AN EVALUATION OF THE MINNESOTA COMPREHENSIVE OFFENDER REENTRY PLAN (MCORP) PILOT PROJECT: FINAL REPORT

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RESEARCH SUMMARY

Using a randomized experimental design, this study evaluated the effectiveness of the Minnesota Comprehensive Offender Reentry Plan (MCORP), a prisoner reentry pilot project implemented in 2008. In an effort to reduce recidivism, the MCORP pilot project attempted to increase offender access to community services and programming by producing greater case management collaboration between caseworkers in prison and supervision agents in the community. Results from Cox regression models showed that MCORP significantly reduced four of the five recidivism measures examined, although the size of the reduction in hazard ratios was relatively modest (20-25 percent). The findings further suggested that MCORP reduced costs. Sensitivity analyses showed, however, that the cost avoidance estimates were not robust across all assumptions that were examined.

INTRODUCTION

Since the turn of the 21st century, prisoner reentry has attracted a great deal of interest for a few key reasons. First, despite the slowed growth in the number of state and federal prisoners since the latter half of the 2000s, the prison population boom over the previous several decades had led to a rise in the volume of offenders released from prison. Second, as illustrated by the large recidivism study conducted by the Bureau of Justice Statistics in 2002 (Langan and Levin, 2002), the available evidence suggests released prisoners tend to have relatively low success rates. Indeed, nearly two-thirds of the released prisoners in the Langan and Levin (2002) study were rearrested for a new offense within three years.

In response to concern over growing numbers of released prisoners with relatively high failure rates, the federal government has sponsored several major initiatives that have led to the implementation of community-level prisoner reentry projects across the country. In 2001, the Serious and Violent Offender Reentry Initiative (SVORI) gave $100 million in funding to 69 grantees at 89 different sites in the U.S. Five years later, the Prisoner Reentry Initiative (PRI) provided funding to support institutional and community corrections-based reentry programs in more than 30 states. Most recently, the enactment of the Second Chance Act (SCA) in 2008 has generated several rounds of federal funding to aid local and state agencies in the creation and operation of offender reentry projects.

The Minnesota Department of Corrections (MnDOC) was awarded funding under each of the SVORI, PRI, and SCA initiatives to develop prisoner reentry programs. Under SVORI, the MnDOC created the Serious Offender Accountability Restoration project (Project SOAR), which served 208 offenders released from prison to Hennepin County (Minneapolis). In 2008, the MnDOC developed the PRI program, which included 165

participants who were released from the Minnesota Correctional Facility (MCF)-Faribault to Hennepin and Ramsey (St. Paul) counties. In 2010, the MnDOC initiated the SCA program, which had, by the end of 2012, served 182 offenders released from Minnesota prisons to four counties in the Twin Cities metropolitan area (Hennepin, Ramsey, Anoka, and Dakota).

Although the MnDOC has yet to complete a preliminary evaluation of its SCA program, it has evaluated the effectiveness of the Project SOAR and PRI pilot projects. Project SOAR was designed to facilitate successful reentry by assigning the 208 participants to one of four community reentry coordinators, who worked with caseworkers in the institution and supervision agents in the community to address the offender's educational, employment, housing, life skills, and chemical, mental and physical health needs. The results from the evaluation, which used a randomized controlled trial (RCT), showed that Project SOAR did not have a significant impact on offender recidivism, a finding that was largely attributable to a divergence between its original design and how it was implemented. In particular, the evaluation findings suggested there was an inconsistent delivery of reentry services, a lack of communication and clarity regarding the roles of both partner agencies and stakeholders, a virtual absence of services provided to address chemical and mental health needs, and an insufficient focus placed on long-term transitional needs (Minnesota Department of Corrections, 2006).

Much like Project SOAR, the MnDOC's PRI program attempted to enhance service delivery by using reentry coordinators who worked closely with institutional and community corrections staff to help connect offender participants to services and programming that addressed their individual risks, strengths, and needs. Unlike Project SOAR, however, the reentry coordinators were not intentionally placed outside of the criminal justice system.

Instead, they were placed inside the system so as to form a collaborative working relationship with institutional and community corrections staff. Nevertheless, the findings from the evaluation, which employed a quasi-experimental design with a historical comparison group, indicated PRI did not have an impact on recidivism. The evaluation report speculates that one possible reason why PRI did not appear to make a significant difference is that the reentry coordinators merely provided relief for institutional and community corrections staff with high caseloads. As such, PRI participants may not have received more services or programming than offenders in the comparison group (Minnesota Department of Corrections, 2011).

In addition to the three federally-funded projects discussed above, the MnDOC received $2.24 million in state funding during the 2007 legislative session to design and implement the Minnesota Comprehensive Offender Reentry Plan (MCORP) pilot project. Based on the premise that offender reentry begins as soon as offenders are admitted to prison, MCORP emphasized increased collaboration between prison caseworkers and supervision agents to provide planning, support, and direction for offenders to address their strengths and needs in both the institution and the community. More specifically, the core programmatic theme of this project was the development of dynamic case planning and case management that provided continuity between the offender's confinement and return to the community. Further, MCORP was developed on the notion that the increased collaboration will enhance the delivery of services by increasing the extent to which offenders access employment, suitable housing, and programming in the community. The enhanced service delivery will, in turn, purportedly lead to a reduction in recidivism. Following the project design and

development phase during the fall of 2007, MCORP was implemented in early 2008 (Duwe, 2012).

Like Project SOAR, the MCORP evaluation used a RCT. The findings from the MCORP evaluation, however, were very different from those for Project SOAR. The results indicated, for example, that MCORP significantly reduced the risk of recidivism by 37 percent for rearrest, 43 percent for reconviction, and 57 percent for new offense reincarceration. MCORP did not have a statistically significant effect, however, on revocations for technical violations and any return to prison (Duwe, 2012).

The findings showed that MCORP significantly improved employment rates, decreased homelessness, broadened offenders' systems of social support, and increased the extent to which offenders participated in community support programming (e.g., mentors, restorative justice, faith-based services). In addition, the analyses suggested that recidivism outcomes were significantly better for offenders who secured post-release employment, were involved in community support programming, had broader systems of social support, and received a continuum of chemical dependency treatment from the institution to the community. Overall, the evidence indicated that MCORP was effective in decreasing reoffending largely because it increased the extent to which offenders were employed, involved in community support programming, and able to develop systems of social support (Duwe, 2012).

