This is to certify that the

dissertation entitled

AN EXPERIMENT IN EMPLOYMENT OF OFFENDERS:
ENHANCED EMPLOYMENT DEVELOPMENT AND SOCIAL SUPPORT

presented by

Patrick Martin Clark

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Psychology

Ralph Levine
Major professor
Ralph Levine

Date August 12, 1991

AN EXPERIMENT IN EMPLOYMENT OF OFFENDERS: ENHANCED EMPLOYMENT DEVELOPMENT AND SOCIAL SUPPORT

By

Patrick Martin Clark

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Psychology

1991

ABSTRACT

AN EXPERIMENT IN EMPLOYMENT OF OFFENDERS:

ENHANCED EMPLOYMENT DEVELOPMENT AND SOCIAL SUPPORT

By

Patrick Martin Clark

This study implemented a program to facilitate employment and reduce rates of criminal recidivism among ex-offenders. Relationships among criminal, employment and social support variables were also investigated. Past research suggests that most adult offenders will be re-arrested subsequent to release from criminal justice custody. Previous employment interventions have been marginally successful in reducing rates of recidivism among offenders. They have, however, consistently demonstrated the association of employment and criminal behavior. The present research addressed shortcomings of previous employment interventions including poor design, methodology, scope, time frame of intervention, and failure to measure social variables of theoretical importance to explaining criminal behavior and employment. The specific objective of this study was to assess the effects of employment-related services and social support on recidivism and employment among felons released from prison and placed in a minimum security, community-based residential program. Recidivism was measured using official rule violations and return to

prison during the study time frame. Volunteer participants were randomly assigned to experimental and control conditions. The control condition involved provision of traditional employment development services. The experimental condition incorporated additional services and resources specific to the needs of individual participants within a socially supportive setting. Differences between experimental and control groups were found on recidivism and employment variables six months after intake to the study. Experimental group participants displayed lower incidence of recidivism, took longer to recidivate and were returned to custody at lower rates in comparison to participants of the control group. Compared to control group members, those participating in the experimental condition gained employment and were employed at a higher rate at the end of the study. Relationships between social support, prior criminal justice history, recidivism and employment variables were examined across experimental and control groups. Prior criminal justice history, recidivism and employment were inconsistent in relationship to subjective aspects of social support involving perceptions and feelings; but consistent vis-a-vis resources within social networks. The statistical relationship between recidivism and employment intervention was improved through multiple regression and inclusion of demographic variables such as prior history, age and number of dependents.

In memory of Gail Gordon

ACKNOWLEDGEMENTS

The successful completion of this project involved many individuals over the course of many years. This project also involved tragedy in the loss of Gail Gordon, to whom this work is dedicated. The experiment could not have been completed without the cooperation, assistance and perseverance of people at the Alternatives Center. Every community should have people as committed to addressing social problems as those employed at the Center. I would also like to extend my sincere appreciation to Beth Arnovits and the Michigan Council on Crime and Delinquency. They supported me in this effort and the common purpose of making communities and the justice system more effective in dealing with the social problems of crime and victimization. Dissertation committee members Ralph Levine (Chair), Tim Bynum, Bob Caldwell and Jack Hunter also deserve my thanks for their unlimited assistance on my behalf. I am also grateful to Professor Al Raphelson for his unselfish mentorship and authenticity as a friend. Finally, I would like to express my love for my family and friends, and thank them for unending support and patience over the years and throughout the course of this project.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Figure

CHAPTER 1

INTRODUCTION

Numerous intervention efforts within criminal justice and corrections have attempted to change the behavior of adult offenders under the rubric of rehabilitation. Currently, common wisdom permeating the area of adult corrections suggests that rehabilitation programs are an ineffective means of dealing with criminal behavior. This common wisdom or opinion may, in part, based upon the fact that previous evaluations of rehabilitation interventions have resulted in mixed or negative outcomes (Lipton, Martinson, & Wilkes, 1975). There is at present, however, a pervading opinion or consensus in the field of criminal justice that "nothing works" (Miller & Ohlin, 1984).

Although other reasons for this common wisdom may be identified (e.g., change in popular opinion and policy with respect to the causes of crime and criminal behavior), the lack of effect demonstrated by rehabilitation programs prior to 1975 was documented in the Lipton et al. study. Unfortunately, conclusions of Lipton et al. concerning the lack of demonstrated efficacy in correctional rehabilitation programs did little to provide direction improving on mistakes of the past (Gendreau & Ross, 1979). Subsequent

reviews also document the lack of effect displayed by correctional treatment programs, but go further to explain results in terms of problems in treatment definition and specificity (Gensheimer, Mayer, Gottschalk, & Davidson, 1986), generally poor research design and methodology (Gendreau & Ross, 1979), and inadequate implementation (U. S. Department of Labor, 1971).

Taggart (1972) also reviewed past attempts to evaluate treatment programs and concluded with recommendations for proper evaluation of existing programs, the implementation of innovative strategies, improvement in and use of experimental methodology for the purpose of evaluation. In a review of treatment programs displaying positive outcomes, Gendreau and Ross (1979) identified five issues which may have interfered with past efforts to evaluate correctional treatment programs: (a) reliance on single method design; (b) reliance on single outcome criteria; (c) interactions and individual differences; (d) inadequate and insufficient treatment or intervention; (e) and, lack of coordination among agencies. Gensheimer et al. (1986) conducted a statistical meta-analysis using results from treatment programs designed with the purpose of diverting youth from the juvenile justice system. In accounting for the absence of treatment effects, they also found previous efforts to lack a priori program definition and research design.

In light of these observations it has been argued, paradoxically, that lack of direct involvement on the part

of social scientists in developing and implementing innovative policy and program solutions to social problems like criminal behavior is part of the problem (Fairweather, 1972). As evidenced above, institutional programs for offenders have typically been implemented without regard to theory, without utilization of prior research in defining program content and outcomes, or the incorporation of inferential research designs in planning for program implementation so as to provide valid and conclusive outcome information (Andrews, Zinger, Hoge, Bonta, Gendreau, & Cullen, 1990; Gensheimer et al., 1986).

Representing a relatively new direction in the field of psychology, ecological psychology requires active participation by social scientists in the process of problem solving, policy development, research design, program implementation, evaluation, and dissemination of valid program models (Fairweather & Tornatzky, 1977). This report describes a research project which approached ex-offender rehabilitation from such a orientation.

This report describes an experimental evaluation of an employment related intervention with adult offenders preparing for release after periods of incarceration in the Michigan prison system. The research plan involves the implementation of a innovative program in which participants were randomly assigned to experimental and control groups. The research design of the project also involves the comparison of experimental and control groups on a number of

dependent variables such as employment related income, criminal justice recidivism, and return to prison.

The design used in this research provided internal validity by including random assignment to experimental and control conditions, and use of process and outcome measurements (Kerlinger, 1973). The design also attempted to yield external validity, generalizability and ecological representativeness (Kerlinger, 1973) through implementation of an innovative program of employment in a field setting within an ongoing ecology, and in cooperation with a existing community agency which provides services to offenders. Measurement data was collected prior to program participation and six months following intake to the program.

This document begins with a brief survey of literature regarding the relationship of crime and employment, and criminal recidivism. Next, evaluation studies of employment programs for criminal offenders will be summarized. Recent efforts involving employment intervention experiments will then be presented within the context of relevant theory and the research design for this project. The quickly expanding literature on social support will then be introduced and implications of this literature for criminal justice or sociological theory will be discussed within the limited context of the present study. The second chapter describes the research design and implementation plan for an enhanced employment intervention with offenders including the setting

of the research, the evaluation design, plan for intervention, and approach to measurement. The third chapter presents the results of the analysis of research data from the experiment. The final chapter provides a discussion of the results in terms of implementation and limitations of the study, conclusions and suggestions for future research.

Crime, Employment and Recidivism

The notion of a relationship between criminal behavior and employment is not new to academic literature (see Bonger, 1916). Although much of the research in this area has involved theories of human behavior, political philosophy, macro-level theory and aggregate data, most theoretical opponents now agree "empirical analysis shows . . . a moderate link between unemployment and crime" (Freeman, 1983, p. 89). Indicators of crime have been found to be related to rates and trends in employment (Brenner, 1976; Cantor, & Land, 1985; Glaser & Rice, 1959; Sviridoff & Thompson, 1983; Thornberry & Christenson, 1984), economic and business activity (Henry & Short, 1954; Ogburn & Thomas, 1922) and income inequality (DeFronzo, 1983; Erlich, 1973). Some have also found relationships in the size of prison populations or rates of incarceration and employment (Jankovic, 1977; U.S. Bureau of Prisons, 1975; Waldron & Pospichal, 1979). The efforts of economists and other social scientists converge on a theoretical level to explain

criminal behavior in terms related to economic and social opportunity within social systems (Cloward & Ohlin, 1960; Fleisher, 1963; Odell, 1974; Phillips, Votey, & Maxwell, 1972).

Studies which address criminal recidivism among adult offenders appear to further validate the proposed relationship of criminal behavior and employment (Hoffman & Meierhoefer, 1979; Lenihan, 1975; Lotze, 1986; Petersilia, Turner, Kahan, & Peterson, 1985; Portney, 1970; President's Commission, 1967; Solarz, 1985; Thompson, Sviridoff, & McElroy, 1981; Thornberry & Christenson, 1984). One of the first reported studies of recidivism was conducted for the President's Commission on Law Enforcement and Administration of Justice in 1967. In their final report, the Task Force on Corrections concluded:

> The pattern of violations which is shown is common to all jurisdictions. Violations on parole tend to occur relatively soon after release from an institution, nearly half of them within the first six months after offenders are released, and over sixty percent within the first year. (President's Commission, 1967, p. 68)

The impoverished condition of ex-offenders has been documented in other research studies. Solarz (1985) interviewed a sample of homeless people in Detroit, Michigan and found 53.6% to have a history of arrest (67% of the men interviewed), one-third to have been released from prison within a year, and one-third on parole at the time of the interviews. Shmarov (1974) found 50% of the vagrants in the U.S.S.R. to be released convicts.

Lotze (1986) conducted a novel study within an eastern New York correctional facility. A random sample of 346 inmates were interviewed by other inmates. Seventy percent (70%) reported being unemployed at the time of the arrest resulting in their present term of incarceration. Further, upon comparing first-time offenders with others they found first-time offenders to be "overly-optimistic" concerning the likelihood of finding employment upon release and not returning to prison.

Petersilia et al. (1985) collected data on 1,672 convicted felons in two of the largest counties in California. They conducted a 40-month follow-up on offenders sentenced to probation and prison. Using multivariate methods of data analysis, they found statistical relationships between re-arrest and type of crime represented in the original conviction, number of prior convictions, income at the time of arrest and family living arrangement at the time of arrest.

Hoffman and Meierhoefer (1979) conducted a six-year follow-up study involving 1,800 released federal prisoners and found that by the end of the six-year period, 62.5% had been re-arrested, 40.9% more than once. They also found re-arrest to most likely occur in the first year subsequent to release from prison (32.2%). They were moderately able to explain recidivism using actuarial methods and a number of variables including prior employment. This study was later

replicated by Beck & Shipley (1987, 1989) with comparable results.

Over a six-year period, Beck and Shipley (1987) traced criminal recidivism within a sample of young adults paroled in 1978 from prisons in 22 States. Within one year, 32% had been rearrested, 47% within two years. Within 6 years of their release from prison an estimated 69% of the 3,995 parolees had been rearrested, 53% had been re-convicted, and 49% were re-incarcerated.

Thornberry and Christenson (1984) analyzed data from a longitudinal cohort study of delinquency in Philadelphia. Using a non-recursive path model they found a reciprocal relationship between crime and unemployment and observed that, "unemployment exerts a rather immediate effect on criminal involvement, while criminal involvement exerts a more long-range effect on unemployment" (p. 405).

Thompson et al. (1981) reviewed research regarding crime, unemployment and recidivism concluding that ex-offenders are characteristically members of disadvantaged groups (convicted offenders) coming from an already disadvantaged population (minority, poor, unemployed, under-educated). Further, they found ex-offenders typically do not receive assistance or support from traditional institutions such as probation and parole, or state employment agencies. In conclusion Thompson et al. suggest that the employment problems of ex-offenders are related to

social-structural and economic labor market barriers in the community as well as lack of employable skills.

An extensive study of employment and crime was recently completed by the Vera Institute of Justice during which interviews were conducted with defendants from Brooklyn, New York neighborhoods (Sviridoff & McElroy, 1985). Additionally, the study included an in-depth ethnological examination of the Brooklyn community neighborhoods and the youths living in those neighborhoods over a period of four years. In explaining the relationship of employment variables and criminal behavior, the authors forward a complex theory of relationships emphasizing local economic structures of employment and local labor markets.

Employment Intervention with Offenders

Much has been accomplished in recent years to correct the shortcomings of previous research within the area of adult corrections. Intervention programs have been better developed and implemented with more sophisticated design and scientific methodology.

An exhaustive review of correctional treatment programs was recently completed by Genevie, Margolies, and Muhlin (1985). In a non-statistical meta-analysis of treatment programs they apparently found employment related interventions to reduce criminal recidivism among adult and juvenile offenders. Genevie et al. reviewed 555 reports which included information on over 10,000 groups of adults

and 2,100 groups of juvenile offenders representing over two million individuals. They found some programs, including financial aid and job placement, consistently associated with lower rates of recidivism among adults released from incarceration.

The problems of employment among ex-offenders was formally recognized in public policy by the Manpower Development and Training Act of 1962. The notion that ex-offenders comprise a severely disadvantaged group in need of training and development in areas of employment skills was explicitly stated in this legislation. Sociological theory of crime and criminal behavior was also a part of the manpower philosophy, and implementation of manpower programs were targeted at modifying societal barriers which thwart the participation of ex-offenders in legal economic structures (Perry, Anderson, Rowan, & Northrup, 1975).

Four types of programs were included in the Manpower Act of 1962: skills training, employability development, job development, and work experience (Perry et al., 1975). Skills training usually occurred within correctional institutions and was oriented toward vocational rehabilitation and training in areas for which there was a reasonable expectation of employment. Employability development usually included skill-building workshops in interviewing, resume' preparation, counseling, pre-vocational training, and job placement. Job development programs were oriented toward generating placement

opportunities and employment situations upon release from custody. Work experience or supported work was usually comprised of work release or community service programs in which ex-offenders participated in group work crews doing maintenance for community organizations and agencies such as homes for the aged and churches.

In reviewing these efforts, Perry et al. (1975) suggest that while the results of manpower training programs are generally positive, job development programs accomplished little with regard to changing the type of job opportunities available to ex-offenders. Although efforts were successfully directed at enhancing the skills of individuals, these efforts were ineffective in changing the structure of available opportunities for employment. As a result, ex-offenders targeted by this legislation were seldom admitted, allowed access to, or obtained primary long-term employment (i.e., meaningful, permanent full-time employment with benefits). Perry et al. found that if ex-offenders did become employed it was usually at part-time, temporary, and low paying jobs.

There have been a number of reviews of the manpower efforts during the 1960's and 1970's (Rovner-Pieczenik, 1974; Taggart, 1972; Toborg, Center, Milkman, & Davis, 1977; Zimring, 1973). Although these reviews generally depict employment intervention with offenders in a positive light, without exception they conclude with criticisms regarding the lack of controlled and experimental evaluation designs.

Further, most also identify the lack of primary employment and job development as the major shortcoming of manpower initiatives with offenders.

Thompson et al. (1981) conclude an extensive review of employment related interventions with offenders by observing that programs reporting a positive impact on employment also report a reduction in recidivism. Those programs reporting no impact on employment, however, also report no impact on recidivism. Thompson et al. suggest that the relationship between employment and crime is far from simple and much is to be learned concerning the temporal impact of employment programs on ex-offender groups within the community.

Collectively, surveys of the first twenty years of manpower programs directed at adult offenders present the need for rigorous and controlled impact evaluations of these programs which include assessment of system, process and outcome variables (Fairweather & Tornatzky, 1977; Thompson, et al., 1981). Further, although manpower programs have been moderately successful in addressing the employability of adult offenders, they appear unable to influence the development of employment for this population within community labor markets. Most importantly however, although the manpower movement recognized theory regarding the importance of social and structural variables, measurement and control of these aspects were not included in implementation or evaluation.

Employment Intervention Experiments With Offenders

As mentioned above, the increased probability of recidivism among ex-prisoners and the acute lack of resources confronting ex-offenders upon release prompted further development of employment programs targeted at this population. The rationale was that employment development, employability skills training, placement and supported work could better serve the needs of these individuals by assisting their transition into the employment structure or labor market of the community; thereby reducing the rate at which they return to crime. To improve on past efforts, further formalized research programs were directed toward eliminating employment barriers in formal attempts to overcome societal impediments through supported and sheltered work programs within the context of controlled experiments.

Living Insurance for Ex-Prisoners (LIFE)

Reasoning in further implementation of the manpower approach led to the development and provision of financial aid or unemployment benefits for ex-prisoners. The intervention consisted of regular financial aid payments for a limited period of time following release from custody. These efforts began in 1972 with the Baltimore LIFE (Living Insurance for Ex-Prisoners) experiment (Lenihan, 1977).

The LIFE project examined the effect of transitional aid payments and job placement on rates of re-arrest among

those released from prison. Eligibility for enrollment in the program was restricted to males being released from Maryland prisons with a prior history of theft related convictions, who were under 45 years of age and had not previously been on work release. A total of 432 participants were randomly assigned to receive one of four conditions: aid payments ($60 a week for three months), vocational counseling and job placement services, payments and placement services, or a control/no-treatment condition. Participants in the experimental transitional aid payment conditions received weekly benefits of $60 for 13 weeks whether or not they secured employment during the benefit period. Overall, participants were found to come from extremely low socioeconomic backgrounds, with minimal educational attainment, weak job and work histories, and a large number of previous arrests.

An evaluation of findings at one-year follow-up found a re-arrest rate of 21% among payment groups compared to 31% for job placement and control conditions. Participants not receiving financial aid were arrested earlier, were more likely to be convicted and more likely to return to prison. Differences in rates of re-arrest remained constant at the end of a two-year period. The study also found a consistent relationship between employment and arrest among participants across experimental and control groups. In discussion, the author qualifies this finding by speculating as to the effect of Baltimore's unemployment rate on the

experiment; particularly the lack of successful placement in the job placement services condition:

> Despite the considerable efforts to obtain employment for those in the employment-services experimental groups, job placement services did not succeed in raising the amounts of employment for those groups . . . . Job placement did not appear to be a fruitful way to proceed in the development of a program to reduce recidivism. (Lenihan, 1977, p. 47)

Lenihan further suggests that differences in post-program re-arrest rates between the experimental and control groups may have been greater had the program been more successful in vocational development and finding employment for the participants of the experimental conditions.

One reason this experiment fell short in effecting long-term change in the condition of participants may have been the limited time frame of intervention. Participants in the experimental condition received payments for a period of 13 weeks after which they were to seek and secure support on their own. Further, although vocational counseling was mentioned as a component of the study, it appeared to be ancillary to the research design and was not addressed in data collection or analysis. Also, the job placement condition was ineffective in obtaining employment for participants and, therefore, effectively became a control condition.

Transitional Aid Research Project (TARP)

The Transitional Aid Research Project (TARP) was modeled after the LIFE project and implemented in the states of Texas and Georgia during 1976 (Rossi, Berk, & Lenihan, 1980). Approximately 4,000 released prisoners were randomly assigned to experimental and control conditions. Within the experimental condition, there were two types of treatment, unemployment insurance and job placement; two levels of benefits, 13 and 26 weeks of eligibility; and two levels of benefit reduction, 100% (benefits reduced one-to-one for each dollar earned) and 25% ($.25 for each dollar earned).

In conclusion the authors state that: "TARP demonstrated that the provision of limited amounts of financial aid to released prisoners in the form of minimum unemployment benefit payments . . . can decrease the arrests experienced by ex-felons in the year following release by 25% to 50%" (Rossi et al., 1980, p. 7).

In lieu of concrete findings in outcome data, this conclusion was based upon the formulation of structural equations which estimated the potential impact of the model. The validity of this extrapolation has been disputed in the literature (Zeisal, 1982). The TARP experiment found no significant differences between experimental and control groups in the average number of arrests during the post-release year in either state participating in the project.

Rossi et al. also report that there was an apparent work-disincentive effect of payments with payment group

participants working considerable fewer weeks over the post-release year than members of the control group. There was, however, a strong and immediate impact of employment on rates of re-arrest apparent across experimental and control groups. The authors stress that TARP payments did reduce recidivism, but such effects were masked by an increase in the general unemployment rate which in turn increased arrests. As with the previous LIFE project, the lack of placement opportunities was noted as a problem in TARP. In discussion, Rossi et al. suggest that some type of work strategy within a closed or supportive environment has great potential in reducing rates of recidivism.

The shortcomings of the TARP project are similar to those of the LIFE experiment: (a) the experiment was of fixed length leaving employment ultimately up to the individual offender upon termination of the support intervention (benefits); (b) they were apparently also unsuccessful in implementing the job placement condition; (c) although based upon sociological theory, no social or individual level variables were controlled or measured; (d) temporal variables were not controlled and therefore it was impossible to assess causality in the relationship of recidivism and employment.

There have been at least two recent experiments to further explore the effects of providing employment opportunities to offenders through the implementation of supported work interventions. The first was the Vera

Institute, Wildcat Services Corporation. The second was a larger scale replication referred to as the Manpower Demonstration Project.

The Wildcat Service Corporation

The first offender-related supported work experiment was the Wildcat Service Corporation initiated by the Vera Institute of Justice in 1972. Using an experimental design, Wildcat attempted to provide job training and employment to individuals being released from a heroin treatment program (most also had criminal records prior to drug treatment). The Vera supported work model was based on sociological theory forming the basis of the manpower movement. It attempted to design an intervention that provided social support through supportive group working conditions and financial support through employment (Friedman, 1978, p. 15).

Wildcat randomly assigned 400 participants to experimental and control conditions and tracked all participants at regular intervals for three years after referral to the program. Of the participants, 85% were on welfare at the time of application to the program, half never had a job lasting more than one year, 76% had not completed high school and one-third had repeated at least one grade. Ninety-eight percent (98%) reported being drug-addicted, 78% were participating in a drug maintenance program (methadone); and, overall participants reported

previously trying to quit heroin an average of 8.5 times. Almost all participants had a prior history of police arrest, 89% had been convicted of a crime, and 60% had been incarcerated prior to the experiment.

Participants in the experimental condition were assigned to work crews in which a member of the crew was given supervision responsibilities. All crews were further supervised by program staff, and job responsibilities included construction and maintenance tasks. Vera developed performance demand and pay structures to encourage the development of acceptable work behaviors. Further training and development were made available to experimental group participants after each work day.

Friedman (1978) reports significant differences between experimental and control groups in number of arrests after six-months and one-year. The difference between the groups appeared to dissipate, however, by the end of the third year. Additionally after three years, employment appeared to make a difference in re-arrest rates across experimental and control groups depending upon whether participants had been employed more or less than 18 months of the three-year period. That is, for experimental and control group participants employed more than 18 months of the 36-month follow-up period, the arrest rate was less than half the rate of those employed less than 18 months (Friedman, 1978).

Although the mission statement of the Vera project includes the provision of social support within the context

of work crews, this aspect was not operationalized or evaluated within the design of the project. Also similar to previous experiments, the Wildcat Services Corporation only provided services to participants for a fixed length of time with no formal procedural component to aid in the transition from supported work to actual employment in the community. Further, although the option of vocational and career development is also mentioned, there was apparently no control or assessment of this aspect within the research design. Also, temporal relationships between recidivism and employment were not controlled.

Manpower Demonstration Research Corporation (MDRC)

The Wildcat project led to a larger scale replication referred to as the Manpower Demonstration Research Corporation (MDRC). This experiment was implemented as a multi-site supported work program providing employment to four distinct groups: ex-offenders, juvenile offenders, ex-heroin addicts, and welfare mothers (MDRC, 1980). The project involved 15 sites across the country and a budget of $82.4 million. Eligibility criteria were designed to select hard-core unemployed offenders, addicts, and welfare mothers. Intake criteria also required that participants were unemployed at least three of the last six months, and age 18 years or older.

Developed and implemented as an experiment with voluntary participation, applicants were randomly assigned

to experimental (work crew) and control conditions. MDRC assessed program impact at nine-month intervals over a three-year period. Participant eligibility, wage and bonus structure, and length of participation were controlled across sites. The type of work conducted by the experimental groups varied across sites and groups, and included building maintenance, security, day care, construction, and manufacturing jobs. By the end of the demonstration period over 10,000 participants had been involved in the project.

The average length of participation in the program across sites was 6.7 months. About 30% of all participants were dropped from the program for poor performance. Although their drop-out rate was not the highest among experimental groups, ex-offenders stayed in the program a total of 5.2 months on the average (out of 12 months maximum). Distinct differences were apparent in post-program employment depending upon participant group and site. There were significant experimental and control group differences in post-program employment earnings for the ex-addict and welfare mother groups, but not for the adult and juvenile ex-offender groups. Further, there was no difference in during- and post-program criminal activity for experimental and control groups of ex-offenders.

Findings particular to the ex-offender group suggest a limited impact of the supported work condition. While in the program, ex-offenders worked more and were less

dependent on welfare for income. Most drop-outs and terminations, however, occurred within 6 months of the 12 month project. Overall, there was no reduction in crime or drug use. In follow-up, 45% reported being addicted to, or using heroin. Although employment impacts were immediate and dramatic, they appeared to decline sharply and eventually became insignificant by the end of three years. The authors conclude:

> Supported work was not effective in increasing the employment or reducing . . . drug use, or criminal activities of the ex-offender group over the longer term. While in the program, ex-offenders seemed to benefit from supported work -they worked more hours and earned more dollars than controls- but these results did not persist once they left the program. (MDRC, 1980, p. 133)

Similar to the shortcomings of prior studies, support and services provided by the MDRC project were of fixed-length duration. Further, like other studies, MDRC touted the social support aspects of the project yet failed to operationalize this component in methodology. Like the Wildcat project, MDRC made vocational and career development counseling available as part of the program (25% of the allocated time at work); however, it was only utilized an average of 6% across program sites. Further, there was no control or assessment of this component in the research design. Finally, there was no assessment of temporal order with regard to recidivism and employment.

Summary

Reviews of the research literature regarding rehabilitation programs for adult offenders find these studies inconclusive with regard to the impact of interventions on further criminal behavior. The inconclusive findings of early efforts were primarily viewed as the result of lack of theoretical basis, poor definition, research design and methodology. Lack of involvement by social scientists in the development, implementation and evaluation of rehabilitative programs was further viewed as contributing to the inconclusive outcomes of previous efforts.

The relationship of crime and employment has been repeatedly demonstrated in studies using macro-level theory and aggregate data. Additionally, cross-sectional studies investigating criminal behavior among convicted offenders released from criminal justice custody also lend support to the crime-employment relationship. There is further indication of a relationship in research involving longitudinal methodology. Reviews of these studies suggest further research should include system and process measures in addition to individual-level variables.

Previous efforts toward explaining the accessibility of employment opportunities for different groups within the community included the theoretical orientation that these problems are not entirely within the individual, but involve an interaction of individual and social-system variables.

This perspective further suggests that failure in previous efforts to "rehabilitate" are understandable given the focus has been to change groups rather than mediate the interaction of the person and social systems in which the individual is bound to exist.

This interactionist approach was recognized but, evidently, not fulfilled in manpower efforts to provide employment programs for offenders. Historically, manpower programs addressed the problem of employability among ex-offenders as a group; however, they were ineffective in dealing with limited opportunities for employment and the availability of support resources among the individuals of this special population. Further, when programs did attempt to influence employment opportunities in the community (usually through job development and placement), they were only marginally effective in providing low paying, temporary or secondary employment for the target population. Although these programs made limited attempts at providing offenders with skills necessary to obtain employment, it was found that linkages to actual opportunities for primary employment were seldom available in the community.

The lack of social support and legitimate employment opportunities in the community led to the implementation of programs designed to supplant or artificially replace local economic opportunity structures through the provision of financial aid and supported work environments for ex-offenders. A number of interventions incorporating

experimental methods continued to be marginally effective in efforts to place adult offenders in primary, long-term, permanent employment positions upon termination of the intervention program. This shortcoming apparently negated positive effects of programs involving job development, support, and financial assistance. Not withstanding this shortcoming, it is important to note that employment was invariably identified as a factor in decreasing recidivism across and within groups of offenders participating in these experiments. Invariably, however, the temporal nature of employment and recidivism was not assessed or controlled within research designs.

Another shortcoming of previous research appeared to be the fixed-length duration, or limited length of intervention provided by these programs. These interventions were found to ultimately leave permanent employment up to the offender. This evidently had the effect of leaving offenders in a low-paying, part-time employment situations with no benefits or opportunities for advancement. The problem again remained one of ineffectiveness in changing opportunities for employment available to the offender population. Finally, recent attempts in supported work for ex-offenders suggested that in addition to providing gainful employment for participants, the group-work environment provided "needed social support". Although this aspect was reportedly a part of theory and research design, it also was not operationally defined, controlled or measured.

Employment related interventions with offenders have evolved from providing minimal skills necessary to seek and apply for employment (employment skills or employability), to providing benefits in the way of transitional aid (unemployment benefits), to supported work interventions providing day work and part-time employment (closed or sheltered workshops). These developments in employment intervention, however, have not had the impact of empowering offenders in the transition from criminal activity to legitimate and gainful long-term employment.

In reviewing the results of the transitional aid project, Rossi et al. (1980) note that adult offenders, "would much rather prefer to have jobs than money" (p. 23). In reviewing past employment efforts with ex-prisoners, Glaser (1983) notes, "the optimum economic assistance for released offenders would be work relief rather than compensation" (p. 207).

Further developments in the area of employment intervention with offenders should include additional procedures to facilitate employment opportunities in the community. Additionally, given the nature of the theory surrounding employment interventions and criminal behavior it appears that further effort should be directed toward examining the social variables associated with employment and recidivism.

