

**Sex Offender Recidivism  
in Minnesota  
April 2007**



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## **EXECUTIVE SUMMARY**

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As interest and concern over sex offenders has increased, so have efforts to control the extent to which they reoffend. As a result, the State of Minnesota has enforced civil commitment statutes, created a sex offender registry, implemented community notification, enhanced the penalties for sex offenders, and increased both the intensity and length of post-release supervision. In examining recidivism among 3,166 sex offenders released from a Minnesota Correctional Facility (MCF) between 1990 and 2002, this report addresses the following question: What are the factors associated with sex offender recidivism?

Compared to other offenders, sex offenders are less likely to recidivate in general, but are still more likely to reoffend with a sex crime. Previous research has shown that deviant sexual interests, antisocial orientation, prior non-contact offenses, intimacy deficits, an emotional identification with children, and a history of victimizing strangers are significant predictors of repeat sexual offending. The predictors of non-sexual reoffending are largely different, however, in that only two of these factors—antisocial orientation and intimacy deficits—are associated with non-sex offense recidivism. Although existing research has generally shown that treatment lowers the risk of sexual recidivism, it has not adequately examined whether supervision length, supervision intensity, and supervised release revocations have an effect on reoffending.

This study analyzed the impact of treatment and post-release supervision by studying 3,166 sex offenders released from a MCF between 1990 and 2002. The average follow-up period was 8.4 years, with a minimum of three and a maximum of 16. Measured three different ways (rearrest, reconviction, and reincarceration for a new crime) and distinguished by the type of reoffense (sex offense, non-sex offense, any offense), recidivism was analyzed by using a Cox proportional hazards model, a multivariate statistical technique. Because the baseline rate for sexual recidivism is relatively low, all three offense levels (misdemeanor, gross misdemeanor, and felony) were included in this study in order to obtain the most sensitive measure of reoffending. Due to the relatively long follow-up period used as well as the inclusion of all three offense levels, the

recidivism findings presented here are not directly comparable to the general recidivism rates reported by the Department of Corrections, which are based on felony-level offenses over a three-year follow-up period.

## ***Results***

### Sex Offense Recidivism

- After three years, seven percent of the 3,166 offenders had been rearrested for a sex offense, six percent reconvicted, and three percent reincarcerated.
- By the end of the follow-up period (an average of 8.4 years for all 3,166 offenders), 12 percent had been rearrested for a sex offense, 10 percent reconvicted, and seven percent reincarcerated.
- Prior sex crimes, stranger victims, male child victims (i.e. male victims under the age of 13), failure in prison-based sex offender treatment, and a metro-area county of commitment each significantly increased the risk of timing to a sex reoffense.<sup>1</sup>
- Intensive supervised release (ISR), supervised release, supervised release revocations, and successful participation/completion of sex offender treatment each significantly reduced the risk of timing to a sex reoffense.

### Non-Sex Offense Recidivism

- After three years, 24 percent of the offenders had been rearrested for a non-sex offense, 19 percent reconvicted, and nine percent reincarcerated.
- At the end of the follow-up period, 42 percent had been rearrested for a non-sex offense, 39 percent reconvicted, and 19 percent reincarcerated.
- The predictors of non-sexual reoffending were very different from those for sexual recidivism.

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<sup>1</sup> As noted above, recidivism analyses were performed with a Cox proportional hazards model, which measures not only whether offenders recidivate, but also how long it takes them to reoffend or how long they are at risk in the community without committing a new crime. Because this model analyzes both whether and when offenders recidivate, the results are expressed in terms of “risk of time to reoffense.” Therefore, a variable that causes offenders to reoffend sooner and more often increases the risk of time to reoffense. In contrast, a variable that causes offenders to recidivate later and less often decreases the risk of time to reoffense.

- Minority offenders, younger offenders, prior felony convictions, acquaintance victims, and recent institutional discipline convictions each significantly increased the risk of timing to reoffending with a non-sexual crime.
- Longer post-release supervision periods and offenders with a history of victimizing male children significantly reduced the risk of timing to a non-sexual offense.