The main objective for each of the three prisoner reentry programs evaluated by the MnDOC was to reduce recidivism by increasing offender access to programming and services in both the institution and the community. With both Project SOAR and PRI, the bulk of the funding provided was used to hire reentry coordinators, who acted as liaisons

between institutional caseworkers and supervision agents in the community. Rather than hiring additional staff, MCORP focused more on changing correctional practice and using the funding provided to reduce caseload sizes for supervision agents and establish community-based employment contracts.

Although the MCORP evaluation yielded promising recidivism findings, especially in comparison to those from the Project SOAR and PRI evaluations, the evaluation was completed after the first of the program's two phases. Therefore, several important questions remain regarding the efficacy of the MCORP pilot project. For example, did the promising findings from the first phase hold up over time? Was the second phase of the project as effective as the first phase? And is the MCORP pilot project a cost-effective model of prisoner reentry?

PRESENT EVALUATION

The present study attempts to address these questions by examining recidivism outcomes among offenders who were randomly assigned to the MCORP and control groups. Overall, 415 offenders participated in MCORP compared to 274 offenders in the control group. The average recidivism follow-up period for the 689 offenders was three years, with a minimum of 18 months and a maximum of 53 months. In addition, this study conducts a cost-benefit analysis to determine whether MCORP provided any return on the state's investment in the pilot project.

In the next section, prior research on prisoner reentry is briefly reviewed, followed by a more detailed description of MCORP. After discussing the data and methods used for this evaluation, the results from the statistical analyses are presented. This study concludes by discussing the policy implications of the findings for offender reentry.

PREVIOUS PRISONER REENTRY PROGRAM EVALUATIONS

The prisoner reentry concept has been broadly applied to any program that attempts to reduce recidivism for offenders released from prison. In general, however, programs given the "prisoner reentry" label tend to focus on improving the delivery of services and programming across multiple areas such as housing, education, employment, and substance abuse treatment. Although many prior studies have been process evaluations that have examined how programs have been implemented, there have also been a number of outcome evaluations that have assessed the impact of programs on recidivism.

Among the published outcome evaluations of offender reentry programs, the findings have been mixed as to whether these programs can reduce recidivism. Results from evaluations of programs in Indiana (McGarrell, Hipple, and Banks, 2003), Maryland (Roman, Brooks, Lagerson, Chalfin, and Tereshchenko, 2007), Minnesota (Minnesota Department of Corrections, 2006; 2011), New York (Wilson and Davis, 2006; McDonald, Dyous, and Carlson, 2008) and Pennsylvania (Smith and Suttle, 2008) indicated that none of these programs produced a statistically significant reduction in reoffending. Reasons offered for the inability of these reentry programs to lower recidivism included program design problems (Smith and Suttle, 2008; Wilson and Davis, 2006), low dosage or short program duration (McGarrell et al., 2003; Smith and Suttle, 2008; Wilson and Davis, 2006), lack of administrative oversight (Smith and Suttle, 2008), poor program implementation (Minnesota Department of Corrections, 2006; Wilson and Davis, 2006), and the absence of a community aftercare component (Wilson and Davis, 2006).

Results from outcome evaluations of programs in California (Zhang, Roberts, and Callanan, 2006), Massachusetts (Braga, Piehl, and Hureau, 2009), Minnesota (Duwe, 2012),

New York (Jacobs and Western, 2007) and Nebraska (Sample and Spohn, 2008) suggested they lowered recidivism. Four of these programs focused on improving employment outcomes for participants (Braga et al., 2009; Duwe, 2012; Jacobs and Western, 2007; and Zhang et al., 2006), while three targeted substance abuse treatment/counseling (Jacobs and Western, 2007; Sample and Spohn, 2008; Zhang et al., 2006). Whereas two of the programs attempted to address transitional housing (Duwe, 2012; Zhang et al., 2006), the Nebraska evaluation by Sample and Spohn (2008) was the only one that concentrated on general living skills. Braga et al. (2009) and Duwe (2012) also cited inter-agency collaboration and increased social support as important reasons why these programs lowered recidivism.

In addition to the lack of conclusive evidence on the efficacy of prisoner reentry programs to reduce recidivism, most prior evaluations have had relatively brief follow-up periods. Among the evaluations that reported positive recidivism outcomes, the longest average follow-up period was three years (Braga et al., 2009). As a result, one question central to the prisoner reentry literature is whether initially positive recidivism outcomes can persist over time. By tracking the MCORP and control group offenders over an average of three years, which is one of the longer follow-up periods used in a prisoner reentry program evaluation to date, this evaluation contributes to the literature by examining longer-term effects of programming on recidivism outcomes.

As discussed above, millions in state and federal funding have been dedicated to the establishment of offender reentry programs over the last 10-15 years. Only a handful of evaluations, however, have examined whether these programs are cost-effective. In 2007, Roman, Brooks, Lagerson, Chalfin, and Tereshchenko completed a cost-benefit analysis of the Maryland Reentry Partnership Initiative (REP). Roman et al. (2007) reported that for

every dollar spent on REP, the program produced about three dollars in benefits over an average follow-up period of three years. The overall benefits of the program amounted to more than $7 million, which was roughly $21,500 per participant. In their evaluation, Sample and Spohn (2008) stated that Nebraska's SVORI site generated more than $10,000 in savings per participant over a 12-month follow-up period, although it is worth emphasizing the authors did not account for program operating costs (i.e., SVORI funding) in their analysis. In their cost-benefit analysis of 16 SVORI sites, Cowell, Lattimore, and Roman (2010) found the SVORI group did not produce net benefits relative to the comparison group over an average follow-up period of nine months. Most recently, Redcross, Millenky, Rudd, and Levshin (2012) conducted a cost-benefit analysis of the Center for Employment Opportunities (CEO), a comprehensive jobs program for released prisoners. Redcross et al. (2012) reported that benefits were nearly $5,000 per program participant over a three-year follow-up period.

Overall, the cost-benefit results from these evaluations vary from programs producing little or no benefits to more than $21,000 per participant. The number of existing evaluations that have conducted cost-benefit analyses, however, remains relatively small. The present study contributes to the prisoner reentry literature by analyzing whether the benefits generated by MCORP exceeded the costs to operate it.

THE MCORP PILOT PROJECT

The primary goal of the MCORP pilot project was to reduce offender recidivism. To achieve this goal, MCORP focused on improving the delivery of services and programming by forging a more collaborative relationship between institutional caseworkers and supervision agents in the community. Central to enhanced service delivery was the

development of dynamic case planning and case management that provided continuity between the offender's confinement and return to the community. Prison caseworkers and community supervision agents also applied evidence-based strategies to engage offenders in the case management process by integrating motivational interviewing and SMART (Small, Measurable, Attainable, Realistic, and Timely) planning strategies with the use of the Level of Service Inventory-Revised (LSI-R) risk and needs assessment tool.

