Can Mentoring Help Reduce the Risk of Recidivism? An Analysis of the Serious and Violent Offender Reentry Initiative (SVORI) Data

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Can Mentoring Help Reduce the Risk of Recidivism?

An Analysis of the Serious and Violent Offender

Reentry Initiative (SVORI) Data

Amanda Claire Workman

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Science

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ABSTRACT

Can Mentoring Help Reduce the Risk of Recidivism?
An Analysis of the Serious and Violent Offender Reentry Initiative (SVORI) Data

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Master of Science

This research project investigates the effectiveness of mentors on rates of self-reported criminal offending for released offenders. I use data from the Serious and Violent Offender Reentry Initiative (SVORI) study (2004-2007), which sought to evaluate factors relating to high-risk offenders outcomes post release in an effort to reduce the societal problem of mass incarceration. Previous research has examined the use of mentors to improve the delinquent and criminogenic behavior of youth, but little is known about the effectiveness of mentors used to aid imprisoned adult males. I utilize negative binomial analysis to compare the number of self-reported criminal activities among released offenders with mentors versus those without mentors, and assess if the values varied between different reported levels of need for mentoring. Results indicate that mentoring did not reduce the rate of post-release offending at a statistically significant level. Reasons for the lack of significant results and policy implications are discussed.

Keywords: recidivism, mentoring, SVORI, reentry, negative binomial regression
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Can Mentoring Help Reduce the Risk of Recidivism?

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Within three years of being released from prison, two thirds of released offenders are re-arrested, and just over half are re-incarcerated (Cullen, Jonson, and Nagin 2011; Durose, Cooper, and Snyder 2014; James 2011; Wikoff, Linhorst, and Morani 2012). The overarching goals of the criminal justice system in general and the correctional system in particular center on punishing criminals for their crimes, incapacitating or deterring individuals to prevent future offending, and rehabilitating individuals so they can successfully reenter society at the end of their sentence. However, the current system often fails to meet the latter of these goals, to deter future offending and to provide successful rehabilitation and reentry after imprisonment (Benda, Corwyn, and Toombs 2001; Cullen et al. 2011). Instead, many released offenders commit additional crimes after their release from jail or prison.

A key problem is, even with the numerous prison programs designed to prepare offenders for reentry, most released offenders return to the same social environment and experience the same social influences that led to the criminal activity for which they were incarcerated in the first place. Additionally, relative to other adults in the U.S., ex-prisoners are less educated, less likely to be legitimately employed, and more likely to have substance abuse or mental health issues. These issues serve to compound their risk of reoffending (James 2011). Moreover, even though many reentry programs provide services such as housing or employment training that are instrumental in reducing recidivism, these may not alleviate all the potential risks of recidivism and, according to research, have only a modest effect on reducing recidivism (Link and Roman 2017; Lutze, Rosky, and Hamilton 2014; Visher et al. 2017).

The vast research on efforts to reduce recidivism has yielded mixed results. One promising approach designed to reduce the likelihood of recidivism that has not been evaluated
sufficiently is to provide prisoners with a mentor, either in prison or during their reentry period (Braga, Piehl, and Hureau 2009; Veysey, Ostermann, and Lanterman 2014). A mentor in this context is an individual volunteer from the community, usually from a non-profit or faith based organization, who commits to aiding an offender during prison and/or his or her reentry period. The mentor’s chief responsibility is to prepare prisoners for what is often a difficult reentry process, especially by preparing them to return to the environment that influenced their offending behavior prior to incarceration. By providing support and guidance, and connecting the mentee to needed resources, the mentor-mentee relationship is presumed to reduce the risk of reoffending. To explore the effectiveness of mentoring, this research examines whether having a mentor during imprisonment reduces the likelihood of recidivism. Hence, it compares the effect of having versus not having a mentor as an aspect of a prison program, and ultimately explores if receiving mentoring services reduces the likelihood of recidivism.

To investigate this issue, I utilize data from the Serious and Violent Offender Reentry Initiative (SVORI). This program sought to enhance the quality of life of released offenders and improve their post-release outcomes. In order to evaluate the program, high risk offenders were selected at random from prison facilities across the United States. They were then interviewed one month prior to release and three times post release (at three, nine, and fifteen months) to evaluate their adjustment to life outside of prison. The interviews inquired about various types of criminal behavior they may have engaged in since release, thus, allowing an assessment of one measure of recidivism: reoffending. The main goal of SVORI was to learn how to improve several different post-prison outcomes for released offenders, primarily recidivism. The present project focuses on the impact of mentoring services on recidivism.
BACKGROUND SECTION

Recidivism

Over 2.3 million Americans are imprisoned at any given time, and over 95 percent of this population will be released back into the community in the future (James 2011). An estimated 650,000 to 700,000 of these prisoners are released each year, and a majority of those who are released from prison recidivate: they reoffend and are arrested, with many returning to prison (Cullen et al. 2011; Gottschall and Armour 2011; James 2011; Link and Roman 2017; Lutze et al. 2014; Wallace et al. 2016; Visher et al. 2017). There are several ways to measure recidivism: re-offending, re-arrest, re-conviction, and re-incarceration after being released from prison or jail within a certain time-frame (James 2011).

Since an estimated two-thirds of released prisoners are arrested within three years of their release (Cullen et al. 2011; Durose et al. 2014; James 2011; Link and Roman 2017; Wikoff et al. 2012), it is clear that many of them face social, individual, and economic challenges that obstruct successful reentry (James 2011; Lutze et al. 2014). Many former prisoners do not have the skills to successfully manage their post-release lives, and leave prison with poor education, employment barriers, and other obstacles affecting their likelihood of avoiding criminal behavior. Thus, determining what is effective in helping offenders discontinue a life of crime is crucial, as this knowledge can aid in reducing crime and improving the lives of those who have committed crimes by reducing the risk of recidivism (Lutze et al. 2014). Scholars have proposed and studied several methods to prevent ex-prisoners from reoffending, including prison programs and re-entry services. I evaluate studies of each of these in turn.
Prison programs designed to reduce the risk of recidivism typically focus on vocational training, education, life skills, substance abuse treatments, and mental health services. Previous research has shown that some prison programs are effective in reducing recidivism (Nally et al. 2012), whereas other programs show little effect between participants and non-participants (Cho and Tyler 2013; Duwe and Clark 2014). A meta-analysis designed to evaluate the effectiveness of prison employment programs in lowering recidivism concluded there was no significant effect on the likelihood of being arrested or not (Visher, Winterfield, and Coggeshall 2005). The researchers concluded that employment courses taught in prison could not overcome some of the obstacles faced by those released back into the community. Evaluating such programs is difficult, however, because many prisoners are relocated to different facilities while serving their sentence, which disrupts their program participation and leads to inconsistencies in program delivery (Cho and Tyler 2013).