Theoretical Considerations

The above survey of employment interventions with adult offenders reviewed results from manpower programs that have been initiated and evaluated over the last twenty years. Manpower programs for offenders were developed as an application of sociological theory related to crime and employment; and in particular, the theory of Blocked Opportunity (Perry et al., 1975). Blocked opportunity theory incorporates socio-economic factors, and is explained by Cloward and Ohlin (1960) as a realization of discrepancies between socially related aspirations and the possibilities of achieving them through legitimate means; thus contributing to deviant or criminal behavior. The realization of these discrepancies is then further impetus to the formation of, or affiliation with subcultures (or social networks) within which criminal behavior is both accepted and reinforced.

Blocked opportunity theory may be viewed as an outgrowth of earlier sociological theories of criminality which also recognized the influence of processes such as social networks and ecology. For example, in an early effort to explain criminality, Merton (1957) described a similar process involving a breakdown in the relationship of culturally prescribed aspirations and socially approved, or legitimate methods of achieving them. This approach was further explicated in the work of Durkheim (1933) in describing social disorganization and the process of

"anomie". Sutherland's theory of Differential Association further explained social processes leading to criminality and the formation of criminal subcultures using learning theory and developmental variables such as identification and imitation (Sutherland, 1939); thereby including the influence of social networks and systems. The Social Control theory of Hirschi (1969) also included the effect of social networks on the behavior of the individual.

As an offshoot of early sociological theories, blocked opportunity theory was the stated basis of manpower programs (Perry et al., 1975). The orientation of manpower interventions may also be one of the reasons for the marginal success evident in evaluation studies. These programs were generally directed toward the unemployed poor in the United States; and, as apparent from the previous section, employment programs were also directed toward convicted offenders. Realizing that an effect of blocked opportunity may be criminality, the manpower approach sought to arrest social influence in criminality by interrupting the process through legitimate employment. As an application of blocked opportunity theory, manpower programs were implemented to provide two distinct services. The first was to assist groups in overcoming impediments to opportunity through instruction and provision of limited employment development services. Currently, the most common form of employment related programming targeting the offender population is employment development workshops.

The second program service, job placement, was the means by which manpower attempted to remove external barriers to the employment of ex-offenders. In practice, these job placements were (and, to some extent still are) at part-time, low-paying jobs typically within community organizations like the Goodwill, Salvation Army, etc. In this way, the manpower movement sought to address the issues involved in sociological theory regarding crime and criminal behavior.

There may be many reasons for the lack of demonstrated success in this approach with the offender population; the most basic of which may be failure to incorporate or control other social components within the content of applied interventions. The provision of basic employment search skills are apparently insufficient as an intervention in the transition from illegitimate to legitimate opportunity and employment. As was discussed above in the review of employment programs, interventions were typically limited to providing the necessary skills and information to find and gain employment. Although social systems were often mentioned, interventions failed to examine or influence the interpersonal and social aspects related to the problem of criminal behavior and recidivism. Yet, as mentioned above, theory on which these programs were based incorporates the influence of social systems in explaining criminal behavior.

In the learning process described by Sutherland for example, the individual and his or her social system is an

integral part of the phenomenon of criminality. Social networks, and the reinforcement provided by these networks, are apparently a functional aspect of criminality in differential association theory. Social networks and the influence of social networks are also included in other sociological theories (Durkheim, Hirschi, Merton). Therefore, the lack of effect demonstrated by previous interventions may have been the result of failure to define, influence and measure the social systems in which the interventions took place. Although social systems were often mentioned in purpose, implemented interventions failed to account for interpersonal, functional and structural aspects related to the problem of criminal behavior and recidivism.

The importance of social system processes such as social support and social networks are evident in a number of studies involving recidivism among criminal offenders. Tolan (1986) found lack of social support from the family to be associated with delinquent behavior among adolescents. Pownall's (1969) study of released prisoners generally recognized social support as an important element in finding employment and successful transition from incarceration to the community. Shmarov (1974) studied the impact of collective farming on recidivism among released prisoners in Russia and concluded that social community participation and integration are important factors in preventing further criminality. Genevie's (1978) review of offender programs

displaying positive outcomes also mentions social support from family and community as influential in the successful reintegration of offenders in society. Thompson et al. (1981) included aspects of social support in the design of closed workshops and supported work environments to prevent recidivism.

Cressey (1952) and Krohn (1986), among others, have criticized sociological theorists like Sutherland for a lack of demonstrated efficacy in support of theoretical positions. Although seldom measured or controlled, researchers have recognized the importance of these social system variables as they relate to the problems of criminal behavior and recidivism in the offender population. It appears that if we are to explain criminality through the use of sociological theory, however, we must begin to assess and measure the influence of social systems and processes as they impact deviant behavior.

The next section briefly outlines current developments in the area of community psychology which may provide the means of incorporating social system variables in the process of assessment and intervention with criminal behavior; and in this case, recidivism.

Social Support and Social Networks

The area of social support is the subject of increasing attention in the social sciences. In the last twenty years, there have been many substantive accomplishments toward

operationally specifying attributes, characteristics and processes involved in this concept. Much has been recently accomplished toward exploring the nature of social support, and establishing reliability and validity of social support and social networks as important aspects in the process of human adaptation. Further, there are many similarities between the issues involved with social support and those involved with sociological theories of criminal behavior.

Following is a brief outline of conceptual literature regarding social support and social networks. Recent and comprehensive literature reviews of social support are available elsewhere (Barrera & Ainley, 1983; House, 1980; Mitchell & Trickett, 1980; O'Reilly, 1988; Schwarzer & Leppin, 1989; Tardy, 1985; Vaux, 1988). For the purposes of this study, however, it is beneficial to outline the evolution of the social support concept and highlight substantive issues in order to incorporate this literature within the scope of the present research.

Numerous areas of the social sciences and health-related professions have converged in recent years on a area involving psychological and social processes which appear to be of fundamental importance to human welfare (Gottlieb, 1981a; Gottlieb, 1981b). Referred to social integration in sociology, social networks in anthropology, and natural-helping mechanisms in mental health, social support processes are explained by Gottlieb (1981a) to involve the manner in which human attachments are structured in systems

of support and the resources that are exchanged among members of these systems.

The historical antecedents of what is now referred to as social support are many: "These notions have been expressed over the millennia in the writings of most of the world's religious leaders" (Cobb, 1976, p. 301). Thoughts involving social support may be found within the history of psychology's First Force and Wundt's, Folk Psychology (1900); and, the interactionism and pragmatism of William James (1890) involving the notions of adaptation, intentionality and the self. Ideas similar to social support are also apparent in the development of the Second Force including concepts such as Adler's interpersonal relations (1935) and Fromm's social isolation (1947). Recent theoretical and practical developments involving the idea of social support, however, may be more appropriately associated with the progression of the Third Force and existential-humanistic notions such as "Dasein" (being-there) and "Mitwelt" (with-world) (May, 1958). Further, the development of ecological psychology and the systems approach of Lewin (1951) have brought increasing concern regarding the utility of psychology and "marginal man", and the interdependence of the individual and the social system. These converging ideas have resulted in a quickly expanding literature regarding the characteristics and nature of processes referred to as social support and social networks.

Social Support

Durkheim's (1951) analysis of diminished social ties is often cited as seminal in establishing the foundation for later developments in the area of social support. Ironically, as mentioned above, Durkheim's process of alienation is also important to sociological theories of deviance and criminality. Social support has intertwined with the thoughts and writings of numerous authors in various ways throughout the history of psychology. Concepts such as social support and social networks may also be the essence of sociological theories of criminal behavior (Krohn, 1986).

Vaux (1988) suggests the foundation for current developments in psychology concerning social support and social networks is in the work of Caplan, Cassel and Cobb. They served as impetus to increasing interest and research regarding support (which has come to dominate the field of community psychology since that time) by defining the scope of this topic (Vaux, 1988).

The epidemiologist, John C. Cassel is often referred to as the first to develop an organized, contemporary presentation of social support in the prevention of health-related problems. Cassel investigated population density, social disorganization and social change; and, associated these issues with susceptibility to disease. He suggested that feedback systems within the social environment functionally influence susceptibility to disease in some

individuals and prevention of disease in others (Cassel, 1973).

What may have been a synthesis of Lewinian notions, Cassel asserted that environmental fields including social networks provide feedback to individuals. According to Cassel, the absence of feedback, or the presence of confusing feedback from the greater social system may be either exacerbated or reduced in smaller systems within which the individual is embedded; and, within which the individual is confronted by the stress of crisis. Individual differences in susceptibility to disease led Cassel to conclude that these social systems of feedback appear to buffer, or moderate immunity to disease and should, therefore, be identified and targeted for intervention.

Relying primarily on comparative research to support his experience, Cassel demonstrated increased morbidity and mortality rates within social groups of subordinate animals. His observations supported the proposition that confusing or inconsistent feedback from social systems increases vulnerability to environmental stress resulting in disease. Calling these systems of social support "psychosocial processes", Cassel also identified characteristic "devices" which are "health-protective", and "buffer" or "cushion" the individual from the negative effects of social disorganization and stress within the environment.

Cassel (1974) identified two types of buffers which serve to protect the individual from the negative effects of stress: biological adaptation and social processes within social networks. He described biological systems as basic to all living organisms which facilitate adjustment and adaptation to change in the environment. He also explained social processes as those that derive strength or weakness from available social groups (Cassel, 1976). In this way he involved subjective, behavioral, and structural aspects in the interaction of the individual and the social system.

In his 1976 Presidential Address to the American Psychosomatic Society, Sidney Cobb admonished his colleagues by recalling that the first president of the American Public Health Association called for a primary prevention approach to disease and the concept had yet to be fully implemented within the United States (Cobb, 1976, p. 300). In his address Cobb argued that social support was the means by which this call to action should be realized; in that social support may act to "prevent the unfortunate consequences of crisis and change" (p. 300).

Among the first to further describe the concept, Cobb (1976) specifically defined social support as information that allows an individual to believe he or she: (a) is cared for and loved; (b) is esteemed and valued; (c) belongs to a network of communication and mutual obligations. Cobb observed that the nature of social support involves the facilitation of coping and adaptation in efforts by the

individual to improve the person-environment fit through dynamic interaction with his or her social system.

Cobb drew upon a diverse body of research to support the contention that social support, although not a "panacea", is protective and preventive in effect. He cited research studies to demonstrate that systems of social support are beneficial in pregnancy and child development, recovery from surgery, illness and alcoholism, psychological disorder, termination of employment, bereavement, and even the prevention of swelling of the joints from arthritis (1976, p. 308). He also referred to studies of social development which suggest that lack of social support may lead to delinquent behavior (Forssman & Thuwe, 1966). In concluding his address, Cobb summarized evidence indicating that systems of social support moderate life stress and that "we should start now to teach all our patients both well and sick, how to give and receive social support" (Cobb, 1976, p. 312).

Gerald Caplan (1974) furthered the work of Cassel in publishing a series lectures in preventive psychiatry. The purpose of this book was to outline the evolution of his thoughts on the subject and suggest a number of models from which social support could be further studied. Additionally, he identified major contributors of social support to the well-being of individuals as "significant others [which] help the individual mobilize his [sic] psychic resources and master emotional burdens; they share

his tasks; and they supply him with extra supplies . . . and cognitive guidance to improve his handling of his situation" (p. 6). More specifically defining the components of social support, Caplan suggests resources of social support involve guidance, information, assistance with tasks, comfort and sanctuary during times of stress.

Cassel, Cobb and Caplan similarly defined social support in general terms. In their descriptions, they include the subjective aspects involving feelings and beliefs, functional and socially supportive behaviors, and structural social ties in terms of social networks.

Social Networks

Concurrent to developments regarding social support in health-related fields and psychology, other fields were devoting an equal amount of debate and discussion to social networks as they influence individual well-being within social environments (Barnes, 1972; Bott, 1971; Mitchell, 1969; Tolsdorf, 1976).

Twenty years ago, Bott (1971) defined a social network as "all or some of the social units (individuals or groups) with whom a particular individual or group is in contact" (p. 320). Since that time, however, developments regarding the constructs of social networks have included describing individual relationships, structural characteristics, and characteristics of the components comprising social network relationships (Mitchell & Trickett, 1980).

Mitchell and Trickett (1980) assimilate varied approaches and definitions of social networks in their review of representative literature on the topic. They suggest that social networks are comprised of dimensions involving structural characteristics, component linkages and normative contexts. Mitchell and Trickett find that literature regarding structural characteristics include size or range, network density, and degree of connection. According to Mitchell and Trickett, size refers to the number of people encompassed by the network; specifically, the number of individuals with whom the focal person has direct contact. Density is the extent to which members of an individual's social network contact each other independently of the focal person. Degree of connection involves the extent or number of relationships each member has with other members of the network.

Mitchell and Trickett also distinguish component linkages in social networks in terms of normative concepts and subjective judgments similar to those involved in appraisals of social support. They include, but are not limited to intensity, durability, multiplexity, directedness and reciprocity, relationship density, dispersion, frequency, and homogeneity. Intensity refers to the strength of feelings and thoughts involved with a social tie. Durability has to do with the length of time a relationship has existed and maintained its quality or affect. Multiplexity involves the number of functions or

purposes served by a social relationship. Relationship density is the extent to people within a network know each other. Directedness or reciprocity refers to the extent to which a social relationship is typified by give and take versus imbalance. Degree of dispersion or proximity refers to the ease with which the focal person makes contact with members of the social network as a function of geographical proximity. Frequency of contact of the focal person with other network members and homogeneity of attributes among social ties are other identified components (Mitchell & Trickett, 1980). Mitchell and Trickett also suggest that the normative contexts of social network relationships may vary from primary kin, to peers and work acquaintances. Further, Mitchell and Trickett also find that social network research includes behavioral or functional features such as emotional support, task-oriented assistance, feedback, access to information, and social contacts. The research surrounding social networks, like that concerning social support, has revealed complex relationships while emphasizing structural and normative processes involved in the interaction of the individual and his or her social system rather than qualitative or subjective aspects of this interaction.

Although some have suggested that social network analysis is a more appropriate approach to studying the dynamic effects of social relationships and support (Hammer, 1981), current discussions regarding social support appear

to explore multi-dimensional or hierarchial models in which the structural, behavioral or functional characteristics of the social system or network are simultaneously incorporated and interact with more subjective perceptions, beliefs or feelings of the individual (House, 1981; Leavy, 1983; Sandler & Barrera, 1984; Tardy, 1985; Vaux & Harrison, 1985; Vaux, 1988).

Social Support as a Meta-Construct

Much has occurred in the literature regarding social support since the seminal work of Cassel, Cobb and Caplan. In summarizing recent developments in the area of social support and social networks, Gottlieb (1981a) suggests three meanings and measures have become attached to the social support construct: (a) social support defined in terms of people's levels of social integration or participation; (b) social support defined as a by-product of people's interactions in a social network with particular structural properties; and (c) social support defined in terms of people's access to a set of resources typically present in more intimate peer relationships. Vaux (1988) suggests that attention regarding social support has coalesced around three issues: (a) the range of social ties that are relevant to support; (b) the relative importance of objective features of social relationships and supportive behaviors versus the individual's perceptions or appraisals of these; and, (c) the variety of forms that social support may take.

Much of the discourse around the issue of social support has been to define its conceptual parameters and composition. This discourse has served to substantiate a multi-faceted concept, and more precisely distinguish subjective or affective attributes from more objective or descriptive elements of a social support system (Procidano & Heller, 1983; Sandler & Barrera, 1984). Procidano and Heller (1983) attempt to clarify this distinction by characterizing social networks in structural terms while assessing social support in terms of perceptions or feelings: "If networks provide support, information, and feedback then perceived social support can be defined as the extent to which an individual believes that his or her needs for support, information, and feedback are fulfilled" (p. 2). The integration of subjective and more objective aspects has been further studied and validated by Procidano and Heller (1983) using college students. They were able to statistically distinguish between perceptions of social support and network measures in finding family networks to be more complex and dynamic than those of friends and acquaintances.

Vaux (1988) suggests that: "It has taken much of the decade for a widespread understanding of the full scope of social support phenomenon to develop and for a proper conceptual perspective to emerge on the various approaches to the topic" (1988, p. 25). In his book regarding theory, research and interventions involving social support, he

suggests: "No single and simple definition of social support will prove adequate because social support is a meta-construct: a higher-order theoretical construct comprised of several legitimate and distinguishable theoretical constructs" (1988, p. 28). Much of the work Vaux has accomplished has been to establish the validity of social support as a meta-construct. In light of the evolution of social support in debate, Vaux attempts to differentiate constructs involving support network resources, supportive behaviors, and subjective appraisals of social support. Vaux suggests that these elements of a meta-construct are linked in a dynamic process of transactions between the individual and his or her social environment. Further, the sources, forms, and functions of support are said to be multidimensional (Vaux, 1988, p. 28).

Research by Vaux and Harrison (1985) investigated the relationship of the concurrent features of social support (social networks, perceived support, and support satisfaction) among a sample of college women over 30 years of age. They found structural and normative characteristics (eg., size, density, closeness and complexity) of mode-specific networks (emotional, socializing, financial and practical) to be related to appraisals and perceptions of, and satisfaction with social support.

Following the definition provided by Tolsdorf, Vaux, Burda, and Stewart (1986) further developed a measure of attitudes or orientation toward social networks using

college and non-college adults and found that a negative orientation toward social network was related to the lack of available support. A negative network orientation was apparently associated with significantly less perceived support as well as less available emotional, tangible and financial support among participants in the study.

There is a remarkable amount of similarity between what has come to be known as social support and social network theory and earlier sociological theories regarding criminality and criminal behavior. The functional and subjective aspects of social support are similar to those involved in the theories of differential association, blocked opportunity and anomie. The structural aspects of social networks are very similar to those discussed in social control theory and Durkheim's notions of social disorganization.

Implications of Social Support for Current Research

It has been suggested within the context of sociological theories that certain aspects of social systems operate to influence criminality. These theories have been criticized for lack of empirical measurement and validation. The influence of social systems was recognized, although not operationalized in recent development of employment interventions with offenders. The failure to control, measure or attempt to influence social systems was also

presented as a shortcoming of previous efforts in the area of employment interventions with criminal offenders.

The importance of social systems and social support is currently a topic of much research in social science and health-related professions. The multi-dimensionality (including structural, functional and subjective characteristics) of social support has been suggested to interact in influencing individual well-being and human welfare. Although there has been little application of this topic to special populations, the apparent significance of social support has intriguing implications for the problem of criminality and criminal recidivism among released prisoners. Early research in the area of social support demonstrated a association between stress, psychological adjustment and social class (Langner & Michael, 1960). Others have found an association between social support, unemployment and consequences of ill health (Gore, 1978). Further, others have recently demonstrated cultural and ethnic differences in the level and kind of support available to "high-risk" populations (Cauce, Felner, & Primavera, 1982).

The benefits of social support to successful community living has been recognized in other areas of intervention with disadvantaged, handicapped or otherwise special populations. Much has been accomplished in this regard by Fairweather in facilitating small business communities among the mentally ill (Fairweather, 1964). Additionally, Gray

(1980) and Gray (1983) found social support gained through job finding clubs effective in facilitating employment opportunities for senior citizens. Also, Azrin (1978) and Azrin, Flores and Kaplan (1975) found social support aspects of the job finding clubs beneficial in securing employment for welfare recipients.

In attempting to integrate sociological theory concerning criminal behavior, Krohn (1986) asserts that a social network approach combines the content and structure of traditional and often conflicting social theories to better account for the interaction among individuals and members of a social network. Krohn seeks to address the short-comings of traditional theories of criminality using social networks and suggests that: "By focusing on the relationship between social structural factors and network structure, we should be better able to explain the differences . . . and how those social structural factors affect the rate of delinquent behavior" (Krohn, 1986, p. S90). The intriguing similarities between developments regarding social support and those in sociological theories have implications for the current research project in operationalizing apparently important variables.

Focus of Intervention Design

The present research sought to incorporate some of the suggestions, and address some of the shortcomings of previous experiments involving employment interventions to

reduce criminal recidivism among adult offenders. As discussed earlier, previous experiments attempted to provide offenders with employment after serving incarcerative sentences in prison or jail. Later projects tried to impact on opportunity for employment through job development and placement. Recent efforts have been to address the lack of adequate employment opportunities through the provision of financial aid and supported work environments.

Efforts using this approach to reduce criminal recidivism may have been marginally successful in overcoming social barriers to employment for a number of reasons. Without exception previous experiments involved short-term, fixed-length interventions designed to assist groups of offenders in obtaining employment. These experiments also involved limited group intervention in the area of employment skills and job development. They either attempted to impart job search skills or place offenders in low-paying, part-time employment situations. Further, although social elements were acknowledged in basic theory, previous experiments failed to incorporate these variables within research and evaluation design. Most previous experiments were unable to demonstrate a significant impact on the employment or recidivism of experimental groups. Although most found a relationship between employment and recidivism across experimental and control groups, none explored the temporal nature of this relationship. The present research sought to address these shortcomings

through the provision of ongoing employment development within the context of a supportive environment. The intervention described below sought to further assist offenders in overcoming the societal barriers to employment opportunity by providing ongoing resources for social support. Additionally, the following research attempted to assess and examine relationships among social variables which have been operative in theories regarding criminal behavior and recidivism.

Experimental Social Innovation

The intervention design employed and evaluated in this project did not attempt to invent a new approach to the problem of employment, only improve upon contemporary models already implemented in the field. Fairweather and Tornatzky (1977) suggest that innovations in social policy are best compared to "treatment-as-usual" services in order to evaluate the efficacy of new or previously uncontrolled variables in the social problem under study. In this regard, contemporary models of employment development were modified to address the shortcomings evident in previous experiments involving the offender population.

A main criticism of previous employment development efforts was the use of group treatment and "fixed-dose" interventions ultimately leaving the process of seeking, gaining and maintaining employment up to the group receiving the intervention. The intervention evaluated in this

experiment sought to address these shortcomings by incorporating an individual versus group approach in the delivery of services for an unlimited duration of time. In this regard, an enhanced employment laboratory was developed in which participants could progress in the employment process at an individual pace and level of skill or competency. Further, the laboratory model allows individual needs and weaknesses to be addressed more effectively in comparison to group approaches previously employed with this population. The handicaps and deficiencies of the offender population are well documented. Many are functionally illiterate and suffer from previous failures in performing in classroom or group situations involving achievement. Many of the issues involved with performance among this population may be more effectively addressed by incorporating an individual approach and the use of a laboratory model. Therefore, an individual approach to employment development was implemented in the enhanced employment development laboratory. Individual needs expressed in the process of job seeking were addressed with structured exercises and procedures which could be used at any level or point in employment skills development.

Secondly, as pertains to an individual approach, counseling within the context of the enhanced employment development intervention was provided on an "as-requested" basis and took the orientation of empowerment and advocacy. That is, employment counselors assisted participants in

problem solving, developing strategies or plans which the client then employed in the process of overcoming the problem of employment. This approach to counseling has been referred to as secondary appraisal guidance (Vaux, 1988) and involves assessment of resources for problem solving and the development of alternative strategies or plans in the process of problem solving. It does not involve direct assistance in that the emphasis is to empower the individual client.

Lastly, the enhanced employment development model developed for this experiment attempted to address the fixed-interval or duration shortcoming of traditional interventions by providing increased or unlimited access to employment development resources in a laboratory setting. Individual levels of employment seeking skills, and special needs are better addressed with this approach. Further, the impoverished situation of offenders is well documented. Seldom do members of this population have the resources or skills necessary to seek and gain employment. They frequently have limited or no access to money, telephones, transportation, or other resources necessary in the employment process. It is logical to presume that the provision of resources to address these needs may lead to greater employment success. Therefore, the enhanced employment development laboratory took a "drop-in" approach of unlimited access to the facility and resources to assist in the employment process. Participants were given free

access to necessary materials such as newspapers, telephones, telephone books, city maps, etc. Further, the laboratory was open to participants each weekday afternoon. Participants were free to return to the laboratory on an as-needed basis for a unlimited number of days for the duration of the project.

The enhanced employment development intervention was developed to improve upon traditional employment services through increased access to job seeking resources, unlimited duration of services, an individual needs-based orientation, and a philosophy of empowerment and advocacy.

Research Objectives

Previous efforts in the area of employment intervention with adult offenders have apparently been only marginally effective in increasing rates of employment and reducing rates of recidivism among offender groups. Further, previous research efforts have failed to address important process and outcome issues in measurement and experimental research design.

The primary objective of this research was to experimentally implement an innovative program of employment development with offenders which addressed some of the shortcomings of previous projects. The effects of this intervention were assessed over time in terms of employment and recidivism within an experimental research design. Given the nature of theories of criminality, another

objective of this research was to examine social support and social networks of participants as they relate to criminal history, employment and recidivism.

The relationship of employment and crime demonstrated in the research literature is partly understandable given the economic nature of most reported crime. Property offenses comprise the majority of reported crimes in the United States. It seems logical that the occurrence of these crimes is somehow related to the employment situation of the individuals who commit them. It also seems reasonable to expect an inverse relationship between rates of employment and crime in society. The failure of previous employment interventions to impact upon rates of recidivism among criminal offenders may, therefore, involve factors in addition to those included in previous interventions which provided limited employment seeking skills and placement in employment situations. This assertion appears to be supported in studies reviewed above which found that, although no main effect of intervention was observed, the employment and recidivism relationship continues to appear across the treatment and no-treatment groups involved in previous experiments.

A number of novel factors were included in the design of this study in effort to improve upon previous efforts. First, the present research invoked an individual rather than group approach in the intervention design. Secondly, rather than providing a fixed-dose or quantity of service to

participants, this study allowed participants access to the intervention on a voluntary and as needed basis. Finally, days to employment and recidivism were monitored in effort to examine the temporal relationship of these variables.

This experiment implemented an intervention of enhanced employment development. The essence of the intervention will be described in detail below, but basically involved voluntary participation and selection of employment resources, and unlimited duration of access to resources. The enhanced employment development intervention should instigate both behavioral and social processes to benefit participants. Behaviorally, the intervention of enhanced employment development should provide the structure and variable content necessary to facilitate seeking and finding employment, and further improve the economic situation of individual participants.

If the sociological theories of criminality are correct, then criminal behavior may involve social system elements such as social networks and social support. Further, if the theories which relate stress, disease and psychological illness to social support are accurate, then an intervention which provides enhanced employment development within a supportive environment may serve to provide the "health-protective" effects of social support first referred to by Cassel (1974). This approach to intervention may serve to facilitate productive outcomes in

terms of lower rates of recidivism while resulting in greater employment within the offender target group.

Because this research will be the first to directly examine aspects of social support with the population of adult offenders, a number of interesting questions are raised. Sociological theories suggest that a number of social support and social network variables are operative in the process of criminal behavior and criminality. What are dynamics involved in the social networks and social support of adult offenders? Do these vary across offenders according to criminal history and recidivism variables? One would expect the social networks of offenders, in terms of size, density and degree of connection, to vary in relationship to criminal history and recidivism. Offenders with more extensive involvement in the criminal justice system may also be expected to have diminished perceptions of social support, little satisfaction with support and a negative orientation toward their existing social network. Although sources of social support may be available in terms of relationships with family and friends, one may expect these sources to be inactive; and also, that offenders display a negative orientation toward enactment of these resources.

Will the enhanced employment development intervention serve to enhance the probability of employment and reduce the rate at which participants recidivate? Given the marginal impact of previous employment interventions, will

the added intensity of the offender enhanced employment development based upon individual needs increase differences between experimental and control groups across employment, recidivism and social support variables?

Hypotheses

The hypotheses of the experiment are the following:

1. The enhanced employment development intervention will result in less recidivism among participants compared to a control condition limited to traditional employment development services.

2. Participation in enhanced employment development will result in greater employment (hourly wages) when compared a control group not participating in the enhanced employment development intervention.

3. For enhanced employment development participants, those displaying a greater rate of involvement in enhanced employment development (number of sessions attended) will also obtain greater levels of employment (hourly wages).

4. There will be a inverse relationship between employment and recidivism across both experimental and control groups.

5. There will be an inverse relationship between previous reported involvement in the criminal justice system and measurements of social support and social networks across experimental and control groups. That is, individuals reporting more extensive history, or greater

prior involvement with the criminal justice system will perceive less social support and demonstrate less social network support than those with less reported prior involvement with the criminal justice system.

6. Recidivism will vary among participants in association with self-appraisals of support, satisfaction with available social support, and orientation toward social support network among participants in the study.

7. There will be a positive relationship between measures of social support and employment across experimental and control groups.

The next section describes methods and procedures used to test these hypotheses.

CHAPTER 2

METHOD

The literature reviewed above illustrated recent efforts to provide employment related interventions with adult offenders. Although previous efforts to modify the employment situation of ex-offenders appeared moderately successful, they were found to have been limited as a function of research methods, group versus individual orientation, length and intensity of intervention, and lack of operationalization of social theory which apparently formed the basis of these endeavors. Attention was accordingly directed toward improving upon past efforts within the context of the present study.

Also discussed in the previous chapter, the intriguing similarity of processes involved with early sociological theories of criminality and later psychological theory regarding social support systems prompted further examination of these processes within the context of this study. As previously discussed, recent developments in the area of social support and social networks appear promising in the effort to further explicate processes involved in the development and demonstration of criminal behavior.

The purpose of the present study was to experimentally examine implementation and impact of a job finding intervention on employment of individuals being released from custody of the state prison system. This project also examined the relationship of social support variables in the processes of employment and recidivism. Using experimental methodology, the present study was intended to examine the effects of an enhanced employment development intervention in comparison to "treatment-as-usual" as they impact employment and recidivism among ex-prisoners. An additional purpose of this study was to collect baseline assessment information regarding social support among prisoners in effort to explore the association of these and other variables involved with this population.

The intervention was implemented with the cooperation of a neighborhood offender services organization located in a urban community. Offenders were randomly assigned to experimental (enhanced employment development) or control (service-as-usual) groups. Employment and recidivism processes were monitored through the collection of measurement data subsequent to participation in the intervention model. The measurement plan included the collection of data regarding demographic and social support variables, criminal justice history, educational and employment history, as well as employment and criminal justice outcome data.