As discussed in more detail in the following section, eligible offenders were randomly assigned to either the MCORP or control groups. After offenders were assigned to MCORP, institutional caseworkers established a transition accountability plan (TAP), which was based on the model developed by the National Institute of Corrections under the Transition from Prison to the Community initiative. In particular, caseworkers reviewed available file information, administered the LSI-R, and interviewed offenders to determine their motivation related to interventions based on their risk and needs. Further, caseworkers developed SMART plans (specific goals and strategies within the TAP) that provided a guide for what offenders would need to accomplish while in prison. To promote a greater continuity of case planning and management between the institution and the community, the caseworker included the assigned supervision agent in the case planning process as early as possible during an offender's confinement. Due to the additional case planning required by the TAP model, the caseload sizes for caseworkers involved with MCORP were expected to be about half (35-40) that of regular caseloads (80-90). As noted later, however, there was no decrease in caseload sizes for institutional caseworkers.

Agents who provide standard supervision (as opposed to intensive supervision) generally have a caseload size of approximately 75-80 offenders at a given time. Moreover,

supervision agents seldom have any contact with the offenders on their caseloads until the offenders get released from prison. But in an effort to increase collaboration, enhance service delivery, and foster a more seamless transition for offenders from prison to the community, MCORP supervision agents had smaller caseload sizes and began initiating contact with the offenders on their caseloads while the offenders were still incarcerated ("inreach"). The caseload sizes for MCORP agents were approximately 35-40 offenders at a given time, about half the caseload size of regular supervision agents. The reduced caseload sizes for MCORP agents were considered necessary because these agents would need more time per offender in order to provide an improved delivery of services. In addition to using the LSI-R to offer an updated assessment of an offender's strengths and needs, MCORP agents met with offenders several times in the institution prior to their release from prison. The inreach efforts were also considered important in helping the MCORP agents connect the offenders with critical resources in the community when they left the institution. In particular, MCORP agents focused on helping offenders access services related to employment, vocational training, education, housing, chemical health, mentoring, faith-based programming, and income support.

DATA AND METHODS

A randomized experimental design was used to evaluate whether MCORP had an impact on recidivism. If offenders met the eligibility criteria to participate in MCORP, they were randomly assigned by the author to either the experimental (MCORP) or control (business as usual) groups. During Phase 1, this assignment was made at least 60 days prior to their scheduled release date. During Phase 2, offender assignments were made shortly after

offenders were admitted to prison, which was more in keeping with the notion that reentry begins as soon as offenders are admitted to prison.

At the time of assignment, the following five criteria were used to determine eligibility: 1) have a commit from one of the five pilot counties (Hennepin, Ramsey, Dodge, Filmore, and Olmsted), 2) be incarcerated at one of the seven participating correctional institutions (Shakopee, Lino Lakes, Stillwater, Rush City, Red Wing, Moose Lake, and St. Cloud), 3) have a scheduled release date from prison that precedes the end of the pilot project, 4) have at least six months of community supervision remaining on their sentence and 5) not have a requirement to register as a predatory offender (i.e., sex offenders were excluded).

In addition to these requirements, there were four additional eligibility criteria: 1) be released from prison to one of the five counties, 2) not participate in one of the MNDOC's early release programs such as the Challenge Incarceration Program (i.e., the adult boot camp) or work release, 3) be released to regular supervised release rather than intensive supervised release (ISR) and 4) not have any detainers, warrants, or holds that would jeopardize participation in the project. Whether offenders met these four criteria was seldom known until after assignments were made. For example, the decision to place an offender on ISR was often made shortly before release. As such, incarcerated offenders assigned to either the MCORP or control group were removed from the project once it was later determined that they did not meet all of the eligibility criteria.

Eligible offenders were assigned to the MCORP and control groups on a bi-monthly basis between January 2008 and June 2010. As noted above, one of the concepts of MCORP involved the use of reduced agent caseloads. Instead of a caseload of 80 or more offenders,

the goal for MCORP supervision agents was a caseload size of approximately 35 offenders. During the planning and development phase of MCORP, analyses of MNDOC data revealed that there would be an insufficient number of eligible offenders released from prison to the pilot counties to support an equal assignment of offenders into the experimental and control groups. Accordingly, for every three offenders who met the initial eligibility criteria, two were randomly assigned to MCORP and one to the control group.

During the 30-month period from January 2008-June 2010, 1,693 eligible offenders were randomly assigned to the MCORP and control groups. Due to the unequal assignment of offenders to the two groups, 1,124 (66 percent) were assigned to MCORP and 569 (34 percent) were assigned to the control group. However, of the 1,693 selected offenders, 1,004 (59 percent) were determined to be ineligible prior to their release from prison. The three most common reasons for exclusion were that offenders were placed on ISR, selected for an early release program (primarily work release), or released to supervision in a non-MCORP county. The attrition rate was higher for MCORP (63 percent) than it was for those assigned to the control group (52 percent). Overall, the final sample consisted of 689 offenders, with 415 in the MCORP group (175 in Phase 1 and 240 in Phase 2) and 274 in the control group (94 in Phase 1 and 180 in Phase 2).

The MCORP model conceptualized reentry as a process that begins as soon as an offender is admitted to prison. Due to the short period of time in which the project had to be initiated, this goal was not realized during Phase 1 as many offenders were assigned to MCORP several months prior to their release. During Phase 2, however, offenders were assigned to MCORP shortly after admission to prison. As a result, like Phase 1 participants, Phase 2 participants were involved in MCORP for at least the first six months following their

release from prison while they were under correctional supervision in the community. Unlike Phase 1 participants, however, those in Phase 2 were involved in MCORP during the vast majority of their confinement in prison. The main distinction, then, between the two phases of MCORP is that Phase 2 adhered much more closely to the original design of the pilot project insofar as offenders were enrolled in the project for a longer period of time in prison.

As noted above, one area where the implementation of the pilot project did not correspond with the design concerned the caseload sizes for caseworkers in the institution. Because developing a TAP for an offender involves a greater amount of work for caseworkers in comparison to standard, "business as usual" case planning, the goal for caseworkers involved with MCORP was to cut their caseload sizes in half. This goal was never realized in either phase, however, as caseload sizes for caseworkers involved with MCORP stayed between 80 and 90. This evaluation did not assess how well case plans were developed for MCORP participants, although the lack of a reduction in caseload sizes for institutional caseworkers may have unfavorably affected the quality of case planning.

