toussaint 1993). To date, Jobstart has had disappointing effects on criminal behavior and on employment and earnings. First, enrolled offenders are less likely to stay in the program: those who had been arrested between their 16th birthday and the time of random assignment had significantly higher dropout rates than enrollees without an arrest history. Second, Jobstart has not had a statistically significant impact on criminal activity: after 2 years of follow-up, about 30 percent of males and 7 percent of females in the experimental group were arrested, in contrast to 33 percent of males and 9 percent of females in the control group (Cave and Doolittle 1991:158). During the latter two years of the experiment, Jobstart appeared to reduce arrest and drug use among men (though not women) who entered the program with an arrest history (Cave et al. 1993:194-5). Due to small sample size, however, the observed experimental/control differentials were not statistically significant among this subgroup.

Vocational Training for Young Offenders

Job Corps and Jobstart target a general population of disadvantaged young people. For the subgroup of young offenders served in each of these programs, low participation rates and null or modest effects on crime have been observed. This pattern of findings also surfaced in a recent North Carolina vocational training experiment for 18- to 22-year-old male property offenders (Lattimore, Witte, and Baker 1989). The program was to provide assessment, vocational education, and job placement services, but only 16 percent of the "amenable" inmates selected for this experiment completed the program. Because of small sample size (n=284), it is difficult to gauge the program's effects on criminal behavior. One year after release, 75 percent of experimental group members and 67 percent of control group members had not yet been arrested. Nevertheless, since this arrest differential fails to meet usual criteria for statistical significance ($p < .05$), the results of the North Carolina program must be viewed as inconclusive. Similarly, evaluations of academic and vocational training within institutions in

4. In 1995 Job Corps was estimated to cost \$23,000 per participant training year (Wells 1995).

Pennsylvania (Buttram and Dusewicz 1977) and Ontario (Rogers 1980) have shown very small differences in recidivism and labor force adjustment between treatment and control groups.

The Rikers Island Project (Sullivan and Mandell 1967) provides the most promising early example of a vocational training program. The treatment for 137 16- to 21-year-old New York City jail inmates consisted of IBM computer training, while a comparison group received no training. After a two-year follow-up, experimentals were less likely to have been arrested (48 percent to 66 percent) and much more likely to be working in a white-collar occupation (48 percent to 18 percent) than controls. Because of the small sample size and much greater drug use in the comparison than in the treatment group (38 percent of controls reported use of opiates or cocaine, compared to 13 percent in the experimental group), findings from this project should be considered with caution (Taggart 1972:42-43). Nevertheless, the Rikers project provides some evidence that high quality vocational training combined with an effective placement service -- training and placement into good jobs -- can promote desistance from crime.

Work Programs for Young Offenders

Though there have been many analyses of youth training schemes, there have been fewer evaluations of programs targeted to young offenders. While the North Carolina and Rikers Island programs provided vocational training and placement services, neither contained a job or work experience component. The National Supported Work Demonstration experiment on the other hand, provided subsidized employment to 17- to 20-year-old school dropouts, half of whom were required to have a criminal or delinquent record (Hollister, Kemper, and Maynard 1980). The program supplied unskilled employment for 12 to 18 months at wage levels set slightly below the market opportunity wage (typically near the then federal minimum wage of \$2.30) and attempted to incorporate the Project Wildcat and Operation Pathfinder (both discussed below) philosophies of peer support, close supervision, and graduated stress.

The overall results of Supported Work were rather discouraging for the youth group: the program had negligible effects on the employment, drug use, and criminal activities of experimentals relative to controls. After 18 months, for example, approximately 27 percent of those in both the experimental and control groups had been arrested. The only individuals responding positively to the experiment were those who had never committed crime in the first place. Thus the program's provision of a work opportunity may have had some preventive effects, but was ineffective in promoting desistance from crime among young offenders.

Job Placement Programs for Adult Offenders

Soothill's study of England's APEX program (1974) was among the first analyses of an employment counseling and job placement effort for offenders to employ a careful randomized design. The evaluation showed that individuals in the control and experimental groups did not significantly differ in recidivism or employment rates one year after prison release. Nor did those who accepted placement assistance (about half of those assigned to this treatment) outperform those who rejected services within the experimental group. The analysis was complicated by the fact that "better risks" were less likely to avail themselves of the placement program. In any case, the null effects of the experiment suggest that placement services provided without other employment or training programming may have difficulty in retaining participants, finding them jobs, and promoting criminal desistance.

The Michigan Comprehensive Offender Manpower Program (COMP) used employment contact specialists to provide ex-offenders with job development services (such as introducing participants to employers and visiting the workplace once jobs had been obtained) and

vocational counseling (Borus, Hardin, and Patterson 1976). As in the APEX project, these services failed to improve the hours worked, days employed, or earnings of the treatment group relative to a matched comparison group.

The job placement service component of the LIFE and TARP financial aid experiments (discussed below in detail) also had little impact on employment or arrest rates. Though these findings may lead some observers to the more general conclusion that job placement is not a "fruitful way to proceed in the development of a program to reduce recidivism" (Rossi, Berk and Lenihan 1980:42), such judgements may be premature for two reasons. First, these placement services were all underutilized and ineffective. In the LIFE experiment, only half of the treatment group made use of this assistance and they were no more likely to have jobs at follow-up interviews than controls. If the service had been effective, experimentals would have shown higher employment rates at early interviews (reflecting rapid placements) or higher employment rates at later interviews (reflecting better placements) than controls. In fact, however, after 13 weeks of services, 46 percent of those offered placement assistance were employed as opposed to 41 percent of controls. At 26 weeks, only 44 percent of those offered the service were working relative to 46 percent of controls.

Second, job placement services are best viewed as the last step of a more comprehensive employment and training program -- forging the final link between client and employer. Service providers are well aware that no placement operation can overcome "adverse economic conditions, bad selection criteria, poor assessment processes, ineffectual training, or training in unsuitable occupations" (Johnson and Sugarman 1978:1). The more conservative conclusion from these studies reduces to a truism: ineffective placement services are ineffective in increasing employment and reducing criminal behavior.

Work Programs for Adult Offenders

Large-scale supported employment interventions were stimulated by the early success of programs such as Operation Pathfinder (Cook 1975) for young parolees and Project Wildcat (Vera Institute 1974) for young addicts. Both of these programs used social reinforcement and peer support to encourage employment success and desistance from crime. Though limited in scale, these interventions showed enough early promise to inspire a well-funded, carefully designed social experiment: the National Supported Work Demonstration Project.