The remainder of this section describes the research plan for the experimental enhanced employment development intervention including the research setting, method of procedure, control and experimental conditions, and approach to measurement.

Research Setting

The project was conducted in cooperation with a community organization in Oakland County, Michigan (hereafter referred to as the Center). The research and implementation plan described below is the product of numerous discussions and a administrative agreement between the principal investigator and management at the Center (See Appendix A for Administrative Agreement.).

The Center began operation in 1978 with federal support funding as a not-for-profit organization providing services to the residents of Pontiac, Michigan. The Center has delivered a variety of services since that time including residential probation, drug treatment, criminal justice diversion, youth and community work experience, as well as employment, educational and other community related programs. As a community organization, the Center has traditionally responded to the needs of the surrounding community by developing and implementing projects and programs which provide a "grass-roots" approach in the resolution of community problems.

During the period of this study and within the scope of this project, the Center was under contract for services with the State of Michigan to provide employment development to Department of Corrections inmates returning to their home community after serving prison sentences for felony crime convictions.

As a part of the process of being released from the prison system, Department of Corrections prisoners may apply for placement in a community residential program, given they satisfy a number of eligibility criteria including being within the last year of their current prison sentence and being designated as a minimum security inmate. The Michigan Department of Corrections community residential program has traditionally provided additional programming in the transition from imprisonment to parole for inmates not having the benefit of significant ties in the community and/or definite employment opportunities upon release. Community residential programs provide board and care services within a non-secure, minimum security environment. Once determined to be eligible for placement in a community residential program and two days after being transferred from the prison system to the community residential program, inmate clients are referred to community agencies for additional program services.

The community residential program is comprised of basic board and care services within a regime of rules of regulations analogous to prison. In fact, the community

residential program is run as a minimum security prison. Program staff are corrections officers and issue misconduct or rule violation tickets to the inmates. There are approximately 40 rules, which if violated can result in disciplinary action. Twenty-four of these rules are referred to as major rules and violation may result in a major misconduct violation. Although most misconduct results in minor punishments such as a loss of privileges, freedom to job seek or to have visitors, some of the major misconducts may result in return to prison, jail incarceration, or new criminal charges. Inmates are tested for drug and alcohol use on a regular basis. According to program policy, they are transferred to a residential drug treatment program, or back to prison at the first positive test for substance use. While in the community residential program and prior to gaining employment, inmates must submit at least two job applications every weekday and gain employment within 30 days from the time of arrival at the program or face the possibility of being returned to the prison.

Participants

As mentioned above, the Center was under contract with the Michigan Department of Corrections during the period of this study to deliver employment development services to convicted felons serving the last part of prison sentences in Oakland County community residential programs.

The Center received a total of 229 prisoner referrals for employment development services from community residential programs during the time frame of this project. Of total referrals, 85.2% were male and 14.8% female. The average age of referrals was 29.5 years, the modal age was 23 years and the median age was 28 years.

Instant conviction offenses (i.e., the offense conviction for which they were sentenced and which controlled the length of time in prison) represented in the referral population were aggregated into eight categories. Of total referrals, 2.9% were serving sentences for homicide offense convictions, 0.4% for criminal sexual conduct, 7.9% for robbery convictions, 6.6% for assaultive crimes, 19.7% for burglary offenses, 25.8% were serving prison sentences for larceny, 25.8% for drug related convictions, and 11.4% for miscellaneous or other offense convictions such as carrying a concealed weapon and probation violation.

Experimental Design

The experimental design and research plan is presented in Table 1. This research was implemented as a randomized, control/experimental group, single-factor design (Keppel, 1973). The participant was the unit of analysis and group condition, the independent variable. Described below, measures of employment and recidivism served as dependent variables in the design, and were assessed six months following intake to the study. Additionally, attendance at

Table 1

Experimental Design and Research Plan

Group	time 1 (first visit)	time 2	time 3 (6 months)
Control (n = 30)	Intake & Assignment	Employment Development & Employment Search	Follow-up
Experimental (n = 30)	Intake & Assignment	Employment Development, Enhanced Employment Development & Employment Search	Follow-up

the enhanced employment development laboratory was examined as an independent variable for the participants of the experimental condition. For the purposes of the multivariate analyses, independent variables also included demographic, criminal justice history and features of social support in addition to group membership condition.

Cohen (1977) analysis of statistical power suggests that a one-way randomized group design be comprised of 25 to 30 participants in each group (using the conventions of alpha equal to .05 and power equal to .80) in effort to maintain mistaken rejection versus acceptance of the null hypothesis at a level of four to one given a relatively large effect size (p.311). Participants were selected, matched and assigned to groups in cohorts of two or more in order to achieve participant groups of sufficient size and control threats to internal and external validity (Campbell & Stanley, 1966). Intake of participants to study groups continued in time until experimental and control groups of 30 participants each were achieved. As explained below, intake procedures allowed for matching of participants prior to assignment to conditions. This approach also provided a means of controlling for the effects of participant attrition on the validity of outcomes and group differences. Attendance at more than one of the enhanced employment development sessions was criterion for further inclusion of a participant in the experimental condition.

As displayed in Table 1, two groups were compared, an employment development control group, and an enhanced employment development group. All participants received services comprising the employment development condition. Employment development services entailed two to three classroom-type sessions, each of three to four hours in length during which all participants received information and exercises designed to facilitate the process of seeking employment as an ex-offender. As further explained below, individuals in the enhanced employment development group received additional services including extra time on a daily basis to seek employment, free access to telephones and other employment seeking resources, further employment development exercises, and secondary appraisal guidance sessions (Vaux, 1988) with an employment specialist. These and other procedural issues including intake processing, informed consent, assignment to conditions and treatment protocols are considered in the remainder of this chapter.

Procedure

Formal procedures were implemented in effort to control internal and external factors which may influence the outcome of the research project. Procedures involved formalizing intake to the study and matching and assignment to experimental conditions.

Intake and Informed Consent

A flow chart of program entry, random assignment and follow-up is displayed in Figure 1. The Center typically accepted referral clients for employment development services 48 hours after arrival at the community residential program (usually Wednesday morning each week) under contract provisions with the Michigan Department of Corrections. Nine to 12 hours of structured exercises and discussion within a classroom setting were provided subsequent to collection of intake information. Clients typically began the process of seeking employment the next working day after completion of the employment development didactic (usually the following Monday morning).

As mentioned above, potential participants were drawn from the inmate population referred to the Center for employment development services. All referrals completed intake information upon arrival at the Center for services. During orientation and as part of the intake process, information regarding the enhanced employment development intervention was verbally provided to potential participants by employment specialists. Upon arriving at the Center for services, all referred clients completed an intake packet of background questionnaires, release of information forms and also received a general orientation to services provided by the Center. Non-reading/writing clients received direct assistance in completing intake materials. For the purposes of this project, employment specialists provided an

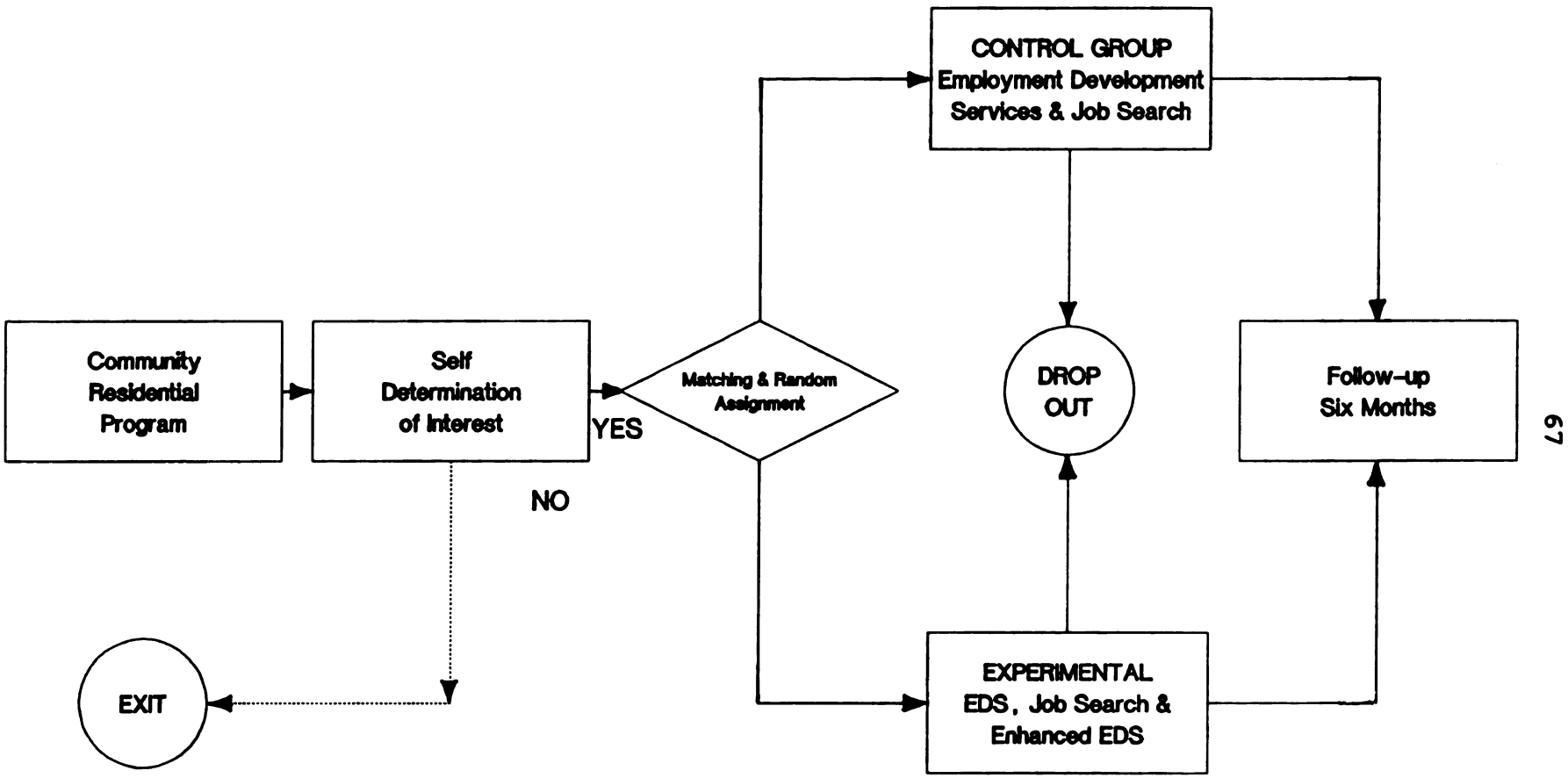


Figure 1. Intake, assignment, follow-up.

introduction to the enhanced employment development project to all referrals. All interested referrals read and signed an informed consent form (Appendix B). Potential participants were advised of the confidential nature of all information collected in the course of the experiment. Paper and pencil measures of social support were also completed as part of the intake process. Individuals not interested in participation received employment development services normally provided by the Center, but were excluded from further procedures involved in the experiment.

The project was approved by the University Committee on Research Involving Human Subjects at Michigan State University prior to implementation (Appendix C).

Matching and Assignment to Conditions

As may be seen in Figure 1, the pool of potential participants was comprised of all clients displaying an interest in participating in the experiment and who signed an informed consent form. All intake information for these potential participants was screened for accuracy and completeness. Missing information was noted and potential participants were again requested to furnish any missing or inaccurate information at the time of their next visit to the Center. Potential participants were given direct assistance with completing intake information as necessary. Potential participants were then matched in pairs and randomly assigned to experimental (enhanced employment

development) and control (service-as-usual) group conditions.

A matching procedure was used prior to random assignment to assure group equivalency and homogeneity. This approach to condition assignment was useful in that it allowed control of some participant variables which may have otherwise influenced group outcomes. For instance, within the context of this population and type of intervention, variables such as prior employment and/or education have been shown to be related to future employment and recidivism (Lotze, 1986; Petersilia, et al., 1985). Therefore, potential participants were matched according to prior employment, education, gender and race/ethnicity variables prior to random assignment to conditions.

All participants were informed of their group assignment. Control group participants were informed that they would begin seeking employment on the morning of the next working day and would be required to return to the community residential program in the afternoons. Experimental group participants were requested to return to the Center in the afternoon of the next working day after beginning employment search that morning. Staff at the community residential program were informed as to experimental group participants and reminded that these clients were to be allowed to return for enhanced employment development workshops at the Center in the afternoon of the next working day. Staff at the community residential

program were contacted on a regular basis and apprised as to who was to be at the Center, and who did not arrive at the Center as expected.

Procedures for intake, informed consent, matching and assignment to conditions were implemented on July 19, 1989 and continued through March 27, 1990. A total of 229 clients received employment development services at the Center during the time frame of the study. Of the 229, 93 agreed to participate in the enhanced employment development project and were assigned to one of two conditions. This resulted in a participation rate of 40.6%. With attrition (discussed in Chapter Three), participation was reduced to a rate of 26.2% among the referral population.

Following assignment to conditions, participants were informed as to whether they would be begin seeking employment and return in the afternoon of the next working day (experimental), or begin the usual process of job seeking and return to the community residential program in the afternoons (control). Employment development services were delivered to all referrals and participants by two employment specialists who were members of the employment development staff at the Center. The enhanced employment development intervention was delivered by two employment specialists.

Conditions

The research design of this study involved two conditions: a control condition (service-as-usual) and an experimental (enhanced employment development) condition.

Control Condition

As mentioned previously, the Center provided contractual employment services for the Michigan Department of Corrections. These services comprised the control (service-as-usual) condition. Employment development services were delivered over the course of two to three mornings in a classroom format for a total of approximately 9 to 12 hours. The curriculum provided during the employment development classes included a traditional didactic approach, exercises and discussion regarding resume' writing and preparation, completing employment applications, interview and telephone skills, work retention skills, and development of job search plans. This curriculum was developed from experience and adapted from various sources (Azrin & Besalel, 1980; Dissonnette, 1987; Goodman, Hoppin, & Kent, 1984). Employment development classes also included group discussion on the above topics within the context of seeking employment as a convicted offender returning from prison. Upon completion of the employment development classroom, clients began the process of seeking employment in the morning of the next working day.

Experimental Condition

It has been suggested that the efficacy of any social innovation is most appropriately assessed in comparison to "treatment-as-usual" services (Fairweather & Tornatzky, 1977; Gray, 1980). For this reason, participants in the experimental condition received the same services as those in the control condition except for the additional provision of the enhanced employment development intervention.

The rationale involved in use of the enhanced employment development model was discussed previously and includes the intervention aspects of individual versus group orientation, unlimited duration of intervention services based upon individual expressed need, a socially supportive environment, structured problem solving and secondary appraisal guidance, necessary resources for job finding.

The content of the enhanced employment intervention was the same as that of the control condition with the following exceptions. A primary difference between control and experimental conditions was the factor of available time to receive employment development services, and to seek and gain employment. That is, participants in the experimental condition were allowed to search for and develop possible employment opportunities approximately two additional hours each weekday. Further, participants in the experimental condition received services for an unlimited number of days; whereas, services for the control group were usually provided over three to four days for a total of nine to 12

hours in a employment development classroom setting. In addition to extra time and resource services normally provided by the Center, experimental group participants attended the enhanced employment development laboratory which occurred weekday afternoons on an ongoing and unlimited basis. The enhanced employment development laboratory sessions served to reiterate the educational and training functions of the service-as-usual component for some individuals through the use of program modules and structured exercises. The materials used in the enhanced employment development condition were developed from experience with this population and adapted from various sources (Azrin & Besalel, 1980; Dissonnette, 1987; Goodman et al., 1984). The enhanced employment development laboratory, however, primarily served as a resource of social support in a task-oriented laboratory environment with the main purpose of providing the opportunity for additional job search activities on an as-needed or desired basis.

An important aspect of the enhanced employment development intervention was that it was an ongoing and unlimited resource occurring at the same time and place on a regular basis. Participants were also free to continue use of the laboratory after obtaining employment, or after losing a job. During these laboratory sessions, and in addition to making the usual telephone calls, participants typically took part in individual structured exercises,

problem oriented discussions with an employment specialist, and individual-group oriented problem solving sessions. Given that positive social support was an integral component of the enhanced employment intervention, attainment of employment and other related goals were often publicly acknowledged and reinforced (Gray, 1980). Group support was also present in group discussions regarding the trials and tribulations of job hunting as a ex-prisoner. Unstructured, individual job search activities were also part of each laboratory session as suggested by Azrin (1978). This attribute allowed participants to progress at their own pace and work on individual areas of special need, further develop employment seeking skills; and of course, seek employment. All participants in the experimental condition had access to the enhanced employment development laboratory for a period of approximately two hours each weekday afternoon. Program modules and direct counseling made available to the experimental group involved behavioral instruction and structured exercises in making telephone inquiries regarding employment opportunities, developing and contacting job leads, arranging employment interviews, interview assessment and practice, and making applications for employment.

The laboratory also provided individual secondary appraisal guidance counseling assistance on an as-needed or requested basis. One of many specific models of social support discussed by Vaux (1988), secondary appraisal

guidance involves an assessment of resources and discussion of alternatives strategies in solving a problem. Counseling focused on problem solving typical to the process of finding employment as a individual convicted of a criminal offense and returning to the community from prison. This type of guidance does not involve direct assistance or intervention. Seldom did secondary guidance directly result in employment. Rather, the emphasis was always on empowering the individual participant to seek employment opportunities and eventually find employment on their own.

Measurement and Data Collection

Measurements were selected or developed for this study with the purpose of evaluating research hypotheses involving the overall impact of the experimental social innovation on employment and recidivism, and the relationship of social variables to employment and recidivism among adult offenders.

The measures included in this study are divided into areas of participant, outcome and process variables. Table 2 lists individual measures by mode of collection, time of collection, item content, and assessment of validity and/or reliability. Below is a more detailed discussion of variables encompassing each of the above areas.

The data collection strategy involved gathering information at two intervals:

Table 2

Measurement Plan

Variable	Mode of Collection	When Collected	Item Pool	Validity/ Reliability
Participant				
Demographics	self-report paper & pencil	intake	offense,sentence,race/ethnicity,age,gender,marital status, dependents,vet status,education,training,employment	inter-source agreement
Criminal Justice History	self-report paper & pencil	intake	prior arrests,probation,jail, & prison sentences	inter-source inter-item
Social Support				
Support Appraisals	self-report paper & pencil	intake	Vaux, Phillips, Holly, Thomson, Williams, & Stewart, 1986 (See Appendix E)	Vaux et al. inter-item
Network Orientation	"	"	"	"
Support Resources	"	"	"	"
Support Satisfaction	"	"	"	"
Social Outcome				
Employment	official records	follow-up	hourly income (in dollars),days to employment	inter-coder
Recidivism	official records	follow-up	official findings of misconduct,days to misconduct, reincarceration	inter-coder
Attendance	agency log	follow-up	number of workshop visits	inter-source
Internal/External Processes				
Employment Trends	MESC records	annually	number unemployed in county	archival
Program Implementation	research journal	duration	participant observation	--

1. Intake: assisted group intake during which data were collected regarding social and demographic characteristics, educational and employment background, criminal justice and corrections history, and social support.

2. Six-month follow-up: archival data collection from agency records and official case files six months after the date of intake to retrieve information regarding employment laboratory attendance, employment, and further criminal justice system involvement.

The measurement plan depicted in Table 2 was implemented within a single-factor, control/experimental group design. The dependent variables in this design were criminal justice recidivism (official record of misconduct and reincarceration) and employment (hourly income). For the purpose of multivariate analysis, the independent variables in this study included demographic information, prior criminal justice history, and selected attributes of social support and social networks, in addition to group condition.

Participant Measures

Demographics

Demographic information regarding participants was collected as part of the normal intake routine of the Center and extracted from intake information forms displayed in Appendix D. Self-report was the source of this data which included the instant conviction offense and corresponding

minimum prison sentence, race/ethnicity, age, gender, marital status, number of dependents, status as a military veteran, education, vocational and skill training, whether or not the participant was employed at time of arrest, and employment history.

A number of these variables (instant conviction offense, minimum sentence, age, race/ethnicity, gender) were evaluated for validity against information on official forms contained in the community residential program case files. Self-reported information was obtained for all participants. Archival information was retrieved for most cases participating in the experiment. The number of cases and coefficients of agreement between self-report and official documents for demographic variables is presented in Table 3. An mean average correlation of .96 was obtained across these variables.

Social Support

As discussed in chapter one, contemporary theories of criminality and employment involve concepts which appear similar and related to social support. The importance of social support in the development and maintenance of individual well-being has increasingly gained recognition and credibility within the social sciences; and in particular, community or ecological psychology. Recent research has contributed to the validity of a social support as a meta-construct (Barrera, 1986; O'Reilly, 1988; Sandler & Barrera, 1984; Tardy, 1985; Vaux, 1988). The multi-modal

Table 3

Validity of Demographic Data

Data Element	n	Coefficient
Instant Offense Conviction	57	.96
Minimum Sentence	56	.85
Age	20	.99
Race/Ethnicity	20	1.00
Gender	20	1.00
Marital Status	20	.98
Average r		.96

processes involved in social support have been demonstrated to include social support network resources (Vaux & Harrison, 1985; Vaux, Phillips, Holly, Thomson, Williams, & Stewart, 1986), social support network orientation (Tolsdorf, 1976; Vaux, Burda & Stewart, 1986), social supportive behaviors (Barrera & Ainley, 1983; Stewart & Vaux, 1986; Vaux & Wood, 1987) appraisals or perceptions of social support and social support satisfaction (Vaux & Harrison, 1985).

Alan Vaux of Southern Illinois University has made significant contributions to the development of instrumentation to assess and integrate the various dimensions or aspects of social support. A number of Vaux's measures of social support were adapted and utilized within the context of the present study in effort to contribute to the development and standardization of these assessments. Scales were selected from the work of Vaux demonstrating the structural and subjective aspects of social support. It was decided to exclude behavioral assessments given the incarcerated situation of the study population. As discussed above, these scales were administered as part of intake to the study and are displayed in subsections of Appendix E.

Social support appraisals. Developed as an assessment of subjective perceptions of social support (Vaux et al., 1986), the scale of Social Support Appraisals (SSA) is comprised of 23 items which require the respondent to

indicate level of agreement with statements involving aspects of support received from family, friends and others (Appendix E-1).

The SSA scale has been found to demonstrate a high level of reliability in at least two studies (Vaux & Harrison, 1985; Vaux et al. 1986). Vaux et al. (1986) also found the scale to exhibit convergent and divergent validity using samples of college and community groups and other established measures of support, distress, well-being and personality.

The respondent is required to indicate level of agreement or disagreement using a Likert-type format with items such as: "My friends respect me", and "I feel valued by other people". A number of items are worded negatively and require reverse-scoring so that higher scores indicate greater feelings of support and lower scores, less support.

Data resulting from participant sample responses to the SSA scale items were evaluated using psychometric scaling and analysis procedures developed by Hunter (1973, 1985), Levine and Hunter (1983), and Hunter and Gerbing (1982) using the computer program PACKAGE (Hunter & Cohen, 1969).

Inter-item correlations were generated, arranged and ordered according to strength of association using Hunter's (1973) blind similarity approach. For the most part, the inter-item correlations were found to cluster into three subscales of friends, family and others. Inter-item and item-factor correlations, and correlations with extraneous

variables were examined for internal consistency and parallelism (Hunter & Gerbing, 1979). Five items displaying low and/or inconsistent correlations using participant sample data were eliminated from further development. Scale data was subjected to confirmatory cluster analysis using communalities and correction for attenuation due to error in measurement (Hunter & Gerbing, 1979). Inter-item, item-total, factor and communality/reliability coefficients for the three subscales of family, friends and others are displayed in Appendix F. Reliabilities (communalities) for the individual subscale items and corresponding alpha coefficients (Cronbach, 1970) for data from the participant sample are displayed in Table 4. Alpha coefficients for the individual subscales of family, friends and others were .86, .87, and .74, respectively.

Network orientation. The Network Orientation Scale (NOS) was developed by Vaux, Burda and Stewart (1986) following the research of Tolsdorf (1976). An individual's network orientation refers to "a set of belief's, attitudes, and expectations concerning the potential usefulness of his [sic] members in helping him cope with a life problem" (Tolsdorf, 1976, p. 413). The NOS was designed to assess an individual's aversion or negative orientation toward utilizing his or her social network for advice, information or trust (Appendix E-2). The 20 item scale indicates attitudes toward utilizing other people for support. A Likert-type response format requires the respondent to

Table 4

Internal Consistency of Social Support Appraisals Scale

Subscale/ Item	Reliability (Communality)[a]	Coefficient Alpha
	(N = 60)	
Family		.86
2.	.41	
3.	.66	
6.	.48	
8.	.48	
10.	.37	
13.	.66	
17.	.30	
Friends		.87
1.	.36	
5.	.59	
9.	.56	
12.	.67	
14.	.50	
18.	.56	
Other		.74
4.	.42	
7.	.49	
11.	.39	
16.	.39	

a. Corrected for attenuation due to error in measurement.

indicate level of agreement or disagreement with items such as: "You have to be careful to whom you tell personal things", and "It really helps when you are angry to tell a friend what happened". A number of items require reverse-scoring so that higher scores indicate a more negative orientation to one's social network.

Vaux, Burda, and Stewart (1986) found moderate inter-item and item-total correlations for the NOS, and report alpha coefficients ranging from .60 to .88 across five respondent samples. Vaux, Burda, and Stewart also demonstrated validity of the scale in relationship to size of social networks, use of support-related behaviors, level of perceived support, coping and disclosure, and other personality characteristics.

Participant responses to the NOS were analyzed using rational-empirical procedures outlined above for the SSA. Inter-item correlations were generated, ordered and arranged and appeared to indicate two item clusters of moderate strength which involve mistrust of one's social network (mistrust) and the belief that it is inadvisable to utilize one's social network as a source of advise and information (advisability). Incidentally, these two dimensions or subscales were also among those found by Vaux (1985) in a factor analysis study of NOS data. Inter-item correlations and correlations with extraneous variables were examined for internal consistency and parallelism. For the purposes of this study, nine items displaying low and/or inconsistent

inter-item correlations, and not logically falling into the two dimensions of mistrust and advisability were eliminated from further analysis. Resulting scale data were subjected to confirmatory cluster analysis including communalities and correction for measurement error. Inter-item, item-total, cluster coefficients and communalities for each subscale are presented in Appendix G. Reliabilities for the individual subscale items and corresponding alpha coefficients are displayed in Table 5. Based upon the participant sample of 60 respondents, alpha coefficients for the individual subscales of mistrust and advisability were .79 and .69, respectively.

Social support resources. In an effort to provide evidence of social support as a meta-construct, Vaux and Harrison (1985) integrated the work of others (Hirsch, 1979; Mitchell, 1969; Mitchell & Trickett, 1980) in developing a instrument of Social Support Resources (SSR). The SSR instrument is designed to assist the respondent in quantifying the number of acquaintances or members within five different types of support networks (emotional, socializing, financial, guidance and practical). Up to 10 individuals may be identified for each type of network. After identifying persons within each network, the respondent is also required to assess various aspects involved with each of the identified interpersonal relationships.

Table 5

Internal Consistency of Network Orientation Scale

Subscale/ Item	Reliability (Communality)[a]	Coefficient Alpha
	(N = 60)	
Mistrust		.79
5.	.36	
10.	.49	
17.	.36	
18.	.48	
19.	.32	
20.	.35	
Advisability		.69
1.	.21	
2.	.46	
4.	.34	
7.	.23	
13.	.31	

a. Corrected for attenuation due to error in measurement.

Respondents are required to indicate the frequency with which they talk to each individual, perceived closeness with the individual, the balance they perceive in each identified relationship, the complexity of each relationship, the familial nature of the relationship and the geographical sector or proximity of each identified individual to the respondent. After identifying individuals within each type of network and responding to questions regarding each individual, respondents are additionally required to indicate how many identified individuals know each other. Individual items are then scored using mean averages and percentages across the individuals identified in each type of network.

Vaux and Harrison (1985) found various aspects of social networks to be related to perceptions of support and satisfaction with social support. Vaux (1988) reports that the features of the SSR have demonstrated moderate stability for a sample of college students and relationships with network orientation, appraisals of support and loneliness.

The SSR was adapted for the present study and is displayed in Appendix E-3. For the sake of time in administering the SSR, only three of the five types of support were assessed with the participant sample (emotional, socializing, practical).

In examining respondent protocols, there appeared to be a lack of variation with respect to the people identified within each of the three types of support networks. That

is, it appeared the participant sample failed to differentiate separate types of support networks. Although respondents identified individuals within each network, they evidently viewed types or areas of social support as juxtaposed rather than distinct networks. For the most part, they viewed the three included types of support as the same. More than half of the sample identified the same individuals within each of the three types of support. This observation is further verified below in analysis of the scale data.

Participant data from the SSR were scored according to Vaux and Harrison (1985), Stewart and Vaux (1986) and Vaux (personal communications, November, 1990). The number of individuals identified in each type of support network were totaled as was the number of unique individuals across the three types of networks. For each of the three types of support networks, mean averages were calculated across identified individuals for the separate aspects of frequency of contact, closeness of the relationship, complexity of the relationship and density of the network (number of individuals within the network who know each other). The percentage of balanced relationships within each network, the percentage of identified individuals that were family and the percentage of individuals living outside the respondents immediate environment were also calculated.

Scored data from the SSR were analyzed using a rational-empirical approach and procedures analogous to the

those used above for the SSA and NOS data. Inter-item correlations were generated from participant responses to the SSR, arranged and ordered to reveal eight item clusters. Inter-item correlations and correlations with clusters, and extraneous variables were examined for internal consistency and parallelism. The item clusters appeared to group according to individual items rather than type of support. This pattern was expected given the lack of variability in the pattern of responses to each type of support as discussed above. Items were highly correlated across types of support clustered according to the aspects of complexity of network members, closeness of relationships with network members, frequency of contact, geographical proximity to network members (sector), relationship (family/friend), size of network, network density, and balance of network relationships.