### General Recidivism

- After three years, 30 percent of the sex offenders had been rearrested for any crime (i.e. misdemeanor, gross misdemeanor, or felony), 25 percent reconvicted, and 10 percent reincarcerated.
- By the end of the follow-up period, 49 percent had been rearrested for any crime, 46 percent reconvicted, and 23 percent reincarcerated.
- Because sex offenders are more likely to recidivate with a non-sexual offense, the results were largely similar to those for non-sexual recidivism.
- The only major difference was that male offenders were, compared to females, significantly more likely to reoffend in general.

### Overall

- Since 1990, the sexual recidivism rate in Minnesota has dropped precipitously, as the three-year sexual reconviction rate for 2002 releasees was 3 percent compared to 17 percent for the 1990 releasees.
- The average length of post-release supervision increased by 50 months from 1990-2002, the percentage of sex offenders placed on ISR grew from 0 to 53 percent between 1990 and 2002, and the percentage of sex offenders admitted as supervised release violators rose from 11 percent during 1990 to 56 percent during 2005.
- The reduction in sexual recidivism since 1990 is likely due, in part, to the longer and more intense post-release supervision of sex offenders.

### ***Policy Implications***

The findings from this study carry several policy implications regarding the management and supervision of sex offenders.

1. Given the impact of post-release supervision on sexual recidivism, efforts to further reduce sex offender recidivism might include an expansion of resources available for intensive supervised release. It is important to point out, however, that that this study was not a definitive assessment of the impact of post-release supervision on recidivism, as no control group was used to examine the effects of different supervision practices. Moreover, further increasing the length and intensity of post-release supervision may yield diminishing returns for several reasons. First, the longer offenders are in the community, the more likely they are to remain crime-free. Second, supervision intensity did not have a strong impact on non-sexual reoffending, which constitutes roughly three-fourths of the reoffenses for sex offenders who recidivate. Finally, due to the dramatic decrease in sexual recidivism since the early 1990s, recent sexual reoffense rates have been very low, thus significantly limiting the extent to which sexual reoffending can be further reduced.
2. Increasing the resources for both prison- and community-based sex offender treatment may also help lead to a greater reduction in sex offender recidivism. However, because neither an experimental nor a quasi-experimental design was used here, the results regarding treatment are promising but by no means definitive. Future research efforts should more rigorously evaluate the efficacy of sex offender treatment.

## **INTRODUCTION**

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Over the last several decades, sex offenders have captured a considerable amount of attention both in Minnesota and nationwide. Frequently precipitated by a well-publicized sex crime, the heightened level of interest and concern has led to a number of changes in how the criminal justice system deals with sex offenders. Since the 1980s, for example, the State of Minnesota has increased the lengths of prison sentences for sex offenses, created a sex offender registry, enforced civil commitment statutes for high-risk offenders, increased the intensity and length of supervision for sex offenders, and implemented community notification for offenders who pose a greater risk to recidivate sexually. In addition, recent debate includes proposals such as an indeterminate sentencing system for all sex offenders, residency restrictions, the assignment of risk levels for all sex offenders sentenced to probation, and the requirement that all sex offenders wear global positioning system (GPS) devices while they are under supervision.

In light of the intense and abiding public interest, the present report examines recidivism among 3,166 sex offenders who were released from a Minnesota Correctional Facility (MCF) between 1990 and 2002. This report, which is the largest study on Minnesota sex offenders to date, examines the factors that influence sex offender recidivism.

Within the last decade, a relatively large number of studies has examined the recidivism of sex offenders. Moreover, there have been various attempts within the State since the 1990s to analyze sex offender recidivism. By examining 3,166 offenders released between 1990 and 2002, this report provides the most comprehensive and recent look at the recidivism of Minnesota sex offenders. It also offers a long-term recidivism perspective since the average follow-up period for the 3,166 offenders was 8.4 years, with a minimum of three years and a maximum of 16.