The primary goal of Supported Work was to "provide transitional jobs and the opportunity to succeed at them," as well as a chance for placement into permanent unsubsidized employment (Piliavin and Gartner 1981:ix). Among three deviant target populations, the ex-addict sample appeared to derive the greatest total benefit from the program, while the overall results for ex-offenders and youth dropouts (discussed above) were less encouraging. For these groups, the experiment had no lasting effects on either employment or criminal activity.

Among *older* ex-addicts and ex-offenders, however, Supported Work experimentals were less likely than controls to be arrested or to use drugs throughout a three-year follow-up period (Piliavin and Gartner 1981; Uggen 1995). Among ex-addicts 13 percent of experimentals and 27 percent of control group members over 35 years of age were arrested after 18 months. Among ex-offenders in this older group, 31 percent of experimentals and 39 percent of control group members were arrested after 18 months. After 27 months, the differential between the treatment and control groups widens for this age group: older ex-addicts in the experimental group were 27 percent less likely to be arrested than controls, while older ex-offenders in the experimental group were 15 percent less likely to be arrested than controls. Moreover, these older experimentals maintained higher participation rates than younger experimentals throughout the program. Older offenders with family responsibilities and older offenders in

unfavorable labor markets were particularly responsive to supported employment (Uggen 1995). In sum, Supported Work provides strong evidence for an age-by-program interaction: offenders in their late twenties and older are more likely to desist from crime when provided a marginal employment opportunity than when such an opportunity is not provided. Among younger participants, the experimental job program had little effect on crime.

Financial Assistance Programs for Adult Offenders

Financial aid experiments test whether economic assistance has an effect on crime that is independent of work. The California Direct Financial Assistance to Parolees Project provided weekly \$80 payments to a randomly selected group of releasees for twelve weeks (Reinarman and Miller 1975). Although the overall difference in parole outcomes was not statistically significant, substantial experimental effects were observed among older participants. For those between the ages of 21 and 25, experimentals were 10 percent *less* likely than controls to remain successfully on parole; for 26- to 30-year-olds, there was no difference between the two groups; but among those 31 or older, experimentals were 18 percent more likely to remain successfully on parole. Thus, older parolees appeared to respond more positively to transitional aid than younger parolees.

The Baltimore LIFE (Living Insurance for Ex-Prisoners) program provided financial assistance and job placement services in an effort to reduce recidivism among adult property offenders with no history of drug use (Mallar and Thornton 1978). Participants who received financial aid without services proved less likely to recidivate and had improved employment experiences. The financial aid, \$60.00 per week for thirteen weeks (up to \$780.00 total), reduced theft arrests by 27 percent in the experimental group relative to the control group. Further, the positive effects of this aid held two years after prison release (Lenihan 1977).

The LIFE experiment also showed evidence of an age-by-program interaction effect. Members of the experimental group who were at least 26 years old were 11 percent less likely to be arrested than members of the control group. For those between 21 and 25 years of age, this differential shrinks to 8 percent, while for those younger than 21 the difference is only 2 percent (Lenihan 1976). As in Supported Work, the probability of arrest decreased with age for all groups: older experimentals are less likely to be arrested than younger experimentals, and older controls are less likely to be arrested than younger controls.

The success of the LIFE payments led to the implementation of the Transitional Aid Research Project (TARP) (Rossi et al. 1980). In contrast to LIFE, participants in the TARP experiments were randomly selected from the population of released ex-offenders. While the LIFE payments were reduced when participants obtained employment, the disbursements were extended until a total allotment (\$780.00) was exhausted. For this reason, an individual in the LIFE experimental group was guaranteed the \$780.00 total "because the weekly payment was not intended to discourage him from taking a job" (Lenihan 1977:46). The TARP payments, on the other hand, were terminated when participants found employment, resulting in a "100 percent tax rate" and a substantial work disincentive effect (Rossi et al. 1980:280). Under these program constraints, no significant differences were found in recidivism rates between the TARP experimental and control groups. Moreover, a recent long-term follow-up of TARP participants finds no effect on either recidivism or earnings through 1993 (Needels 1997). The initial investigators argue that TARP payments effectively reduced recidivism, but that this effect was "masked by an increase in unemployment that in turn increased arrests" (Rossi, et. al. 1980:16). Nevertheless, if reduced recidivism is viewed as the main program goal, TARP must be viewed as an instructive failure. In this case, an administrative program detail -- the termination of payments when participants found work -- may have been the critical factor in its

failure. Since TARP researchers did not report tests of the interaction between age and program status (Rossi et al. 1980; Berk et al. 1980), it is not yet known whether the experiment had a greater (or lesser) impact among older offenders.

Summary of Empirical Evidence on Age, Work, and Crime

In sum, after reviewing the most recent evidence on jobs programs and criminal desistance, we share the conclusions reached by the National Council on Employment Policy in 1978:

"Programs for juvenile and youthful offenders have been particularly discouraging. Youthful offenders were by legislative mandate a target population in early programs; since that time it has been concluded that older offenders are the better risk" (Mangum and Walsh 1978:168).

We have reviewed theory and empirical evidence suggesting that age conditions the relationship between work and crime: older offenders may be most amenable to employment and training programming. In light of this information, it is particularly distressing that adult male dropouts continue to be "underserved" relative to youth in Job Training Partnership Act programming, as the National Commission on Employment Policy has concluded (Sandell and Rupp 1988) .