The resulting scale data was subjected to confirmatory cluster analysis including communalities and correction for measurement error. Subscales of the SSR were found to be highly correlated. Corrected inter-item, item-total, cluster coefficients and communalities for each subscale are presented in Appendix H. Reliabilities for the individual subscale items and corresponding alpha coefficients are displayed in Table 6. The alpha coefficient for the subscale of Complexity was .91, .89 for Closeness, .87 for Frequency, .86 for Sector, .78 for Relationship, .88 for Size, .90 for Density, and the alpha coefficient for the

Table 6

Internal Consistency of Social Support Resources Scale

Subscale/ Item	Reliablity (Communality)[a]	Coefficient Alpha
	(N = 60)	
Complexity		.91
Emotional	.81	
Socializing	.71	
Practical	.83	
Closeness		.89
Emotional	.77	
Socializing	.71	
Practical	.73	
Frequency		.87
Emotional	.87	
Socializing	.62	
Practical	.61	
Sector		.86
Emotional	.56	
Socializing	.64	
Practical	.86	
Relationship		.78
Emotional	.57	
Socializing	.46	
Practical	.61	
Size		.88
Total	.77	
Emotional	.83	
Socializing	.71	
Practical	.35	
Density		.90
Emotional	.75	
Socializing	.68	
Practical	.83	
Balance		.90
Emotional	.82	
Socializing	.72	
Practical	.73	

a. Corrected for attenuation due to error in measurement.

subscale of Balance was .90 for the participant sample of 60 inmate respondents.

Social support satisfaction. The work of Vaux (Vaux & Harrison, 1985) was also utilized in adapting a measure of social support satisfaction for use in this study (SSS) (Appendix E-4). Items were generated to coincide with the SSA and SSR by reflecting satisfaction in the areas of emotional, socializing and practical support provided by family, friends and other network members. Respondents indicated their satisfaction with each area of support provided by each type of network member on a Likert-type scale which ranged from "not at all satisfied" (1) to "extremely satisfied" (5). Like the SSR, there appeared to be little variability in the responses of participants to the three areas of support, and this is verified in analysis of response data below.

Data resulting from participant responses to the SSS was analyzed using a rational-empirical approach analogous to that used above for other scales. Correcting for error in measurement, inter-item correlations were generated, arranged and ordered from participant response data to the SSS. Inter-item correlations, factor and correlations with extraneous variables were examined for internal consistency and parallelism. Items appeared to form three cluster groups of satisfaction with support from family, friends and others. SSS data was further analyzed using confirmatory cluster analysis with communalities and correction for

measurement error (Appendix I). Reliabilities for the individual subscale items and corresponding alpha coefficients for each subscale are displayed in Table 7. Alpha coefficients for the individual subscales of satisfaction with family, friends and others were .96, .98, and .95, respectively.

Criminal Justice History

Information regarding prior involvement in the criminal justice system was obtained from all participants in effort to develop a scale of prior criminal justice history. Previous contacts with the criminal justice system in the way of arrests and convictions are commonly used indicators of criminality. Information regarding prior involvement in the criminal justice system was collected as part of the normal agency intake process and extracted from the agency self-report intake forms included in Appendix D. Self-reported prior criminal justice history items contained in the intake questionnaire and selected for this study included the number of previous arrests, criminal convictions, probation sentences, jail and prison sentences.

The accuracy or validity of self-reported criminal justice history items was assessed using official information contained in community residential program files maintained by case officers at the program site. Self-reported prior criminal justice history information was available for all participants of the study. Archival information regarding prior criminal justice system

Table 7

Internal Consistency of Social Support Satisfaction Scale

Subscale/ Item	Reliablity (Communality)[a]	Coefficient Alpha
	(N = 60)	
Family		.96
1.	.91	
2.	.97	
3.	.80	
Friends		.98
4.	.91	
5.	.95	
6.	.96	
Others		.95
7.	.79	
8.	.90	
9.	.90	

a. Corrected for attenuation due to error in measurement.

involvement was available from community residential program case files for the majority of participants. The number of cases and coefficients of validity between self-report and official documents for the individual variables are presented in Table 8. A mean average coefficient of .68 was obtained across scale items.

Data resulting from prior criminal justice history items were analyzed in effort to form a criminal justice history scale for use in evaluating the research hypotheses involved in this study. Item data were analyzed using a rational-empirical approach and procedures analogous to the those used above for other scale data. Corrected inter-item correlations were generated from participant responses to individual items, arranged and ordered to reveal a single cluster. Inter-item correlations and correlations with extraneous variables were examined for internal consistency and parallelism. Resulting scale data were further subjected to confirmatory cluster analysis including communalities and correction for measurement error. Inter-item, item-total, cluster coefficients and communalities for the criminal justice history scale are presented in Appendix J. Reliabilities and the alpha coefficient are displayed in Table 9. An alpha coefficient of .89 was obtained for the prior criminal justice history scale for the participant sample of 60 inmate respondents.

Table 8

Validity of Criminal Justice History Data

Data Element	n	Coefficient*
Prior Convictions	49	.45
Prior Probations	44	.64
Prior Jail	43	.76
Prior Prison	43	.86
Average r		.68

*Coefficient of agreement between self-report and official data.

Table 9

Internal Consistency of Criminal Justice History Scale

Item	Reliability (Communality)[a]	Coefficient Alpha
	(N = 60)	
Number of prior arrests	.74	.89
Number of prior convictions	.94	
Number of prior probation sentences	.53	
Number of prior jail sentences	.85	
Number of prior prison sentences	.20	

a. Corrected for attenuation due to error in measurement.

Social Outcome Measures

The purpose of this study was to assess the impact of an employment related intervention with criminal offenders. In terms of outcome, then, the dependent variables of primary importance were employment and recidivism.

Employment

Employment data was collected from official case file information maintained by community residential program agents for each participant six months after referral and intake at the Center. Employment information was not consistently recorded in casefiles, although most case files contained forms to collect information regarding dates of employment, the place of employment, type of employment (full- or part-time) and the number of hours worked. Unfortunately, date of employment and hourly wage was the only employment data consistently recorded and available from case file information.

Employment and wage information was independently collected for a randomly selected subsample of 20 cases by two data gatherers, namely the principal investigator and the research director of the Center. This comprised a 30% subsample of the total project sample. The research director of the Center was also unaware of that the reliability check was being conducted on the case file data. The rate of inter-rater agreement was 98.8% for date of employment and 93.4% for wage data.

Recidivism

A number of indicators of recidivism were available for collection given the nature of the sample participating in the study. Traditional measures of recidivism such as re-arrest and conviction were not appropriate given that study participants were technically under custody and housed in a minimum security facility. With few exceptions, re-arrest, conviction and sentencing did not occur for participants during the time frame of the study. For the most part, the sample of participant inmates remained at the community residential program during the time of the study. Those released from the community residential program returned to the program regularly for supervision interviews with their case agents and mandatory drug testing. With few exceptions, all participants in the study technically remained inmates of the community residential program, or inmates on furlough from the residential program during the study time period. As a result, misconduct reports involving major rule violations served as the primary indicator of recidivism among the participant sample in the study.

Specifically, misconduct reports for which there were official findings of guilt comprised recidivism variables. Department of Corrections policy specifies conditions and procedures regarding misconduct. When an inmate is alleged to have broken a rule, a corrections agent or officer issues a report detailing the misconduct incident. The inmate is

given the opportunity to affirm or deny the misconduct incident. Sanctions are immediately imposed if the inmate agrees with the allegations of the report. A meeting is scheduled if the inmate disagrees and a hearing officer (usually the supervisor of the community residential program) reviews the report and testimony of all parties involved with the incident. Sanctions are imposed if the hearings officer finds that the alleged misconduct did occur. Sanctions range from a loss of privileges to reclassification and return to prison.

All official findings of misconduct which occurred within the time frame of the study were recorded for each participant. The date and type of each misconduct was recorded during the six months that elapsed from the date of intake to the project for each participant.

The type and number of official misconducts were independently collected for a randomly selected subsample of 20 cases by two data gatherers, namely the principal investigator and the research director of the Center. This comprised a 30% subsample of the total project sample. The research director of the Center was also unaware that the reliability check was being conducted on the case file data. An inter-rater agreement of 92.5% was achieved for date of first misconduct; 93.4% was obtained for the type of first misconduct. A rate of agreement of 97.3% was achieved for the number of misconducts.

Process Measures

Various sources of information regarding research, group and intervention processes were monitored throughout the course of this experiment in effort to account for internal and extraneous sources which may have influenced the outcomes or results of the research project.

Enhanced Employment Development Attendance

Attendance at enhanced employment development laboratory sessions was recorded on check-in logs kept at the Center. All clients are required to sign these logs upon arrival at the Center for services. The total number of times each participant in the enhanced employment condition signed the log as attending enhanced employment workshops comprised the attendance variable.

Departure logs are also maintained at the community residential program site. These logs are signed by each inmate departing from and returning to the program site. Information regarding the date and time of departure and destination are also recorded on the log. Departures from the community residential program and arrivals to the Center for enhanced employment development workshops were collected for a random subsample of 20 cases. This comprised a 30% subsample of the total project sample. A rate of agreement of 73.5% was obtained between the number of attendances indicated by the departure and arrival logs.

Program Implementation

A research journal was maintained by the author throughout the course of this project in effort to account for internal and external processes which may have affected outcomes of the experiment. The nature of telephone conversations, meetings and visits to the Center were recorded on a regular basis. Participant observations regarding incidents and events which may have had an effect on the outcome of this study are discussed in Chapter Four.

Employment Trends in the Community

As it has been found to influence the outcomes of other studies, the external process of employment in the community was monitored throughout the duration of the project. Annual employment trends in Oakland County and Pontiac area were monitored for changes with data obtained from the Research Division of the Michigan Employment Security Commission.

The following section describes the results of the study and evaluation of the research hypotheses.

CHAPTER 3

RESULTS

The primary purpose of the present study was to evaluate a program of enhanced employment development within a randomized pre-post design with prisoners being released from the state prison system in Michigan. A second purpose of this study was to examine relationships among social support and offender variables among participants of the study.

As detailed in the second chapter, potential participants were referred for employment development services approximately forty-eight hours after transfer from prison to a community residential program. Both groups received approximately nine to 12 hours of employment development services over the course of three to four days. Employment development was comprised of classroom didactic, group exercises and discussion. The employment development curriculum included information regarding job seeking skills and interview techniques. Additional facts regarding job seeking, the employment process and problems confronting criminal offenders seeking employment in the community were often part of employment development classroom discussion.

As discussed above, the enhanced employment intervention was comprised of additional services in the way of an employment development laboratory which included one-to-one employment-related guidance, structured employment search strategies and exercises, free access to employment related resources such as telephones, maps, and telephone books, and an additional two to three hours each weekday to pursue employment opportunities within a supportive setting. The two groups are distinguished by the quality of services and the quantity of resources available during the process of job seeking. Additionally, both groups involved in the study must be viewed as motivated to become employed in that everyone volunteered to participate in the enhanced employment condition. Those participating in the enhanced condition, however, were able to receive additional resources as desired where as the control condition received the employment development classroom only.

The first chapter surveyed relevant literature regarding employment interventions with criminal offenders and otherwise special populations. The first chapter then presented a brief exposition of recent and related literature regarding social support and social networks. The second chapter described the research setting, data collection and measurement development. The current chapter presents results of the statistical analysis of data and evaluation of research hypotheses.

The data resulting from this experiment will first be examined to assess the integrity of the research design and comparability of experimental and control groups. Research hypotheses presented at the conclusion of the first chapter will then be individually examined through statistical analysis of the data resulting from the experiment. Finally, multi-variate analysis will be employed in an attempt to model the recidivism process using variables included in the study.

Attrition Rates

A total of 63 community residential program inmates were initially assigned as participants of the enhanced employment development condition. The plan of the study required that at least 30 participants be included in each group condition. As mentioned earlier, attendance at more than one of the enhanced employment development sessions was criterion for further inclusion of a participant in the experimental condition. The referring community residential program was contacted if a participant selected for the experimental condition did not arrive for enhance employment development laboratory. Reason for absence was noted. If the selected participant was still interested, he or she was again prompted to come to the afternoon session. Enhanced employment condition participants and their selected control group counterparts were dropped from the study design if the enhanced employment development participant failed to attend

at least one laboratory session in the week subsequent to selection for participation in the study.

Table 10 presents rates and reasons for attrition from the enhancement employment development condition. Frequency and percentage rates of attrition from the experimental condition by reason for non-participation, and resulting size of the study sample are depicted in Table 10. The overall attrition rate for the enhanced employment condition was 52.3%. The most common reason for attrition was that the selected participant had already gained employment (57.6%), followed by non-interest (21.2%) and other or unknown reasons, 21.2%.

Participants Versus Refusals

Table 11 presents a comparison of participants selected for the experimental condition by whether or not they attended more than one of the enhanced employment development laboratory sessions (criterion for inclusion). Enhanced employment laboratory participants and drop-outs from the experimental condition were compared on variables of gender, age and the violent versus non-violent nature of the instant offense conviction. Differences between participants and those refusing participation were assessed using chi-square analyses and t-tests of differences between groups (two-tailed). As apparent in Table 11, differences between participant and drop-out groups on selected variables were negligible. Participants and drop-outs did

Table 10

Rates and Reasons for Attrition From the Experimental Group

Reason for Non-Participation	n	%
Employed	19	57.6%
Not interested	7	21.2%
Other/unknown	7	21.2%
Total attrition	33	100.0%
Number assigned to experimental group	63	
Overall attrition rate:		52.3%
Resulting N	30	

Table 11

Comparison of Participants and Drop Outs

Variable	Participants (n=60)	Drop Outs (n=33)	Tests of Significance
Gender			
Female	6.70	3.03%	X^2=0.553, df=1,
Male	93.30	96.97%	p=.457
Offense			
Non-Violent	85.00	84.85%	X^2=0.00, df=1
Violent	15.00	15.15%	p=.984
Age	30.13 years	29.58 years	t=0.301, df=59.5, p=.765

Note. Conviction offenses were collapsed into categories of violent/non-violent for this analysis. Violent offenses include homicide, rape, robbery, and aggravated assault.

not differ with regard to gender ($X^2(1, N=93) = 0.553$, $p=.457$), category of offense ($X^2(1, N=93) = 0.00$, $p=.984$), and age ($t(59.5) = 0.301$, $p=.765$). This analysis indicates that participant attrition did not result in any apparent bias which could pose a threat to the external validity of the research design based upon attrition factors of gender, category of offense and age.

Participants and the Referral Population

Experimental and control group participants were compared to all other referrals in effort to further assess generalizability of results and bias that may have been introduced in the selection procedure. Table 12 displays a comparison of research participants and all other referrals on the variables of gender, violent/non-violent nature of the instant offense conviction and age using chi-square and t-test analyses of differences between the groups (two-tailed).

As may be seen in Table 12, there is a difference in the proportion of females and males referred for services and those participating in the experiment, $X^2(1, N=229) = 3.953$, $p=.047$. The primary reason for this difference involved the rate at which two or more females were simultaneously referred for employment development services. A total of 33 females were referred for employment development services during the time frame of the study and

Table 12

Comparison of Participants and Referral Population

Variable	Participants (n=60)	Referrals (n=169)	Tests of Significance
Gender			
Female	6.67	17.16%	X^2=3.953,df=1
Male	93.33	82.84%	p=.047
Offense			
Non-Violent	85.00	82.25%	X^2=.237,df=1,
Violent	15.00	17.25%	p=.626
Age	30.13 years	29.02 years	t=.952,df=99.6 p=.343

comprised 14.8% of the total referral population. Seldom were females referred at the same time in groups of two or more as required by the procedure for matching experimental and control group participants. It was difficult, therefore, to obtain and match two females who were referred for services at the same time, interested in participating in the research study and who actively participated in the experimental condition.

Besides gender, there were no other differences between the referral population and research sample on the variables of offense ($X^2(1, N=229) = 0.237$, $p=.626$) or age, $t(99.6) = 0.952$, $p=.343$. With the exception of the gender bias resulting from the assignment to groups procedure, there did not appear to be differences between the population referred for employment development services and those participating in the research study on the other assessed factors of age and category of offense. Given that gender is not an issue in the experiment, no effort will be made to control bias introduced through the selection process.

Sample Characteristics and Comparability of Groups

It is important to examine the equivalency of participant groups on available demographic information before evaluating research hypotheses to identify and control any extraneous factor that may have influenced outcomes of the intervention and statistical analysis of the data. Participants in control and experimental groups were

compared on a number of pre-existing factors in addition to those involved in the matching procedure.

Table 13 presents descriptive statistics for the total sample and comparisons of study groups on a number of variables in addition to those controlled through matching. Chi-square analysis and one-way analysis of variance were used to estimate equivalency of the control and experimental groups.

Comparisons include race/ethnicity, gender, present marital status, the existence of dependents, military veteran status, possession of a high school diploma, prior college attendance, prior vocational training, possession of a vocational skills certificate, employment status at the time of arrest, education while in prison, vocational training while in prison, present age, number of educational grades completed, longest term of prior employment in months, number of prior jobs, and prior criminal justice history involving arrests, convictions, sentences of probation, jail, prison, length of last prison sentence, and nature of the instant offense conviction. Information regarding these variables was taken from the intake questionnaire and indicates status of the respondent prior to participation in the study design.

Sample Characteristics

Table 13 also displays characteristics of the total sample. Of the total sample, 60% (36) are white and 40%

Table 13

Comparison of Groups

Variable	Group			
	Control (n = 30)	Exper (n = 30)	Total (N = 60)	Test of Significance
Race				
White	56.7	63.3	60.0%	X^2=.28,df=1,
Other	43.3	36.7	40.0%	p=.598
Gender				
Male	93.3	93.3	93.3%	X^2=0.0,df=1,
Female	6.7	6.7	6.7%	p=1.0
Marital Status				
Single	90.0	93.3	91.7%	X^2=.22,df=1,
Married	10.0	6.7	8.3%	p=.640
Dependents				
No	43.3	46.7	45.0%	X^2=.22,df=1,
Yes	56.7	53.3	55.0%	p=.795
Veteran				
No	80.0	96.7	88.3%	X^2=4.04,df=1
Yes	20.0	3.3	11.7%	p=.044
Diploma				
No	13.3	30.0	21.7%	X^2=2.45,df=1,
Yes	86.7	70.0	78.3%	p=.117
College				
No	70.0	73.3	71.7%	X^2=.82,df=1,
Yes	30.0	26.7	28.3%	p=.774
Vocational Training				
No	36.7	43.3	40.0%	X^2=.278,df=1,
Yes	63.3	56.7	60.0%	p=.598
Vocational Certificate				
No	76.7	83.3	80.0%	X^2=.42,df=1,
Yes	23.3	16.7	20.0%	p=.519

Table 13 (cont'd.).

Employed at arrest				
No	40.0	53.3	46.7%	X^2=1.07,df=1,
Yes	60.0	46.7	53.3%	p=.301
Education in prison				
No	53.3	46.7	50.0%	X^2=.27,df=1,
Yes	46.7	53.3	50.0%	p=.606
Training in prison				
No	86.7	90.0	88.3%	X^2=.162,df=1,
Yes	13.3	10.0	11.7%	p=.688
Mean age	30.13 years	30.13 years	30.13 years	F(1,58)=0.0, p=1.0
Mean grades	11.01	11.00	11.02	F(1,58)=.13, p=.720
Longest employment	46.1 months	39.8 months	43.0 months	F(1,58)=.31, p=.579
Mean number of prior jobs	2.9	3.1	3.0	F(1,58)=.37, p=.546
Mean number arrests	4.3	3.8	4.1	F(1,58)=.44, p=.509
Mean number convictions	3.1	2.5	2.8	F(1,58)=.92, p=.341
Mean number probations	1.2	1.1	1.2	F(1,58)=.14, p=.712
Mean number jail sent.	1.7	1.1	1.4	F(1,58)=1.95, p=.167
Mean number prison sent.	0.8	0.7	0.7	F(1,58)=.012, p=.914
Mean length prison term	27.1 months	29.7 months	28.4 months	F(1,58)=.236, p=.629
Offense				
Non-violent	90.0	80.0	85.0%	X^2=1.18, df=1,
Violent	10.0	20.0	15.0%	p=.278

(24) of another color. A total of 93.3% (56) are male and 6.7% (4) of the sample are female. Approximately, 92% (55) were single and 8% (5) of the sample married at the time of the study. Fifty-five percent (33) of the sample had dependents at the time of the study. Approximately, 12% (7) of the total sample were veterans of the armed services. Of the total participant sample, 78.3% (47) had graduated from high school or received a high school graduate equivalency diploma. Approximately, 28% (17) had attended college. Sixty percent (36) of the participants had received some technical skill training and 20% (12) had a skill-trade certificate at the time of intake. Of the total sample, 53.3% (32) reported being employed at the time of their arrest resulting in the prison sentence which resulted in referral. Fifty percent (30) of the total participant sample had received educational programming while in prison and 11.7% (7) had participated in a skill training program. The mean average age of sample participants at the time of the study was 30.13 years, the median age was 28 years, the modal age was 19 years at the time of the study. The mean average number of grades completed among participants was about 11, the median number of grades completed was 11, and 12 was the mode or most frequent number of completed grades. Participants were allowed to report a maximum of five prior jobs. The mean average number of prior jobs reported was three, two was the median and the mode number of prior jobs.

Reported prior history in the criminal justice system included the number of police arrests, criminal convictions, probation sentences, jail and prison sentences. The range of prior arrests was zero to 13. Participants reported a mean average of approximately four prior arrests (4.1), the median number of prior arrests was three, and four was the mode. The range of prior criminal convictions was zero to 12. The average number of prior criminal convictions was approximately three (2.8); three was also the median, and one the mode. The range of prior probation sentences was zero to eight. Of the total sample, the mean average number of prior probation sentences was approximately one (1.2); the median and the mode was also one. The range of prior jail sentences was zero to nine. The mean average number of prior jail sentences was about one (1.4), the median and mode was zero prior jail sentences. The average number of prison sentences was approximately one (0.75), and the median and mode was zero prior prison sentences. The mean average minimum prison sentence being served by sample participants was 28.4 months, the median was 18 months and the mode was 24 months. Data regarding these variables were collected at intake and therefore represent an assessment of participants and groups prior to intervention.

Conviction offenses for which the sample participants were serving a prison sentence were aggregated into eight categories: miscellaneous, drug, property, burglary, assault, criminal sexual conduct, robbery and homicide.

Approximately 12% (7) of the sample were serving a prison sentence for conviction on a miscellaneous offense such as probation violation, carrying a concealed weapon, and drunk driving. Twenty percent (12) of participants were serving a prison sentence for a drug conviction, 30% (18) for a property offense conviction such as larceny or fraud, 23.3% (14) for burglary, 6.7% (4) for assault, 3.3% (2) for criminal sexual conduct, and 5% (3) were serving a prison sentence for a homicide conviction. These offense categories were further aggregated into violent/non-violent categories. Eighty-five percent (51) of the sample were serving prison sentences for non-violent offense convictions and 15% (9) for violent offense convictions.

Comparability of Groups

Chi-square analysis and analysis of variance tests revealed one significant difference between control and experimental groups on the above variables. As may be seen in the far right column of Table 13, the control and experimental groups appear equivalent on all variables with the exception of status as a veteran of the armed services. There was a significantly greater proportion of veterans in the control group (20%) in comparison to the experimental group (3.33%), $X^2(1, N=60) = 4.04$, $p=.044$. This finding may indicate that as a group, veterans may have been more likely to drop out of the experimental group. This may have to do with veteran status or some other factor such as gender or

age. All of the veterans were male and most were older than other participants. Although this factor was not controlled prior to assignment to conditions with the matching procedure, the difference between the groups with regard to veteran status will be controlled below in all relevant analyses and hypotheses tests. It appears that the control and experimental groups are equivalent on the other factors included in the comparisons.

The outline for the remainder of this chapter includes a presentation of statistical tests related to the research hypotheses involving social, participant and internal processes. Analyses of data relevant to the research hypotheses involved methodology and procedures developed by Professor John E. Hunter and colleagues at Michigan State University (Hunter, 1973, 1985; Levine and Hunter, 1983; and, Hunter and Gerbing, 1979) and accompanying statistical software (PACKAGE, Hunter & Cohen, 1969). This approach was selected for a number of reasons including emphasis on correlational methods of analysis, procedures correcting for error in measurement, and estimation of ranges of uncertainty involved in statistical tests due to the size of the study sample.

Results are further examined below in accordance with the measurement plan which included social outcome, participant and internal/external process variables within the study.

Social Outcomes

Social outcomes relevant to the purpose of this study involved the effects of the enhanced employment development intervention in comparison to a treatment-as-usual control condition. This was evaluated by assessing the extent to which recidivism and employment were associated with control or experimental group participation.

Hypothesis 1: Recidivism

The first research hypothesis concerned recidivism among participants of control and experimental groups during a six month period subsequent to study intake. Specifically, it was hypothesized that participation in the enhanced employment development condition would result in less recidivism in comparison to the control condition receiving limited employment development services.

As discussed in the previous chapter, typical measures of recidivism were inappropriate within the context of this study in that all participants were under custodial supervision as inmates of a minimum security, community residential program. Recidivism was, therefore, measured using official records of misconduct violations in the community residential program. In particular, rule violations which had been adjudicated and substantiated, or for which the participant was found guilty as a function of an official hearing on misconduct charges were used as indicators of recidivism in this study. The date of

misconduct was collected in order to calculate the number of days to misconduct from the time of intake to the study. Specifically, the incidence of misconduct, the total number of guilty misconduct findings during the study period, and the number of days to the first finding of misconduct served as indicators of recidivism and dependent variables in testing the first hypothesis. Reclassification to prison, or return of the participant to a jail or prison setting was also used as a dependent variable or a measure of recidivism in this study. Both misconduct and reclassification to prison are not recidivism in the traditional sense in that they do not necessarily involve a new crime.

Approximately, 62% (37) of the total participant sample were found guilty of misconduct during the study period. By study condition, 66.7% of participants in the control group had misconduct violations compared to 56.7% of participants in the enhanced employment condition, $X^2(1, N=60) = 0.64$, $p=.43$.

Type of misconduct is displayed in Figure 2 by study condition for all participants found guilty of a misconduct violation during the time frame of the study. The most serious type of misconduct was selected for each participant found guilty of more than one misconduct. For all participants guilty of misconduct during the study (n=37 or 66.17%), the most common type of misconduct was substance use (56.76%), followed by escape (27.03%), out of place

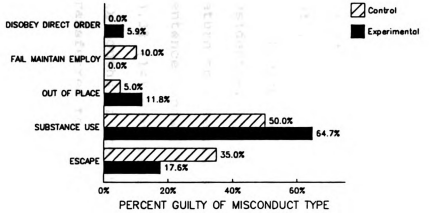


Figure 2. Type of misconduct by group.

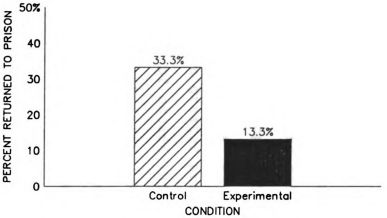


Figure 3. Percent returned to prison by group.

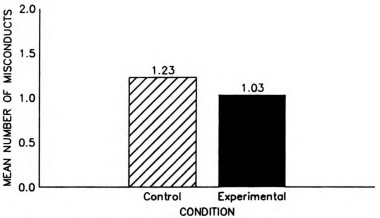


Figure 4. Mean number of misconducts by group.

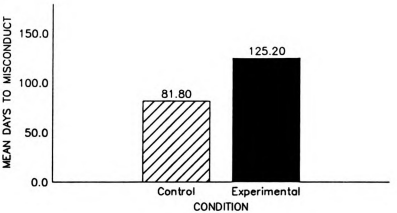


Figure 5. Mean days to misconduct by group.

(8.11%), failure to maintain employment (5.4%) and disobeying a direct order (2.7%).

The tendency of condition to influence type of misconduct among those with a finding of misconduct during the study is apparent in Figure 2, $X^2(4, n=37) = 4.77$, $p=.31$. Of those with a finding of misconduct during the study, a greater proportion of the control condition were guilty of escape (35%) in comparison to participants with misconduct in the experimental condition (17.6%) (Escape was judged to be the most serious type of misconduct in this study.). As depicted in Figure 2, control group participants were also more likely to be found guilty of failure to maintain employment compared to those in the experimental group (10% versus 0%). Experimental group participants were more often found guilty of disobeying a direct order (5.9% compared to 0%), being out of place (11.8% compared to 5%), and substance use (64.7% compared to 50%).

Escape, or being absent without leave from a community residential program is a crime in Michigan and requires return to a secure prison setting for the duration of the sentence imposed by the court. Of all study participants, 23.3% (14) were reclassified or returned to prison within six months of the study intake date. Of these, nine were transferred to a drug treatment program prior to their return to prison. Participants were most often returned to prison for escape or being absent without leave from the

community residential program (57.1%). Three participants were reclassified to prison for multiple misconducts, two for failure to complete a drug treatment program, and one participant was returned for a new felony conviction which was pending at the time of placement in the community residential program.

It should also be noted that according to policy of the community residential program, a misconduct for substance use (alcohol or illicit drugs) requires that an inmate enter a three to six month residential drug treatment program. As it pertains to the analyses that follow, it is important to note that inmates are required to terminate employment upon admission to the drug treatment program; and of course, upon return to prison.

Figure 3 presents the proportion of participants in the control and experimental groups returned to prison during the time frame of the study. As shown in Figure 3, there was a tendency for control group participants to be returned to prison at a higher rate than those in the experimental group. Approximately, 33% of those in the control group were returned compared 13.3% of those in the experimental group, $X^2(1, N=60) = 3.35$, $p=.067$.

Figures 4 and 5 depict the effects of group membership on mean average number of misconducts and mean average number of days to misconduct. Only 38% (23) of the total participant sample remained misconduct free during the six month follow-up period. Days to misconduct was coded as 180

days for the 38% (23) not receiving a misconduct during the six month follow-up period.