Although prison programs may teach prisoners employment skills, provide them with mental health or drug treatment, or help them earn a degree, it is unfeasible for these programs to address all of the issues that may arise during the reentry process. This is because there are various issues facing released offenders that differ from individual to individual that cannot always be anticipated by these programs (Wikoff et al. 2012). In addition, participation in prison programs is usually low due to crowded facilities, a lack of qualified staff and resources needed to run successful programs, and difficulty in combining programs in a space that was not designed for rehabilitative purposes (Austin 2001; Veysey et al. 2014). Thus, even when services appear adequate, they are unlikely to make a significant difference in lowering recidivism because relatively few receive these services. To address the potential shortcomings of prison
programs, a surge of re-entry programs designed to protect against recidivism have been created and examined by researchers.

Research on Wrap-around and Reentry Programs and Services

Currently, a well-studied area of recidivism research involves wrap-around or multi-modal reentry programs: programs that provide more than one service designed to address the reentry needs of released offenders. Reentry programs with a wrap-around focus integrate staff from numerous agencies and seek to address ex-offenders’ individual needs, requiring the cooperation of the police, social services, community members, family members, treatment providers, and other government agencies (Lutze et al. 2014). Advocates contend that wraparound services provide a better method than prison programs of successful reentry due to their comprehensive nature (Lutze et al. 2014; Veysey et al. 2014). The challenges that wraparound programs seek to address include poverty, mental instability, low conventional employment or housing opportunities, criminal peers and environments, strained family relationships, and residing in unsafe communities (Link and Roman 2017). Additionally, released offenders may have low family support, broken ties to conventional members of society or societal institutions, a history of mental illness, or drug abuse. These often combine to create a difficult reentry period (Lutze et al. 2014). However, comprehensive social services that address individual needs and criminal behavior risk factors in reentry may help reduce the likelihood of recidivism (Andrews and Bonta 2010).

The correct implementation and evaluation of such wraparound services is critical, otherwise they may produce adverse results. The poster child for failed reentry programs is the New York Greenlight Project, which provided educational, employment, cognitive behavioral treatment, housing, family counseling, and other services to released offenders. Although this
program appeared successful on the surface due to its number and variety of services, numerous issues led to an ineffective program that made little difference in the risk of recidivism between participants and non-participants. Evaluations of this program showed that poor training of staff and their inability to implement the program as designed led to its lack of success (Lutze et al. 2014; Marlowe 2006; Veysey et al. 2014).

A more general observation to emerge from evaluations of these programs was that if the numerous services and agencies involved with reentry initiatives suffer from poor communication and cooperation, the programs are less likely to be effective. Reentry programs need to be implemented in a correct manner, and not employ a “kitchen sink” approach where the program throws in as many as services as possible and hopes one of those services makes a difference (Marlowe 2006; Veysey et al. 2014). Likewise, if services are not directed well, are disorganized, or based on common sense rationales rather than empirical research, successful transitions by the released offender may be hindered. Overall, most reentry programs, even those that seek a comprehensive approach show at best, modest results in reducing recidivism. Even when successful, results are typically short-lived (James et al. 2013; Link and Roman 2017).

**Personal Mentors**

As mentioned earlier, there is a large research literature on reentry programs. Most programs, even those that take a comprehensive approach to assisting released offenders, demonstrate little to no effect on post-release outcomes. Those who participate in programs and those who do not tend to have similar rates of post-release offending. In seeking to develop alternative programs that hold promise for reducing recidivism, some have suggested that mentoring can be an important element in an effective program. Mentors serve as personal advocates for the released prisoner and act as mediators between releasees and program
providers. Their key role is to ensure that their “mentee” receives quality services, that they encourage him or her to stay with the programming, and not become lost in the process as he or she is exposed to the various agencies involved in prison or wraparound programs (Visher 2007).

Currently, the effect of adult mentors in prison or reentry services is not well understood, as much of the mentoring research focus on juveniles (DuBois et al. 2002; DuBois et al. 2011; Rhodes and DuBois 2008). Most research designed to evaluate wraparound services does not explicitly explore supervision of services through mentoring (Taxman 2002). Although some studies focus on probation or parole agents as “mentors” who are supposed to help released prisoners manage various services, few studies have explored mentors who are volunteers from the community. These types of mentoring services can be quite different from the services offered by probation and parole officers, especially in their focus on rehabilitation versus punishment (James 2011; Visher 2007).

In prison or reentry programs, having a personal mentor assigned to an individual instead of being in a traditional Adult Probation and Parole (AP&P) setting could reduce the risk of recidivism due to the strong relationship that is formed with a non-criminogenic other who is responsible for facilitating the offender’s prison services and/or the ex-prisoner’s reentry services (Veysey et al. 2014; Visher 2007). AP&P officers are often overworked and are not normally trained in providing connections and resources to released offenders as are specialized mentors. Yet, having an association with a mentor, one who is not typically as overworked as AP&P staff and has less of an emphasis on surveillance, has the potential to provide a released offender with connections to conventional societal resources that may not otherwise be available. This relationship should in turn help prevent future involvement in crime (Intravia, Jones, and Piquero 2012).
Although not well examined in studies of adult recidivism, the role of mentors is frequently explored in studies of delinquent and at-risk youth. Research illustrates that when programs follow well outlined practices, create a strong bond between mentors and youth, and target youth from disadvantaged or risky backgrounds, they tend to yield benefits for program participants (DuBois et al. 2002; DuBois et al. 2011; James et al. 2013; Rhodes, Grossman, and Resch 2000). Some best practices include recruiting qualified and trained mentors; matching mentors and mentees based on gender, race, mutual interests, and expectations of what their relationship should look like; and involving the youth’s parents (Dubois et al. 2002). Preferably, this mentoring relationship involves a regular pattern of contact over a substantial period of time. If not, the level of effectiveness of the mentoring program is greatly diminished (DuBois et al. 2002). Studies of youth mentoring programs have found that they improve several outcomes, including emotional/psychological states, problematic or high risk behaviors, academic/educational achievement, social competence, and employment (DuBois et al. 2002; DuBois et al. 2011; James et al. 2013).

Can these findings be applied to adults in a similar manner? Although the answer to this question is poorly understood, studies of youth mentoring suggest it is likely to be affirmative. Examining the benefits of mentoring from a developmental standpoint, better outcomes throughout childhood and adolescence suggest that these changes are not limited to certain stages of development and could benefit adults as well (DuBois et al. 2011; James et al. 2013). Likewise, in research that examines adult mentoring in educational or employment settings, mentoring relationships yield similar positive benefits to those found in youth mentorship, especially if the mentor had a high level of fit between the skill level and specific
needs of the mentee (DuBois et al. 2011). Although there is little research on relationships among adult mentors and mentees, the research on juvenile mentees suggests that adult mentors should have the potential to produce reductions in recidivism.

Research on Adult Mentoring and Recidivism

There are few studies of whether mentors affect recidivism among adults. However, research on this subject suggests positive results of mentoring in reducing recidivism. In an evaluation of the New Jersey SVORI program, project leaders and partners tracked the progress of each participant while utilizing mentors for the participants. At their first project meeting, the mentors iterated, “We want you to succeed…we are here to help you…and we are willing to give you and your families the assistance necessary to do that” (Veysey et al 2012: 442). With this knowledge in mind, released offenders could begin to build a relationship with their prospective mentor, even before release.