DEPENDENT VARIABLES

Recidivism, which was the main dependent variable in this study, was defined as: 1) a rearrest, 2) a reconviction, 3) a new offense reincarceration, 4) a revocation for a technical violation, and 5) any reincarceration, whether for a new offense or a technical violation. It is important to emphasize that the first three recidivism variables strictly measure new criminal offenses. In contrast, technical violation revocations (the fourth measure) represent a broader measure of rule-breaking behavior. Offenders can have their supervision revoked for violating the conditions of their supervised release. Because these violations can include activity that may not be criminal in nature (e.g., use of alcohol, failing a community-based

treatment program, failure to maintain agent contact, failure to follow curfew, etc.), technical violation revocations do not necessarily measure reoffending. Meanwhile, given that any reincarcerations (the fifth measure) examine whether offenders return to prison for either a technical violation or a new felony-level sentence, this variable provides a measure of both criminal and non-criminal behavior.

Recidivism data were collected on offenders through June 30, 2012. Considering that offenders from both the MCORP and control groups were released from prison at some point between February 2008 and December 2010, the follow-up time for the offenders examined in this study ranged from 18-53 months, with an average of 35 months. Data on arrests and convictions were obtained electronically from the Minnesota Bureau of Criminal Apprehension (BCA). Reincarceration and revocation data were derived from the Correctional Operations Management System (COMS) database maintained by the MnDOC. In using the BCA and COMS to track recidivism, the main limitation with using these data is that they measure only arrests, convictions, or incarcerations that took place in Minnesota. Because neither source includes arrests, convictions, or incarcerations that occurred in other states, the findings presented later likely underestimate the true recidivism rates.

In the recidivism analyses for the three variables (rearrest, reconviction, and reincarceration) that strictly measured reoffending, it was necessary to deduct the amount of time offenders spent in prison due to supervised release revocations from their total follow-up periods in order to accurately calculate how long they were actually at risk to reoffend. Failure to deduct time spent in prison as a supervised release violator would artificially increase the length of the at-risk periods for these offenders. Therefore, to accurately measure an offender's "street time", the amount of time that an offender spent in prison as a

supervised release violator was subtracted from his/her follow-up period, but only if it preceded a rearrest, reconviction, reincarceration for a new offense, or if the offender did not experience any of these three types of recidivism events.

INDEPENDENT VARIABLES

Because the primary goal of this evaluation involves assessing the impact of MCORP on recidivism, participation in MCORP is the principal variable of interest. Offenders who participated in MCORP were given a value of "1", whereas those in the control group were assigned a value of "0". A variable, "Phase", was also created that measured whether offenders participated in either Phase 1 of Phase 2 of the pilot project. Offenders in Phase 2 were assigned a value of "1", whereas those in Phase 1 received a value of "0".

The statistical analyses also included independent variables either known or hypothesized to have an impact on recidivism. The following lists the pre- and post-release variables and describes how they were created:

Control Variables

Offender Sex: dichotomized as male (1) or female (0).

Offender Race: dichotomized as minority (1) or white (0).

Age at Release: the age of the offender in years at the time of release based on the date of birth and release date.

Prior Supervision Failures: the number of prior revocations while under correctional supervision (probation or supervised release).

Prior Felony Convictions: the number of prior felony convictions, excluding the conviction(s) that resulted in the offender's incarceration.

LSI-R Score: the Level of Service Inventory-Revised (LSI-R) is a risk assessment tool designed to predict an offender's risk of recidivism. In general, the higher an offender's LSI-R score, the greater the risk of recidivism. The total score, which ranges from 0-54, was used from the most recent LSI-R administered in prison before an offender was released.

Admission Type: three dichotomous dummy variables were created to measure prison admission type: new commitment (1 = new commitment, 0 = probation or release violator), probation violator (1 = probation violator, 0 = new commitment or release violator), and release violator (1= release violator, 0 = new commitment or probation violator). New commitments consist of offenders who are sentenced directly to prison, probation violators comprise offenders who enter prison after having their probation revoked, while release violators include those who return to prison following the revocation of their supervised release (i.e., "parole"). New commitment serves as the reference in the statistical analyses.

Offense Type: five dichotomous dummy variables were created to quantify offense type; i.e., the offense on which an offender's release date was based. The five variables were person offense (1 = person offense, 0 = non-person offense); property offense (1 = property offense, 0 = non-property offense); drug offense (1 = drug offense, 0 = non-drug offense); felony driving while intoxicated (DWI) offense (1 = DWI offense, 0 = non-DWI offense); and other offense (1 = other offense, 0 = non-other offense). The person offense variable serves as the reference in the statistical analyses.

County: three dichotomous dummy variables were created to measure the county or geographic area where offenders were released and supervised. The three variables were Hennepin, which includes Minneapolis (1 = Hennepin, 0 = Ramsey or DFO); Ramsey, which includes St. Paul (1 = Ramsey, 0 = Hennepin or DFO); and Dodge/Fillmore/Olmsted (DFO),

which covers the Rochester area (1 = DFO, 0 = Hennepin or Ramsey). Hennepin serves as the reference in the statistical analyses.

Institutional Discipline: the number of discipline convictions received during the term of imprisonment for which the offender was released.

Entered Chemical Dependency (CD) Treatment: this variable measured whether offenders entered CD treatment during the offender's most recent incarceration period prior to release. Offenders who entered CD treatment received a value of "1", whereas untreated offenders were given a value of "0".

Secondary Degree: this variable measured whether offenders had at least a secondary degree (high school diploma or GED) at the time of release from prison. Offenders who had a secondary degree at release were assigned a value of "1", whereas those who did not were given a value of "0".

Length of Stay (LOS): the number of months between an offender's release date and the date of the most recent admission to prison.

Release Year: measuring the year in which offenders were first released from prison for the instant offense, this variable is included to control for any unobserved differences between the different release year cohorts from 2008-2010.

Supervised Release Revocations (SRRs): to control for the potential effects of technical violation revocations on reoffending, this measure was included in the models that specifically examined new criminal offenses (rearrest, reconviction, and reincarceration for a new offense). This variable measured the number of times an offender returned to prison as a supervised release violator between the date of his/her release from prison and the date of

his/her first reoffense (for those who reoffended), or June 30, 2012 (the end of the follow-up period), for those who did not reoffend.