For the total sample of participants, mean average number of days before a finding of misconduct was 103.5, the mode was 180 days and the median was 90 days. For the total sample, number of misconduct violations during the period of the study ranged from zero to five. The mean average number of guilty misconducts was slightly more than one (1.13); the mode and the median were zero. Thirty percent of the total sample had more than one finding of misconduct. It is also interesting to note that all participants without a misconduct violation were apparently working at six month follow-up.

Figure 4 displays the apparent tendency for the control group to receive more misconducts on the average (1.23) in comparison to the enhanced employment development group (1.03), $t(58) = .635$, $p=.53$.

Figure 5 depicts the effect of condition on time to misconduct. The control group received misconduct violations sooner than the experimental group (81.8 versus 125.2 days), $t(58) = 2.45$, $p=.017$.

Table 14 displays intercorrelations of participant group and recidivism variables. All correlations are corrected for attenuation due to error in measurement. Confidence intervals is also displayed in the table for each correlation coefficient. As may be seen in Table 14, there is a positive relationship between the number of days to the

Table 14

Intercorrelations of Recidivism and Group Membership Variables

Variable	Group Condition		Days to Misconducts		Number of Misconduct	
	r	CI	r	CI	r	CI
			(N = 60)			
Days to Misconduct	.31*	(.08 - .54)	--		--	
Number of Misconducts	-.08	(-.33 - .17)	-.69*	(-.82 - -.56)	--	
Return to Prison	-.24*	(-.48 - .00)	-.45*	(-.65 - -.25)	.43*	(.22 - .65)

Note. CI = 95% Confidence interval. All correlations corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

first misconduct and group membership, $r = .31$, $p<.05$. Control group members appear to have received misconduct reports earlier than experimental group participants. The association between group membership and the number of misconduct reports received during the study does not appear to as be strong; although the correlation coefficient is in the predicted direction ($r = -.08$, $p>.05$), indicating the tendency for participants in the experimental group to receive fewer misconducts than control group members. Finally, there is negative relationship between return to prison and group membership ($r = -.24$, $p<.05$), indicating experimental group participants were returned to prison at a lower rate than control group participants.

The size of the sample included in this study may be affecting the results of statistical tests. Although results with regard to the first hypothesis are all in the predicted direction, limitations with regard to statistical power may have influenced the analysis due to the small size of the study sample.

As discussed in the second chapter, sample groups differed on status as a veteran of the military, in that veterans were over-represented in the control group (The correlation between group membership and veteran status is $-.26$, $p<.05$). Impact of the experimental intervention was therefore assessed while controlling for veteran status. Outcomes similar to those obtained in the above analysis

were apparent when controlling veteran status as a covariate of group membership.

Table 15 presents the results of multiple regressions with the dependent variables of number of misconducts, days to misconduct and return to prison, the covariate of veteran status, and independent variable of group condition. Multiple regression coefficients (R), standardized regression weights (B), and confidence intervals (CI) are presented in the table for each independent variable and each regression. All coefficients have been corrected for attenuation.

As may be seen in Table 15, the statistical relationships between measures of recidivism and condition are enhanced after controlling for veteran status. Group condition continues to display an effect on the number of days to misconduct, $B = .48$, $p<.05$. Again, there is a tendency for condition to influence the number of misconduct findings during the study time period, $B = -.11$, $p>.05$. Condition also appears to impact on return to prison after controlling for veteran status, $B = -.34$, $p<.05$.

The impact of veteran status was apparent upon closer examination of the data. All but one of seven veterans in the study were in the control group; and, only two veterans were returned to prison, both in the control group.

The first hypothesis is supported with effects of group condition on days to misconduct and return to prison, and a tendency for group condition to effect number and type of

Table 15

Regression of Group and Veteran Status with Recidivism Variables

Dependent Variable		Covariate Veteran Status		Independent Variable - Group	
	R	B	CI	B	CI
		(N = 60)			
Days to Misconduct	.56	.44*(.19 - .68)		.48*(.24 - .71)	
Number of Misconducts	.13	-.11 (-.37 - .15)		-.11 (-.37 - .15)	
Return to Prison	.39	-.30*(-.55 - -.04)		-.34*(-.59 - -.09)	

Note. CI= 95% Confidence interval. All coefficients corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

misconduct violations. Participation in the enhanced employment intervention apparently reduced the rate of misconduct, influenced the type of misconduct, delayed misconduct, and impacted upon the rate of return to prison. Findings may have been limited, however, due to the small size of the sample which influenced statistical power in evaluating the hypothesis.

Hypothesis 2: Employment

The second research hypothesis concerned employment and the effect of participation in the enhanced employment development condition in comparison to the control condition. It was hypothesized that participation in the enhanced employment development condition would result in greater employment in comparison to the control condition which was limited to only employment development services.

Information regarding participant employment was collected from official records and included number of days to employment, hourly wage at employment, and hourly wage six months subsequent to program intake. Participant employment information was collected from official case files at the community residential program. Hourly wage information was collected from monthly report forms filled out by program residents, submitted to corrections officials and contained in community residential program casefiles.

Approximately, 88% (53) of the study sample became employed during the time period of the study. Of those not

obtaining employment, three (11.7%) were returned to prison before getting a job and four were sent to a residential drug treatment program, and were still in the drug program at the time of six month follow-up. For the total sample, the mean average number of days before employment was 30.4, the mode was 28 days and the median was 7.5 days. Hourly wage at employment varied for the total sample from zero for those who did not obtain employment to $10.00 an hour. The average hourly wage at employment for the total sample was $3.79; the mode and median was $4.00.

A slightly greater proportion of the experimental group initially gained employment in comparison to the control group, 90% and 86.7% respectively, $X^2(1, N=60) = 0.16$, $p=.69$.

Unemployment was pervasive six months subsequent to intake with 48.3% (29) of the total sample not working at the end of the follow-up period. For the most part, those not working at six month follow-up had either been returned to prison (14) or were in a residential drug treatment program (14). Hourly wage was coded as zero for those not employed at the end of the six month follow-up period for this analysis. For the total sample, hourly wage at the end of the six month follow-up period varied from zero to $14.00. The mean average hourly wage was $2.99, the modal wage was zero and the median was $4.00 an hour.

About 48% (29) of all participants in the study were not working at the time of follow-up. With the exception of

one participant, those not working at the end of the follow-up period were unemployed due to placement in a residential drug treatment program or return to prison. The effect appears to be one of condition on the incidence of misconducts which result in unemployment. About 43% of the participants in the enhanced employment condition were not working at the end of the follow-up period compared to about 53% of the control condition, $X^2(1, N=60) = 2.41$, $p=.12$. In examining the reason for not working, however, it appears that 30.8% (4) of those not working in the experimental condition had been returned to prison compared to 62.5% (10) of those not working in the control group.

Approximately, 52% (31) of the total participant sample was working at the end of the project; 56.7% of the enhancement employment condition participants and 46.7% of those in the employment development condition. Of those working in the enhanced employment condition, 41.2% had successfully changed jobs and continued working compared to 28.6% of the control condition successfully switching jobs during the time frame of the study. This may be a demonstrated effect of the enhanced employment condition.

The total sample appears to have decreased in hourly earnings from initial employment to follow-up. The decrease in income is a function of unemployment among participants of both groups due to misconduct rule violations, placement in a drug treatment program and return to prison.

An earnings difference variable was created to arrive at an index of change in wages from first employment to the end of the study follow-up period. Hourly earnings at the time of first employment were subtracted from hourly earnings at follow-up to obtain a difference in earnings score. Difference in earnings ranged from -$10.00 to $8.95. The mean average difference in hourly earnings was -$.92, the mode and the median was zero or no difference from hourly wage at initial employment to hourly wage at six month follow-up.

Figures 6 through 9 display the effect of participant group condition on mean average days to initial employment, mean average wage at employment, mean average wage at six-month follow-up, and mean difference in hourly wage from initial employment to follow-up.

Figure 6 shows the tendency of the experimental group to become employed sooner than the control group on the whole. It took the total enhanced employment development group an average of 29.83 days to gain employment compared to an average 30.97 days for the control group, $t(58) = .078$, $p=.94$.

The tendency for the total experimental group to receive a somewhat better hourly wage compared to the control group at employment is apparent in Figure 7. In total, the experimental group earned an average of $3.84 compared to $3.73 earned by the control group at the time of employment, $t(58) = .25$, $p=.80$.

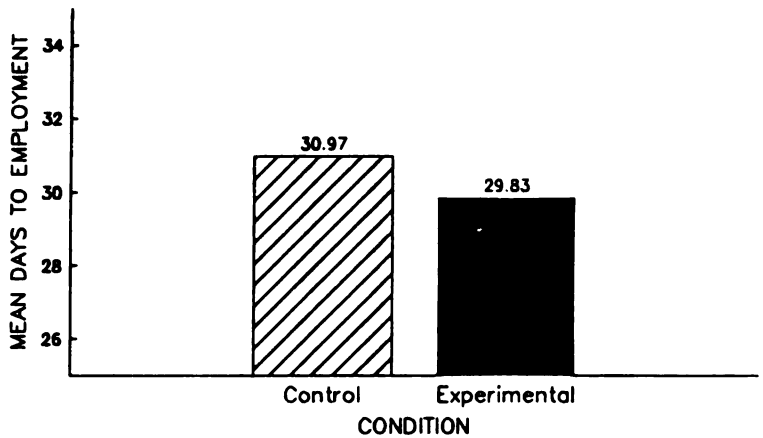


Figure 6. Mean days to employment by group.

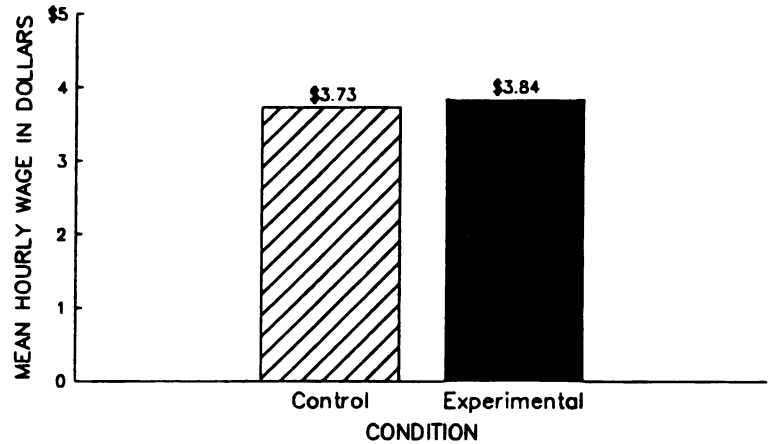


Figure 7. Mean wage at employment by group.

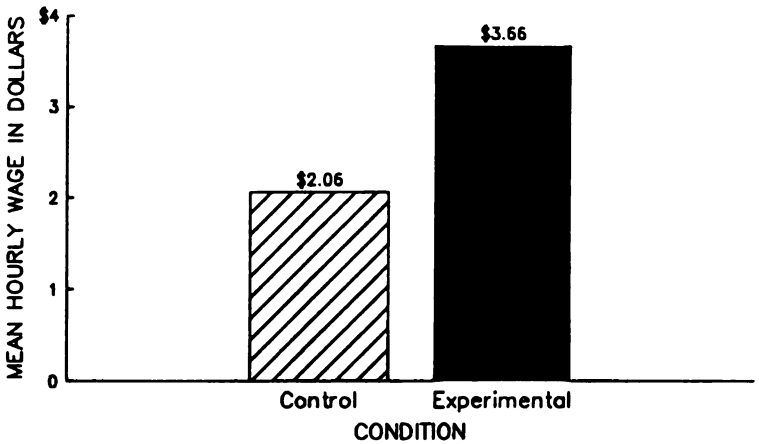


Figure 8. Mean wage at follow-up by group.

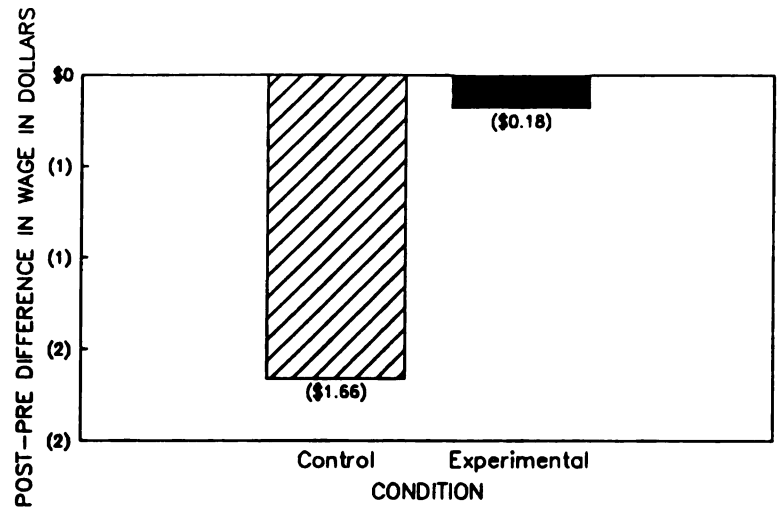


Figure 9. Mean difference in wage by group.

Figure 8 shows the effect of condition on wage at six month follow-up, with the experimental group making an average of $3.66 compared to the control group average of $2.06, $t(58) = 2.09$, $p=.04$.

Finally, Figure 9 presents group differences in mean average hourly wage from initial employment to follow-up. The control group was making an average of $1.66 less at the time of follow-up compared to an average of $0.18 less being earned by the experimental group at follow-up, $t(58) = 1.96$, $p=.055$.

Table 16 presents intercorrelations of employment variables and participant group condition. All bivariate coefficients have been corrected for attenuation due to error in measurement. Confidence intervals for correlation coefficients are also displayed in Table 16. As displayed in Table 16, there is little relationship apparent between group membership and days to initial employment ($r = -.01$, $p>.05$), or hourly wage at employment, $r = .03$, $p>.05$. Group condition, however, does appear to have an impact upon hourly wage six months after intake ($r = .27$, $p<.05$) and differences in wages from intake to follow-up, $r = .26$, $p<.05$. Although participation in the enhanced employment development condition did not appear to have an effect on the number of days to initial employment or wages at employment when considering all participants, it did appear to influence hourly wage at six month follow-up and the difference in wages from first employment to follow-up.

Table 16

Intercorrelations of Employment Variables and Group Membership

Variable	Group Condition	
	r	CI
	(N = 60)	
Days to Employment	-.01	(-.26 - .24)
Wage at Employment	.03	(-.22 - .28)
Wage at Follow-up	.27*	(.03 - .51)
Difference in Wage	.26*	(.02 - .50)

Note. CI = 95% Confidence interval. All coefficients corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

The lack of statistical relationship between group condition and days to, and wage at initial employment may, in part, be a function of the small sample size. Because of the sample size, many of the associated confidence intervals included zero in the range of possible correlation coefficients.

The effect of group condition on employment was again examined for only those initially gaining employment in the study. As mentioned above, a total of 53 participants successfully gained employment during the time frame of the study. For those gaining employment, the average number of days to employment was 10.6, the mode and the median was 7 days. Hourly wage at employment varied for those gaining employment from $2.55 to $10.00. The average hourly wage was $4.29, the mode and the median was $4.00.

Table 17 presents intercorrleations of employment and participant group variables for only those gaining employment during the study (n=53). As may be seen in Table 17, it appears participants gaining employment in the experimental condition tended to take longer to obtain a job in comparison to those gaining employment in the control condition, $r = 24$, $p>.05$. Again however, there is little relationship between group conditions and wage at employment, $r = -.01$, $p>.05$. The impact of group condition also remains among those gaining employment, with participants of the enhanced employment condition making

Table 17

Intercorrelations of Employment Variables and Group Membership for Only Employed

Variable	Group Condition	
	r	CI
	(N = 53)	
Days to Employment	.24	(-.02 - .50)
Wage at Employment	-.01	(-.28 - .26)
Wage at Follow-up	.28*	(.03 - .53)
Difference in Wage	.27*	(.02 - .52)

Note. CI = 95% Confidence interval. All coefficients corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

significantly better wages at six month follow-up ($r = .28$, $p<.05$) and with greater differences from initial employment to follow-up, $r = .27$, $p<.05$.

As discussed earlier, there was a significant relationship between group membership and status as a veteran of the military, $r = -.26$, $p<.05$. That is, veterans were over-represented in the control group. Veteran status was therefore controlled as a covariate and the effect of group condition was again assessed.

Table 18 displays a regression analysis of veteran status and group membership with the dependent variables of days to employment, wage at initial employment, wage at six month follow-up, and difference in wages from intake to follow-up for all participants in the study. All coefficients have been corrected for attenuation and confidence intervals for each coefficient are also displayed in the table. As apparent in Table 18, the relationship of condition and employment variables is enhanced after controlling for veteran status for all participants. Again, however, there is little apparent statistical relationship between treatment condition and days to employment ($B = -.04$, $p>.05$) or initial wage at employment, $B = .05$, $p>.05$. Similar to the bivariate analysis above, however, wage at follow-up and difference in wages from intake to follow-up continues to be related to group condition, $B = .31$, $p<.05$ and $B = .28$, $p<.05$, respectively.

Table 18

Regression of Group and Veteran Status with Employment Variables

Dependent Variable	Covariate Veteran Status		Independent Variable - Group	
	R	B CI	B	CI
		(N = 60)		
Days to Employment	.13	-.13 (-.39 - .13)	-.04	(-.31 - .22)
Wage at Employment	.01	.08 (-.18 - .35)	.05	(-.21 - .32)
Wage at Follow up	.32	.17 (-.09 - .43)	.31*	(.07 - .56)
Difference in Wage	.28	.12 (-.04 - .38)	.28*	(.03 - .53)

Note. CI = 95% Confidence interval. All coefficients corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

As mentioned above, the lack of apparent relationship between group condition and time to employment and wages at employment may, in part, be a function of the limited size of the sample available for this study.

Table 19 presents a regression analysis of veteran status and group membership for only those becoming employed during the study. Dependent variables are again days to employment, wage at employment, wage at six-month follow-up, and difference in wages from intake to follow-up. All coefficients have been corrected for attenuation.

As apparent in Table 19, controlling veteran status for only those becoming employed during the study enhanced the effect of group condition on number of days to employment. Members of the experimental condition appear to take longer to gain employment than those in the control condition, $r = .28$, $p<.05$. Again however, there is little association of group membership and wage at employment, $r = -.03$, $p>.05$. And, the effect of group condition on wage at follow-up remains ($r = .32$, $p<.05$), as does the effect of condition on difference in wages from employment to follow-up, $r = .32$, $p<.05$.

It was hypothesized that participation in the enhanced employment development intervention would result in greater employment in comparison to the control condition of employment development services. It appears that participation in the enhanced employment development condition did impact upon employment, although not

Table 19

Regression of Group and Veteran Status with Employment Variables for Only Employed

Dependent Variable	Covariate Veteran Status		Independent Variable - Group	
	R	B CI	B	CI
		(N = 53)		
Days to Employment	.27	.13 (-.14 - .40)	.28†	(.03 - .53)
Wage at Employment	.07	-.07 (-.34 - .20)	-.03	(-.30 - .24)
Wage at Follow up	.31	.14 (-.13 - .41)	.32*	(.08 - .55)
Difference in Wage	.31	.16 (-.10 - .42)	.32*	(.08 - .55)

Note. CI = 95% Confidence interval. All coefficients corrected for attenuation due to error in measurement.

*p<.05, one-tailed.
†p<.05, two-tailed.

initially. That is, for the total sample, condition did not seem to impact on length of time to employment. As apparent in the analysis involving only those gaining employment, however, participation in the enhanced employment condition seemed to extend time to employment. Condition did not appear to impact wage at initial employment. Participation in the enhanced employment condition did, however, influence employment and wages six months subsequent to intake for the total sample; and for only those gaining employment during the study. This was found to be the result of a greater proportion of those participating in the experimental condition working at follow-up compared to participants in the control condition.

As with other hypothesis tests, the above analysis should be considered in light of the size of the study sample. Statistical power was limited due to the small size of the sample which may have influenced the effects apparent in this analysis.

Hypothesis 3: Attendance

The third hypothesis concerned those participating in the enhanced employment development intervention, the experimental condition. It was hypothesized that level of participation in enhanced employment development would be impact upon employment outcome variables. Participation was measured by the number of times members of the enhanced

development condition attended employment laboratory sessions.

Those participating in the enhanced employment condition attended a mean average, 5.8 laboratory sessions. The median number of session attended was five, four was the mode. Attendances ranged from one to 15 sessions.

Table 20 presents intercorrelations of employment and attendance variables for participants of the enhanced employment development condition. All coefficients have been corrected for attenuation due to error in measurement. Confidence intervals for correlation coefficients are also displayed in the table. As shown in Table 20, none of the correlations between the number of times participants attended the employment laboratory and employment are statistically significant, which may be due to small sample size. Although there is little statistical relationship between the number of times a participant attended the employment development laboratory and the number of days to initial employment ($r = .03$, $p>.05$), there appears to be a tendency for attendance to impact upon wage at employment, $r = .23$, $p>.05$. The relationship between number of attendances and wage at follow-up is in the opposite direction of the hypothesis, $r = -.15$, $p>.05$. The correlation between attendance and difference in wage from employment to follow-up is negative ($r = -.29$, $p>.05$), which may indicate those attending more often took longer to gain

Table 20

Intercorrelations of Employment Variables and Enhanced Employment Development Attendance

Variable	Attendance	
	r	CI
	(N = 30)	
Days to Employment	.03	(-.33 - .39)
Wage at Employment	.23	(-.11 - .57)
Wage at Follow-up	-.15	(-.51 - .21)
Difference in Wage	-.29	(-.62 - .04)

Note. CI = 95% Confidence interval. All correlations corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

employment thereby limiting the difference in wages from initial wage to wages at time of follow-up.

The hypothesis suggesting a positive effect of enhanced employment development attendance on employment among participants in the experimental condition received little support in the results. Attendance did not appear to shorten the time to employment, although there was an apparent tendency for those attending more often to receive a higher wage at initial employment. Attendance appeared to have a negative impact on wages at follow-up and limited impact upon the difference in wages at initial employment to wages at follow-up because of limited time to increase wages through merit raises or better employment. These conclusion is speculative, however, due to the limited sample size which limited the power associated with statistical analysis. The range of all associated confidence intervals included negative and positive coefficients, and zero in the range of possibilities.

Hypothesis 4: Employment and Recidivism

The forth hypothesis suggested an inverse relationship between employment (days and wages) and recidivism as measured by misconducts and return to prison. Interventions focused on employment among the offender population have been predicated on the assumption of a relationship of employment and crime. This position asserts that sufficient or optimal levels of employment prevent recidivism by

providing financial resources derived through legitimate means. It must be kept in mind, however, that traditional measures of recidivism, such as arrest and conviction for new crimes, were not used in this study. And, although return to prison could be considered recidivism, return to prison in this study was usually a function of technical reclassification rather than re-arrest and official conviction for a new offense.

Earlier it was argued that misconduct violations and reclassification or return to prison may be considered more sensitive measures of recidivism in that, for this population, they are an earlier indicator of recidivism than traditional measures such as arrests and convictions. They also suffer as indicators of recidivism in that misconduct violations are infractions of official rules and policy and do not necessarily constitute crimes or violations of the law. They are, however, violations of the conditions under which inmates are allowed to remain in the community residential program, and in a minimum security situation. Further, although escape or being absent without leave are actually crimes because they are against the law, it is not the type of crime typically referred to as recidivism in that it doesn't usually involve a particular victim or perpetration of a crime. Escape, however, is of great importance to community corrections in efforts to improve the effectiveness of these programs in maintaining public

safety, while still providing rehabilitative opportunities for inmates.

Table 21 displays the intercorrelations of employment and recidivism variables for the total sample of participants. All bivariate correlations have been corrected for attenuation due to error in measurement. Confidence intervals for correlation coefficients are also displayed in the table.

As shown in the table, all of the bivariate correlation coefficients are in the predicted direction. There is a tendency for number of misconducts to increase with days to employment ($r = .13$, $p>.05$), and decrease with wage at employment, $r = -.09$, $p>.05$. There is an apparent negative correlation between number of misconduct violations and wage at follow-up, $r = -.58$, $p<.05$. There is also a negative relationship between number of misconducts and difference in wages from initial employment to wages at follow-up, $r = -.54$, $p<.05$.

Number of days to misconduct is negatively related to days to employment, $r = -.33$, $p<.05$. Days to misconduct is positively correlated with wage at employment ($r = .28$, $p<.05$), wage at follow-up ($r = .50$, $p<.05$), and the difference in wage from initial employment to follow-up, $r = .34$, $p<.05$.

There is a tendency for return to prison to be related to the number of days to employment ($r = .17$, $p>.05$) and wage at employment, $r = -.16$, $p>.05$.

Table 21

Intercorrelations of Recidivism and Employment Variables

Variable	Number of Misconducts		Days to Misconduct		Return to Prison	
	r	CI	r	CI	r	CI
			(N = 60)			
Days to Employment	.13	(-.12 - .38)	-.33*	(-.56 - -.10)	.17	(-.08 - .42)
Wage at Employment	-.09	(-.34 - .16)	.28*	(.04 - .51)	-.16	(-.41 - .09)
Wage at Follow-up	-.58*	(.41 - .75)	.50*	(.31 - .69)	-.46*	(-.66 - -.26)
Difference in Wage	-.54*	(-.72 - -.36)	.34*	(.11 - .56)	-.37*	(-.59 - -.15)

Note. CI = 95% Confidence interval. All correlations corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

Reclassification to prison is negatively related to wage at follow-up ($r = -.46$, $p<.05$), and differences in wages from initial employment to wages at follow-up, $r = -.37$, $p<.05$.

The relationship of employment and recidivism may be more understandable with closer examination. Figure 10 depicts the relationship of days to misconduct and days to employment. The days to misconduct variable was collapsed into five categories and those without a misconduct violation during the time frame of the study were categorized as "180+" days. The relationship of time to misconduct and employment revealed in the statistical analysis is apparent in Figure 10. Length of time to misconduct violation is negatively associated with length of time to employment. The average number of days to employment for those not receiving a misconduct violation during the study was 9.7 days. Those receiving a misconduct violation in the first 30 days took about 50 days, on the average to gain employment.

Those without a misconduct violation were eliminated and the analysis repeated. The size of the correlation between days to employment and days to misconduct appear to decrease when the 23 participants not receiving a misconduct violation during the study were eliminated from the analysis. The correlation coefficient between days to misconduct and days to employment for the 37 participants receiving a misconduct during the study is in the right direction, but not of the same magnitude, $r = -.16$, $p>.05$.

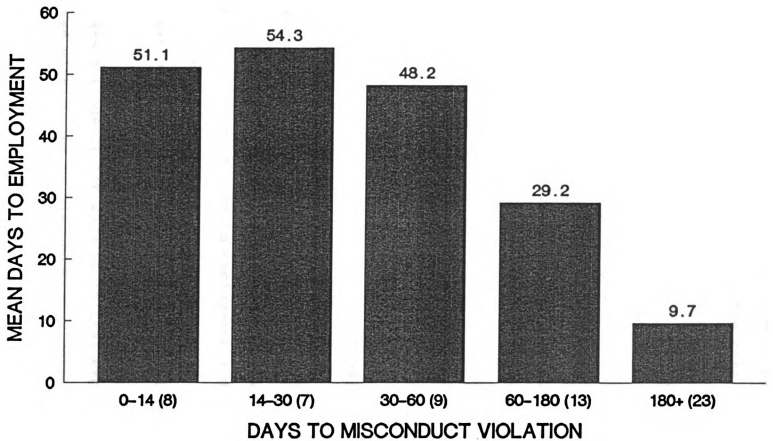


Figure 10. Mean days employment and misconduct.

The temporal relationship between days to employment and misconduct was further examined for the 37 participants receiving a misconduct violation during the time frame of the study. Of those guilty of misconduct during the study, 76% or 28 were employed prior to receiving a misconduct violation. Of the nine participants receiving a misconduct before employment, six were not employed at all during the time frame of the study. Employment came prior to misconduct for most of those found guilty of misconduct in this study and most rule violations in this study were for substance use. Therefore, it appears that employment may have provided money to obtain prohibited substances, or the means to recidivate, as indicated by misconduct violations for participants in this study.

Limited support is evident for the hypothesized relationship of employment and recidivism in the bivariate correlations of wages, misconduct and return to prison variables. There was, however, a statistical relationship apparent between length of time to employment and number of misconducts or return to prison. And, length of time to employment was negatively related to length of time to misconduct.

There was a tendency for wage at initial employment to be associated with number of misconducts or return to prison. Like days to employment, however, there was a correlation between initial wage at employment and days to misconduct. When this analysis was conducted for just

participants employed during the project, however, the size of the correlation diminished. Wage at six month was consistently related to number of misconducts, length of time to misconduct and return to prison. These results are understandable given the method of scoring misconducts and employment follow-up this study. That is, wages at follow-up were scored zero if the participant was not employed, and most were not employed because of restriction to a drug treatment program or returned to prison during the six month follow-up period. After controlling for the effects of unemployment on the relationship of days and wages at employment and misconduct, the size of the correlation was reduced indicating that the recidivism and employment relationship may be an artifact of the method of coding data and recidivism as indicated by misconduct violations. This effect will be further discussed in the following chapter.

The tentative nature of these results should be noted. Due to the small size of the sample participating in this study, the range of many confidence intervals included both positive and negative coefficients.

As will be further discussed below, the apparent relationship of misconduct and employment in this study was, in part, an artifact of official policy. Misconduct, and in particular substance use, negated the possibility of continued employment for participants in the study as mentioned above. After controlling for whether or not a participant received a misconduct, the sizeable correlation

between days to employment and days to misconduct diminished; however, a tendency remained suggesting a temporal relationship. That is, there was a tendency for those taking longer to become employed to receive more misconduct violations or be returned to prison. It is especially interesting to note that of the 14 participants returning to prison during the study, six had been employed and lost their jobs prior to their misconduct (usually escape) leading to the prison return.