This study compared offenders under SVORI supervision terms to offenders not supervised in the SVORI program and those assigned to traditional parole agents, as well as those under no form of supervision. It concluded the SVORI supervised offenders were less likely to be rearrested compared to those in these other groups (Veysey et al. 2014). However, this study examined other factors in reducing recidivism and therefore could not pinpoint if the personal mentor, the other programs and services, or a combination of both led to the reduction in post-release arrests.

In a similar study, Braga et al. (2009) examined the Boston Reentry Initiative (BRI), which sought to address and minimize the risk factors of offending for high-risk released offenders, such as violent criminal histories and a lack of positive social support. Along with social and vocational services, this initiative created individual plans for offenders and, once
released, the plan was maintained in the community by a mentor. BRI participants were assigned caseworkers and community, faith-based mentors who began their work with the participant at the time of release. Mentors helped craft individualized intervention efforts for their mentee, and created a link between the released offenders and community-based services. In addition, the faith-based institutions that provided mentors were located in the same communities in which the offenders resided (Braga et al. 2009). The mentors worked with their mentees for an average of 12 to 18 months post release and offered progress reports of their mentees to the program partners (Braga et al. 2009). Thus, the releasees were held accountable for their program progress and were less likely to get lost in the system; as previous research suggests mentors can aid in enabling their mentees to stay engaged in their programs and services (Visher 2007).

Overall, the BRI program was successful in reducing recidivism among program participants. Compared to similar offenders who did not receive a mentor and the host of post-release social and vocational services, participants were 30 percent less likely to recidivate (Braga et al. 2009). However, this study did not examine the direct influence of mentors. Was the network of services and individualized plan the cause for successful reentry, or did the facilitation of the personal mentor make the difference in these offenders’ outcomes? In addition, the study was limited to one setting, so the results cannot easily be generalized to the broader U.S. prison population at risk of reoffending. Moreover, none of the aforementioned studies examined other factors that may affect mentoring, such as the perceptions by prospective mentees about the need for mentoring, although many mention the potential benefits of having a mentor in other research on in-prison and reentry programs (Visher 2007).
PROBLEM STATEMENT

As the literature illustrates, the effects of adult mentors on the risk of recidivism is not well understood. However, mentors can potentially lower recidivism because they provide valuable connections to conventional societal institutions and resources that help released offenders navigate the reentry process. Moreover, mentors can assist offenders in prison to develop a reentry plan and encourage them to follow this plan. All of these functions provided by mentors discourage future offending and thus reduce the risk of recidivism. To explore the effectiveness of mentoring, this research examines whether having a mentor during imprisonment reduces the likelihood of recidivism. It compares the effect of having, versus not having a mentor as an aspect of a prison program, and ultimately explores if receiving mentoring services reduces the likelihood of recidivism.

Given the potential role that mentors play in the reentry process, an exploratory investigation of mentors and mentoring services is needed to better understand what effects the success of prison or reentry programs in reducing recidivism. Knowing the level of intervention needed for mentors to make a difference, or even if mentors are necessary for the success of these programs, can have a vital impact on the structure and resource allocation of reentry programs and have policy implications for current and future reentry initiatives.

METHODS

Data Source

The data used to examine the efforts of mentors on recidivism are from the Serious and Violent Offender Reentry Initiative (SVORI). This research project targeted offenders who committed more serious and violent crimes, and were at a higher risk of recidivism. It was
developed and funded by the U.S. Department of Justice and other federal partners including the Departments of Housing and Urban Development, Education, and Labor, and non-federal partners such as community and faith based organizations (James 2011; Visher et al. 2017; Winterfield et al. 2006). The main foci of the initiative were to provide grants to state and local services to improve the employment, health, housing, educational, and criminal justice outcomes of released offenders, with these services tailored to the individual needs of participants (Lattimore et al. 2012; Visher et al. 2017; Winterfield et al. 2006). Participants recruited for the SVORI project consisted of sampled inmates from prisons in fourteen states (two of which focused on juveniles only and therefore are not utilized in this study). To qualify for SVORI project funds and services, the prison needed to provide certain programs that met the standard of effectiveness set by SVORI researchers, such as the facilities’ ability to implement the programs, a large enough target size, availability of an analogous comparison group, and willing participants (Wallace et al. 2016).

After sites were visited and approved for selection, sixteen SVORI programs for adults from the following states were included: Indiana, Iowa, Kansas, Maine, Maryland, Missouri, Nevada, Ohio, Oklahoma, Pennsylvania, South Carolina, and Washington. Participants at these sites were either randomly assigned to a program, or were identified by local staff as eligible for the SVORI program. Of the total sample size, there were 1,697 adult males, 357 adult females, and 337 juvenile male participants. Each of these groups was divided into their own data file, making comparisons between groups difficult. Additionally, the sample sizes of the women and juvenile groups were relatively small compared to the male sample, further complicating group comparisons. Also, previous research indicates that mentoring relationships may be more helpful and effective for males than females (James et al. 2013; Ozbay and Ozcan 2008). For these
reasons, and to explore the role of mentoring among adults rather than youth, only the adult male sample was utilized in this study. Subjects in the adult male sample had extensive criminal backgrounds, low legitimate employment activity or skills, low education levels, a high degree of substance abuse issues, and more mental health problems than other males in the prison population (Lattimore et al. 2012; Link and Roman 2017; Visher et al. 2017; Wallace et al. 2016). Thus, participants of SVORI were identified to be at higher risk of recidivism than the general prison population, which group is typically identified as the most in need of treatment interventions (Petersilia 2004).

To assess each of the previously mentioned SVORI objectives, each offender who participated in the study was interviewed approximately 30 days prior to their release from prison, and at three, nine, and 15 months post-release. In total, all interviews comprised of four waves of data (Link and Roman 2017; Wallace et al. 2016). Participants who were incarcerated during this follow up period were interviewed in prison or jail. Those who were not incarcerated were interviewed in private settings within a community location. If a participant was in a substance abuse or other treatment center, interviews took place in that context (Lattimore and Steffey 2009).

The interviews consisted of in-person, computer assisted interviews, lasted approximately one-and-a-half hours, and were conducted between 2004 and 2007 (Lattimore and Steffey 2009; Wallace et al. 2016). The pre-release interview was utilized to document the experiences of the participant in prison, any plans upon release, and their mental and physical health. The three follow up interviews were utilized to document the subject’s post-incarceration relationships, health, housing, employment history, community integration, and offenses committed, if any (Lattimore and Steffey 2009; Visher et al. 2017; Wallace et al. 2016). The response rate declined
over time due to attrition, such as individuals being re-incarcerated, non-response, or participants who could not be located. The second wave contained a sample of 980, or a response rate of 57.7 percent. The third wave had a response rate of 60.7 percent, or a sample of 1,029. Lastly, the fourth wave had a sample size of 1,108 or a 65.3 percent response rate in comparison to the original sample (Lattimore and Steffey 2009). Figure 1 illustrates the attrition rate of the interviews over the follow up period.