ANALYSIS

Although random assignment increases the chances that the treatment and control groups will be equivalent, it does not guarantee it. As shown in the next section, there were several statistically significant differences between the two groups. To statistically control for these differences, it was necessary to use multivariate statistical models to estimate the impact of MCORP on service delivery as well as recidivism.

In analyzing recidivism, survival analysis models are preferable in that they utilize time-dependent data, which are important in determining not only whether offenders recidivated but also how long it took them to either reoffend or "survive" in the community without committing a new offense. Survival analyses are designed to handle censored observations and varying lengths of time until a terminal event. Given that a number of the offenders studied here never experienced a recidivism event and that the lengths of at-risk periods varied among offenders, survival analysis is ideally suited to examine the effects of MCORP on recidivism. To statistically control for the observed differences between offenders in the MCORP and control groups, Cox regression, a multivariate survival analysis model, was used to analyze the data.

Cost-Benefit Analysis Methodology

The recidivism data collected for this study were analyzed to determine whether MCORP produced a benefit resulting from reduced recidivism. The costs of recidivism were monetized in two ways. First, the costs of new criminal offenses committed by offenders in the work release and comparison groups following their release from prison were calculated.

The costs of individual offenses were monetized based on cost of crime estimates developed in several recent studies. Second, because the cost of crime literature has not developed estimates for technical violation revocations, per diem data from the MnDOC were used to calculate the costs for this type of recidivism event.

Table 1. Reoffense Cost Estimates

Rearrest Offenses	*Cohen and Piquero (2009)*	*McCollister et al. (2010)*	*DeLisi et al. (2010)*	*Average*
Murder	$11.8 million	$8.98 million	$17.25 million	$12.68 million
Rape/Sex Offense	$290,000	$240,776	$448,532	$326,436
Aggravated Assault	$85,000	$107,020	$145,379	$112,466
Simple Assault	$19,000			$19,000
Armed Robbery	$280,000		$335,733	$307,867
Simple Robbery	$39,000	$42,310		$40,655
Burglary	$35,000	$6,462	$41,288	$27,583
Arson	$115,000	$21,103		$68,052
Motor Vehicle Theft	$17,000	$10,772		$13,886
Stolen Property		$7,974		$7,974
Embezzlement		$5,480		$5,480
Forgery		$5,265		$5,265
Fraud	$5,500	$5,032		$5,266
Theft	$4,000	$3,532		$3,766
Other (e.g., drugs)	$1,000			$1,000

Research on the cost of crime has estimated costs of individual offenses to society based on victim costs, criminal justice costs (including police, courts, and prisons), and lost productivity of incarcerated offenders. The studies by Cohen and Piquero (2009), McCollister et al., (2010), and DeLisi et al. (2010) are three recent efforts to monetize the costs of specific types of offenses to society. All three studies have developed estimates for murder, rape/sex offenses, aggravated assault, armed robbery and burglary. The Cohen and Piquero (2009) and McCollister et al. (2010) studies each developed estimates for simple robbery, arson, motor vehicle theft, fraud and theft. The average cost for offenses, adjusted for inflation to 2010 dollars, was used where more than one estimate has been developed (see

Table 1). For offenses, however, where only one estimate has been reported, the cost information from a single study was used. For example, for cost estimates associated with stolen property, embezzlement, and forgery, this study relied on the estimates developed by McCollister et al. (2010). Similarly, for "other" offenses, such as drugs, which do not fall into any of these categories, the estimate reported by Cohen and Piquero (2009) was used.

To determine the extent to which offenders in the MCORP and control groups reoffended through the end of June 2012, this study counted the total number of criminal offenses for which they were convicted. Reconviction was used to quantify reoffending because it provides a middle-of-the-road measure that is neither too generous nor overly conservative in estimating reoffending costs. Although rearrest is the most sensitive official measure for reoffending, it will include instances where the offender was not convicted because charges were dropped due to insufficient or exculpatory evidence. On the other hand, reincarceration for a new felony-level offense provides what is, for purposes of the cost-benefit analysis, an overly conservative measure of reoffending. For example, this measure does not include felony-level convictions in which the offender was not sentenced to prison or lower-level convictions (misdemeanor or gross misdemeanor).

To estimate the costs associated with reincarcerations resulting from technical violation revocations, COMS data were analyzed. More specifically, MCORP participants were compared with offenders in the control group on the basis of how many days they were incarcerated for a technical violation revocation following their release from prison. The overall difference (in days) between the two groups was then monetized based on the MnDOC's marginal per diem. Due to the size of the program, the number of bed days saved from a reincarceration reduction would not be large enough to prevent the construction of a

new correctional facility. As such, marginal costs, which include only the costs to clothe and feed offenders, was used rather than fixed costs, which also include the cost of new prison construction (Duwe and Kerschner, 2008).

RESULTS

The findings presented in Table 2 compare the 415 MCORP offenders with the 274 offenders in the control group. Results from chi-square and t-tests show that offenders in the two groups are largely similar to the extent that significant differences were found for

Table 2. Comparison of MCORP and Control Group Offenders

Characteristics	*MCORP*	*Control*	*X^2/t-test value*
Male	94.9%	90.1%	5.85*
Minority	69.6%	76.3%	3.63
Age at Release (years)	36.1	33.4	-3.45**
Prior Supervision Failures	1.95	1.45	-3.12**
Prior Convictions	7.03	5.81	-3.05**
LSI-R score	26.85	27.35	0.91
Admission Type			
New Commitment	61.4%	56.6%	1.63
Probation Violator	26.7%	27.4%	0.03
Release Violator	11.8%	16.1%	2.55
Offense Type			
Person	22.9%	22.6%	0.01
Property	29.6%	24.5%	2.22
Drug	17.1%	24.1%	5.05*
DWI	12.3%	12.4%	0.00
Other	17.8%	16.1%	0.37
County			
Hennepin	61.7%	54.0%	4.01*
Ramsey	32.3%	38.0%	2.34
DFO	6.0%	8.0%	1.04
Length of Stay (months)	18.4	18.4	-0.05
Institutional Discipline	2.56	2.75	0.77
Secondary Degree at Release	82.4%	72.3%	10.03**
Entered Prison-Based CD Treatment	27.5%	24.1%	0.98
Release Year	2008.9	2009.1	2.06*
N	415	274	

** $p < .01$
* $p < .05$

roughly one-third of the covariates. These differences indicate that MCORP offenders were significantly more likely to be older, have more prior convictions and supervision failures, return to Hennepin County, have a secondary degree at the time of release, and have an earlier release date. There was a statistically significant difference for release year because control group offenders made up 35 percent of Phase 1 and 43 percent of Phase 2.