Participant Outcomes

The second purpose of the present study was to examine the relationship between offender and social support variables among the participants of the study. Much of the theory involved in employment interventions with criminal offenders concerns the impact of social variables on criminal behavior and recidivism. Also, current theory regarding social support suggests that social support from others may assist some individuals in times of crisis. Data regarding social support and social networks are examined below in terms of research hypotheses presented in the second chapter.

Hypothesis 5: Social Support and Criminal Justice History

The fifth research hypothesis of this study involved the relationship of social and criminal justice system history variables and predicted a negative relationship

between the prior involvement in the criminal justice system and social support, and social network variables. It was hypothesized that individual's with more extensive history, or greater prior involvement with the criminal justice system would perceive less social support and have smaller social networks than those with less prior involvement with the criminal justice system. Specifically, it was hypothesized that those with greater prior history in the criminal justice system would perceive less social support from family friends and others, they would have a more negative orientation toward their social network, they would feel less satisfied with their network, and they would have fewer social network resources available to them.

Table 22 presents intercorrelations and associated confidence intervals of criminal justice history and social support variables. All bivariate coefficients have been corrected for attenuation and confidence intervals are included for all coefficients. As may be seen in Table 22, relationships between social support variables and the prior criminal justice history scale appear inconsistent. Only one of the bivariate relationships between the Social Support Appraisals (SSA) subscales (Family, Friends, Others) and criminal justice history is in the hypothesized direction. Although it is in the right direction, the correlation between prior criminal justice history and the Family subscale is only -.06 ($p>.05$). The correlation between the Friends subscale and the criminal justice

Table 22

Intercorrelations of Social Support and Criminal Justice History Scales

Social Support Appraisals		Negative Network Orientation		Social Support Resources	
Scale	r CI	Scale	r CI	Scale	r CI
		(N = 60)			
Family	-.06 (-.19 - .31)	Mistrust	-.27† (-.51 - -.03)	Complexity	-.10 (-.35 - .15)
Friends	.20 (-.04 - .44)	Advisability	-.45† (-.65 - .25)	Closeness	-.17 (-.42 - .08)
Other	.07 (-.18 - .32)			Frequency	-.24*(-.48 - .00)
		Social Support Satisfaction		Sector	.01 (-.24 - .26)
				Relationship	-.08 (-.33 - .17)
				Size	-.08 (-.33 - .17)
				Density	.07 (-.18 - .32)
		Family	.08 (-.17 - .33)	Reciprocity	-.07 (-.18 - .32)
		Friends	.24 (.00 - .48)		
		Others	.20 (-.04 - .44)		

Note. CI = 95% Confidence interval. All correlations corrected for attenuation due to error in measurement.

*p<.05, one-tailed.
†p<.05, two-tailed.

history scale is, however, in the opposite direction of the hypothesis, $r = .20$, $p>.05$. The correlation between criminal justice history and the Other subscale is also in opposition to the hypothesis, $r = .07$, $p>.05$.

Also presented in Table 22, correlations between the subscales of the Network Orientation Scale (NOS) and the prior criminal justice history scale are in direct opposition to the hypothesis. According the research hypothesis, the correlation between the NOS subscales and criminal justice history should be positive suggesting negative orientation toward a social network will increase with greater prior involvement in the criminal justice system. Instead, there is a negative correlation between prior criminal history scale and the NOS subscale of Mistrust ($r = -.27$, $p<.05$) and the subscale of Advisability, $r = -.45$, $p<.05$. This appears to indicate those with less history in the criminal justice system have more mistrust for their social network, and think it more inadvisable to approach their social network for assistance than those with more extensive history.

Table 22 also presents bivariate coefficients between prior criminal justice history and Social Support Satisfaction (SSS) subscales (Family, Friends, Others). Again, all correlation coefficients are in the opposite direction of the hypothesis. That is, it appears that those with a more extensive history in the criminal justice system are more satisfied with the support they obtain from family

friends and others as compared to those reporting less history in the criminal justice system. There is a tendency for those with greater prior involvement in the criminal justice system to feel more satisfied with the support they receive from Family, $r = .08$, $p>.05$. There is a correlation between prior criminal history and satisfaction with support from Friends, $r = .24$, $p<.05$. And, those with more extensive history tend to express more satisfaction with the support they receive from Others, $r = .20$, $p>.05$.

The intercorrelations of the criminal justice history scale and Social Support Resources (SSR) subscales are also displayed in Table 22. As apparent in the table, six of eight bivariate correlations are in the hypothesized direction. That is, it appears that those with more extensive history in the criminal justice system also report fewer resources involving social support. There is an apparent tendency for those with greater prior involvement in the criminal justice system to report less Complexity in their social relationships ($r = -.10$, $p>.05$), to feel less Closeness in social relationships ($r = -.17$, $p>.05$), to report fewer family Relationships ($r = -.08$, $p>.05$), to have social networks of smaller Size ($r = -.08$, $p>.05$), and to feel less Reciprocity in social relationships, $r = -.07$, $p>.05$. Those with greater prior involvement in the criminal justice system report a greater Frequency of contact with social relations, $r = -.24$, $p<.05$.

There is a tendency for those with more prior involvement in the criminal justice system to report social networks of greater Density, $r = .07$, $p>.05$. And, there is a lack of relationship between prior criminal history and the geographical Sector or proximity of social network relations, $r = .01$, $p>.05$.

There appears to be inconsistent support for the hypothesized relationship of prior involvement in the criminal justice system and social support variables in the results of this analysis. Contrary to the research hypothesis, appraisals of social support and satisfaction with social support appear to be positively related to prior criminal justice system history. Those perceiving more support from family, friends and others appear to have greater prior involvement with the criminal justice system; and, there is an apparent tendency for those with greater prior involvement in the criminal justice system to report more satisfaction with the support they receive from family, friends and others.

Although extent of prior involvement with the criminal justice system is correlated with negative network orientation, the relationship is not as predicted. It appears that more negative orientation toward a social network is associated with less, not more, prior involvement in the criminal justice system. That is, those with less prior involvement report more mistrust of their social

network and believe it inadvisable to approach their social network for assistance.

Finally, there is some consistency to the relationship of prior criminal justice history and social support resources. There does appear to be a tendency for the extent of criminal justice history to be inversely related to the social network variables of relationship complexity, closeness and frequency of relationships, family relationships, size of networks and reciprocity of social relationships.

The inconsistency with regard to the hypothesized relationship between prior criminal justice history and social support may, in part, be a function of the small sample size available for this study. Although many of the correlations concerning the quantitative aspects of social network resources were in the direction of the hypothesis, most of the confidence intervals included zero in the range of possible correlation coefficients. The qualitative aspects of social support are more puzzling. Contrary to the hypothesis that those with more extensive history in the criminal justice system would perceive less support, it appears that those with more history give greater appraisals of support and are more satisfied with the support they receive from family, friends and others. And, those with less prior involvement in the criminal justice system are more mistrustful and consider it inadvisable to seek assistance from their social networks.

Hypothesis 6: Social Support and Recidivism

The sixth hypothesis concerned the relationship of social support and recidivism. It was hypothesized that greater social support would be associated with less recidivism among participants in the study. That is, recidivism during the time frame of the study would be associated perceptions of social support and the attributes of social networks among participants. Specifically, it was hypothesized that misconduct violations, days to misconduct and return to prison is related to perceptions of less social support from family friends and others, with a more negative orientation toward one's social network, and less satisfaction with support from one's social network. It was further hypothesized that recidivism, as measured by misconduct violations, time to misconduct and return to prison, is related to a lack of social network resources.

Tables 23 and 24 display intercorrelations of recidivism and social support variables. All correlation coefficients are corrected for attenuation due to error in measurement, and confidence intervals for all coefficients are included in the tables.

As apparent in Table 23, there is little consistency in the direction of correlations regarding qualitative appraisals of social support, satisfaction with social support and network orientation. Thirteen of 24 are in the right directions. Of those, only two are of sufficient

Table 23

Intercorrelations of Recidivism Variables and Social Support Scales

Scale	Recidivism Variable					
	Days to Misconducts		Number of Misconducts		Return to Prison	
	r	CI	r	CI	r	CI
			(N = 60)			
Appraisals (SSA)						
Family	.28*	(.04 - .51)	-.44*	(-.65 - -.23)	-.11	(-.36 - .14)
Friends	.06	(-.19 - .31)	-.07	(-.32 - .18)	-.02	(-.27 - .23)
Other	-.09	(-.34 - .16)	.23	(-.01 - .47)	.18	(-.07 - .43)
Satisfaction (SSS)						
Family	.10	(-.15 - .35)	-.20	(-.44 - .04)	-.03	(-.28 - .22)
Friends	-.04	(-.29 - .21)	-.04	(-.29 - .21)	-.04	(-.29 - .21)
Others	-.03	(-.28 - .22)	.05	(-.20 - .30)	-.08	(-.33 - .17)
Orientation (NOS)						
Mistrust	.04	(-.21 - .29)	.12	(-.13 - .37)	.04	(-.21 - .29)
Advise	.02	(-.23 - .27)	-.08	(-.17 - .33)	.04	(-.21 - .29)

Note. CI = 95% Confidence interval. All correlations corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

Table 24

Intercorrelations of Recidivism Variables and Social Support Resources Scales

Subscale	Recidivism Variable					
	Days to Misconduct		Number of Misconducts		Return to Prison	
	r	CI	r	CI	r	CI
			(N = 60)			
Complexity	.24*	(.00 - .48)	-.14	(-.39 - .11)	.07	(-.18 - .32)
Closeness	.34*	(.11 - .56)	-.20	(-.44 - .04)	.01	(-.24 - .26)
Frequency	.13	(-.12 - .38)	.02	(-.23 - .27)	.18	(-.07 - .43)
Sector	.30*	(.07 - .53)	-.25*	(-.49 - -.01)	.01	(-.24 - .26)
Relationship	.24*	(.00 - .48)	-.08	(-.33 - .17)	.00	(-.25 - .25)
Size	.34*	(.11 - .56)	-.34*	(-.56 - -.11)	-.22*	(-.46 - .02)
Density	.28*	(.04 - .51)	-.25*	(-.49 - -.01)	-.22*	(-.46 - .02)
Reciprocity	.15	(-.10 - .40)	-.07	(-.32 - .18)	-.07	(-.32 - .18)

Note. CI = 95% Confidence interval. All correlations corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

magnitude to exclude zero in the range of possible coefficients.

Among the subscales regarding Social Support Appraisals (SSR), there appears to be a relationship between appraisals of support from Family and days to misconduct, $r = .28$, $p<.05$. As predicted, there is also a relationship between number of misconducts and perceived support from Family, $r = -.44$, $p<.05$.

Six of nine correlation coefficients associated with subscales of Social Support Satisfaction (SSS) are in the predicted direction, however, all include zero within the range of possible coefficients.

Three of six coefficients regarding subscales of the Network Orientation are also in the predicted direction, but all include zero in the range of possible correlation coefficients.

Table 24 presents intercorrelations of recidivism variables and Social Support Resources (SSR) subscales. Eighteen of 24 correlation coefficients are in the direction predicted by the hypothesis that: greater resources for social support is associated with less recidivism.

It appears that all of the coefficients regarding days to misconduct and SSR subscales are in the predicted direction. There is a correlation between days to misconduct and Complexity of relationships within the social network ($r = .24$, $p<.05$), perceived Closeness with social network relations ($r = .34$, $p<.05$), geographical proximity

or Sector of social network members ($r = .30$, $p<.05$), extent of family Relationships in the network ($r = .24$, $p<.05$), Size of the social network ($r = .34$, $p<.05$), and Density of social network, $r = .28$, $p<.05$. There is also a tendency for days to misconduct to be related to Frequency of contact with members of the network ($r = .13$, $p>.05$), and Reciprocity involved in social network relationships, $r = .15$, $p>.05$.

With regard to number of misconduct violations and SSR subscales, seven of eight coefficients are in the predicted direction. There is a correlation between number of misconduct violations received by participants during the study and geographical proximity or Sector or network members ($r = -.25$, $p<.05$), Size of social networks ($r = -.34$, $p<.05$) and Density of social networks, $r = -.25$, $p<.05$. There is also a tendency for number of misconducts to be associated with Complexity of social network relationships ($r = -.14$, $p>.05$), Closeness of relationships ($r = -.20$, $p>.05$), number of family Relationships within the network ($r = -.08$, $p>.05$), and perceived Reciprocity of network relationships, $r = -.07$, $p>.05$.

Only three of eight correlations regarding return to prison and SSR subscales are in the direction predicted by the hypothesis. There is a correlation between return to prison and the reported Size of social networks ($r = -.22$, $p<.05$), and Density of social networks, $r = -.22$, $p<.05$.

The hypothesized negative relationship of recidivism as measured by misconduct violations, return to prison and social support received some support in this analysis; especially as it pertains to social network resources. It appears that availability of resources in the way of individuals within a social network is associated with time to misconduct, number of misconducts; and, to some extent, return to prison.

As with the other hypotheses, however, evaluation of the hypothesis regarding recidivism and social is constrained due to size of the sample included in the study. A larger sample may have brought more consistency to results concerning qualitative aspects of support such as appraisals, satisfaction and orientation.

Hypothesis 7: Social Support and Employment

The seventh and final hypothesis anticipated a positive relationship between the qualitative and quantitative aspects of social support and employment for study participants. It was hypothesized that there would be positive relationships between indices of employment and social support and social networks for all participants in the study. It was predicted that greater perceptions of social support, more satisfaction with social support and more positive network orientations would result in less time to initial employment, greater wages at employment, greater wages at follow-up and greater gains in wages from initial

employment to follow-up. Further, it was hypothesized that more social network resources would result in less time to employment, better wages, and more gains in wages from initial employment to follow-up.

Tables 25 and 26 present intercorrelations between employment and social support, and employment and social support resources scales, respectively. All bivariate correlations are corrected for attenuation and confidence intervals are included for all coefficients in the table.

As may be seen in Table 25, as with the previous analysis, there is little apparent consistency in relationships between employment and social support variables. Few coefficients are in the direction of the hypothesis and most confidence intervals include negative and positive correlations in the range of possible coefficients.

As it pertains to days to employment, only one of eight correlations is in the direction of the hypothesis. Contrary to the hypothesis, there appears to be a positive relationship between days to employment and satisfaction (SSS) with support from Friends, $r = .26$, $p<.05$. Further, only one of eight coefficients regarding wages at employment is in the predicted direction. Also contrary to the hypothesis, there is a negative relationship between wage at follow-up and appraisals of support (SSA) from Others, $r = -.27$, $p<.05$. Also, contrary to the hypothesis, there is a negative relationship between difference in wage from

Table 25

Intercorrelations of Employment Variables and Social Support Scales

Scale	Employment Variable							
	Days to Employment		Wage at Employment		Wage at Follow-up		Difference in Wage	
	r	CI	r	CI	r	CI	r	CI
				(N = 60)				
Appraisals (SSA)								
Family	.00	(-.25 - .25)	-.09	(-.34 - .16)	.03	(-.22 - .28)	.08	(-.17 - .33)
Friends	.17	(-.08 - .42)	-.07	(-.32 - .18)	-.21	(-.45 - .03)	-.17	(-.42 - .08)
Other	-.05	(-.30 - .20)	.08	(-.17 - .33)	-.27†	(-.51 - -.03)	-.32†	(-.55 - -.09)
Satisfaction (SSS)								
Family	.05	(-.20 - .30)	-.07	(-.32 - .18)	-.03	(-.28 - .22)	.02	(-.23 - .23)
Friends	.26†	(.02 - .50)	-.06	(-.31 - .19)	-.07	(-.32 - .18)	-.04	(-.29 - .21)
Others	.22	(-.02 - .46)	-.13	(-.38 - .12)	-.11	(-.14 - .36)	-.03	(-.28 - .22)
Orientation (NOS)								
Mistrust	-.12	(-.37 - .13)	.14	(-.11 - .39)	.10	(-.15 - .35)	.02	(-.23 - .27)
Advise	-.12	(-.37 - .13)	.11	(-.14 - .36)	.17	(-.08 - .42)	.11	(-.14 - .36)

Note. CI = 95% Confidence interval. All correlations corrected for attenuation due to error in measurement.

*p<.05, one-tailed.
†p<.05, two-tailed.

Table 26

Intercorrelations of Employment Variables and Social Support Resources Scales

Scale	Employment Variable							
	Days to Employment		Wage at Employment		Wage at Follow-up		Difference in Wage	
	r	CI	r	CI	r	CI	r	CI
				(N = 60)				
Complexity	-.29*	(-.52 - -.06)	.29*	(.06 - .52)	-.07	(-.32 - .18)	-.24	(-.48 - .00)
Closeness	-.46*	(-.66 - -.26)	.42*	(.21 - .63)	-.04	(-.29 - .21)	-.29†	(-.52 - -.06)
Frequency	-.28*	(-.51 - -.04)	.13	(-.12 - .38)	-.22	(-.46 - .02)	-.30†	(-.52 - -.07)
Sector	-.29*	(-.52 - -.06)	.33*	(.10 - .56)	-.03	(-.28 - .22)	-.23	(-.47 - .01)
Relationship	-.36*	(-.58 - -.14)	.26*	(.02 - .50)	-.12	(-.37 - .13)	-.28†	(-.51 - -.04)
Size	-.18	(-.43 - .07)	.05	(-.20 - .30)	.06	(-.19 - .31)	.03	(-.22 - .28)
Density	-.11	(-.36 - .14)	.03	(-.22 - .28)	.04	(.21 - .29)	.02	(-.23 - .27)
Reciprocity	-.16	(-.41 - .09)	-.17	(-.08 - .42)	-.01	(-.24 - .26)	-.11	(-.36 - .14)

Note. All correlations corrected for attenuation due to error in measurement.

*p<.05, one-tailed.
†p<.05, two-tailed.

initial employment to follow-up and appraisals of support from Others, $r = -.32$, $p<.05$.

Table 26 displays intercorrelations of employment and the Social Support Resources (SSR) subscale variables. Similar to the previous analysis concerning recidivism, prior criminal justice history and social network, there appears to be more consistency in the relationships of employment variables and social network subscales. Nineteen of 32 coefficients are in the hypothesized direction.

The correlation coefficients concerning days to employment and the SSR subscales are all in the predicted direction. There is a relationship between days to employment and Complexity of relationships in social networks ($r = -.29$, $p<.05$), Closeness of relationships ($r = -.46$, $p<.05$), Frequency of contact ($r =-.28$, $p<.05$), proximity or Sector of social network members ($r = -.29$, $p<.05$), and extent of family Relationships within the social network, $r = -.36$, $p<.05$. There is also a tendency for days to employment to be related to the Size of social networks ($r = -.18$, $p>.05$), Density of the social network ($r = -.11$, $p>.05$), and Reciprocity of social network relationships, $r = -.16$, $p>.05$.

All but one of the eight correlations between wage at employment and the SSR subscales are in the direction predicted by the hypothesis. There is a correlation between wage at employment and Complexity of social network relationships ($r = .29$, $p<.05$), Closeness of relationships

(r = .42, p<.05), proximity or Sector of network members (r = .33, p<.05), and the proportion of family Relationships in the social network, r = .26, p<.05.

The results of the analysis regarding social support resources and wage at follow-up, and difference in wages from initial employment to follow-up are less consistent and more often in opposition to the hypothesis. Six of eight coefficients regarding wages at follow-up, and six of eight regarding difference in wages are in the opposite direction of the hypothesis. It should be remembered, however, that in earlier analysis it was found that many participants in the study were unemployed at follow-up due to misconduct. In particular, substance use which required termination of employment and residential drug treatment may have contributed to these results.

There is a negative relationship between difference in wage from initial employment to follow-up and Frequency (r = -.30, p<.05), Closeness of relationships (r = -.29, p<.05), and the proportion of family Relationships within the social network, r = -.28, p<.05.

As with the hypothesis regarding recidivism and social support, the hypothesis concerning employment and social support received limited support in the analysis. In the analysis, the qualitative aspects of social support, such as social support appraisals, satisfaction and network orientation appeared inconsistent in statistical relationship to indicators of employment within this study

and displayed relationships were sometimes contrary to the proposed hypothesis.

Results of the analysis regarding employment and social support resources were more consistent. Social network resource variables were consistently related to days to employment suggesting that greater network resources quickened the time to initial employment; and, to some extent, resulted in higher wages at initial employment. The relationships between social support resource variables and wages at follow-up, and differences in wages from employment to follow-up were often in opposition to the hypothesis. This may, however, be the result of the high rate of unemployment among study participants at the time of follow-up measures.

The results of this analysis, as the results of others, must be considered in light of the small size of the sample included in this study. Outcomes may have been more consistent with regard to employment and social support with more participants. Confidence intervals often included both negative and positive coefficients, and rarely excluded zero from the range of possible correlations.

Internal/External Processes

Internal processes monitored during the study involved implementation of the research study proper. Also, unemployment was monitored as an external process which may have impacted outcomes of the study.

Program Implementation

Implementation of the enhanced employment intervention was monitored by the principal investigator throughout the duration of the study. A number of events and incidents took place which may have had an impact on the process of implementation, outcomes of the study and interpretation of the results. These are considered below in the final chapter of this document.

Employment Trends

Figure 11 presents the trend in the number of annually reported unemployed in Oakland County, Michigan. The City of Pontiac contains most of the population in the County. As may be seen in the figure, the annual number of unemployed in Oakland County has been declining since 1983 with a small increase during the time frame of the study. This trend is similar to that reflected in state-wide unemployment. Further, the declining trend in unemployment is also reflected in unemployment rates for the County. Additional data regarding employment opportunity in the Pontiac area was collected and monitored during the study; especially as any sudden changes may have impacted upon the results of the experiment. Employment opportunities for this population remained stable during the period of the study and there were no significant disruption in the availability of jobs in the Pontiac area.

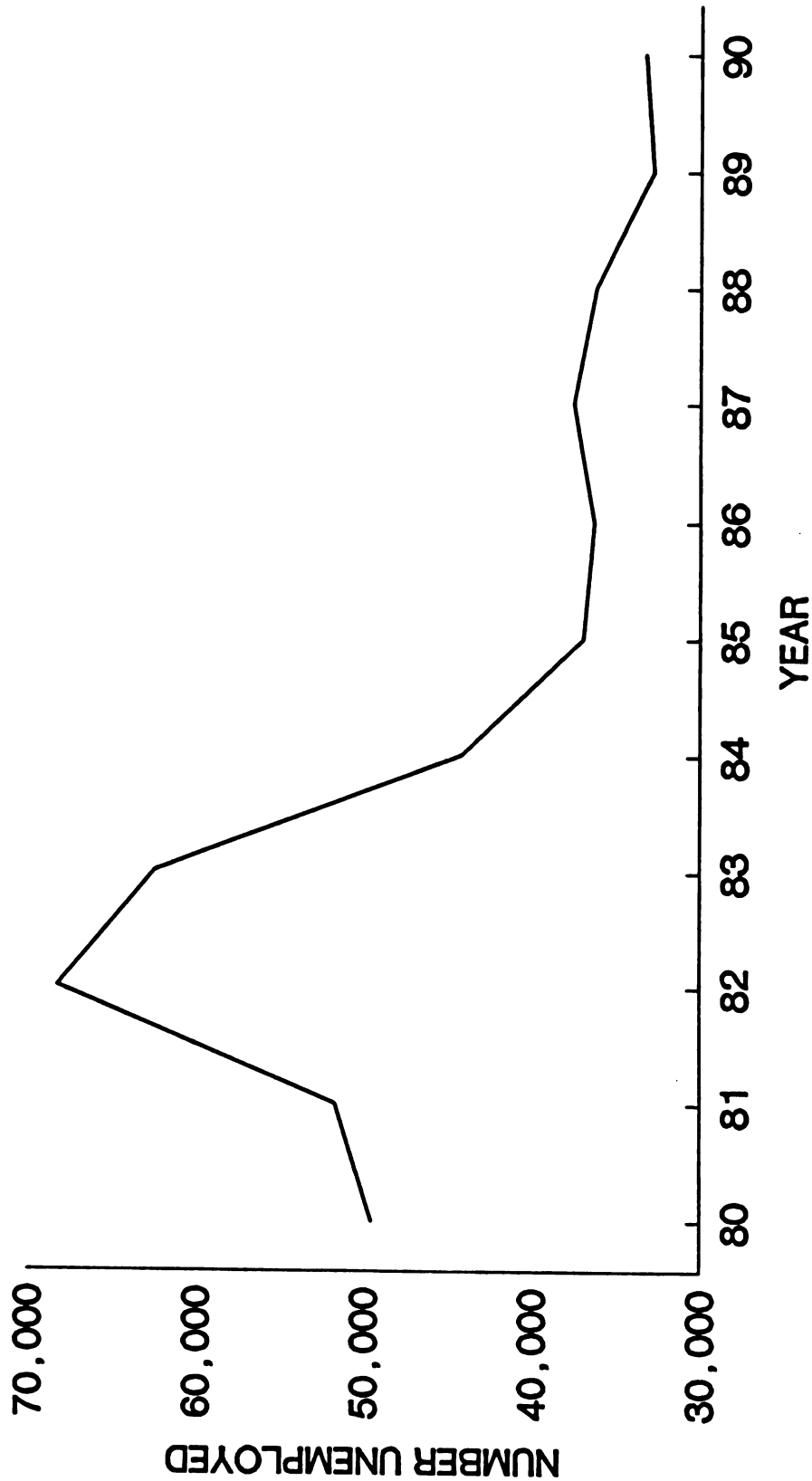


Figure 11. Number unemployed in Oakland County.

Although the availability of employment for the referral population was consistently adequate throughout the study, the type of jobs available to the participant population left much to be desired. Participants were most often employed at part-time, temporary, minimum wage jobs. The implications of employment trends and type of employment for participants in this study are further discussed below in the next chapter.

Modeling Recidivism

Multivariate analysis techniques were used to assess the extent to which recidivism could be further explained by including some of the variables incorporated in this study in a modeling approach. The relationship of recidivism variables to the combined impact of group membership, number of prior prison sentences, age, and number of children was assessed using multiple regression analyses.

Table 27 presents bivariate correlations for all independent and dependent variables included in the analysis. All coefficients are adjusted for attenuation due to error in measurement.

Table 28 presents results of the regression analyses involving the above independent variables with the dependent variables of days to misconduct, number of misconduct violations and return to prison. All coefficients have been corrected for error in measurement. Presented in the table for each dependent variable are the multiple correlation

Table 27

Intercorrelations of Variables in Regression Model

	1	2	3	4	5	6	7
1.	1.00						
2.	-.01	1.00					
3.	.00	.43	1.00				
4.	-.03	.04	.30	1.00			
5.	.31	-.12	.09	.16	1.00		
6.	-.08	.05	-.17	-.21	-.69	1.00	
7.	-.24	-.15	-.24	-.37	-.45	.43	1.00

1. Group
2. Prior Prison Sentences
3. Age
4. Number of Children
5. Days to Misconduct
6. Number of Misconducts
7. Return to Prison

Note. All coefficients corrected for attenuation due to error in measurement.

Table 28

Regression of Independent Variables with Recidivism Variables

Dependent Variable			Independent Variable			
	R	Rs	1	2	3	4
Days to Misconduct	.39	.30	.31*	-.18	.12	.14
Number of Misconducts	.28	.10	-.08	.13	-.18	-.16
Return to Prison	.47	.41	-.25*	-.10	-.09	-.34*

1. Group 2. Number Prior Prison Sentences 3. Age 4.Number of Children

Note. Rs = Multiple Correlation Shrinkage. All coefficients corrected for attenuation due to error in measurement.

*p<.05, one-tailed.

coefficients (R), multiple correlations adjusted for potential shrinkage (Rs), and standardized coefficients (B) for each of the four independent variables.

As displayed in Table 28, the linear combination of group membership, number of prior prison sentences, age, and number of children appear related to days to misconduct (R = .39), number of misconducts (R = .28), and return to prison, R = .47. The addition of prior prison, age, and number of children also appear to contribute to the correlation of group condition and the dependent variables; especially in the case of number of misconducts and return to prison. The size of the multiple correlation regarding number of misconducts is three times that of the original analysis. The regression coefficient regarding prison return more than doubled as a result of including other factors. When adjusted for shrinkage, however, the multiple correlation coefficient for number of misconducts decreases by more than half.

Standardized regression weights indicating the independent effect of each variable on the dependent variables are also displayed in Table 28. The impact of group membership is consistent with that of previous analyses. It is interesting, however, that although the independent variables included in the regression appear to augment group condition in explaining recidivism variables, the contribution does not appear to substantially increase the multiple correlation coefficient. There is a tendency

for number of prior prison sentences to be negatively related to days to misconduct and positively related to number of misconducts; and, prior prison tends to be negatively related to return to prison. Age tends to be negatively associated with recidivism variables. That is, older participants tend to take longer to receive a misconduct violation, receive fewer misconduct violations, and tend to return to prison less often. Having children tends to extend the time to misconduct and reduce misconduct, and appears significantly related to return to prison, $B = .34$, $p<.05$.

The above analysis suggests that in addition to group condition, participant attributes such as prior prison sentences, age and number of children may improve upon prediction of recidivism. As with other analyses above, however, the small size of the study sample limits the conclusions that may be drawn from a modeling approach to explaining recidivism among participants of the study.

CHAPTER 4

DISCUSSION

The previous chapter described statistical analyses of the seven research hypotheses and a regression model of recidivism incorporating variables from the present study. The purpose of this chapter is to discuss implementation and limitations of the research design, interpret findings in the results of statistical analysis and forward implications regarding future work in the area of employment interventions with adult offenders. After the discussion concerning the technical aspects of implementation and limitations, each of the seven original hypotheses will be assessed individually followed by a general discussion regarding the recidivism model tested in the last chapter. Finally, conclusions and implications of the present research study will be offered in the context of suggestions for future research in the area of employment services for criminal offenders.