[Figure 1 about here]

Note, then, that some who were not interviewed at the first follow-up were interviewed at the second or third follow-up waves. Even though there was varying nonresponse across the follow up waves, an analysis of the missing data indicated that it did not affect the representativeness of the sample, and that there were not statistically significant differences in the relevant variables, such as age, race, marital status, education level, type of offense committed to instigate imprisonment, employment status, and post-release criminal behavior between the sample at wave one and the follow up samples at waves two, three, and four (Lattimore and Steffey 2009; Lattimore et al. 2012; Link and Roman 2017; Stansfield et al. 2017; Stansfield, Mowen, and O’Connor 2018; Wallace et al. 2016). In conjunction with these interviews, previous arrest and official criminal records were accessed from the FBI to determine if participants were arrested, re-convicted, or re-incarcerated for any criminal offending after release (Lattimore et al. 2012). However, at the time of this study, the FBI data were not available, thus the participant’s reports of their post-prison criminal activity in the follow up interviews are utilized to measure recidivism.
**Outcome Variable: Number of Post-Release Criminal Offenses**

In this study, recidivism is defined as the number of self-reported criminal acts committed after release from prison (Stansfield et al. 2017; Stansfield et al. 2018). The analysis focuses on criminal offending as the primary outcome variable. To measure criminal offending after release from prison, interview questions that inquire about criminal behavior since the previous interview, waves two through four are used. These questions asked if the respondent had committed any of the following offenses: a violent crime, any type of crime against another individual, possessed drugs, sold drugs to others, any other kind of drug crime, a DWI or DUI, a property crime, or another crime not included in the previously listed crimes. Based on the number of “yes” responses, I created a count variable with response categories ranging from zero to eight at each wave. I then aggregated the responses to these eight questions from the three follow up interviews that were conducted post-release.

Because of the differential attrition at each wave, not all participants answered these criminal offending questions. Of waves two, three, and four, a subsample of approximately 1,000 respondents answered the criminal offending questions. The rest were not included in the analytical data and are treated as missing. Although this represents a moderately high overall attrition rate, the primary investigators of the SVORI data verified that this sample attrition was random (Lattimore, Steffey, and Visher 2009; Wallace et al. 2016). Likewise, other projects analyzing the SVORI data using pairwise deletion suggest the sample at wave one is not statistically different than the sample at wave four in terms of race, length of incarceration, number of prior convictions, marital status, type of offense committed to instigate imprisonment, employment status, level of peer or family support, mental health status, and post-release criminal offending (Stansfield et al. 2017; Stansfield et al. 2018; Wallace et al. 2016). For
instance, Stansfield, Mowen, and O’Connor (2018) demonstrated that there was little or no significant predictors of attrition in their criminal offending count measure. This suggests those who dropped out of the sample are not statistically different from those who remained in the study. Thus, the results should not be biased towards specific types of pre-imprisonment or post-release criminal offending or characteristics of a certain group.

**Explanatory Variable: Mentoring**

The main explanatory variable in this study is whether the respondent had a mentor and received mentoring services while in prison. In the SVORI study, there were two measures of mentoring: if a participant had received mentoring services, and a self-reported level of need for a mentor. The main mentoring variable for the analysis was if a participant received mentoring services or not, measured by the following question asked at wave one: “Received mentoring services?” to which the respondent indicated yes or no. Yes is coded as 1, while no is coded as 0. Approximately 14 percent of participants received mentoring services, whereas 86 percent did not. An additional measure of mentoring is included: the perceived need of mentoring services, whether the participant received mentoring services or not. This represented three groups who indicated his level of need for a mentor as: 0 = “not at all,” 1 = “a little” needed, and 2 = “a lot” needed. This variable was used in conjunction with the main mentoring variable to determine the perceived need of mentoring services, from the mentee’s perspective.

**Control Variables**

To examine additional predictors of recidivism, sociodemographic and arrest history indicators are included in the analysis. Research on recidivism shows that there are numerous risk factors for criminal offending after release from prison, including an offender’s age, marital
status, education level going into prison, if one was employed prior to incarceration, and criminal history variables. The latter include the level of previous criminal involvement prior to incarceration and the type of offense for which the participant was incarcerated (Bouffard and Bergeron 2008; Braga et al. 2009; Stansfield et al. 2018; Veysey et al. 2014).

Continuous control variables included the participant’s age, age at first arrest, a self-report of the number of previous arrests, and the number of days of their current incarceration. Age at the wave one interview was recorded in years. Age at first arrest was recorded by asking during the wave one interview “how old were you the first time you were arrested?” Also collected at the wave one interview was information on the number of previous arrests for each participant, based on the question “How many times in your life have you been arrested?” The number of days each participant was currently incarcerated was also recorded at the wave one interview.

Categorical control variables included marital status, education level, ethnic status, pre-incarceration employment status, and the offense that instigated the participant’s current incarceration at the wave one interview. Marital status at the wave one interview was recoded into the following categories with married as the reference group: “married,” “separated,” “divorced,” “widowed,” or “never married,” with three-fourths of respondents having never been married and one-fourth having been married at some point. Education level was measured by asking the highest level of education achieved, ranging from first grade to a professional degree. It was coded into six categories: 1 through 8 = 1 “elementary or middle school equivalent” or 9 thorough 11 = 2 “some high school” or 12 through 13 = 3 “high school or equivalent,” or 14 = 4 “vocational training,” or 15 through 16 = 5 “some college,” and 17 through 18 = 6 “college and post-college.” The high school or equivalent category was used as the reference group. Ethnicity
at the wave 1 interview was indicated by the self-reported primary ethnic status of the subject, including the following categories: “white only,” “black only,” “Hispanic,” “other non-Hispanic,” and “multiple race,” with white only representing the reference group. Pre-incarceration employment distinguished those who did and did not have a job six months prior to their current incarceration (1 = “yes” and 0 = “no”). Lastly, each participant reported the current offense(s) that initiated their current incarceration. These were coded into four mutually exclusive groups: crimes against people, crimes against property, drug crimes, and miscellaneous crimes. The personal offense category included robbery, assault, murder, forgery, fraud, and sexual offenses. The property offense group included burglary, theft, and car theft, while the drug offense category comprised of drug dealing and drug possession. Any reported offenses that did not match the above descriptions were coded as miscellaneous (other) crimes in their own category.