THE IMPACT OF MCORP ON RECIDIVISM

The results shown in Table 3 indicate that recidivism rates for MCORP participants were generally lower than those for offenders in the control group. Overall, 70 percent of MCORP participants were rearrested by June 30, 2012, compared to 76 percent of control group offenders. The only recidivism measure where there was not much of a difference was reincarceration for a felony-level offense. Here, we see that 30 percent of the control group had recidivated with this measure compared to 29 percent for MCORP.

Table 3. Recidivism Comparison of MCORP and Control Group Offenders

	Rearrest	*Reconviction*	*New Offense Reincarceration*	*Tech. Viol. Revocation*	*Any Return*	*N*
Phase 1						
Control	83.0%	75.5%	38.3%	34.0%	52.1%	94
MCORP	77.7%	70.3%	37.1%	38.3%	57.7%	175
Phase 2						
Control	72.8%	58.3%	26.7%	40.0%	52.2%	180
MCORP	64.6%	49.6%	23.8%	25.0%	38.3%	240
Total						
Control	76.3%	64.2%	30.3%	38.3%	52.2%	274
MCORP	70.1%	58.3%	29.4%	30.6%	46.5%	415

There are also differences between the two phases for several of the measures. Most notably, MCORP participants in Phase 1 had a higher revocation rate than offenders in the control group. For Phase 2, however, MCORP had a much lower revocation rate than their

Table 4. Cox Regression Models: Impact of MCORP on Recidivism

Variables	*Rearrest*		*Reconviction*		*Reincarceration*		*Revocation*		*Any Return*	
	Hazard Ratio	SE	Hazard Ratio	SE	Hazard Ratio	SE	Hazard Ratio	SE	Hazard Ratio	SE
MCORP	0.801*	0.095	0.790*	0.103	0.819	0.150	0.748*	0.139	0.765*	0.116
Phase	0.701	0.198	0.746	0.221	0.620	0.308	1.065	0.274	0.967	0.230
Male	1.819**	0.209	1.900**	0.233	2.732**	0.365	1.633	0.334	1.925*	0.279
Minority	1.128	0.116	1.383*	0.130	1.581*	0.196	1.209	0.168	1.268	0.143
Age at Release (years)	0.970**	0.006	0.971**	0.006	0.974**	0.010	0.981*	0.009	0.979**	0.007
Prior Supervision Failures	1.107**	0.028	1.097**	0.030	1.122**	0.038	1.185**	0.036	1.176**	0.032
Prior Felony Convictions	1.038**	0.012	1.060**	0.013	1.057**	0.017	1.007	0.018	1.019	0.014
LSI-R Score	1.013	0.007	1.005	0.008	1.020	0.011	1.024*	0.011	1.021*	0.009
Probation Violator	0.787*	0.120	0.851	0.132	0.610*	0.209	1.007	0.170	0.863	0.147
Release Violator	1.181	0.164	1.119	0.178	0.977	0.253	1.411	0.232	1.285	0.193
Property	1.129	0.135	1.168	0.149	1.93**	0.222	0.753	0.206	1.153	0.169
Drug	1.051	0.142	1.083	0.158	1.324	0.250	0.826	0.212	0.909	0.184
DWI	1.104	0.198	1.299	0.218	1.309	0.377	1.983**	0.258	2.146**	0.230
Other	1.094	0.151	1.204	0.165	2.148**	0.242	0.873	0.229	1.069	0.191
Ramsey	0.914	0.103	0.907	0.113	0.918	0.162	1.105	0.147	1.088	0.123
DFO	0.835	0.200	0.954	0.208	1.184	0.310	1.945**	0.250	1.687*	0.224
Institutional Discipline	1.056**	0.019	1.045*	0.020	1.058*	0.028	1.012	0.028	1.026	0.023
Entered CD Treatment	0.846	0.125	0.802	0.138	0.678	0.202	0.759	0.188	0.700*	0.158
Secondary Degree	1.091	0.117	1.086	0.127	0.873	0.174	0.911	0.165	0.826	0.137
Length of Stay (months)	0.995	0.005	0.991	0.005	1.001	0.007	1.006	0.007	1.006	0.006
Release Year	1.172	0.109	1.109	0.125	1.318	0.178	0.997	0.154	0.953	0.131
Release Revocation	0.795*	0.115	0.947	0.103	0.965	0.123				
N	689		689		689		689		689	

** $p < .01$
* $p < .05$

counterparts in the control group. Similarly, for MCORP offenders, the rate of returning to prison (either for a new offense or a technical violation) was, compared to the control group, higher in Phase 1 but lower in Phase 2.

To statistically control for the group differences observed in Table 2, Cox regression models were estimated for each of the five measures of recidivism. The results in Table 4 show that, compared to the control group, MCORP significantly reduced four of the five recidivism measures. New offense reincarceration was the only measure where MCORP did not have a significant impact. For the other four measures, however, the results suggest that, controlling for the effects of the other predictors, MCORP lowered the hazard ratio by 20 percent for rearrest, 21 percent for reconviction, 25 percent for technical violation revocations, and 24 percent for any return to prison. In general, MCORP participants recidivated less often and more slowly than the offenders in the control group; as a result, they survived longer in the community without a recidivism event.

The findings also indicate that age at release and prior supervision failures were significant predictors for all five recidivism measures. More specifically, the hazard of recidivism was greater for younger offenders and those with more prior supervision failures. Gender was a significant predictor for four of the recidivism measures, whereas prior convictions and institutional discipline had a significant effect on three recidivism measures. Race, LSI-R score, admission type, DWI offenders, and county of commitment were significantly associated with two measures, while property offenders, “other” offenders, CD treatment and release revocations each had a significant impact on one measure.

MCORP COST-BENEFIT ANALYSES

As noted earlier, $2.24 million in state funding was devoted to the implementation of the pilot project. While the $2.24 million represents MCORP's operational costs, potential benefits stem from whether the pilot project lowered recidivism enough to produce a reduction in the costs associated with crime (e.g., victim costs, criminal justice costs, and lost productivity of incarcerated offenders.