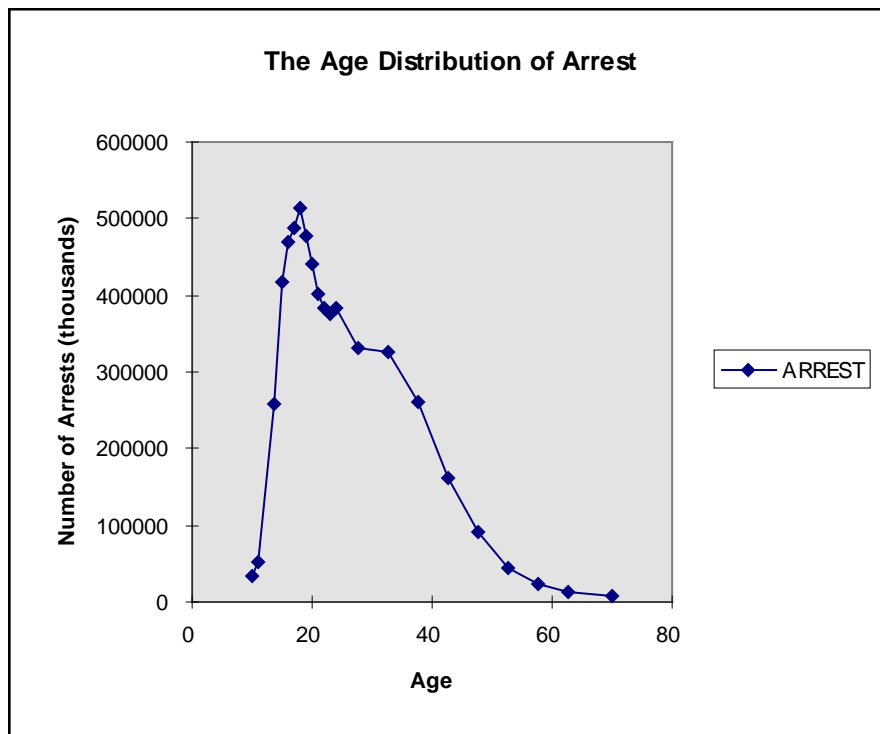
Why have employment programs for young offenders been ineffective in reducing crime? Economic choice theory interprets this ineffectiveness as due to the failure of youth programs to increase economic rewards to a level that would make conventional behavior relatively more attractive than crime. One year after entry in Supported Work, for example, youth assigned to the control group had employment rates and earnings that were comparable to those in the treatment group (Hollister et al. 1981:104,116). Moreover, preventive youth programs such as Jobstart are oriented to keeping youth in school rather than to improving their short-term economic attainment. Aside from the negligible economic benefits to participants, such programs do not appear to offer experimentalists any additional opportunities - for status, work, or social participation -- beyond those available to controls. Results from the National JTPA Study suggest that youth derive far smaller benefits from training programs than adults. In the first 18-month follow-up, male out-of-school youth earned on average \$854 *less* than members of a control group (U.S. Department of Labor 1993; Orr, Bloom, Bell, Doolittle, Lin, and Cave 1996). Moreover, male youth with an arrest history fared particularly poorly, earning an average of \$3038 less than members of a control group over this period (U.S. Department of Labor 1993:LVII).

Independent of these considerations, it is also possible that young offenders are simply not motivated to capitalize on the limited opportunities provided by these programs, as age-graded theories of informal social control predict (Sampson and Laub 1993). In the programs we review, youth tend to have very low participation rates and, among those who follow through with these programs, rates of desistance are comparable to nonparticipants. This may be due to the narrow scope of the interventions that have been attempted, or to the relative availability and attractiveness of alternatives, or to the fact that work is not yet a focal concern in the eyes of young offenders. Though these problems are not insoluble, it seems unlikely that continued application of existing employment and training modalities will reduce criminal behavior among these youth.

In contrast, some of the data reviewed here suggests that older ex-offenders may be more motivated to avail themselves of employment and training opportunities, thereby reducing their involvement in criminal behavior. The observation that older persons increasingly desist from criminal behavior is unremarkable to those familiar with the age curve

of crime (Hirschi and Gottfredson 1983). Across diverse societies and over many time periods, criminologists have documented a relation between crime and age similar to the curve shown in Figure 1.

Figure 1: The Age Distribution of Arrest: 1995 FBI UCR Data



For most offenses, the crime rate rises throughout the early teens, peaks between 17 and 20, and then descends throughout the life course. The Supported Work and LIFE results are important because they suggest that older ex-offenders given jobs or financial aid are more likely to desist from crime than ex-offenders of comparable age who were not provided these opportunities. This age-by-program interaction provides some evidence that employment programs may hasten this process of desistance among older criminal offenders.⁵

To better identify and target amenable adult ex-offenders, we conclude with some brief descriptive data on prisoners and releasees, and offer general recommendations for employment and training policy for this group.

5. Though we base our conclusions on individual-level controlled experiments, a long history of aggregate-level studies also hints that the relationship between unemployment and crime is conditioned by age (Mannheim 1940; Glaser and Rice 1959; Gibbs 1966; Phillips, Votey, and Maxwell 1972). In a Vera Institute investigation, Sviridoff and McElroy (1984, 1985) find that the amount of time spent unemployed is more strongly correlated with the arrest rate for those over twenty-five than for sixteen-to-nineteen year olds. Among those twenty-six and older, arrest rates were almost twice as high in periods of unemployment than in periods of employment (Sviridoff and McElroy 1985; see also Crow, Richardson, Riddington, and Simon 1989:6-12).

PROGRAM DESIGN AND IMPLEMENTATION

Characteristics of the Population

The universe of offenders and ex-offenders constitutes a prohibitively large target group for employment and training services. An early study estimated that there were 36 to 40 million persons in the U.S. with criminal arrest records (Miller 1979). Of these, 26 million were already estimated to be in the labor force, leaving a maximum residual of 14 million ex-offenders who may need employment and training services. If jobs programs aim to reduce crime, however, figures based upon "ever-arrested" criteria are misleading. First, only about half of all first offenders are ever rearrested (see, for example, Wolfgang, Figlio, and Sellin 1972). Second, such large estimates include many older ex-offenders who have ceased both criminal and labor force activity.⁶

If the goal of jobs programs is to reach those who are most in need, the relevant population may be the currently incarcerated and the recently released. These individuals reenter society with few financial resources, great labor market disadvantages, and severe resocialization problems (Irwin 1970). The data in Table 1, collected in 1986 and 1991 by the U.S. Bureau of the Census for the Bureau of Justice Statistics, underscore the marginality of inmates in state prisons. Over 13,000 inmates in 275 prisons were surveyed in each year following a stratified probability sample design. By 1991, over three-fourths of these prisoners were age 25 or older, placing them in the age group identified as most amenable to supported employment. As in the Supported Work demonstration offender sample, the vast majority were male.⁷

6. Another way to estimate the representation of ex-offenders in the population is to examine the prevalence of imprisonment. If we look only at those who have been incarcerated in adult state prisons, the numbers drop significantly. At 1979 imprisonment levels, a person born in the US is estimated to have between a 1.7 percent (or 1 in 59) and 2.7 percent (or 1 in 37) lifetime chance of serving a sentence in a state prison (Langan and Greenfeld 1985). Such rates vary greatly by race: for black males, the estimate rises to between 11.6 percent (or 1 in 9) and 18.7 percent (or 1 in 5); for white males, the comparable rate is between 2.1 percent and 3.3 percent. Again, however, our concern is with identifying and providing services to the smaller group that is likely to recidivate and in need of labor force assistance.