Analytical Approach

I utilize negative binomial regression to assess the association between mentoring and post-release offending, or recidivism. The outcome variable represents a total count of self-reported criminal offenses after release from prison over three waves of follow up interviews. As the outcome measures is a count variable, a statistical approach that can accurately analyze the number of, or count of a phenomenon is most appropriate. It is not prudent in this case to use linear regression because count variables do not meet the assumptions of this model (Hoffmann 2016). A common approach for analyzing count variables is Poisson regression. However, Poisson regression assumes that the mean and the variance of the outcome variable’s distribution are equal, and that the counted events are independent of each other. Negative binomial regression relaxes these assumptions, and allows for over-dispersion in the distribution of the
outcome variable: when the variance exceeds the mean (Hoffmann 2016). Additionally, previous research utilizing the SVORI self-report criminal offense count measure and other count measures as the outcome variable utilized negative binomial regression due to the over-dispersed nature of the outcome variable’s distribution (Berg et al. 2016; Lattimore et al. 2012; Snedker, Beach, and Corcoran 2017; Stansfield et al. 2017; Stansfield et al. 2018; Ver Hoef and Boveng 2007; Walters 2015; Visher et al. 2017).

The regression models are estimated in two stages. The first stage examines whether mentoring by itself predicts the frequency of reoffending. The second stage adds the control variables to determine their effects on reoffending or on the association between mentoring and this outcome.

RESULTS

Descriptive Statistics

*Outcome variable.* The outcome variable, number of self-reported crimes committed post release, ranged from zero to 16. The average SVORI participant self-reported committing 1.28 crimes after being released from prison within the 15 month follow up period, with a standard deviation of approximately 2.14. In order to check for the dispersion of this count variable, the mean and variance were compared. Poisson regression assumes that the mean and variance of the outcome count variable should be the same. However, as mentioned earlier, negative binomial regression relaxes this assumption and allows for the variance to be larger than the mean (Hoffmann 2016). With a mean value of 1.28 and a variance of 4.60 for the self-reported number of crimes count variable, the variance is larger than the mean and the variable is over-dispersed, indicating negative binomial regression is best suited for this analysis.
Explanatory variables. 15.56 percent of respondents in the analysis sample reported having received mentoring services in prison, while 84.44 percent did not. Of all the SVORI participants, about 37 percent of offenders indicated not needing a mentor at all, about 30 percent needed mentoring services a little bit, whereas the other 33 percent indicated needing a mentor a lot.

Control variables. Age at the wave 1 interview ranged from 18 to 69, with a mean of 29 years and a standard deviation of 7.2. When asked their age at first arrest, responses ranged from 10 to 67, with an average of 16 years and a standard deviation of 4.94. This suggests that the average SVORI study participant began criminal involvement when they were juveniles. The number of previous arrests was also recorded at the first interview, with a range of one to 100. Previous arrests had a mean value of 14 and a standard deviation of 16, indicating the high previous criminal involvement of the SVORI population. Lastly, the number of days the respondent was incarcerated at the wave one interview was recorded, ranging from 44 to 9,486, or approximately a month and a half to 26 years. The average number of days currently incarcerated was about 920 or two and a half years, with a standard deviation of 906.

The average level of education achieved was high school or equivalent. Nearly six percent of respondents reported elementary or middle school as their highest level of education, whereas 32 percent received some high school education. Nearly 46 percent achieved a high school or equivalent education, and four percent reported receiving vocation education after high school. 12 percent of SVORI participants received some college or a college education. As for marital status, almost ten percent were married, 15 percent were separated or divorced, just less than a half of a percent were widowed, and the vast majority of respondents, nearly 75 percent
had never been married when interviewed at wave one. Within the various ethnic categories, 36 percent of respondents identified as white, 52 percent as black, nearly four percent as Hispanic, two percent as other, non-Hispanic, and close to seven percent reported being multi-racial. The types of offenses that led to incarceration were categorized in four mutually exclusive groups: personal offenses, property offenses, drug offenses, and miscellaneous (other) offenses. Thirty-two percent of participants were incarcerated for personal crimes, nearly 17 percent for property crimes, about 27 percent for drug related crimes, and 29 percent for other crimes not categorized in the previous groups. Sixty-five percent of respondents reported being employed at a job six months prior to their current incarceration while nearly 35 percent did not.

[Table 1 about here]

*Characteristics of Mentored versus Non-mentored Releasees*

Table 2 provides the characteristics of those who received mentoring relative to those who did not receive mentoring. In general, there was not a significant difference in the number of self-reported crimes between the two groups. Mentored offenders reported an average of 1.37 crimes post-release, slightly higher than the non-mentored group average of 1.26 crimes. However, this difference was not statistically significant. An interesting finding is that those who had a mentor were more likely than those who did not have a mentor say they had little or a lot of need for a mentor. Also, there was a statistically significant difference between those who were mentored and not mentored in these aforementioned categories. There did not appear to be substantial differences by mentoring in education or marital status, except those who received vocational training were more likely to receive mentoring services. Although the differences were not readily apparent for education, a chi square test provided evidence for a significant difference between these groups.
Among the racial categories, white males tended to be overrepresented in mentoring programs relative to black males, however these results were not significant. Among the four categories of offense types that instigated the participant’s incarceration, there was not a significant difference between those who were and were not mentored for these offenses. Among the continuous control variables, age and age at first arrest reported significant differences between the mentored and non-mentored groups, with the mentored group having been a younger age when first arrested than the non-mentored group. Additionally, the number of days of the participant’s incarceration was longer for the mentored group, with an average difference of 264.68 days longer, or around seven or eight months. This suggests that those in the mentoring group may have been targeted as needing mentors due to a longer prison stay, which may factor into a difficult reentry period and affect the risk of recidivism (Cullen et al. 2011). This difference was also statistically significant utilizing a two sample t-test.

Negative Binomial Regression Model Results

Model 1. In the first part of the analysis, I compare the incidence rates of those who received mentoring and those who did not in their number of self-reported criminal acts after release from prison. The results indicate a nine percent increase in the rates of post-release offending among those who were mentored relative to those who were not mentored. However, this difference was not statistically significant at the 0.05 level. This suggests that, absent adjustments for other variables, receiving mentoring services in prison does not affect the number of post-release offenses.
**Model 2.** In the second part of the analysis, I compare the incidence rates of those who received mentoring and those who did not in the number of self-reported criminal acts after release from prison, with statistical adjustments for perceived need of mentoring, age, ethnicity, education level, marital status, the type of offense that instigated the participant’s incarceration at wave one, employment status prior to incarceration, the number of days the participant had been incarcerated, and prior criminal history variables such as the age at first arrest and number of previous arrests. A comparison of the AIC and BIC values from the two models indicates that the full model (Model 2) fits the data better than the restricted model that includes only mentoring as a predictor.

In the full model, those who reported having received mentoring reported a three percent decrease in the rate of post-release criminal offenses compared to their non-mentored counterparts. Although this may indicate that mentoring services were helpful in reducing recidivism, the result was not statistically significant at the 0.05 level. Even when other factors of recidivism were taken into account, mentoring did not make a significant difference in the number of crimes committed after release from prison.

Of the various factors examined, only the following resulted in statistically significant effects on post-release offending (at the p < 0.05 level): age, age at first arrest, the number of previous arrests, the number of days incarcerated at wave one, and if the participant was black. For example, each additional increase in the number of criminal offenses prior to incarceration was associated with a one percent increase in post-release offending. However, the differences in the reported number of crimes was small for most variables, between one to three percent for the
above listed variables, except for identifying as black. Black releasees reported a 32 percent reduction in the number of post-release crimes relative to white releasees. Overall, these results support previous research that suggests criminal history and ethnic status are significant predictors of recidivism (Benda et al. 2001; Braga et al. 2009; James 2011; Visher et al. 2017; Watt, Howells, and Delfabbro 2004).