As shown in Table 5, MCORP generated a modest cost avoidance benefit when revocation costs were examined. The 415 MCORP participants had a total of 167 revocations during the follow-up period, totaling 23,534 days in prison. The average number of prison days, then, for the 415 offenders was 56.71. The 274 control group offenders had 129 revocations, which amounted to 15,968 prison days and an average of 58.28 days per offender. To adjust for the different sizes of the MCORP and control groups, the overall group difference (1.57 days per offender) was multiplied by the size of the MCORP group (N = 415). As a result, the control group spent 652 more days in prison for revocations during the follow-up period. With a marginal per diem of $57, the total revocation benefits for MCORP come to $37,164.

The crime cost estimate results from the reoffense comparison are also presented in Table 5. The findings indicate that MCORP participants were convicted of 466 offenses (average of 1.12 convictions per participant) during the follow-up period compared to 281 for offenders in the control group (average of 1.03 convictions per offender). The average cost estimate per conviction was $24,303 for the MCORP group.

Table 5. MCORP Cost-Benefit Results

Program Operating Costs	$2,240,000
Reoffense Costs	
MCORP (466 reconvictions)	$10,086,085
Average Per Offender (N = 415)	$24,303
Control Group (281 reconvictions)	
Average Per Offender (N = 274)	
Homicide Excluded	$13,804
Homicide = $5.5 million (bottom up)	$33,917
Homicide = $12.7 million (average)	$60,104
Homicide = $17.3 million (highest)	$76,892
Total Reoffense Costs Avoided (N = 415)	
Homicide Excluded	($4,357,331)
Homicide = $5.5 million (bottom up)	$3,989,592
Homicide = $12.7 million (average)	$14,857,183
Homicide = $17.3 million (highest)	$21,824,290
Revocation Costs	
MCORP (167 revocations)	23,354 days
Average Per Offender (N = 415)	56.71 days
Control Group (129 revocations)	15,968 days
Average Per Offender (N = 274)	58.28 days
Total Revocation Costs Avoided	
652 total days at $57/day	$37,164
Total Cost-Benefit	
Homicide Excluded	($6,560,167)
Benefit Per Participant	($15,808)
Cost-Benefit Ratio	($1.92)
Homicide = $5.5 million (bottom up)	$1,786,756
Benefit Per Participant	$4,305
Cost-Benefit Ratio	$1.80
Homicide = $12.7 million (average)	$12,654,347
Benefit Per Participant	$30,492
Cost-Benefit Ratio	$5.64
Homicide = $17.3 million (highest)	$19,621,454
Benefit Per Participant	$47,281
Cost-Benefit Ratio	$9.76

Of the MCORP participants who recidivated, none were convicted of murder. Among the control group recidivists, however, there were two offenders who were each convicted of

murder. One of these offenders, however, was convicted of committing a murder that occurred prior to the incarceration period in which he was assigned to the control group. This instance of "pseudo recidivism" was omitted from the analyses.

The other offender, however, received a second-degree murder conviction for a homicide he committed that occurred after his assignment to the control group and subsequent release from prison. As shown earlier in Table 1, the estimated cost of one murder to society ranges between $9 and $17 million. As a result, this offense has an outsized impact on the cost-benefit results, which vary widely depending on the cost value assigned to this one offense.

To assess the sensitivity of the cost-benefit results to this one offense, four different scenarios were examined. The first scenario excluded this offense from the cost-benefit analyses. The second scenario used the "bottom up" estimate reported by Cohen and Piquero (2009) in their study. Cohen and Piquero (2009) distinguished between "bottom up" and "willingness to pay" (WTP) cost estimates by explaining that the former provides a more conservative estimate that ignores important crime costs such as "fear of crime", actions taken by the public to avoid the risk of crime and residual losses to the community with respect to social cohesion and community development. The bottom up estimate for homicide is $5.5 million versus $11.8 million for WTP. The third scenario used the average estimate ($12.7 million), as shown in Table 1, obtained from the Cohen and Piquero (2009), McCollister et al., (2010) and, DeLisi et al. (2010) studies. The fourth scenario used the estimate reported by DeLisi et al. (2010) since it was the highest at $17.3 million.

After accounting for program costs ($2.24 million) and the revocation benefit ($37,164), the results shown in Table 5 indicate the cost-benefit estimate is highly sensitive

to the one offense. When the murder conviction is excluded, the results indicate MCORP cost the state a little more than $6.5 million. When this offense is included, however, the total benefits range from $1.8 million to $19.6 million.

Although the first scenario (excluding the murder committed by the control group offender) helps illustrate the degree to which the cost-benefit results are sensitive to this one offense, it would not necessarily be accurate to conclude the MCORP pilot project cost the state $6.5 million. After all, a victim was murdered by an offender in the control group, and the results presented in Table 4 suggest the pilot project reduced recidivism. At the same time, however, the size of the recidivism reduction was not large, and offenders in the MCORP group actually had a higher average number of convictions per offender (1.12) than those in the control group (1.03). As such, the results from scenario three, and especially scenario four, likely provide an inflated estimate of the MCORP pilot project's actual cost avoidance benefit. Given the above, scenario two likely yields a more conservative estimate that tends to be more compatible with the generally positive, albeit modest, recidivism outcomes reported in this study.

If we assume the cost avoidance benefit of about $4,300 per participant from scenario two is a reasonable estimate, then MCORP yielded a return of $1.80 for every dollar spent on the project. In their research on the cost effectiveness of adult criminal justice programs, the Washington State Institute for Public Policy (WSIPP) has identified nearly twenty programs that produce a monetary benefit (Aos, Miller and Drake, 2006; Lee, Aos, Drake, Pennucci, Miller, and Anderson, 2012). With benefit per participant values ranging from a low of $870 to a high of $38,288 (Aos et al, 2006; Lee et al., 2012), the benefit for MCORP ($4,300) would fall well inside the array of estimates developed by WSIPP.

CONCLUSION

The results suggest the MCORP pilot project was a moderately effective prisoner reentry program. It significantly reduced four of the five recidivism measures. Still, the size of the reduction, which ranged between 20 and 25 percent, was relatively modest. Moreover, the results reported here indicate the large effect sizes observed earlier for Phase 1 (Duwe, 2012) tapered off over time. The MCORP pilot project also reduced costs, but the size of this benefit was highly sensitive to one offense committed by a control group offender. The most plausible estimate suggests that MCORP produced a benefit of about $4,300 per participant, which amounts to $1.8 million overall.