7. The use of masculine pronouns throughout this paper is a reflection of the preponderance of males in the criminal justice system. Moreover, in the studies reviewed here, the vast majority of participants were male. Future programs would benefit by examining potential gender differences in the response of ex-offenders to employment and training programs.

Overall education levels for state prisoners rose between 1986 and 1991, with a majority reporting having earned a high school diploma in the latter survey. Unfortunately, these gains in education do not appear to have been rewarded in the labor market. At the time of their most

Table 1: Characteristics of State Prison Inmates, 1986 and 1991

	1986	1991
Sex		
Percent Male	96	95
Race/Ethnicity		
White, non-Hispanic	40	35
Black, non-Hispanic	45	46
Hispanic	13	17
Other	2	2
Age		
Age < 18 years	1	1
18 to 24 years	27	21
25 to 34 years	46	46
35 to 54 years	24	30
55 years or older	3	3
Marital Status		
Percent Married	20	18
Education and Employment		
Education < 12 years	62	41
Employed full-time at arrest	57	55
Employed part-time at arrest	12	12
Not Employed/looking	18	16
Not Employed/not looking	13	16
Income (if free 1 year)		
Income < \$3,000/year	27	22
Income \$3,000-\$9,999/year	34	31
Income >= \$10,000/year	40	48
Income (if free < 1 year)		
Income < \$1,000/month	68	na
Income >= \$1,000/month	32	na
Number of Inmates	450,416	711,643

SOURCES: U.S. Department of Justice, Bureau of Justice Statistics, *Profile of State Prison Inmates, 1986* and *Survey of State Prison Inmates, 1991*.

recent arrest, 55 percent were working full time, 12 percent were working part time, 16 percent were looking for work, and 16 percent were not employed, but not actively seeking work. Thus, 32 percent were not employed at the time of their most recent arrest. For those who had been free for at least 1 year, less than half reported an annual legal income of more than \$10,000, with 22 percent reporting less than \$3000.⁸ In sum, a majority of the inmates were working prior to arrest; of these workers, however, most were in relatively low-wage positions. Offenders' social origins and human capital deficits place them at the rear of the labor queue even before their criminal record is taken into account. The added stigma of offender status further exacerbates these barriers to employment.

Our review of prior research suggests that jobs programs and financial assistance show some promise for older offenders. Although the results of these programs have been encouraging, more focused pilot evaluations of specific treatment strategies are necessary before undertaking a large-scale project. If earlier results are replicated in these studies, the next step is implementation on a national scale. How large a program would be required to offer services to these offenders? The most recent data suggest that all correctional populations are growing.⁹ By the end of 1994, approximately 5,100,000 adults or 2.7 percent of the U.S. resident population age 18 or over were under the care or custody of a corrections agency (U.S. Department of Justice 1996:4). This figure includes all probationers, parolees, and inmates in federal, state, and local prisons. A record 2,964,000 adult offenders were on probation and 690,000 were on parole at the end of 1994 (U.S. Department of Justice 1996). If only recent releasees are targeted, however, the numbers drop dramatically. These releasees may prove the most amenable to jobs programs.¹⁰ As ex-offenders re-enter the community, both their need for employment assistance and their likelihood of recidivism are at their apex (Irwin 1970; Uggen 1995). Moreover, among conditionally released adult offenders, the state has great license to provide services under a variety of conditions (and to deny such services to a control group for experimental purposes).

To gauge the potential scope of future interventions, we offer some rough approximations for illustrative purposes. In 1994, 353,020 prisoners were conditionally released (e.g. released on probation or parole) and 72,836 were released unconditionally from State or Federal jurisdiction (U.S. Department of Justice 1996:76). Those aged 27 and older comprise approximately half of this group, or 200,000 of the total new releasees per year. The cost of a program for this population would likely exceed one billion dollars annually, even if only half of these older releasees participated in a national jobs program. As the recent JTPA evaluation for non-offending adults has shown (Orr et al. 1996:194), such program costs may be recouped in earnings gains, increased tax receipts, and welfare reductions, resulting in a net

8. In comparison, the 1986 median income for U.S. males was \$17,114 with 69.7 percent reporting income of \$10,000 or more and 12.6 percent reporting less than \$4000 (U.S. Bureau of the Census, Current Population Reports and Statistical Abstract of the United States 1989: 449).

9. This does not necessarily reflect a rising crime rate. The recent growth of correctional populations in the United States also reflects the increasing use of imprisonment as a sanction (Savelsberg 1994).

10. We discuss characteristics of inmates rather than releasees above and in Table 1 because we have more detailed information on the former group. In general, however, the groups are quite comparable: a survey of releasees showed that 94.3 percent were male, 53.3 percent were white, and their median age was 27 (Minor-Harper and Greenfeld 1985).

benefit to society. For a population of ex-offenders, however, reductions in crime and its associated costs could dramatically enhance the cost-effectiveness of jobs interventions.

Did the studies reviewed above significantly reduce crime and its associated costs? Among Supported Work offenders aged 27 and older, the 3-year rearrest rate was reduced from 50 percent among controls to less than 40 percent among experimentals (Uggen 1995:99-100). If a similar reduction were attainable for 100,000 participants in a future program, over 10,000 offenders would desist from crime who would have otherwise reoffended. Perhaps more realistically, a 5% reincarceration differential would save approximately \$150,000,000 annually in prison costs (assuming costs of \$30,000 per inmate per year) in addition to reductions in other criminal justice administration costs, costs to victims, reduced welfare expenditures, increased earnings, and tax receipts. Although these projections are only crude approximations, they point to the potential benefits of a jobs-based strategy to induce desistance from crime.