Implementation of the Research Design

This study implemented a randomized control group design and utilized matching procedures in the assignment of volunteer participants to group conditions. The main

purpose of the research design employed in the present study was to provide valid outcome data to evaluate the effects of an innovative program of employment development with adult offenders. This type of design was selected in response to criticisms and noted shortcomings regarding the integrity of previous research efforts. Randomized experimental design is one of the most powerful methods of attributing causation and evaluating efficacy (Campbell & Stanley, 1966).

Potential participants were matched and randomly assigned to group conditions after expressing interest in the project and providing informed consent. Those volunteering to participate were compared to all potential participants on multiple demographic characteristics to detect bias that may have resulted from the selection and assignment process. According to significance tests on selected attributes, participants appeared similar to all referrals on demographic characteristics suggesting the sample to be representative of inmates placed within in a community residential program in Oakland County, Michigan. Participant groups were also compared on numerous other characteristics in effort to discern and control differences which may have influenced measurements and outcomes. Groups were found to be equivalent on most factors with the exception of veteran status. Accordingly, the effect of this variable was controlled in subsequent analyses using statistical covariance techniques.

There was a large amount of attrition among those assigned as participants of the experimental group (52.3%). Attrition was accommodated within the design of this research by eliminating control counterparts and extending sampling procedures to obtain new participants and groups of equal and sufficient size to statistically test the research hypotheses associated with this study.

The primary reason for attrition from the experimental condition was that participants had gained employment and reported that they no longer desired the program. Although this may have biased the results of the study with regard to representativeness, it may also contribute to the findings for offenders with employment difficulties. Participants were compared to drop outs on multiple demographic characteristics and found to be equivalent. These procedures were employed to increase internal and external validity of the research design. Further, all measures used in this study were evaluated and developed to be reliable and valid indicators in effort to provide meaningful results in outcome data. Psychometric procedures were employed with all scales to evaluate and refine the validity of measurements used in this study. Multiple measures (including time) were also used as indicators of dependent variables in effort to increase the validity of outcome results.

Limitations of the Experiment

The primary limitation on conclusions to be drawn from this experiment involves size of the study sample. Unexpected circumstances and events which influenced the availability of participants resulted in samples of only marginal size. Procedures were employed to estimate sampling error. All test statistics were assessed for significance using confidence parameters to control errors in inferences drawn from the results of the analysis.

A second limitation of the present research involves the dependent variables representing recidivism and employment. Traditional measures of recidivism usually involve arrest, conviction and incarceration. Recidivism, as measured in this study was comprised of official rule violations received by participants while inmates in a minimum security residential program. These measures were viewed as sensitive indicators of recidivism and of special importance in the area of community corrections. The use of misconducts as a measure of recidivism limits the extent to which the results of this study may be compared to previous and other research involving ex-prisoners and recidivism.

Measurement of employment typically involves the type of employment, hourly wages, temporary versus permanent employment, and other factors such as fringe benefits. Typical employment indicators such as gross income, continuity of employment or number of hours worked were not available to this study. Although standard and official

forms were utilized to obtain detailed information on the characteristics of employment among participants, these forms were found to be seldom complete and often missing information with which to adequately assess the extent, nature and quality of employment situations. This also limits comparisons to other research involving employment interventions and this population.

Another limitation of the present study has to do with obstacles and impediments associated with implementing innovative research in a natural and ecologically valid setting. Aside from unexpected events and other incidents which hindered the implementation process, policies and procedures associated with the security needs of the community residential program often interfered with implementation and the availability of participants for the experimental conditions. For instance, the policy of terminating employment upon a finding of misconduct for substance use clearly impaired measurements to evaluate hypotheses involving recidivism and employment; as well as the effects of the enhanced employment intervention.

Recidivism and Enhanced Employment Development

Recidivism as measured in this study included official findings of misconduct during the six month period following intake to the project. As discussed above, misconduct violations are unlike traditional measures of recidivism in

that they do not necessarily involve the commission of a crime, an arrest, conviction or sentence.

The first research hypothesis suggested that participants in the enhanced employment development intervention would recidivate less than participants in the employment development control condition. Participation in the enhanced employment intervention did seem to impact upon misconduct in comparison to the control condition of traditional employment services. About 57% of participants in the enhanced employment condition were found guilty of misconduct during the time frame of the study in comparison to approximately 67% of those participating in the employment development only condition. Also, participants in the enhanced employment condition tended to receive fewer misconducts on the average in comparison to the control group, 1.03 versus 1.23 respectively. Further, it took significantly longer for participants of the experimental condition to receive a misconduct violation compared to participants in the employment development condition, an average of 81.8 versus 125.2 days. Finally, when compared to control group counterparts, the rate of return to prison during the sixth month time period following intake to the study was significantly less among participants of the enhanced employment intervention, 13.3% versus 33.3%.

Previous interventions involving offender populations were criticized for limited time frames, fixed-length duration of intervention and limited access to employment

gaining resources. The enhanced employment intervention was conceived as a means of improving upon contemporary employment development models by providing increased access to essential resources in the process of gaining employment. Further, the enhanced employment intervention used a laboratory approach designed to accommodate different levels of skill and needs of individual participants. Participants with varying levels of proficiency were free to improve upon employment seeking skills and develop opportunities at their own pace.

The effectiveness of the enhanced employment condition in delaying the incidence of misconduct was apparently related to the type of misconduct violations occurring within group conditions. Control group participants escaped or were absent without leave from the community residential program in greater proportions than participants in the enhanced employment group, 35% compared to 17.6% of enhanced employment group. The impact of the enhanced employment condition in delaying misconduct may be apparent in the rates of escape exhibited within the two groups. That is, the enhanced employment condition may have impacted type of misconduct by providing resources and support to participants in coping with the stress of finding, losing and finding another job during the study time frame.

This was particularly evident in the significant association of group condition and rate of prison return apparent in bivariate and covariate analyses. Most of the

participants returned to prison were guilty of escape misconduct. This rule violation involves being absent from a facility, or unauthorized departure from the facility for a period of more than 24 hours with the intent of remaining away from custody. It was apparent in examining data regarding employment, that most participants guilty of escape lost their jobs prior to the escape.

The enhanced employment condition also provided resources (the means) necessary for participants to continue searching for further employment opportunities after gaining one job, or after losing employment. Participants seldom had easy access to basic employment search resources such as telephones and newspapers. The provision of resources fundamental to employment may have been largely responsible for observed effects of the enhanced employment development intervention.

Also, many discussions among participants and counselors concerned the frustration associated with seeking employment and the lack of respectable employment opportunities to provide a level of income necessary to live independently in the community. Reportedly, many discussions also involved frustration among participants regarding the bureaucracy of corrections, the demands and restrictions imposed upon them by corrections officials. Secondary appraisal guidance often involved expression of frustration and focused on alternative strategies for effectively dealing with the obstacles confronting ex-

prisoners. Participants often made positive remarks regarding the supportive nature of the enhanced employment laboratory. They frequently expressed gratitude in having a place, a program in which they were free to voice frustrations and work out problems confronting them. The enhanced employment condition may have functioned to provide the means, and the support necessary to cope with the stress of maintaining employment and continued compliance with rules regarding participation in the community residential program. Although not a part of the measurement scheme, and therefore speculative, the social support provided in the context of the enhanced employment laboratory may have also contributed to the effect of delaying misconduct, influencing the type of misconduct; and ultimately, return to prison.

Employment and Enhanced Employment Intervention

The second hypothesis suggested that the enhanced employment condition would result in raised levels of employment in comparison to usual employment development services. Previous experiments promoting employment among adult offenders have been based upon the notion that services facilitating legitimate and gainful employment are necessary for this population in order to improve access and limited opportunity for employment in the community.

Within the total sample, there appeared to be a tendency for participants of the enhanced employment

intervention to gain employment sooner in comparison to those in the control condition. The effect was reversed, however, when time to employment was again examined for only those employed during the study. It took employed participants of the enhanced employment condition an average of 13 days to find a job compared to an average of eight days for those initially employed in the control condition.

Although there was little difference between groups in hourly wages at initial employment, participants in the enhanced employment condition were employed more often six months after intake to the study. Because of this, the experimental group was making significantly higher wages than the control group at the time of follow-up. Enhanced employment participants were making an average of $4.22 an hour compared to an average of $2.51 for the employment development only group. Further, there was significantly less difference in their wages from time of employment to follow-up; that is, wages decreased less on the average for participants of the enhanced employment condition, -$0.18 versus -$1.66 for those in the control condition.

It appears that the enhanced employment intervention assisted in the maintenance of employment among participants. Participants of the experimental group successfully changed jobs more often than those in the control group. Also, participants of the enhanced employment condition often returned to search for other employment after being laid-off, or to search for further

employment in effort to work full-time. The enhanced employment laboratory provided the means, support and resources necessary in finding a another, more permanent, or a better job.

Employment opportunities in the State of Michigan were dismal during this study. The number registering as unemployed in the host community also increased during the study time frame. Sunday employment advertisements rarely exceeded one page in local newspapers. Although employment opportunities were consistently available for participants of both groups, employment appeared to be in service sector, part-time, temporary and minimum wage jobs.

Further, participants seldom had marketable skills or credentials. Although most participants had received graduate equivalency diplomas, less than half completed the twelfth grade in high school, only 20% had achieved a technical skills certificate, and less than a third had attended college level classes. It was not unusual for participants to have difficulty filling out a job application or using a phone book. Without basic skills, technical skills or higher education, participants in this study were rarely eligible for, or able to obtain anything other low level, minimum employment. Many participants obtained two jobs, and some even three part-time positions in effort to work full-time and achieve a financial income which would allow them to live independently in the community. Unfortunately, most participants were only able

to leave the residential program by working multiple jobs or by residing with parents or a relative and receiving additional support from family.

Enhanced Employment Attendance and Employment

The third hypothesis suggested that there would be a positive relationship between level of participation in the enhanced employment intervention and employment variables.

Attendance at the enhanced employment development laboratory did not appear to be related to number of days to initial employment. Nevertheless, level of attendance did tend to increase initial hourly wages. Number of attendances was also related to decreased wages at follow-up. It appeared that participants attending more did so because they had lost a job and came back to the laboratory to find further employment; often in lower wage situations.

Unlimited access to the enhanced employment development laboratory may have contributed to the observed effect of reducing misconduct and return to prison. Typical employment development services are short in duration (nine to 12 hours) and involve classroom instruction and exercises. Access to the employment laboratory for participants was unlimited by design. As mentioned above, having a resource in the way of the employment search laboratory gave participants access to other essential resources such as telephones, telephone books and

newspapers. It also provided them a time, a place, and assistance in developing job search strategies day by day.

Notwithstanding this conclusion, results regarding level intensity of participation may have been more enlightening with a larger sample and further development of measurements. For instance, greater detail regarding number of job leads and applications submitted may have been helpful in suggesting more effective employment development search strategies.

Recidivism and Employment

The fourth hypothesis predicted a negative relationship between recidivism and employment. Outcomes of the analysis and statistical tests involving measures associated with these variables appeared to support the hypothesis. Days to employment and wage at initial employment were inversely related to days to misconduct. Wages at follow-up and the difference in wages from employment to follow-up were negatively related to number of misconducts, days to misconduct and return to prison.

The observed relationships among employment and recidivism variables were primarily an artifact of community residential program policy which required termination of employment with a finding of a substance use rule violation. Most misconducts during the sixth month time frame of the study were for substance use. Policy required termination of employment and placement in a residential drug treatment

program. Most participants with substance use violations were still in drug treatment at the time follow-up measures were collected. The second largest category of misconduct was escape which invariably resulted in return to prison. Those returned to prison by the time of follow-up were also no longer employed.

This effect may be similar to that observed in the longitudinal analysis of the Philadelphia cohort data by Thornberry and Christenson (1984) discussed in the first chapter. They found that unemployment appeared to quickly instigate criminal involvement, and criminal involvement seemed to exert a long-range effect on unemployment. The similar findings of this study may further indicate the potential efficacy of interventions such as this experiment in suppressing recidivism through the provision of employment resources.

Social Support and Criminal Justice History

The fifth hypothesis proposing a relationship of social support and prior involvement in the criminal justice system received some support in results of this study. It was hypothesized that, in comparison to those with less prior contact with the criminal justice system, participants with more extensive history in the criminal justice system would perceive less support, report less satisfaction with social support, display a more negative orientation toward their

social networks and report fewer resources in the way of relationships within social networks.

The rational of this hypothesis involved the expectation that more extensive contact with the criminal justice system would also lead to greater feelings of alienation and mistrust as suggested by sociological theories of criminality. It was also anticipated that size and other more quantitative characteristics of social networks would also be negatively related to prior involvement in the criminal justice system.

Measures involving appraisals of, and satisfaction with social support were in opposition to the hypothesis. It appeared that those with greater prior involvement in the criminal justice system tended to perceive more social support from friends, and express more satisfaction with the social support they received from friends and others. Results regarding network orientation were also contrary to the research hypothesis. Participants apparently displaying greater mistrust and apprehension for their social network had less extensive histories in terms of prior arrests, convictions, and incarceration.

Results regarding social networks were more often in the direction of the hypothesis. It appeared that those with more extensive histories in the criminal justice system also had fewer resources in terms of social network variables. More extensive history in the criminal justice

system was related to a lower frequency of contact with network members.

These mixed results are not explainable within the context of this study. It may have been that criminal justice history was not an adequate indicator of criminality. Also prior criminal justice history may not be indicative of the alienation referred to in sociological theories. Many studies involving self-reported criminal activity find little association between frequency of self-reported criminal behavior and contact with the criminal justice system. Prior criminal justice involvement, however, is often used as an indicator of criminality in criminal justice research. The lack of association of social support and prior criminal justice history may have also been the result of the limited social networks reported by participants. In examining responses to social support resource questionnaires, it appeared that most participant networks were comprised of small numbers of immediate family members. The inclusion of a comparison group of non-offenders having similar demographic characteristics may have been helpful in further exploring the nature and extent of social support within the offender population.

Social Support and Recidivism

The sixth hypothesis suggested a negative relationship between indices of social support, social networks and recidivism. This hypothesis also met with mixed results in

analysis. Recidivism as measured by incidence of misconduct, days to misconduct and return to prison showed inconsistent, and limited association to appraisals of support, satisfaction with support or orientation to social support networks. An exception was the positive association of appraisals of support from family and days to misconduct, and number of misconduct violations among participants during the six month study period. As predicted, those with more positive appraisals of support from family appeared to take longer to receive a misconduct violation, and received fewer violations during the study. Contrary to the hypothesis, however, appraisals of support from others was positively related to number of misconducts during the study time frame.

The analysis of recidivism variables and social support resources provided more consistent support for the relationship suggested in the research hypothesis. The size and density of social networks identified by respondents were positively related to days to misconduct, number of misconducts and return to prison. Further, the availability of social support resources tended to be positively associated with length of time to misconduct violation.

Support evident in the analysis is understandable by examining the responses of participants to the social support resources questionnaire. As mentioned above, most respondents revealed their networks to be comprised of primarily immediate family members. Emotional, social and

practical networks described in responses of participants to the questionnaire were comprised exclusively of family members for almost a third of all respondents; and, family members greatly increased the size of most respondents' networks.

As mentioned in the first chapter, findings of reduced recidivism among offenders receiving support from family are common in research literature (Genevie, 1978; Petersilia et al., 1985; Tolan, 1986). For example, Genevie (1978) found support from family and significant others predictive of success on parole. This finding also has implications for the sociological control theory of Hirschi (1969) which suggests that family support networks act to constrain criminal behavior. These findings also lend support to differential association theory (Sutherland, 1939) which suggests social networks of peers act to influence criminal behavior, but family systems may also moderate or buffer these influences (see Vaux, 1988 for a discussion).

Social Support and Employment

The seventh hypothesis suggested that greater feelings of social support and social support resources would lead to greater employment among participants of the study. Literature regarding social support suggests that it involves a dynamic process which may assist individuals in coping with stress and adaptation. Given that participants in this study were unemployed and in the process of release

from custody, it was expected that those with greater support would also achieve increased levels of employment. This prediction was supported in the evidence regarding social network resources, but not in results involving subjective or qualitative appraisals of social support, satisfaction with social support or network orientation.

With the exception of appraisals of support and satisfaction with support from friend and others, other social support variables showed little or no relationship to employment indicators of days to employment, wages at employment or wages at follow-up. Further, those expressing greater satisfaction with support from friends and others appeared to take longer to gain employment. Appraisals of social support from friends and others was also inversely related to wages at follow-up and difference in wages.

Interestingly, the relationship of support from friends and others with employment among this population may be expected according to sociological theories regarding criminality. Most of these theories (differential association, social control and blocked opportunity) involve subcultures of deviance comprised of peers, and networks comprised of members other than family. It may be that the social support scales detected this "other orientation" referred to in contemporary theories of crime and criminal behavior. That is, those perceiving more support from people other than family and friends were also making less in hourly wages at follow-up. And, those expressing more

satisfaction with support from friends took longer to become employed. This association may be indicative of the processes referred to in sociological theories and the deviance associated with criminal subcultures or social networks.

Results regarding employment and social support network resources were more consistent and in support of the hypothesis. Social network resources were consistently related to days to employment suggesting greater resources in terms of social networks may speed the process of employment and result in higher wages at employment.

Modeling Recidivism

The regression model tested with the variables of this study improved upon earlier bivariate analysis. The linear combination of variables involving the employment intervention and other demographic characteristics increased the regression coefficients related to the number of days to first misconduct violation, the number of misconduct violations and return to prison. The combination of variables in the regression model added to the multiple regression coefficient in all three indicators of recidivism. Prior prison sentences tended to be negatively associated with days to misconduct and return to prison. Age also tended to be inversely related to recidivism variables with older participants taking longer to receive a misconduct violation, receiving fewer misconduct violations

and returning to prison less often. Having children also tended to extend time to misconduct and reduce return to prison.

Future Research Directions

A recently completed meta-analysis of correctional treatment literature suggests that appropriately designed rehabilitative services are be effective in reducing rates of recidivism in the offender population (Andrews, et al., 1990). Interestingly, the Andrews et al. study suggests that principles of need, risk and responsivity may explain the recidivism process. That is, interventions that address individual needs of participants, that are sensitive to risks associated with offender populations, and which address the responsivity of individuals in the client population demonstrate increased effectiveness in reducing recidivism among offenders.

Like Andrews et al., the findings of this study indicate employment interventions designed to address the needs and responsivity of individuals are more effective than traditional group approaches in reducing recidivism within the offender population. Further research should explore the efficacy of individual needs approaches to employment and recidivism such as those apparent in this study.

The results of this study also have implications for further exploration of the relationship of social support

and social network variables to employment and recidivism among criminal offenders. Andrews et al. also suggest that interventions to reduce recidivism should be designed to address theoretically relevant criteria. As an example, the implications of this research are that sociological theories of criminality may be applied and relevant criteria assessed in the process of developing effective treatment interventions. The subjective, structural and functional aspects of social support and social networks may hold promise and should be applied in future research involving this target population and larger samples of participants to further understand, refine and develop the theoretical foundation of research in this area of intervention and reduce the risk of further victimization.

Literature concerning the offender population suggests that they will continue to exhibit criminal behavior after initial involvement in the criminal justice system, and that offenders will again be arrested, convicted and return to prison. The employment problems of offenders recognized in the Manpower Act of 1962 still exist after almost thirty years of development and testing treatment interventions. This study was more successful than previous efforts in employment among this population. This research found that contemporary employment intervention models can be improved upon and recidivism can be reduced through innovative approaches to employment and experimental design.

One of the effects of the enhanced employment intervention on recidivism appeared to be one of reducing the rate of escape. Most escapees were employed and lost their job prior to the escape incident. It may be that the enhanced employment condition served as a means of coping with the stress of job loss by effectively providing the resources and the support necessary to persist in re-gaining employment and remaining employed. The apparent effect of the enhanced employment condition in delaying misconduct and reducing the rate of escape also has implications for public safety in the area of community corrections.

Appropriate interventions with this population may better involve diversity in service delivery rather than security and supervision that are increasingly a part of community-based corrections. Future research should address the apparent needs of individuals within the client population and develop relevant services targeted toward individual needs for employment related skills, career development or substance abuse treatment. It was apparent that the provision of individually appropriate services may impacted upon the target population within the limited context of this experiment.

The findings of this study require replication. In the process of replication, it is recommended that the size of study samples be greatly increased. Also, increased attention should be directed toward measurement of processes internal to the intervention. For instance, process

measurement regarding social support may illuminate changes in feelings and perceptions of support that may occur in the context of intervention. It may be that interventions such as that employed in this study provide social support while addressing other resource needs of the target population such as employment. Better descriptions of aspects related to employment are also suggested in future research. Questions regarding the relationship of the quality of employment and level of employment were also left unaddressed in the present study. Further, efforts should be directed toward better descriptions of the participation process. Factors such as number of job leads and employment applications may provide more information regarding the employment process without becoming overly intrusive in evaluation.

APPENDIXES

APPENDIX A

ADMINISTRATIVE AGREEMENT

APPENDIX A

ADMINISTRATIVE AGREEMENT

Administrative Working Agreement
Between the Alternatives Center of Oakland County
and Patrick M. Clark

1. The Alternatives Center agrees to inform eligible potential participants of the opportunity to participate in the job finding intervention, and advise them of the experimental nature of the project.

2. The Alternatives Center will randomly assign potential participants to experimental and control conditions using a procedure provided by Patrick M. Clark.

3. The Alternatives Center will cooperate with Patrick M. Clark in the administration of an experimental Job Club Program. The involvement of Alternatives Center staff and resources will be agreed upon prior to implementation of the experimental program.

4. Patrick M. Clark agrees to cooperate with the existing rules and regulation of the Alternative Center, to provide the Alternatives Center the services proposed in the program proposal and not to expect services/staff resources from Alternatives Center over and above those agreed upon prior to implementation of the project.

5. The Alternatives Center will allow Patrick M. Clark to collect measurement data on all potential participants (given client release of information) at periods prior, at termination and subsequent to the experimental program.

6. The Alternatives Center agrees not to interfere and to support the conduct of the experimental program for the duration of the research design.

7. The Alternatives Center agrees not to publicize the existence of the experimental Job Club Program until the completion of the project.

8. The Alternatives Center will allow Patrick M. Clark access to the milieu of the Job Club Program through the use of multiple (agreed upon) measurement instruments and observation techniques.

9. Patrick M. Clark agrees not to exceed the agreed upon parameters of the experimental Job Club Program.

10. Patrick M. Clark agrees not to violate any existing Alternatives Center rules, regulations or policies except those agreed upon by all parties as an inherent part of the research design.

Patrick M. Clark 10/12/88

Patrick M. Clark (date)
Michigan State University

Cecila E. Wright 10/12/88

Cecila E. Wright (date)
Executive Director
Alternatives Center

APPENDIX B

INFORMED CONSENT FORM

APPENDIX B

INFORMED CONSENT FORM

Consent Form

I, _____ have agreed to participate in job finding services which I understand to part of an experimental project conducted by Patrick M. Clark under the supervision of Ralph Levine, Ph.D. of Michigan State University and the Alternatives Center of Oakland County.

I also understand that I will participate in four data collection sessions during which information will be collected. Further, that the information collected during the interviews will be kept strictly confidential and released to no one.

I understand that access to some services will be controlled through a lottery in which, by chance, I may or may not participate.

I am aware that the materials and the program content is experimental and that I may withdraw from participation at any time.

While the results of the project will be available to me upon request, I further understand that there is no guarantee that this program will provide specific results in the form of a job or job placement.

I agree that the information which I provide through this program will be used in evaluating the project and publishing reports with the further understanding and assurance that my personal identity and all information about myself will remain confidential and will in no way be used against me now or in the future.

_____ _____

Signature date Witness date

APPENDIX C

UNIVERSITY HUMAN SUBJECTS REVIEW

APPENDIX C

UNIVERSITY HUMAN SUBJECTS REVIEW

MICHIGAN STATE UNIVERSITY

UNIVERSITY COMMITTEE ON RESEARCH INVOLVING
HUMAN SUBJECTS (UCRIHS)
206 BERKEY HALL
(517) 353-9738

EAST LANSING • MICHIGAN • 48824-1111

February 8, 1988

Patrick Clark
Psychology Dept.

Dear Mr. Clark:

Subject: "RESEARCH EXPERIMENT INVOLVING PERSONS CONVICTED OF CRIMINAL OFFENSES"

Investigator: Patrick Clark

The above project is exempt from full UCRIHS review. I have reviewed the project and approval is granted for conduct of this project.

You are reminded that UCRIHS approval is valid for one calendar year. If you plan to continue this project beyond one year, please make provisions for obtaining appropriate UCRIHS approval prior to February 8, 1989.

Any changes in procedures involving human subjects must be reviewed by UCRIHS prior to initiation of the change. UCRIHS must also be notified promptly of any problems (unexpected side effects, complaints, etc.) involving human subjects during the course of the work.

Thank you for bringing this project to my attention. If I can be of any future help, please do not hesitate to let me know.

Sincerely,

John K. Hudzik, Ph.D.
Chair, UCRIHS

JKH/sar

cc: R. Levine

APPENDIX D

INTAKE FORMS

APPENDIX D

INTAKE FORMS

OAR/ALTERNATIVES CENTER OF OAKLAND COUNTY

1. Today's Date(month/day/year):_____

2. Identification:

Name (first last):_____

Social Security Number:_____

Driver's License Number:_____

MDOC Number: _____

3. Temporary Address:

Street Address:_____

City:_____

Zip Code:_____

Telephone Number:_____

Permanent Address:

Street Address:_____

City:_____

Zip Code:_____

Telephone Number:_____

4. Demographic Information:

a. Race/Ethnicity:__White __Black __Hispanic

Other (specify):_____

b. Date of Birth (mth/dy/yr):_____

c. Age in Years: _____

d. Gender: __Male __Female

e. Marital Status : __Single __Divorced __Separated

__Married

f. How many children do you have? _____

g. Are you a veteran?: __Yes__No

Dates of Service:_____

5. Education and Employment Background:

a. What was the last grade that you completed in school? _____

b. Do you have a high school diploma or a GED Certificate? __Yes__No

c. Have you attended college? __Yes__No

d. Do you have a college degree? __Yes__No

If yes, specify: _____

e. Have you received any special training in a skill or vocation? __Yes__No

If yes, specify what type:_____

f. Do you have vocational/technical certificate?

__Yes__No

If yes, specify type: _____

g. Are you currently attending school? __Yes__No

If yes, what school:_____

h. Do you receive any public assistance? __Yes__No

If yes, from what source:_____

i. Were you employed at the time of your arrest?

__Yes__No

j. What was the longest amount of time you have ever had a job (in months)?

_____

k. Why did you leave your last job?

_____

(PLEASE GO ON TO THE NEXT PAGE)

k. Please list your last five jobs (latest first):

1. Job Title and Description:

_____

Started: _____ Ended: _____
(mth/yr) (mth/yr)

Hourly pay rate: $_____

2. Job Title and Description:

_____

Started: _____ Ended: _____

Hourly pay rate: $_____

3. Job Title and Description:

_____

Started: _____ Ended: _____

Hourly pay rate: $_____

4. Job Title and Description:

_____

Started: _____ Ended: _____

Hourly pay rate: $_____

5. Job Title and Description:

_____

Started: _____ Ended: _____

Hourly pay rate: $_____

_____

6. Criminal Justice System Information

THE FOLLOWING INFORMATION WILL NOT BE USED AGAINST YOU IN ANY WAY NOW OR IN THE FUTURE. THIS INFORMATION IS CONFIDENTIAL AND WILL BE RELEASED TO NO ONE.

a. Date of last conviction (month/day/year):

_____

b. What is(are) your present conviction offense(s)?

_____

c. What is your present controlling sentence?

_____

d. What is the date of your release from the Corrections Center-"Out Date" (month/day/year)?

_____

e. When will you complete your term of parole (month/day/year)?_____

f. How many times have you been arrested in the past?

_____

g. How many times have you been convicted of a criminal offense?

_____

h. How many times have you been sentenced to probation?

_____

i. How many times have you been sentenced to a probation halfway house program?

_____

j. How many times have you been sentenced to a jail term?

_____

k. How many times have you been sentenced to prison?

_____

l. While in prison, did you receive any educational programs?

___Yes ___No

If yes, what kind of program did you participate in?

_____

m. While in prison, did you receive any vocational or technical training other than the above?

___Yes ___No

If yes, what type of vocational training did you receive?

_____

APPENDIX E

SOCIAL SUPPORT MEASURES

APPENDIX E-1

SOCIAL SUPPORT APPRAISALS

The following questions are to explore your feelings about your family and friends. Please indicate your answer using the scale below.

1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

1. My friends respect me.	___ 1.
2. My family cares for me very much.	___ 2.
3. I am not important to others.	___ 3.
4. My family holds me in high esteem.	___ 4.
5. I am well liked.	___ 5.
6. I can rely on my friends.	___ 6.
7. I am really admired by my family.	___ 7.
8. I am respected by other people.	___ 8.
9. I am loved dearly by my family.	___ 9.
10. My friends don't care about my welfare.	___ 10.
11. Members of my family rely on me.	___ 11.
12. I am held in high esteem.	___ 12.
13. I can't rely on my family for support.	___ 13.
14. People admire me.	___ 14.
15. I feel strong bond with my friends.	___ 15.
16. My friends look out for me.	___ 16.
17. I feel valued by other people.	___ 17.
18. My family really respects me.	___ 18.
19. My friends and I are important to each other.	___ 19.
20. I feel like I belong.	___ 20.
21. If I died tomorrow, very few people would miss me.	___ 21.
22. I don't feel close to members of my family.	___ 22.
23. My friends and I have done a lot for one another.	___ 23.

dispsshp

APPENDIX E-2

NETWORK ORIENTATION

The questions below are to help explore your feelings about the people you know, your family and friends. Answer the questions using the scale below to indicate your response.