DISCUSSION

Overall, receiving mentoring services in prison did not have a statistically significant impact on the number of self-reported offenses after release from prison. Unfortunately, the success of certain at-risk juvenile mentoring programs in reducing delinquent and criminal behavior did not appear to translate into the adult setting (DuBois et al. 2002; DuBois et al. 2011; Rhodes and DuBois 2008). There are several potential reasons why mentors did not affect recidivism in this analysis.

First, the SVORI sample consisted primarily of high-risk offenders, and thus may be at increased risk of recidivism regardless of what programs they may have participated in. Research indicates that those with extensive criminal backgrounds are more likely to recidivate, with prison and reentry programming not always being able to mitigate the barriers to a successful reentry (Benda et al. 2001; Braga et al. 2009; Lutze et al. 2014). Despite the well-meaning intentions of mentoring and other in-prison and reentry services, the extensive past criminal behavior and difficult reentry process experienced by these high risk participants is challenging to overcome.

Second, adult offenders may not be as amenable as youthful offenders to the influence of adult mentors. Adults released into the community face additional obstacles, such as finding employment or stable housing that may not be as relevant among youth. In addition, even many
youth mentoring programs are not particularly effective in reducing recidivism. Blechman et al. (2000) noted that mentoring relationships often fail if they are contrived or forced onto impulsive and criminogenic recipients. Due to these potentially volatile and strained relationships, mentors may terminate the relationship early, which goes against one of the main ingredients necessary for a successful mentoring experience: a well-maintained, established, and trustful mentor-mentee relationship (DuBois et al. 2002; DuBois et al. 2011). In addition, studies suggest that the effects of mentoring taper off once at-risk youth are sent back to the community and are no longer closely supervised by mentoring staff (James et al. 2013). Similar to their SVORI counterparts, mentored at-risk youth often relapse into crime after mentoring services and supervision end.

Third, the SVORI data had limited information on mentors and what role they played in the lives of releasees. More information about who the mentors are and what they do rather than their mere existence is needed to fully understand whether they affect the successful reentry of released offenders, as a growing number of activities are considered to constitute mentoring, even if not supported by research (Rhodes and DuBois 2008). In particular, mentoring programs are effective only when they follow well outlined practices rooted in empirical research, such as recruiting and training qualified mentors, and ensuring the mentors and mentees are well matched on several characteristics including race, gender, mutual interests, and similar expectations of what the mentoring relationship should look like. Additionally, forming a strong bond between mentors and mentees based on trust and a mutual desire to work towards a meaningful goal of improved behavior is the key for successful outcomes (DuBois et al. 2002; DuBois et al. 2011; James et al. 2013; Rhodes et al. 2000). Although the literature suggests that
adult mentoring programs should yield similar results as juvenile mentoring programs, this is not what I found (cf. DuBois et al. 2011; James et al. 2013).

Fourth, there is some evidence that the SVORI program suffered from subpar service delivery. Despite the vast and comprehensive interventions of the program, recidivism rates were high for both SVORI participants and non-participant comparison groups (Lattimore et al. 2009; Visher and Travis 2011). Initially, this seems counterintuitive since mediating services received by the participants should have reduced recidivism. However, as reflected in the present study, the level of services provided to SVORI participants were likely insufficient given the high risk nature of this unique population (Petersilia 2004; Visher and Travis 2011). Only 14 percent of participants received mentoring services, despite approximately 60 percent of participants reporting needing a mentor a little or a lot. Although SVORI participants received a greater number of services, they still fell victim to treatment dilution, or service reception that was inadequate for their expressed levels of need. This dilution only declined after release from prison (Lattimore et al. 2009; Visher and Travis 2011). Due to the discrepancy between intentional service and programming delivery and what was actually received by participants, this suggests there were nettlesome issues with the correct implementation and execution of services. Although not specifically available, this also suggests the established best practices of mentoring in the at-risk youth literature was likely not fully implemented in the SVORI mentoring services.

Policy Implications

A major implication of this research is the importance of quality program implementation and evaluation grounded in solid research principles. Often, if a program or services seems helpful on its face, these services will be given in spite of the current research findings. As with
mentoring programs, research that describes its benefits also warns that the positive associations are often modest and decline over time; positive outcomes also depend heavily on several intervening processes such as well-trained mentors, frequent and long lasting mentor-mentee relationships, and supplemental programming that enhances the mentoring process (Rhodes and DuBois 2008). Additionally, the support of parents or other adult guardians is imperative for the success of youth mentoring (Rhodes et al. 2000; Rhodes and DuBois 2008). Outside support from positive family or peer relationships can help structure the mentoring relationship, and continue the mentoring process once the programming ends.

It may be the case that mentoring programs, regardless of their quality, are ineffective for adult releasees. This is what the current research suggests. Thus, mentoring may need to be added to the list of prison interventions that do not work to reduce recidivism. However, further research is needed to verify or challenge the current results. If mentoring programs are to be successful, the aforementioned best practices of mentoring should be followed. Moreover, we need to know more about the context, implementation, and characteristics of the mentor-mentee relationship. As noted by previous research, programs may appear to improve outcomes in the short-term, but the overall impact on recidivism is low (Visher and Travis 2011). Although there is a general “what works” literature that supports several services and programs that reduce recidivism, the programs that are supposed to work have not produced long-lasting reductions in recidivism rates (Andrews 2006; James 2011). Without the effective delivery of services, proper timing of services, incorporation of empirically supported principles into the programming, and proper matching of individuals to the program(s) that best suit their needs, prison and reentry services, including mentoring, will unlikely make an impact on lowering recidivism rates among released offenders (Visher and Travis 2011).


**Limitations**

A major limitation of this research is the lack of information on the context, environment, and relationship status of the mentoring services received by SVORI participants. Without this knowledge, it is difficult to evaluate the results on mentoring on recidivism based on the aforementioned best practices established in the mentoring literature (Blechman et al. 2000; DuBois et al. 2002; DuBois et al. 2011; James et al. 2013; Rhodes and DuBois 2008). Due to the confidential nature of the SVORI data, in addition to the survey questions, participants only indicated if they had received mentoring services or not, and the level of need they felt for mentoring. Although this poses the shortcomings of utilizing the SVORI data set, there unfortunately is not another widely available data set on a national scale that asked mentoring questions of inmate participants. In order to conduct a preliminary and exploratory analysis of the effects of mentoring on recidivism on a large geographic scale for a high-risk prison population, the SVORI data set provides the best overall picture of mentoring and adult recidivism. Future research should better target mentoring programs in which these best practices can be evaluated.