Organizing and administering such a program poses formidable logistical problems. Two likely resources for future efforts are the local Private Industry Councils established by the Job Training Partnership Act and the 50 State Departments of Corrections. In a survey by the Florida House of Representatives, 28 of the 35 states responding reported some form of ongoing offender "reentry" program (Kelly 1988). Each of these departments currently offers some combination of counseling, pre-release employment, prison work release, and other services. Unfortunately, no state has conducted rigorous controlled assessments of program effectiveness. By forging stronger links between the corrections and the employment and training communities, these efforts could be more carefully evaluated and successful programs expanded.

Conclusions And Recommendations

Our goal has been to draw out the distinctive aims and obstacles of jobs programs for ex-offenders, rather than to design a specific program in great detail. Nevertheless, we believe that the next wave of such programs will be vastly improved if the following considerations are incorporated in program design:

In light of the relatively weak treatment effects and the low participation rates of prior efforts, we recommend that future programs be targeted to individuals and groups identified as most amenable to jobs programs. We suggest that adult ex-offenders, particularly those between the ages of 25 and 50, will prove more amenable to jobs programs than juvenile offenders. The best available evidence suggests that older offenders provided services are more likely to desist from crime than those of comparable age who are not provided such services. Moreover, the state has greater license to manipulate treatments with adults than with juvenile offenders. We have already learned a great deal from the few controlled experiments of jobs programs for offenders. If we are to unravel the relation between work and crime, further randomized experimentation is crucial.

One potentially promising approach would build upon the success of the early financial aid experiments (Lenihan 1977) with a program of graduated responsibility and benefits. A modest level of financial assistance could be provided for a reentry period of several months. Individuals could augment this income by participating in a jobs program but continued receipt of financial assistance would not be contingent on participation. Additional income could then be earned with continued program participation (e.g. in basic skills remediation or job-specific skills training) and increased job responsibilities. Finally, participants could enter an employer-based training or job placement component that would attempt to place them into unsubsidized employment.

To avoid the low participation rates of earlier employment and training programs for offenders, some range of services must be made available to clients. After an initial assessment, immediate placement assistance could be available for job-ready individuals seeking unsubsidized employment. More intensive training services or supported employment could then be provided to volunteers and those with more severe barriers to employment. In this regard, programs for ex-offenders may profitably borrow from programs such as the San Diego Saturation Work Initiative Model (SWIM) which offered a range of services to AFDC recipients (Hamilton 1988; Hamilton and Friedlander 1989).

Although programs for other target populations must often provide participants with their initial work experience, the clear majority of adult ex-offenders have already worked prior to incarceration (as shown in Table 1). Instead, the goal of interventions for ex-offenders is to effect a smoother transition into the social and economic order. Graduated programs based on financial aid facilitate this reintegration by maximizing participation and continuation during the most difficult transition periods.

Finally, we suggest that programs for ex-offenders will be most effective if they are embedded in a more comprehensive national employment and training strategy (Currie 1985; Levitan and Gallo 1988; Skocpol 1993, 1997). First, the stigmatizing effects of program participation will be minimized to the extent that non-offenders are also served. Second, non-offenders provide models for conformist behavior. Third, the social status of subsidized employment is enhanced if it is seen as a "real" job, rather than a make-work task for unskilled ex-offenders. Finally, extending high quality opportunities to the "least deserving" offenders is better justified on equity grounds when such opportunities are also available to other groups.

Jobs programs are certainly no panacea for the prevention and control of criminal behavior. Nevertheless, as offenders age, they appear to tire of the personal costs of criminal activity. This review suggests that many older offenders will seize upon even marginal legitimate jobs as pathways to desistance. In light of the high costs (Irwin and Austin 1994) and widely-reported failure (e.g. Martinson 1974) of correctional treatment, the potential of publicly-funded programs for older offenders is especially noteworthy.

REFERENCES

- Akers, Ronald L. 1990. "Rational Choice, Deterrence, and Social Learning Theory in Criminology: The Path Not Taken." *Journal of Criminal Law and Criminology* 81:653-76.
- Akers, Ronald L. 1994. *Criminological Theories: Introduction and Evaluation*. Los Angeles: Roxbury Publishing Company.
- Bachman, Jerald G. and John Schulenberg. 1993. "How Part-Time Work Intensity Relates to Drug Use, Problem Behavior, Time Use, and Satisfaction among High School Seniors: Are these Consequences or Merely Correlates?" *Developmental Psychology* 29:220-35.
- Barnow, Burt S. 1989. "Government Training as a Means of Reducing Unemployment." Pp. 109-136 in *Rethinking Employment Policy*, edited by D.L. Bawden and F. Skidmore. Washington, DC: Urban Institute Press.

- Barnow, Burt S. and Jill Constantine. 1988. *Using Performance Management to Encourage Services to Hard-to-Serve Individuals in JTPA*. National Commission for Employment Policy. Washington DC: U.S. Government Printing Office.
- Becker, Gary S. 1968. "Crime and Punishment: An Economic Approach." *Journal of Political Economy* 76:169-217.
1962. "Investment in Human Capital: A Theoretical Analysis." *Journal of Political Economy* 70 (Supplement):9-49.
- Becker, Howard S. 1963. *Outsiders*. New York: Free Press.
- Berk, Richard A., Peter H. Rossi, and Kenneth J. Lenihan. 1980. "Crime and Poverty: Some Experimental Evidence from Ex-Offenders," *American Sociological Review* 45:766-786.
- Block, M.K. and J.M. Heineke. 1975. "A Labor Theoretic Analysis of the Criminal Choice," *American Economic Review* 65:314-325.
- Borus, Michael, Einer Hardin, and Terry Patterson. 1976. "Job Placement Services for Ex-Offenders: An Evaluation of the Michigan Comprehensive Offender Manpower Program (COMP) Job Placement Efforts," *Journal of Human Resources* Spring 1976:391-401.
- Braithwaite, John. 1980. *Prisons, Education, and Work*. Queensland: University of Queensland Press.
- Briar, Scott and Irving Piliavin. 1965. "Delinquency, Situational Inducements, and Commitment to Conformity." *Social Problems* 13:35-45.
- Burgess, Robert and Ronald Akers. 1966. "A Differential Association-Reinforcement Theory of Criminal Behavior," *Social Forces* 14:128-47.
- Bushway, Shawn D. 1996. "The Impact of an Arrest on the Labor Market Status of Young American Men." Paper presented at the Annual Meetings of the American Society of Criminology, Chicago.
- Buttram, John and Russell Dusewicz. 1977. *Effectiveness of Educational Programs in State Correctional Institutions: A Follow-Up Study of Ex-Offenders, Final Report*. Philadelphia: Research for Better Schools.
- Cave, George and Fred Doolittle. 1991. *Assessing Jobstart: Interim Impacts of a Program for School Dropouts*. New York: Manpower Demonstration Research Corporation.
- Cave, George, Hans Bos, Fred Doolittle, and Cyril Toussaint. 1993. *Jobstart: Final Report on a Program for School Dropouts*. New York: Manpower Demonstration Research Corporation.
- Clarke, Ronald V. and Derek B. Cornish. 1985. "Modeling Offenders' Decisions: A Framework for Research and Policy." Pp. 147-85 in *Crime and Justice: An Annual Review of Research*, Volume 6, edited by M. Tonry and N. Morris. Chicago: University of Chicago Press.
- Cloward, Richard and Lloyd E. Ohlin. 1960. *Delinquency and Opportunity*. Chicago: University of Chicago Press.
- Cook, Philip. 1975. "The Correctional Carrot: Better Jobs for Parolees." *Policy Analysis* 1:11-54.