1 = strongly disagree 2 = disagree 3 = agree 4 = strongly agree

1. Sometimes it's necessary to talk to someone about your problems.	___ 1.
2. Friends often have good advise to give to me.	___ 2.
3. You have to be careful to whom you tell personal things.	___ 3.
4. I often get useful information from people.	___ 4.
5. People should keep their problems to themselves.	___ 5.
6. It's easy for me to talk about personal and private matters.	___ 6.
7. In the past, friends have really helped me out when I've had a problem.	___ 7.
8. You can never trust people to keep a secret.	___ 8.
9. When a person gets upset they should talk it over with a friend.	___ 9.
10. Other people never understand my problems.	___ 10.
11. Almost everyone knows someone they can trust with a personal secret.	___ 11.
12. If you can't figure out your problems, nobody can.	___ 12.
13. In the past, I have rarely found other people's opinions helpful when I've had problems.	___ 13.
14. It really helps when you are angry to tell a friend what happened.	___ 14.
15. Some things are too personal to talk to anyone about.	___ 15.
16. Its fairly easy to tell whom you can trust and whom you can't.	___ 16.
17. In the past, I have been hurt by other people in whom I confided.	___ 17.
18. If you confide in other people, they will take advantage of you.	___ 18.
19. It's okay to ask favors of people.	___ 19.
20. Even if I need something, I would hesitate to borrow it from someone.	___ 20.

APPENDIX E-3

SOCIAL SUPPORT RESOURCES

SOCIAL NETWORK RESOURCES INVENTORY

THIS IS A QUESTIONNAIRE WHICH WILL HELP YOU DEFINE AND THINK ABOUT YOUR NETWORK OF RESOURCES AMONG THE PEOPLE THAT YOU KNOW.

I. ON THE NEXT PAGE, FIRST FILL THE FIRST NAME AND LAST INITIAL OF PEOPLE WHO PROVIDE YOU WITH THE VARIOUS KINDS OF SOCIAL SUPPORT.

II. IN THE SPACES PROVIDED NEXT TO THE NAME OF EACH PERSON THAT YOU LISTED, ANSWER EACH QUESTION ON THE FOLLOWING PAGE.

III. ON THE LAST PAGE, ANSWER THE QUESTIONS REGARDING YOUR SATISFACTION WITH YOUR NETWORK BY CIRCLING THE NUMBER THAT INDICATES THE BEST ANSWER FROM NOT TO EXTREMELY SATISFIED.

SOCIAL NETWORK RESOURCES

1. Emotional Support. List the first name and last initial of up to 10 people who provide you with emotional support. To help you think of these people, ask yourself the following questions: Who comforts me, or calms me down when I'm upset? Who do I feel close to? Who do I confide in, and discuss personal feelings with? (These questions are just to help you. People may provide emotional support in other ways)

NAME	A	B	C	D	E	F	G
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—

2. Socializing. Next list up to 10 people with whom you socialize. To help you think of them, ask yourself these questions: Who do you visit, or invite to your home/apartment? Who do you do things with for fun?

NAME	A	B	C	D	E	F	G
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—

3. Practical Assistance. Next list up to 10 people who help you out with practical problems. Ask yourself these questions: Who would you ask to help you move, or do some other task that required extra hands? Who would you ask to look after your house, children, pets, or plants for a while? Who do you borrow things from, such as tools, a car, or other things?

NAME	A	B	C	D	E	F	G
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—
_____	—	—	—	—	—	—	—

SOCIAL NETWORK RESOURCES QUESTIONS

A. Frequency. How frequently do you talk with this person, either in person or on the telephone?

1 about every day
2 about twice a week
3 once a week
4 about twice a month
5 about one a month or less

B. Closeness. How close, trusting, or intimate do you feel to this person?

1 not at all, or a little close
2 quite close
3 very close
4 extremely close

C. Balance. Do you feel that there is equal "give and take" in this relationship, or does one person give more than the other?

1 I give much more than I get
2 I give more than I get
3 We give and take equally
4 I get more than I give
5 I get much more than I give

D. Complexity. Some relationships are simple in the sense that we do just one or a few things with the person, or see them mostly in one place or setting (eg. just have lunch with a work-mate, or play sports with someone, but never anything else). Other relationships are very complex in that we see the person in many capacities and settings, and do a lot of different things with them. How complex is your relationship with each of the people listed?

1 simple, we do only a few things together
2 fairly complex, we see each other in several different roles and settings
3 very complex, we see each other in many different settings, and do many things together

E. Relationship. What is the nature of your relationship with this person. Are they family, friend, etc.?

1 husband/wife or marital-like partner
2 immediate family
3 extended family (cousin, uncle, aunt, in-law, etc.)
4 intimate sexually
5 close friend
6 social acquaintance
7 other

F. Sector. Is this person a neighbor, work-mate/class-mate, etc.?

1 neighbor
2 workmate/classmate
3 fellow member of club, group, church or other organization
4 room mate
5 other

G. Who knows who? We would like to know how many people in your list each person knows. By "knows" we mean more than just knows name of; we mean has some sort of acquaintance or relationship. Starting with the first person listed, how many people in the entire list does he/she know? Write this number in column G, then go on to the second person, third, etc.

APPENDIX E-4

SUPPORT SATISFACTION SCALE

The questions below ask about how satisfied you are with the support or assistance you are getting from the people you know. For example, are you satisfied with the emotional support you are getting from all the people you know? Using the scale provided below, answer the questions by circling one number which best represents your feelings for each question.

Not at all Satisfied	A little Satisfied	Moderately Satisfied	Very Satisfied	Extremely Satisfied
1	2	3	4	5

1. How satisfied are you with the emotional support you are getting from your family?

1 2 3 4 5

2. How satisfied are you with the social support you are getting from your family?

1 2 3 4 5

3. How satisfied are you with the practical assistance you are getting from your family?

1 2 3 4 5

4. How satisfied are you with the emotional support you are getting from your friends?

1 2 3 4 5

5. How satisfied are you with the social support you are getting from your friends?

1 2 3 4 5

6. How satisfied are you with the practical support you are getting from your friends?

1 2 3 4 5

7. How satisfied are you with the emotional support you are getting from the other people you know?

1 2 3 4 5

8. How satisfied are you with the social support you are getting from the other people you know?

1 2 3 4 5

9. How satisfied are you with the practical support you are getting from the other people you know?

1 2 3 4 5

APPENDIX F

ITEM, TOTAL, FACTOR CORRELATIONS AND COMMUNALITIES FOR SOCIAL SUPPORT APPRAISALS

APPENDIX F

Item, Total, Factor Correlations, Communalities for Social Support Appraisals Scale

	Item																	Subscale		
	2	3	6	8	10	13	17	1	5	9	12	14	18	4	7	11	16	A	B	C
A. Family Subscale																				
2.	41																			
3.	45	66																		
6.	44	65	48																	
8.	62	54	43	48																
10.	34	50	41	40	37															
13.	45	73	59	50	52	66														
17.	36	38	35	37	39	47	30													
B. Friends Subscale																				
1.	16	17	14	1	1	14	12	36												
5.	18	44	15	24	27	30	53	38	59											
9.	8	35	31	12	4	12	20	72	48	56										
12.	-6	15	-13	-5	8	14	33	42	66	52	67									
14.	17	33	17	27	9	26	33	33	67	50	61	50								
18.	-2	22	9	-2	1	19	37	42	60	52	71	48	56							
C. Other Subscale																				
4.	7	-5	10	-4	-11	14	14	29	15	25	19	15	45	42						
7.	-14	-7	13	-15	-15	7	1	43	-10	33	10	12	26	42	49					
11.	19	9	40	11	1	17	16	13	-9	22	-4	11	15	34	53	39				
16.	14	22	15	19	4	24	36	23	9	36	28	17	37	50	38	35	39			
A.	64	81	70	69	61	82	54	15	44	25	9	34	17	5	-6	24	28	100		
B.	11	38	17	13	11	26	43	60	77	75	82	70	75	33	26	11	34	33	100	
C.	10	7	30	4	-8	24	26	42	2	45	20	21	47	65	70	62	62	20	40	100

APPENDIX G

ITEM, TOTAL, FACTOR CORRELATIONS AND COMMUNALITIES FOR NETWORK ORIENTATION SCALE

APPENDIX G

Item, Total, Factor Correlations and Communalities for Network Orientation Scale

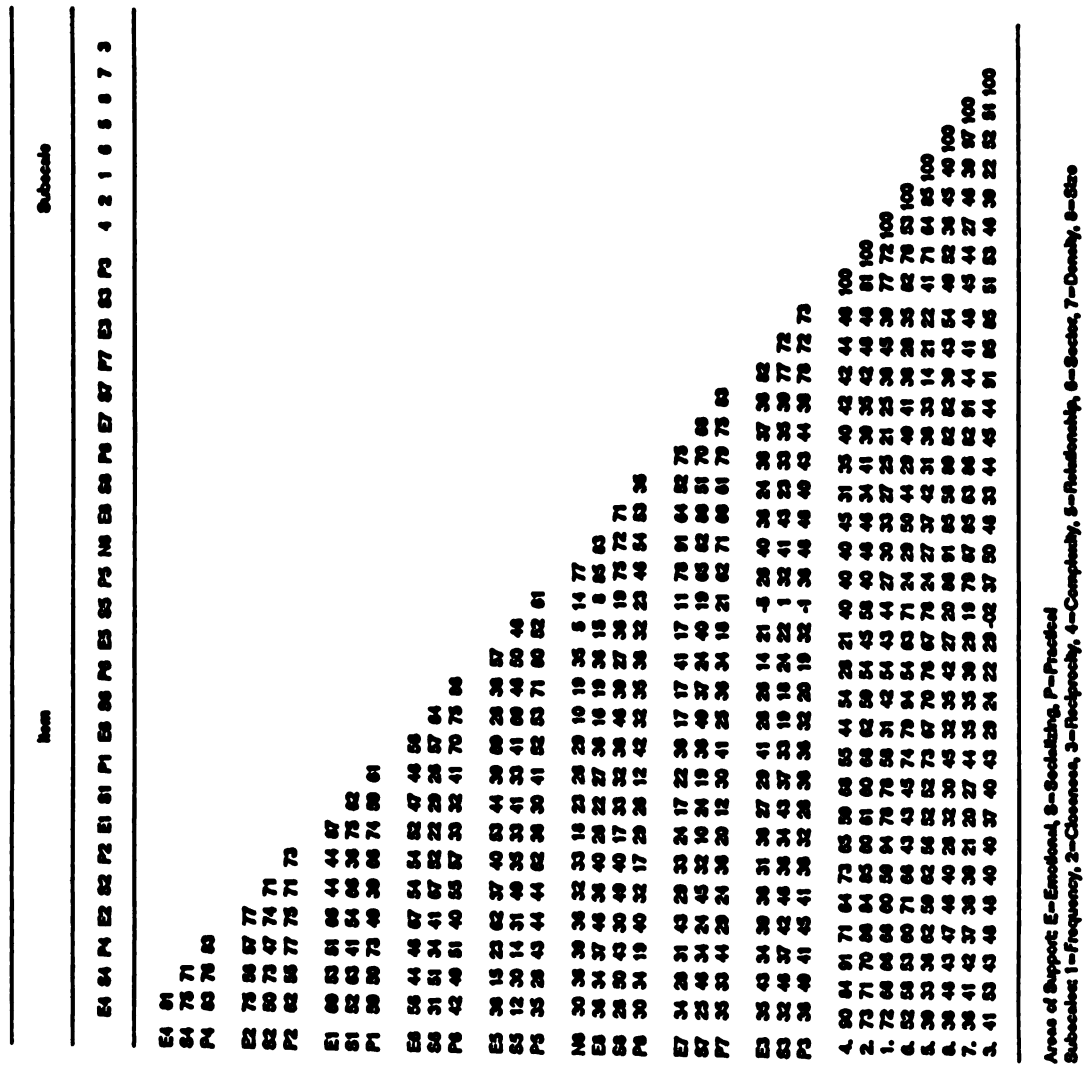
	Item											Subscale	
	5	10	17	18	19	20	1	2	4	7	13	A	B
A. Mistrust Subscale													
5.	36												
10.	39	49											
17.	25	46	36										
18.	57	45	47	48									
19.	39	46	23	31	32								
20.	29	37	49	32	40	35							
B. Advisability Subscale													
1.	40	33	11	15	27	19	21						
2.	21	37	19	26	3	9	25	46					
4.	62	38	7	42	25	4	40	31	34				
7.	15	22	21	32	17	27	15	44	26	23			
13.	22	22	0	27	9	-4	26	42	30	24	31		
A.	60	70	60	69	56	59	39	31	48	36	20	100	
B.	58	55	21	51	29	20	46	68	58	48	55	63	100

APPENDIX H

ITEM, TOTAL, FACTOR CORRELATIONS AND COMMUNALITIES FOR SOCIAL SUPPORT RESOURCES

APPENDIX H

ITEM, TOTAL, FACTOR CORRELATIONS AND COMMUNALITIES FOR SOCIAL SUPPORT RESOURCES



Areas of Support E=Emotional, S=Socializing, P=Practical
Subscales: 1=Frequency, 2=Closeness, 3=Reciprocity, 4=Complexity, 5=Relationship, 6=Sector, 7=Density, 8=Size

APPENDIX I

ITEM, TOTAL, FACTOR CORRELATIONS AND COMMUNALITIES FOR SOCIAL SUPPORT SATISFACTION SCALE

APPENDIX I

Item, Total, Factor Correlations and Communalities for Social Support Satisfaction Scale

	Item									Subscale		
	1	2	3	4	5	6	7	8	9	A	B	C
A. Family												
1.	91											
2.	95	97										
3.	84	88	80									
B. Friends												
4.	39	37	34	91								
5.	35	36	29	93	95							
6.	37	33	29	93	95	96						
C. Others												
7.	2	5	14	46	46	42	79					
8.	3	6	14	35	38	35	84	90				
9.	1	2	10	38	42	43	84	91	90			
A.	96	99	89	39	35	35	7	8	4	100		
B.	38	36	32	96	97	98	46	37	42	38	100	
C.	2	4	14	43	45	43	88	95	95	7	45	100

APPENDIX J

ITEM, TOTAL, FACTOR CORRELATIONS AND COMMUNALITIES FOR CRIMINAL JUSTICE HISTORY SCALE

APPENDIX J

Item, Total, Factor Correlations and Communalities for Criminal Justice History Scale

Item	1	2	3	4	5
1. Prior arrests	74				
2. Prior conviction	81	94			
3. Prior probation	65	76	53		
4. Prior jail	78	83	69	85	
5. Prior prison	39	48	21	47	20
Item-Factor	86	97	73	92	45

BIBLIOGRAPHY

Adler, A. (1935). The fundamental views of Individual Psychology. International Journal of Individual Psychology, 1, 5-8.

Andrews, D. A., Zinger, I., Hoge, R. D., Bonta, J., Gendreau, P., & Cullen, F. T. (1990). Does corrections treatment work?: A clinically relevant and psychologically informed meta-analysis. Criminology, 28, 369-404.

Azrin, N. H. (1978). The job finding club as a method for obtaining employment for welfare eligible clients: Demonstration, evaluation and counselor training. (Report No. DLMA-51-17-76-04). Washington, D. C.: U. S. Department of Labor.

Azrin, N. H., & Besalel, V. A. (1980). Job club counselor's manual. Baltimore, MD: University Park Press.

Azrin, N. H., Flores, T., & Kaplan, S. J. (1975). Job club: A groups assisted program for obtaining employment. Behavior Research and Therapy, 13, 17-25.

Barnes, J. A. (1972). Social networks. Reading, MA: Addison-Wesley.

Barrera, M. (1986). Distinctions between social support concepts, measures, and models. American Journal of Community Psychology, 14, 413-446.

Barrera, M., & Ainley, S. L. (1983). The structure of social support: A conceptual and empirical analysis. Journal of Community Psychology, 11, 133-143.

Beck, A. J., & Shipley, B. E. (1987). Recidivism of young parolees. Washington, D. C.: National Institute of Justice.

Beck, A. J., & Shipley, B. E. (1989). Recidivism of prisoners released in 1983. Washington, D. C.: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

Bonger, W. A. (1916). Criminality and economic conditions. New York: Agathon.

Bott, E. (1971). Family and social networks. London: Tavistock.

Brenner, H. M. (1976). Estimating the social costs of national economic policy: Implications for mental and physical health and criminal aggression. (Paper #5). Prepared for the Joint Economic Committee, Congress of the U. S., Washington, D. C.: Government Printing Office.

Campbell, D. T., & Stanley, J. C. (1966). Experimental and quasi-experimental designs for research. Chicago: Rand McNally.

Cantor D., & Land, K. (1985). Unemployment and crime rates in the post-WWII U. S.: A theoretical and empirical analysis. American Sociological Review, 50, 317-332.

Caplan, G. (1974). Support systems and community mental health. New York: Behavioral Publications.

Cassel, J. (1973). Psychiatric epidemiology. In Caplan, G. (Ed.), American handbook of psychiatry (Vol. 2). New York: Basic Books.

Cassel, J. (1974). Psychosocial processes and "stress": Theoretical formulations. International Journal of Health Services, 4, 471-482.

Cassel, J. (1976). The contribution of social environment to host resistance. American Journal of Epidemiology, 104, 107-123.

Cauce, A. M., Felner, R. D., & Primavera, J. (1982). Social support in high-risk adolescents. American Journal of Community Psychology, 10, 417-428.

Cobb, S. (1976). Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-314.

Cloward R. A., & Ohlin, L. E. (1960). Delinquency and opportunity: A theory of delinquent gangs. New York: Free Press.

Cohen, J. (1977). Statistical power analysis for the behavioral sciences. (p. 311) New York: Academic Press.

Cronbach, L. J. (1970). Essentials of psychological testing. New York: Harper and Row.

Cressey, D. (1952). Application and verification of the differential association theory. Journal of Criminal Law, Criminology, and Police Science, 43, 43-52.

DeFronzo, J. (1983). Economic assistance to impoverished Americans. Criminology, 21, 119-136.

Dissonnette-Lamendella, D. (1987). Pathways: A job search curriculum. Northridge, CA: Milt Wright.

Durkheim, E. (1933). The division of labor in society. Translated by G. Simpson, New York: MacMillan.

Durkheim, E. (1951). Suicide: A study in sociology. Translated by J. A. Spaulding and G. Simpson, New York: Free Press.

Erlich, I. (1973). Participation in illegitimate activities: A theoretical and empirical investigation. Journal of Political Economy, 81, 521-565.

Fairweather, G. W. (Ed.). (1964). Social psychology in treating mental illness: An experimental approach. New York: John Wiley & Sons.

Fairweather, G. (1972). Social change: The challenge to survival. Morristown, NJ: General Learning Press.

Fairweather, G. W., & Tornatzky, L. (1977). Experimental methods for social policy research. New York: Pergamon Press.

Fleisher, B. M. (1963). The effect of unemployment on juvenile delinquency. Journal of Political Economy, 71, 543-553.

Forssman, H., & Thuwe, I. (1966). One hundred and twenty children born after application for therapeutic abortion refused. Acta Psychiatric Scandanavia, 42, 71-88.

Freeman, R. B. (1983). Crime and unemployment. In J. Q. Wilson (Ed.), Crime and public policy (pp. 89-106). San Francisco: ICS Press.

Friedman, L. N. (1978). The Wildcat Evaluation: An early test of supported work in drug use rehabilitation. Rockville, MD: National Institute of Drug Abuse.

Fromm, E. (1947). Man for himself. New York: Holt.

Gendreau P., & Ross, B. (1979). Effective correctional treatment: Bibliotherapy for cynics. Crime and Delinquency, 25, 463-489.

Genevie, L. E. (1978). Common law, crime severity after release from prison. Unpublished doctoral dissertation, City University of New York.

Genevie, L., Margolies, E., & Muhlin, G. (1985). Trends in the effectiveness of correctional intervention (80ICJX0012). Washington, D. C.: National Institute of Justice.

Gensheimer, L. K., Mayer, J. P., Gottschalk, R., & Davidson, W. S. (1986). Diverting youth from the juvenile justice system: A Meta analysis of intervention efficacy. In S. J. Apter & A. P. Goldstein (Eds.), Youth Violence (pp. 39-57). New York: Pergamon Press.

Glaser, D. (1983). Supervising offenders outside of prison. In J. Q. Wilson (Ed.), Crime and public policy (pp. 207-227). San Francisco: ICS Press.

Glaser, D., & Rice, K. (1959). Crime, age and employment. American Sociological Review, 24, 679-686.

Goodman, J., Hoppin, J., & Kent, R. (1984). Opening doors: A practical guide to job hunting. Rochester, MI: Oakland University.

Gore, S. (1978). The effect of social support in moderating the health consequences of unemployment. Journal of Health and Social Behavior, 19, 157-165.

Gottlieb, B. H. (1981a). Social networks and social support in community mental health. In B. H. Gottlieb (Ed.), Social networks and social support (pp. 11-42). Beverly Hills: Sage.

Gottlieb, B. H. (1981b). Preventive interventions involving social networks and social support. In B. H. Gottlieb (Ed.), Social networks and social support (pp. 201-232). Beverly Hills: Sage.

Gray, D. O. (1980). A job club for older workers and retirees: An experimental evaluation of outcome and process. Unpublished doctoral dissertation, Michigan State University, East Lansing, MI.

Gray, D. O. (1983). A job club for older job seekers: An experimental evaluation. Journal of Gerontology, 38, 363-368.

Hammer, M. (1981). Social supports, social networks, and schizophrenia. Schizophrenia Bulletin, 7, 45-57.

Henry, A. F., & Short, J. F. (1954). Suicide and homicide. Glencoe, IL: Free Press.

Hirsch, B. J. (1979). Psychological dimensions of social networks: A multimethod analysis. American Journal of Community Psychology, 7, 159-172.

Hirschi, T. (1969). Causes of delinquency. Berkeley, CA: University of California Press.

Hoffman, P., & Meierhoefer, B. (1979). Post-release experiences of federal prisoners: A six-year follow-up. Journal of Criminal Justice, 7, 193-216.

House, J. S. (1981). Work stress and social support. Reading, MA: Addison-Wesely.

Hunter, J. E. (1985). Cluster analysis: Reliability, construct validity, and the multiple indicators approach to measurement. Beverly Hill, CA: Sage.

Hunter, H. E. (1973). Methods of reordering the correlation matrix to facilitate visual inspection and preliminary analysis. Journal of Educational Measurement, 10, 51-61.

Hunter, J. E., & Cohen, S. H. (1969). PACKAGE: A system of computer routines for the analysis of correlational data. Educational and Psychological Measurement, 29, 697-700.

Hunter, J. E., & Gerbing, D. (1982). Unidimensional measurement, second order factor analysis, and causal models. Research in Organizational Behavior, 4, 267-320.

James, W. (1890). The principles of psychology. New York: Holt.

Keppel, G. (1973). Design and analysis. Englewood Cliffs, NJ: Prentice-Hall.

Kerlinger, F. N. (1973). Foundations of behavioral research. New York: Holt, Rinehart and Winston.

Krohn, M. D. (1986). The web of conformity: A network approach to the explanation of delinquent behavior. Social Problems, 33, S81-S93.

Jankovic, I. (1977). Labor market and imprisonment. Crime and Social Justice, 17-31.

Langner, T. S., & Michael, S. T. (1960). Life stress and mental health. New York: Free Press.

Leavy, R. L. (1983). Social support and psychological disorder: A review. Journal of Community Psychology, 11, 3-21.

Lenihan, K. J. (1975). The financial condition of released prisoners. Crime and Delinquency, 21, 266-277.

Lenihan, K. J. (1977). Unlocking the second gate. (Research and Development Monograph #45). U. S. Department of Labor, Washington, D. C.: Government Printing Office.

Levine, R. L., & Hunter, J. E. (1983). Regression methodology: Correlation, meta-analysis, confidence intervals, and reliability. Journal of Leisure Research, 15, 323-343.

Lewin, K. (1951). Field theory in social science. Chicago: University of Chicago Press.

Lipton, D., Martinson, R., & Wilkes, J. (1975). The effectiveness of correctional treatment. New York: Praeger.

Lotze, E. W. (1986). Just before it happened: Inmates reports of life conditions prior to arrest. Paper presented at the annual meeting of the American Society of Criminology.

Manpower Demonstration Research Corporation. (1980). Summary of findings of the National Supported Work Demonstration. Cambridge: Ballinger Publishing Company.

May, R. (1958). Existence. New York: Simon & Schuster.

McKinlay, J. B. (1973). Social networks, lay consultation, and help-seeking behavior. Social Forces, 52, 275-292.

Merton, R. K. (1957). Social theory and social structure. Glencoe, IL: Free Press.

Miller, A., & Ohlin, L. (1984). The politics of secure care. In R. Mathias, et al. (Eds.), An anthology on violent juvenile offenders. Newark, NJ: National Council on Crime and Delinquency.

Mitchell, J. C. (1969). Social networks in urban situations. Manchester: Manchester University Press.

Mitchell, R. E., & Trickett, E. J. (1980). Task force report: Social networks as moderators of social support. Community Mental Health Journal, 16, 27-44.

Odell, B. N. (1974). Accelerating entry into the opportunity structure: A sociological-based treatment for delinquent youths. Sociology and Social Research, 58, 312-317.

Ogburn , W. F., & Thomas, D. S. (1922). The influence of the business cycle on certain social conditions. Journal of the American Statistical Association, 17, 305-340.

O'Reilly, P. (1988). Methodological issues in social support and social network research. Social Science and Medicine, 26, 863-873.

Perry, C. B., Anderson, B. E., Rowan, L., & Northrup, H. B. (1975). The impact of government manpower programs. Philadelphia: University of Pennsylvania, The Wharton School, Industrial Research Unit.

Petersilia, J., Turner, S., Kahan, J., & Peterson, J. (1985). Granting felons probation: Public risks and alternatives (R-3186-NIJ). Santa Monica, CA: Rand Corporation.

Phillips, L., Votey, H. L., & Maxwell, D. (1972). Crime, youth and the labor market. Journal of Political Economy, 80, 491-504.

Portney, B. (1970). Employment of former criminals. Cornell Law Review, 50.

Pownall, G. (1969). Employment problems of released prisoners. Washington, D. C.: Manpower Administration, Department of Labor.

President's Commission on Law Enforcement and Administration of Justice. (1967). Task force report: Corrections. Washington, D. C.: U. S. Government Printing Office.

Procidano, M. E., & Heller, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. American Journal of Community Psychology, 11, 1-24.

Rossi, P. H., Berk, R. A., & Lenihan, K. J. (1980). Money, work and crime. San Francisco: Academic Press.

Rovner-Pieczenik, R. (1974). Pretrial intervention strategies: An evaluation of policy related research and policy-making perceptions. Washington, D. C.: ABA Commission on Correctional Facilities and Services.

Sandler, I. N., & Barrera, M. (1984). Toward a multimethod approach to assessing the effects of social support. American Journal of Community Psychology, 12, 37-52.

Schwarzer, R., & Leppin, A. (1989). Social support and health: A meta-analysis. Psychology and Health, 3, 1-15.

Shmarov, I. V. (1974). Prevention of crime among released convicts. Soviet Review, 15, 60-73.

Solarz, A. (1985). An examination of criminal behavior among the homeless. Paper presented at the annual meeting of the American Society of Criminology.

Stewart, D., & Vaux, A. (1986). Social support resources, behaviors, and perceptions among black and white college students. Journal of Multicultural Counseling and Development, 14, 65-72.

Sutherland, E. H. (1939). Principles of criminology (3rd ed.). Philadelphia: Lippincott.

Sviridoff M., & McElroy, J. E. (1985). Employment and crime: A summary report. New York: Vera Institute on Justice.

Sviridoff, M., & Thompson, J. W. (1983). Links between employment and crime: A qualitative study of Rikers Island releasees. Crime and Delinquency, 195-212.

Taggart, R. (1972). The prison of unemployment. Baltimore, MD: John Hopkins University Press.

Tardy, C. H. (1985). Social support measurement. American Journal of Community Psychology, 13, 187-202.

Thompson, J. W., Sviridoff, M., & McElroy, J. E. (1981). Employment and crime: A review of theories and research. New York: Vera Institute of Justice.

Thornberry T. P., & Christenson, R. L. (1984). Unemployment and criminal involvement: An investigation of reciprocal causal structures. American Sociological Review, 49, 398-411.

Toborg, M., Center, L. J., Milkman, R. H., & Davis, D. W. (1977). The transition from prison to employment: An assessment of community-based assistance programs. Washington, D. C.: The Lazar Institute.

Tolan, P. (1986). Social stress dimensions and anti-social and delinquent behaviors in adolescents. Paper presented at the American Psychological Association annual meeting, Montreal, Canada.

Tolsdorf, C. (1976). Social networks, support, and coping: An exploratory study. Family Process, 15, 407-417.

U.S. Bureau of Prisons. (1975). Correlations of unemployment and federal prisoner population. Washington, D. C.: Author.

U.S. Department of Labor. (1971). An evaluation of the training provided in correctional institutions under the Manpower and Development Training Act, Section 251, (1-3). Cambridge: Abt Associates.

Vaux, A. (1988). Social support: Theory, research and intervention. New York: Praeger.

Vaux, A., Burda, P., & Stewart, D. (1986). Orientation toward utilization of support resources. Journal of Community Psychology, 14, 159-170.

Vaux, A., & Harrison, D. (1985). Support network characteristics associated with support satisfaction and perceived support. American Journal of Community Psychology, 13, 245-268.

Vaux, A., Phillips, J., Holly, L., Thomson, B., Williams, D., & Stewart, D. (1986). The social support appraisals (SSA) scale: Studies of reliability and validity. American Journal of Community Psychology, 14, 195-220.

Vaux, A., & Wood, J. (1987). Social support resources, behavior, and appraisals: A path analysis. Social Behavior and Personality, 15, 105-109.

Waldron, R., & Pospichal, T. (1979). The relationship between unemployment rates and prison incarceration rates. Washington, D. C.: U. S. Bureau of Prisons.

Wundt, W. (1900). Folk psychology. Leipzig: Engelmann.

Zeisal, H. (1982). Disagreement over the evaluation of a controlled experiment. American Journal of Sociology, 88, 378-389.

Zimring, F. (1973). The court employment project. New York: City Human Resources Administration.