As discussed earlier, the research on adult mentoring, especially in the context of prison or reentry programs is sparse and not well understood. The few articles that discuss this subject utilize localized samples and analyzed mentoring in conjunction with other services, rather than the mentoring relationship and its qualities (Braga et al. 2009; Veysey et al. 2014). Although the SVORI survey asked questions on the reception and need for mentoring, the specific relationship between mentoring and recidivism has not been explicitly explored. Numerous reports and articles that analyze the SVORI data described that mentoring was received, but do not utilize this concept for in-depth analysis (Lattimore and Steffey 2009; Lattimore et al. 2009; Lattimore...
et al. 2012; Link and Roman 2017; Stansfield et al. 2017; Stansfield et al. 2018; Visher 2007; Visher et al. 2017; Wallace et al. 2016; Winterfield et al. 2006). As this research is exploratory in nature, there is not a well-established literature to which to compare the results.

Official records about re-arrests, re-convictions, or re-incarceration rates of the SVORI program participants were not available for this analysis. Thus, I used self-report measures of the number of crimes committed up to 15 months post-release from prison. A common concern of self-report data is the inaccuracy of the reporting by the participant, either by omitting, lying, or giving inaccurate responses. It is possible, as with any survey or research that depends on self-report, that the SVORI participants reported post-release criminal behavior inconsistent with their actual behavior (Link and Roman 2017; Watt et al. 2004). In addition, not all participants answered the criminal behavior questions in the follow up interviews, reducing the sample size for analysis. However, many studies on recidivism rely on self-report data for measures of recidivism (Stansfield et al. 2017; Stansfield et al. 2018; Taylor and Becker 2015; Visher et al. 2017; Wallace et al. 2016), and reliance on official crime records suffer their own limitations, such as omissions, reporting issues in local or state police departments, and crimes committed that are not known and recorded by authorities (James 2011).

Lastly, as this research utilizes self-report data from four interviews over a 16 month period, attrition issues may affect the analysis. Although numerous researchers found no statistically significant difference between those who dropped out during the follow up interviews and those who did not (Lattimore and Steffey 2009; Lattimore et al. 2012; Link and Roman 2017; Stansfield et al. 2017; Stansfield et al. 2018; Wallace et al. 2016), sample attrition may still affect the results.
CONCLUSION

The present study was one of the first to explore the relationship between receiving mentoring services and recidivism among adult males. The analysis indicates that mentoring services did not affect the number of self-reported crimes after release from prison. This contradicts some previous research on the positive outcomes of at-risk youth mentoring, but is supported by other research that suggests these positive outcomes are modest and tend to fade over time. Previous research on prison and reentry programs, often termed the “what works” literature, when examined with a critical eye, has provided mixed results about the success of such programs and whether they reduce the risk of recidivism. Thus, much more work is needed on how mentoring is delivered in prison to and to those released from prison. It is only through carefully considering program implementation that the genuine effects of mentoring can be evaluated.
REFERENCES


and Behavior 44(9):1141-1162.


### Table 1. Descriptive Statistics of Variables Utilized in Analysis, SVORI, 2004-2007, N=1,253

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean or Percentage</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome Variable</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Number of Crimes Committed Post Release</td>
<td>1.28</td>
<td>2.14</td>
<td>0</td>
<td>16</td>
</tr>
<tr>
<td><strong>Explanatory Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Received Mentoring</td>
<td>15.56%</td>
<td>0.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not Receive Mentoring</td>
<td>84.44</td>
<td>0.36</td>
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<td></td>
</tr>
<tr>
<td>Level of Need for Mentoring</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>36.95%</td>
<td>0.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A little</td>
<td>30.25</td>
<td>0.46</td>
<td></td>
<td></td>
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<tr>
<td>A lot</td>
<td>32.80</td>
<td>0.47</td>
<td></td>
<td></td>
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<tr>
<td><strong>Control Variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Highest Level of Education Achieved</td>
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<td></td>
<td></td>
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<tr>
<td>Elementary or middle</td>
<td>5.59%</td>
<td>0.23</td>
<td></td>
<td></td>
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<tr>
<td>Some high school</td>
<td>32.16</td>
<td>0.47</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school or equivalent</td>
<td>45.81</td>
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<td>Vocational</td>
<td>4.63</td>
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<td>Some college</td>
<td>11.25</td>
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<td>College and above</td>
<td>0.56</td>
<td>0.07</td>
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<tr>
<td>Marital Status</td>
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<tr>
<td>Married</td>
<td>9.74%</td>
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<tr>
<td>Separated</td>
<td>6.30</td>
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<tr>
<td>Divorced</td>
<td>9.02</td>
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<td>Widowed</td>
<td>0.40</td>
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<td>Never married</td>
<td>74.54</td>
<td>0.44</td>
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</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>White</td>
<td>36.07%</td>
<td>0.48</td>
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<td></td>
</tr>
<tr>
<td>Black</td>
<td>51.48</td>
<td>0.50</td>
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<tr>
<td>Hispanic</td>
<td>3.59</td>
<td>0.19</td>
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<tr>
<td>Other non-Hispanic</td>
<td>2.00</td>
<td>0.14</td>
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<td></td>
</tr>
<tr>
<td>Offence Type</td>
<td>Incarcerated for at Wave 1</td>
<td>Personal&lt;sup&gt;a&lt;/sup&gt; Yes 31.84% 0.47</td>
<td>No 68.16 0.47</td>
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<tr>
<td>Property&lt;sup&gt;b&lt;/sup&gt; Yes 16.60% 0.37</td>
<td>No 83.40 0.37</td>
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<tr>
<td>Drug Related&lt;sup&gt;c&lt;/sup&gt; Yes 26.58% 0.44</td>
<td>No 73.42 0.44</td>
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<tr>
<td>Other&lt;sup&gt;d&lt;/sup&gt; Yes 28.97% 0.45</td>
<td>No 71.03 0.45</td>
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<tr>
<td>Employed 6 Months Prior to Incarceration</td>
<td>Yes 64.72% 0.48</td>
<td>No 35.28 0.48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age at Wave 1 Interview 29.23 7.20 18 69</td>
<td>Age at First Arrest 16.21 4.94 10 67</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Previous Arrests 14.08 16.27 1 100</td>
<td>Number of Days</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
| Incarcerated at Wave 1 Interview 919.87 906.62 44 9486 | Source: Data is from SVORI, collected in 2004-2007 of a nationally representative sample of imprisoned males. N=1,253<sup>a</sup> Included robbery, assault, murder, forgery, fraud, sex offense<sup>b</sup> Included burglary, theft, car theft<sup>c</sup> Included drug dealing, drug possession<sup>d</sup> Included other crimes not specified above
Table 2. Percentages, Averages, and Tests of Statistical Significance of Mentored versus Non-mentored Participants for Variables Used in Analysis, SVORI, 2004-2007, N=1,253