- Crow, Ian, Paul Richardson, Craig Riddington, and Frances Simon. 1989. *Unemployment, Crime, and Offenders*. London: Routledge.
- Crowley, Joan E. 1981. "Delinquency and Employment: Substitutions or Spurious Associations," Paper presented to the 1981 Annual Meetings of the American Society of Criminology, Washington, DC, November 11, 1981.
1984. "Delinquency and Employment," in Michael E. Borus (Ed.) *Youth and the Labor Market: Analyses of the National Longitudinal Survey*. Kalamazoo, MI: Upjohn Institute.
- Currie, Elliott. 1985. *Confronting Crime: An American Challenge*. New York: Pantheon Books.
- Cusson, Maurice, and Pierre Pinsonneault. 1986. "The Decision to Give Up Crime." Pp. 72-82 in *The Reasoning Criminal*, edited by D.B. Cornish and R.V. Clarke. New York: Springer-Verlag.
- Danziger, Sheldon and David Wheeler. 1975 "The Economics of Crime: Punishment or Income Redistribution," *Review of Social Economy* 33:113-131.
- Ehrlich, Isaac. 1973. "Participation in Illegitimate Activities: A Theoretical and Empirical Investigation," *Journal of Political Economy* 81:521-65.
- Evans, Robert Jr. 1968. "The Labor Market and Parole Success," *The Journal of Human Resources* 3:201-212.
- Farrington, David P., Bernard Gallagher, and Lynda Morley. 1986. "Unemployment, School Leaving and Crime," *British Journal of Criminology* 26:335-56.
- Finn, Mary A. and Katherine G. Willoughby. 1996. "Employment Outcomes of Ex-offender Job Training Partnership Act Trainees." *Evaluation Review*. 20:67-83.
- Freeman, Richard B. 1987. "The Relation of Criminal Activity to Black Youth Employment," *The Review of Black Political Economy* 16:99-107.
1991. "Crime and the Employment of Disadvantaged Youths," Working Paper No. 3875, National Bureau of Economic Research, Cambridge, MA.
- Gartner, Rosemary and Irving Piliavin. 1988. "The Aging Offender and the Aged Offender," in P.B. Baltes, D.L. Featherman, and R.M. Lerner (eds.), *Life-Span Development and Behavior, Volume 9*. Hillsdale, N.J.: Lawrence Erlbaum.
- Gibbs, Jack P. 1966. "Crime, Unemployment and Status Integration," *British Journal of Criminology* 6:49-58.
- Glaser, Daniel. 1964. *The Effectiveness of a Prison and Parole System*. Indianapolis: Bobbs-Merrill.
- Glaser, Daniel and Kent Rice. 1959. "Crime, Age, and Employment" *American Sociological Review* 24:679-86.
- Glueck, Sheldon and Eleanor T. Glueck. 1950. *Unraveling Juvenile Delinquency*. New York: Commonwealth Fund.

- Goldberg, Judith F. 1978. *The Noneconomic Impacts of the Job Corps*. U.S. Department of Labor R&D Monograph 64, Washington, DC:U.S. Government Printing Office.
- Gottfredson, Denise C. 1985. "Youth Employment, Crime, and Schooling: A Longitudinal Study of a National Sample," *Developmental Psychology* 21:419-32.
- Gottfredson, Michael and Travis Hirschi. 1990. *A General Theory of Crime*. Stanford: Stanford University Press.
- Greenberger, Ellen and Laurence Steinberg. 1986. *When Teenagers Work: The Psychological and Social Costs of Adolescent Employment*. New York: Basic Books.
- Grogger, Jeff. 1994. "Criminal Opportunities, Youth Crime, and Young Men's Labor Supply." Unpublished Manuscript, Department of Economics, University of California-Santa Barbara.
- Gueron, Judith and Edward Pauly with Cameron Lougy. 1991. *From Welfare to Work*. New York: Russell Sage Foundation.
- Hamilton, Gayle. 1988. *Interim Report on the Saturation Work Initiative Model in San Diego*. New York: Manpower Demonstration Research Corporation.
- Hamilton, Gayle and Daniel Friedlander. 1989. *Final Report on the Saturation Work Initiative Model in San Diego*. New York: Manpower Demonstration Research Corporation.
- Hirschi, Travis. 1969. *Causes of Delinquency*. Berkeley: University of California Press.
- Hirschi, Travis and Michael Gottfredson. 1983. "Age and the Explanation of Crime," *American Journal of Sociology* 89:552-584.
- Hollister, Robinson G. Jr., Peter Kemper, and Rebecca A. Maynard. 1984. *The National Supported Work Demonstration*. Madison: University of Wisconsin Press.
- Irwin, John. 1970. *The Felon*. Englewood Cliffs: Prentice-Hall.
- Irwin, John and James Austin. 1994. *It's About Time: America's Imprisonment Binge*. Belmont, CA: Wadsworth.
- Johnson, Miriam, and Marged Sugarman. 1978. *Job Development and Placement: CETA Program Models*. U.S. Department of Labor, Employment and Training Administration. Washington, DC: U.S. Government Printing Office.
- Kellam, Susan. 1992. "The Job Corps for Youth Works, But is Success too expensive?" *Congressional Quarterly Weekly Report* 50:2278-81.
- Kelly, Everett A. 1988. "Oversight Report on Florida Department of Corrections Transition Assistance Program," Florida House of Representatives.
- Kornhauser, Ruth R. 1977. *Social Sources of Delinquency: An Appraisal of Analytic Models*. Chicago: University of Chicago Press.