While the MCORP pilot project achieved generally positive recidivism and cost-benefit outcomes, the results from this study have several implications for prisoner reentry policy and practice. First, the MCORP pilot project was, by and large, a community-based intervention during both phases. Even though Phase 2 participants were enrolled earlier in MCORP during their incarceration periods, caseload sizes for prison caseworkers were never reduced, which may have affected the quality of case planning. In addition, there is not strong evidence that MCORP participants received more programming in prison that targeted their criminogenic needs. For example, while they were more likely than their control group counterparts to have a secondary degree at the time of release, they were not significantly more likely to have entered CD treatment in prison. To further improve recidivism outcomes, the MCORP pilot project needed to be more consistent with one of the main concepts on which it was based—that reentry begins at the time of admission to prison. More broadly, prisoner reentry programs should ensure that resources are available to deliver enhanced programming and services both within prison and in the community.

Second, the Minnesota experience with prisoner reentry may provide some indication as to what works, and what does not, with these types of programs. The use of grant funding to hire additional personnel to serve as liaisons between prison and community corrections staff did not yield good results, as evidenced by the Project SOAR and PRI evaluations. Although the recidivism findings reported here were not as positive as they were for the initial evaluation of MCORP (Duwe, 2012), they nevertheless suggest that using available resources to modify and improve existing practices may be a more promising approach.

Third, the Phase 2 findings were encouraging, especially for technical violation revocations. It still remains to be seen, however, whether these results will, like those for Phase 1, diminish over time. Regardless, future prisoner reentry research needs to examine recidivism outcomes over longer follow-up periods, particularly for the positive outcome evaluations, to determine more conclusively whether these programs can produce long-lasting change.

Finally, this study lends some support to the notion that prisoner reentry programs can yield a positive return on investment. As the findings presented here suggest, including sensitivity analyses is important to help determine the degree to which the findings are robust across various cost estimates and assumptions. Moreover, the results underscore the value of preventing very serious, costly offenses such as homicide. From a cost-benefit perspective, programs that effectively reduce violent recidivism will likely see relatively large returns on investment. Ultimately, however, the prisoner reentry literature is in need of more economic evaluations due to the small number of studies that have included cost-benefit analyses.

REFERENCES

Aos, S., Miller, M., & Drake, E. (2006). *Evidence-based public policy options to reduce future prison construction, criminal justice costs, and crime rates*. Olympia: Washington State Institute for Public Policy.

Braga, A.A., Piehl, A.M., & Hureau, D. (2009). Controlling violent offenders released to the community: An evaluation of the Boston Reentry Initiative. *Journal of Research in Crime and Delinquency* 46: 411-436.

Cohen, M. A., & Piquero, A.R. (2009). New evidence on the monetary value of saving a high risk youth. *Journal of Quantitative Criminology*, 25:25-49.

Cowell, A.J., Lattimore, P.K., & Roman, J. (2010). *An economic evaluation of the Serious and Violent Offender Reentry Initiative*. Washington, DC: U.S. Department of Justice.

DeLisi, M., Kosloski, A., Sween, M., Hachmeister, E., Moore, M., & Drury, A. (2010). Murder by numbers: Monetary costs imposed by a sample of homicide offenders. *The Journal of Forensic Psychiatry & Psychology*, 21:501-513.

Duwe, G. (2012). Evaluating the Minnesota Comprehensive Offender Reentry Plan (MCORP): Results from a randomized experiment. *Justice Quarterly* 29: 347-383.

Duwe, G. & Kerschner, D. (2008). Removing a nail from the boot camp coffin: An outcome evaluation of Minnesota's Challenge Incarceration Program. *Crime & Delinquency* 54: 614-643.

Jacobs, E. & Western, B. (2007). *Report on the Evaluation of the ComALERT Prisoner Reentry Program*. Available at: http://www.wjh.harvard.edu/soc/faculty/western/pdfs/report_1009071.pdf

Langan, P.A., & Levin, D.J. (2002). *Recidivism of Prisoners Released in 1994*. Washington, DC: U.S. Department of Justice, Bureau of Justice Statistics.

Lee, S., Aos, S., Drake, E., Pennucci, A., Miller, M., & Anderson, L. (2012). *Return on investment: Evidence-based options to improve statewide outcomes, April 2012.* Document No. 12-04-1201). Olympia: Washington State Institute for Public Policy.

McCollister, K.E., French, M.T., & Fang, H. (2010). The cost of crime to society: New crime-specific estimates for policy and program evaluation. *Drug and Alcohol Dependence*, 108, 98-109.

McDonald, D., Dyous, C., & Carlson, K. (2008). *The Effectiveness of Prisoner Reentry Services as Crime Control: The Fortune Society*. Cambridge, MA: Abt Associates, Inc.

McGarrell, E.F., Hipple, N., & Banks, D. (2003). Applying Problem Solving Approaches to Issues of Inmate Re-entry: The Indianapolis Pilot Project. Indianapolis, IN: Hudson Institute.

Minnesota Department of Corrections (2006). *Final Report on the Serious Offender Accountability Restoration (SOAR) Project*. St. Paul, MN.

Minnesota Department of Corrections (2011). *An Evaluation of the Prisoner Reentry Initiative: Final Report*. St. Paul, MN.

Redcross, C., Millenky, M., Rudd, T., & Levshin, V. (2012). *More than a job: Final Results from the Evaluation of the Center for Employment Opportunities (CEO) Transitional Jobs Program*. OPRE Report 2011-18. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Roman, J., Brooks, L., Lagerson, E., Chalfin, A., and Tereschenko, B. (2007). *Impact and cost-benefit analysis of the Maryland Reentry Partnership Initiative*. Washington, DC: Urban Institute.

Sample, L.L & Spohn, C. (2008). *Final Report for the Evaluation of Nebraska's Serious and Violent Offender Reentry Program*. Omaha: NE: University of Nebraska at Omaha, School of Criminology and Criminal Justice.

Smith, L.G. & Suttle, D.R. (2008). *Final Report: An Outcome Evaluation of the Pennsylvania Department of Corrections' Community Orientation and Reintegration Program*. Columbus, OH: International Association of Reentry.

Wilson, J.A. & Davis. R.C. (2006). Good intentions meet hard realities: An evaluation of the Project Greenlight reentry program. *Criminology & Public Policy* 5: 303-338.

Winterfield, L., Lattimore, P.K., Steffey, D.M., Brumbaugh, S., Lindquist, C. (2006). The serious and violent offender reentry initiative: Measuring the effects of service delivery. *Western Criminology Review* 7: 3-19.

Zhang, S.X., Roberts, R.E.L., & Callanan, V.J. (2006). Preventing parolees from returning to prison through community-based reintegration. *Crime & Delinquency* 52: 551-571.