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mentored</th>
<th>Not Mentored</th>
<th>P-value from Two Sampled T-test</th>
<th>P-value from Chi Square Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome Variable</strong></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Number of Crimes Committed Post Release</td>
<td>1.37</td>
<td>1.26</td>
<td>0.50</td>
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<tr>
<td><strong>Explanatory Variables</strong></td>
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<td></td>
</tr>
<tr>
<td>Level of Need for a Mentor</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>20.00%</td>
<td>40.08%</td>
<td></td>
<td>&gt;0.001</td>
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<tr>
<td>A little</td>
<td>32.82</td>
<td>29.77</td>
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<tr>
<td>A lot</td>
<td>47.18</td>
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<td>29.53</td>
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<td><strong>Age at First Arrest</strong></td>
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<td>16.36</td>
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<td>14.24</td>
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<td><strong>Number of Days Incarcerated at Wave 1 Interview</strong></td>
<td>1143.36</td>
<td>878.68</td>
<td>&lt;0.001</td>
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</table>

Source: Data is from SVORI, collected in 2004-2007 of a nationally representative sample of imprisoned males. N=1,697

<sup>a</sup>Included robbery, assault, murder, forgery, fraud, sex offense

<sup>b</sup>Included burglary, theft, car theft

<sup>c</sup>Included drug dealing, drug possession

<sup>d</sup>Included other crimes not specified above
Table 3. Negative Binomial Models Predicting Post-release Offending, SVORI, 2004-2007, N=1,253

<table>
<thead>
<tr>
<th>Variable</th>
<th>Incident Rate Ratios</th>
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<tr>
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<td>Model 1</td>
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<tr>
<td><strong>Explanatory Variables</strong></td>
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<tr>
<td>Received Mentoring</td>
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<tr>
<td>Level of Need for Mentoring&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>A little</td>
<td>0.96</td>
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<tr>
<td>A lot</td>
<td>1.18</td>
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<tr>
<td><strong>Control Variables</strong></td>
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</tr>
<tr>
<td>Highest Level of Education Achieved&lt;sup&gt;b&lt;/sup&gt;</td>
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<tr>
<td>Elementary or middle</td>
<td>0.96</td>
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<td>Some high school</td>
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<td>Vocational</td>
<td>0.78</td>
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<td>Some college</td>
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<tr>
<td>College and above</td>
<td>0.97</td>
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<tr>
<td>Marital Status&lt;sup&gt;c&lt;/sup&gt;</td>
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<td>Separated</td>
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<td>Divorced</td>
<td>0.92</td>
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<td>Never Married</td>
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<tr>
<td>Race&lt;sup&gt;d&lt;/sup&gt;</td>
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<tr>
<td>Black</td>
<td>0.68***</td>
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<tr>
<td>Hispanic</td>
<td>0.64</td>
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<tr>
<td>Other non-Hispanic</td>
<td>0.65</td>
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<td>Multiple race</td>
<td>0.99</td>
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<tr>
<td>Offence Type Incarcerated for at Wave 1</td>
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<tr>
<td>Personal&lt;sup&gt;e&lt;/sup&gt;</td>
<td>0.89</td>
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<tr>
<td>Property&lt;sup&gt;f&lt;/sup&gt;</td>
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<td>Drug related&lt;sup&gt;g&lt;/sup&gt;</td>
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<tr>
<td>Other&lt;sup&gt;h&lt;/sup&gt;</td>
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<tr>
<td>Employed 6 Months Prior to Incarceration</td>
<td>0.84</td>
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<tr>
<td>Age at Wave 1 Interview</td>
<td>0.97***</td>
</tr>
<tr>
<td>Age at First Arrest</td>
<td>0.97*</td>
</tr>
<tr>
<td>Number of Previous Arrests</td>
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<tr>
<td>Number of Days Incarcerated at Wave 1 Interview</td>
<td>1.00**</td>
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</table>
Source: Data is from SVORI, collected in 2004-2007 of a nationally representative sample of imprisoned males. N=1,253.

Note: An incidence rate ratio greater than 1 indicates that the rate of post-release crimes is higher for mentees, and a rate ratio between 0 and 1 indicates that the rate of post-release crimes is lower for those who were mentored.

* p-value < 0.05, ** p-value < 0.01, *** p-value < 0.001

Alpha value: 1.56***

\( ^a \) compared to not at all

\( ^b \) compared to high school or equivalent

\( ^c \) compared to married

\( ^d \) compared to white

\( ^e \) Included robbery, assault, murder, forgery, fraud, sex offense

\( ^f \) Included burglary, theft, car theft

\( ^g \) Included drug dealing, drug possession

\( ^h \) Included other crimes not specified above
Figure 1. Attrition Rate of SVORI Participant Responses, Waves 1-4

Note: Graphic displays the attrition rate for the SVORI sample over the four waves of data collection. The final wave represented a 65.3 percent response rate of the original sample. Source: Author
List of Questions and Variables from SVORI Used in Analysis

Explanatory Variable - Mentoring
1. Received Mentoring Services? No/yes
2. Need a Mentor? Not at all, a little, a lot

Control Variables
1. Age at Wave 1 Interview
2. Highest Level of School Completed
   No school completed
   1st grade completed
   2nd grade completed
   3rd grade completed
   4th grade completed
   5th grade completed
   6th grade completed
   7th grade completed
   8th grade completed
   9th grade completed
   10th grade completed
   11th grade completed
   12th grade completed
   GED or high school diploma equivalent
   Vocation or trade school graduate
   Some college but no degree
   Associate degree
   Four year college graduate
   Advanced degree
3. Marital Status
   Married
   Separated
   Divorced
   Widowed
   Never married
4. How Old the First Time Arrested?
5. Times in Your Life Arrested?
6. Race
   White only
   Black only
   Hispanic
   Other non-Hispanic
   Multiple race
7. Days Incarcerated at Wave 1 Interview?
8. Support 6 Months Prior to Incarceration: Job. Selected/not select
9. Conviction Offense this Incarceration: Selected/not selected:
   Burglary
   Robbery
   Assault
   Murder
   Theft
   Car theft
   Forgery
   Fraud
   Dealing
   Possession
   Sex offense
   Other

Outcome Variable- Number of Self-Reported Crimes Post-Release
   Response options Yes/no

Wave 2:
   1. Since Released, Committed any Violent Crimes?
   2. Since Released, Committed any Other Crimes Against People?
   3. Since Released, Committed any Drug Possession Crimes?
   4. Since Released, Committed any Drug Sale Crimes?
   5. Since Released, Committed any Other Drug Crimes?
   6. Since Released, Committed DWI/DUI?
   7. Since Released, Committed any Property Crimes?
   8. Since Released, Committed any Lesser Type Crimes?

Waves 3 and 4:
   Response options Yes/no
   1. Since Last Interview, Committed any Violent Crimes?
   2. Since Last Interview, Committed any Other Crimes Against People?
   3. Since Last Interview, Committed any Drug Possession Crimes?
   4. Since Last Interview, Committed any Drug Sale Crimes?
   5. Since Last Interview, Committed any Other Drug Crimes?
   6. Since Last Interview, Committed DWI/DUI?
   7. Since Last Interview, Committed any Property Crimes?
   8. Since Last Interview, Committed any Lesser Type Crimes?