In an effort to further clarify the factors associated with sex offender recidivism, this study focuses on several key issues. First, as noted above, both the length and intensity of post-release supervision of sex offenders have increased substantially since the early

1990s. However, existing sex offender research has yet to rigorously evaluate whether post-release supervision has an effect on recidivism. This study is therefore one of the first to analyze whether supervision intensity, supervision length, and supervised release revocations have an impact on recidivism. Second, the last Minnesota sex offender study that systematically examined the effects of treatment on recidivism was for a cohort of 1992 releasees. Because this study includes offenders released between 1993 and 2002, it provides an updated look at the impact of treatment on recidivism. Third, in addition to trying to identify the factors that reduce the extent to which sex offenders recidivate, this report also examines the factors that increase a sex offender's likelihood of reoffending. Finally, prior research suggests that the predictors of sexual recidivism are different from those for non-sexual recidivism. The present study explores this issue by attempting to predict the factors that distinguish between an offender's chances of recidivating with a sexual offense versus a non-sexual offense.



## **SEX OFFENDER RECIDIVISM: A REVIEW OF THE LITERATURE**

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Contrary to popular opinion, sex offenders do not always recidivate. In fact, research has consistently shown that recidivism rates are relatively low for sex offenders. For example, in an extensive study of more than 15,000 prisoners released from prisons in eight states in 1994, Langan and Levin (2002) found that three-year rearrest rates were 36 percent lower for sex offenders in comparison to other offenders. Moreover, when sex offenders recidivate, they are more likely to reoffend with a non-sexual crime. For instance, research has shown that non-sex offenses constitute roughly three-fourths of the reoffenses committed by sex offenders (Langan, Schmitt, and DuRose, 2003). Nevertheless, sex offenders are, compared to other offenders, approximately four times more likely to recidivate with a sex crime (Langan and Levin, 2002).

As concern over sex offenders has increased over the last few decades, so have efforts to understand the factors associated with recidivism and, in particular, sexual reoffending. Indeed, since the 1990s, a growing body of literature has emerged on sex offender recidivism that has identified a host of dynamic and static (or historical) factors related not only to sexual recidivism, but also to non-sexual reoffending. This progress, in turn, has helped lead to the development of several actuarial tools designed to predict the risk of sexual recidivism (Barbaree, Seto, Langton, and Peacock, 2001; Roberts, Doren, and Thornton, 2002).

Existing research reveals that sexual recidivism is broadly associated with deviant sexual interests and an antisocial orientation (Hanson and Morton-Bourgon, 2004). For example, sex offenders have been found to have significantly higher rates of sexual recidivism when they have a sexual interest in children, particularly male children, or have general paraphilias such as exhibitionism or voyeurism (Dempster and Hart, 2002; McGrath, Cumming, Livingston, and Hoke, 2003; Miner, 2002). In addition, sex offenders are more likely to recidivate sexually when they have a persistent, repetitive pattern of criminality, often stemming from childhood (Firestone, Bradford, McCoy, Greenberg, Curry, and Larose, 2000; Hanson and Harris, 2001; Scalora and Garbin,

2003). In particular, prior criminal offenses, especially sex crimes, have been found to be a significant predictor of sexual recidivism along with other factors denoting an antisocial orientation such as childhood behavior problems and non-compliance with supervision (Hanson and Morton-Bourgon, 2004).

Because the characteristics that promote sexual recidivism are not necessarily the same ones associated with the initiation of sexual offending, factors such as childhood sexual abuse and severity of the offense are not predictive of future sexual offending (Hanson and Morton-Bourgon, 2004). Other factors, however, that have been associated with sexual recidivism include a history of victimizing strangers, conflicts in intimate relationships, emotional identification with children, and prior non-contact sex offenses (Dempster and Hart, 2002; Hanson and Harris, 1998).

Previous research has further revealed that the predictors of sexual recidivism are somewhat different from those for non-sexual recidivism. For example, deviant sexual interests and non-contact sexual offenses have not been found to be associated with non-sexual reoffending (Hanson and Morton-Bourgon, 2004). Like sexual recidivism, however, antisocial orientation has been shown to be a significant predictor of non-sexual reoffending (Prentky, Knight and Lee, 1997). Thus, sex offenders are more likely to continue offending (either with sex crimes or non-sexual offenses) if they have a history of criminal offending and non-compliance with supervision, i.e. probation and parole (supervised release) violations.