- Langan, Patrick and Lawrence Greenfeld. 1985. "The Prevalence of Imprisonment," U.S. Department of Justice Bureau of Justice Statistics Special Report. Washington, DC: U.S. Government Printing Office.
- Lattimore, Pamela K., Ann D. Witte, and Joanna R. Baker. 1989. "Experimental Assessment of the Effect of Vocational Training on Youthful Property Offenders," Working Paper No. 2952, National Bureau of Economic Research, Cambridge, MA.
- Lattimore, Pamela K. and Ann D. Witte. 1985. "Programs to Aid Ex-offenders: We Don't Know 'Nothing Works': Helping Ex-offenders Enter the Labor Market" *Monthly Labor Review* 108:46-48.
- Lemert, Edwin M. 1951. *Social Pathology*. New York: Harper and Row.
- Lenihan, Kenneth J. 1976. *When Money Counts: An Experimental Study of Providing Financial Aid and Job Placement Services to Released Prisoners*. Washington: Bureau of Social Research.
- Lenihan, Kenneth J. 1977. *Unlocking the Second Gate: The Role of Financial Assistance in Reducing Recidivism among Ex-Prisoners*. U.S. Department of Labor, Employment and Training Administration. Washington, DC: U.S. Government Printing Office.
- Levitan, Sar, and Frank Gallo. 1988. *A Second Chance: Training for Jobs*. Kalamazoo Michigan: Upjohn Institute.
- Lund, Robert T. and John A. Hansen. 1986. *Keeping America at Work: Strategies for Employing the New Technologies*. New York: John Wiley and Sons.
- Macro Systems, Inc. 1985. *Job Corps Process Analysis: Final Report*. Silver Spring, Maryland: Macro Systems, Inc.
- Mallar, Charles D. and Craig V. D. Thornton. 1978. "Transitional Aid for Released Prisoners: Evidence from the LIFE Experiment." *Journal of Human Resources* 13:208-236.
- Mallar, Charles, Stuart Kerachsky, Craig Thornton, and David Long. 1982. *Evaluation of the Economic Impact of the Job Corps Program: Third Follow-Up Report*. Princeton, New Jersey: Mathematica Policy Research, Inc.
- Mangum, Garth and John Walsh. 1978. *Employment and Training Programs for Youth: What Works Best for Whom?* U.S. Department of Labor, Employment and Training Administration, Office of Youth Programs, Washington, DC: U.S. Government Printing Office.
- Mannheim, Hermann. 1940. "Crime and Unemployment," in *Social Aspects of Crime in England between the Wars*. London: Allen and Unwin. Reprinted in W.G. Carson and P. Wiles (ed.s) (1971) *Crime and Delinquency in Britain*. London: Martin Robertson.
- Martinson, Robert. 1974. "What Works? - Questions and Answers about Prison Reform." *The Public Interest* 35:22-54.
- Matsueda, Ross. 1988. "The Current State of Differential Association Theory," *Crime and Delinquency* 34:277-306.
- Merton, Robert K. 1938. "Social Structure and Anomie," *American Sociological Review* 3:672-682.

- Messner, Steven F. and Richard Rosenfeld. 1997. 2d. ed. *Crime and the American Dream*. Belmont, CA: Wadsworth.
- Mihalic, Sharon Wofford and Delbert Elliott. 1995. "Short and Long-Term Consequences of Adolescent Work." Paper presented at the 1995 Annual Meetings of the American Society of Criminology, Boston.
- Miller, Neal 1979. *A Study of the Number of Persons with Records of Arrest or Conviction in the Labor Force*. U.S. Department of Labor, Technical Assistance Paper #63. Washington, DC: U.S. Government Printing Office.
- Minor-Harper, Stephanie and Lawrence A. Greenfeld. 1985. "Prison Admissions and Releases, 1982," Bureau of Justice Statistics Special Report. U.S. Department of Justice. Washington, DC: U.S. Government Printing Office.
- Morris, Norval & Gordon Hawkins. 1969. *The Honest Politician's Guide to Crime Control*. Chicago: Chicago University Press.
- Mortimer, Jeylan and Monica Johnson. 1996. "Adolescent Part-time Work and Post-Secondary Transition Pathways: A Longitudinal Study of Youth in St. Paul, Minnesota." Paper presented at the Conference, "New Passages between Education and Work in Comparative Perspective."
- Needels, Karen. 1997. "Go Directly to Jail and Do Not Collect? A Long-Term Study of Recidivism and Employment Patterns among Prison Releases" Forthcoming in *Journal of Research in Crime and Delinquency*.
- Orr, Larry L., Howard S. Bloom, Stephen H. Bell, Fred Doolittle, Winston Lin, and George Cave. *Does Training for the Disadvantaged Work? Evidence from the National JTPA Study*. Washington, DC: Urban Institute Press.
- Paternoster, Raymond, 1989. "Absolute and Restrictive Deterrence in a Panel of Youth: Explaining the Onset, Persistence/Desistance, and Frequency of Delinquent Offending." *Social Problems* 36:289-309.
- Paternoster, Raymond, and Alex Piquero. 1995. "Reconceptualizing Deterrence: An Empirical Test of Personal and Vicarious Experiences." *Journal of Research in Crime and Delinquency* 32:251-286.
- Phillips, Llad, Harold L. Votey, and D. Maxwell. 1972. "Crime, Youth and the Labour Market: An Econometric Study," *Journal of Political Economy* 80:491-504.
- Phillips, Llad and Harold L. Votey. 1987. "Rational Choice Models of Crime by Youth," *The Review of Black Political Economy* 16:129-187.
- Piliavin, Irving and Rosemary Gartner. 1979. *Assumptions and Achievements of Manpower Programs for Offenders: Implications for Supported Work*. Institute for Research on Poverty Discussion Paper #541-79, University of Wisconsin. Madison.
1981. *The Impact of Supported Work on Ex-Offenders*. New York: Institute for Research on Poverty and Mathematica Policy Research, Inc.
- Piliavin, Irving and Rosemary Gartner, Craig Thornton, and Ross Matsueda. 1986. "Crime, Deterrence, and Rational Choice," *American Sociological Review* 51:101-119.

- Ploeger, Mathew. 1995. "Youth Employment and Delinquency: Reconsidering a Problematic Relationship." Paper presented at the 1995 Annual Meetings of the American Society of Criminology, Boston.
- Pownall, George A. 1969. "Employment Problems of Released Prisoners," Mimeographed. College Park, MD: University of Maryland.
- Reinarman, Craig and Donald Miller. 1975. "Direct Financial Assistance to Parolees," Sacramento: California Department of Corrections.
- Rogers, Sally. 1980. *An Examination of Adult Training Centers in Ontario -- Community Follow-Up*. Province of Ontario: Ministry of Correctional Services.
- Rossi, Peter H., Richard A. Berk, and Kenneth J. Lenihan. 1980. *Money, Work and Crime: Experimental Evidence*. New York: Academic Press.
- Sampson, Robert J., and John H. Laub. 1990. "Crime and Deviance over the Life Course: The Salience of Adult Social Bonds." *American Sociological Review* 55:609-27.
1992. "Crime and Deviance in the Life Course." *Annual Review of Sociology* 18:63-84.
1993. *Crime in the Making: Pathways and Turning Points through Life*. Cambridge: Harvard University Press.
- Sandell, Steven H. and Kalman Rupp. 1988. *Who is Served in JTPA Programs: Patterns of Participation and Intergroup Equity*. National Commission for Employment Policy. Washington DC
- Savelsberg, Joachim. 1994. "Knowledge, Dominance, and Criminal Punishment." *American Journal of Sociology* 99:911-43.
- Schmidt, Peter, and Ann D. Witte. 1984. *An Economic Analysis of Crime and Justice: Theory, Methods, and Applications*. New York: Academic Press.
- Schultz, Theodore. 1961. "Investments in Human Capital." *American Economic Review* 51:1-17.
- Short, James F., Jr. and Fred Strodbeck. 1965. *Group Process and Gang Delinquency*. Chicago: University of Chicago Press.
- Shover, Neil. 1985. *Aging Criminals*. Beverly Hills: Sage.
1996. *Great Pretenders: Pursuits And Careers Of Persistent Thieves*. Boulder: Westview.
- Skocpol, Theda. 1993. "Is the Time Finally Ripe? Health Insurance Reforms in the 1990s." *Journal of Health Politics, Policy and Law* 18: 531-550.
1997. "The Next Liberalism." *Atlantic Monthly* 279:118-120.
- Soothill, Keith. 1974. *The Prisoner's Release: A Study of the Employment of Ex-Prisoners*. London: Allen and Unwin.
- Sutherland, Edwin S. 1947. *Principles of Criminology*. Philadelphia: Lippincott.

- Sullivan, Clyde L. and Wallace Mandell. 1967. *Restoration of Youth through Training*. New York: Wakoff Research Center.
- Sullivan, Mercer L. 1991. *Getting Paid -- Youth Crime and Work in the Inner City*. Ithaca, NY: Cornell University Press.
- Sviridoff, M. and J.E. McElroy. 1984. *Employment and Crime*. New York: Vera Institute of Justice.
1985. *Employment and Crime: A Summary Report*. New York: Vera Institute of Justice.
- Taggart, Robert III. 1972. *The Prison of Unemployment*. Baltimore: Johns Hopkins Press.
1981. *A Fisherman's Guide: An Assessment of Training and Remediation Strategies*. Kalamazoo, Michigan: Upjohn Institute.
- Tauchen, Helen, Ann D. Witte, and Harriet Griesinger. 1994. "Deterrence, Work and Crime: Revisiting the Issues with Birth Cohort Data," *Review of Economics and Statistics* 76: 399-412.
- Uggen, Christopher. 1995. *Choice, Commitment, and Opportunity: An Event History Analysis of Supported Employment and Crime*. Ph.D. Dissertation, Department of Sociology, University of Wisconsin, Madison.
- U.S. Bureau of the Census. 1989. *Characteristics of Population*. Washington DC: U.S. Government Printing Office.
- U.S. Department of Justice. 1988. *Profile of State Prison Inmates, 1986*. U.S. Department of Justice, Office of Justice Programs Bureau of Justice Statistics, Washington DC: U.S. Government Printing Office.
1992. *National Update*. U.S. Department of Justice Office of Justice Programs Bureau of Justice Statistics, Washington DC: U.S. Government Printing Office.
1993. *Survey of State Prison Inmates, 1991*. U.S. Department of Justice Office of Justice Programs Bureau of Justice Statistics, Washington DC: U.S. Government Printing Office.
1996. *Correctional Populations in the United States, 1994*. U.S. Department of Justice Office of Justice Programs Bureau of Justice Statistics, Washington DC: U.S. Government Printing Office.
- U.S. Department of Labor. 1993. *The National JTPA Study -- Title II-A Impacts on Earnings and Employment at 18 Months*. Office of Strategic Planning and Policy development, Employment and Training Administration, Washington, DC: U.S. Government Printing Office.
- Vera Institute of Justice. 1974. *Wildcat: The First Two Years*. New York: Vera Institute.
- Weisbrod, Burton A. 1969. "Benefits of Manpower Programs: Theoretical and Methodological Issues," in *Cost Benefit Analysis of Manpower Policies*. Edited by G.G. Somers and W.D. Wood. Hanson & Edgar, Ltd.
- Wells, Robert M. 1995. "Job Corps under the Gun." *Congressional Quarterly Weekly Report* 53:285.

Witte, Ann D. 1980. "An Exploration of the Determinants of Labor Market Performance for Prison Releasees." *Journal of Urban Economics* 8:313-329.

Wolfgang, Marvin, Robert Figlio, and Thorsten Sellin. 1972. *Delinquency in a Birth Cohort*. Chicago: University of Chicago Press.

Yamada, Tadashi, Tetsuji Yamada, and Johan M. Kang. 1991. "Crime Rates Versus Labor Market Conditions; Theory and Time-Series Evidence." Working Paper No. 3801, National Bureau of Economic Research, Cambridge, MA.