The above discussion has focused on the characteristics that increase a sex offender's risk of reoffending sexually. In evaluating which factors reduce the risk of sexual recidivism, most studies have concentrated on the efficacy of sex offender treatment. Some researchers have argued that the most rigorous studies have found no effect for treatment (Marques, 1999; Marques, Wiederanders, Day, Nelson, and von Ommeren, 2005; Rice and Harris, 2003). In general, though, the findings from previous research suggest that treatment significantly lowers the risk of sexual recidivism (Alexander, 1999; Hanson et al., 2002; Losel and Schmucker, 2005; Marshall and McGuire, 2003; Polizzi, MacKenzie,

and Hickman, 1999). Conversely, the risk of reoffense is significantly greater for those who do not complete sex offender treatment (Seager, Jellicoe, and Dhaliwal, 2004).

Apart from sex offender treatment, very little attention has been provided to the impact that other interventions may have on reducing sex offender recidivism. For example, Craig, Browne, and Stringer (2003) have correctly noted the absence of studies that have rigorously evaluated the impact of post-release supervision on recidivism. As Meloy (2005) points out, much of the sex offender recidivism research has been conducted from a psychological or psychiatric perspective insofar as recidivism is viewed as a byproduct of treatment effectiveness. Consequently, very few studies have explored whether other criminal justice interventions such as community supervision (e.g. probation, parole or supervised release) may have an impact on sex offender recidivism.

This study attempts to fill a gap in the literature by examining whether supervision length, supervision intensity, and supervised release revocations have had an effect on the extent to which sex offenders have reoffended. In Minnesota, the length and intensity of post-release supervision for sex offenders have increased dramatically over the last decade. For example, the average length of post-release supervision for sex offenders released in 2002 was 63 months, which is 50 months greater than the average for 1990 releasees. Moreover, very few offenders were released to intensive supervision prior to 1997. In 2002, however, 53 percent of sex offenders were placed on intensive supervised release. Due largely to longer and more intense periods of post-release supervision, sex offenders have been returning to prison more frequently as technical violators. Indeed, during 2005, supervised release violators comprised 56 percent of sex offender admissions compared to only 11 percent during 1990.<sup>2</sup>

In light of these significant changes in post-release supervision, are sex offenders less likely to reoffend if they are supervised more intensively for longer periods of time? Or does the greater length and intensity of supervision increase an offender's risk of

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<sup>2</sup> The growing percentage of supervised release violator admissions has not been due to a decline in new commitment admissions. In fact, from 1990-2005, the number of offenders entering prison for new sex crime sentences increased at an average rate of 1.9 percent per year.

reoffending to the extent that improved monitoring will enhance the detection of criminal activity? And what effect, if any, do returns to prison for supervised release violations have on reoffending?

## **DATA AND METHODS**

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The present study examines the impact of numerous historical and dynamic factors on recidivism for 3,166 sex offenders released from an MCF between 1990 and 2002. The sample includes offenders whose governing offense at the time of release was a sex crime.<sup>3</sup> When offenders are committed to the Commissioner of Corrections, they can be admitted to, and released from, prison multiple times for a given sentence due mainly to supervised release revocations. Offenders were included in the sample only if their first release for the sex offense for which they were incarcerated took place between 1990 and 2002. The first-release criterion was used primarily in order to adequately quantify the impact of several post-release supervision variables (e.g. supervision length, supervision intensity, and supervised release violations) on reoffending. In addition, offenders were included in the sample only if they had a state identification (SID) number, which is necessary for obtaining arrest and conviction data from the Minnesota Bureau of Criminal Apprehension (BCA).

In measuring recidivism, most previous studies examining sex offenders in the U.S. have used FBI data to quantify the extent of reoffending among a relatively small sample (i.e. less than 500) of offenders. These studies, moreover, have often relied on a single metric (usually rearrest for a sex offense) to measure recidivism. In this study, however, recidivism was measured nine different ways. More specifically, it was first operationalized as: 1) a rearrest, 2) a reconviction, or 3) a reincarceration in an MCF for a new offense following an offender's first release from prison. Because it is important to know whether offenders recidivate with a sex offense, recidivism was further distinguished by the type of reoffense: 1) sex offense, 2) non-sex offense, and 3) any offense.<sup>4</sup> Therefore, this study includes the following nine measures of recidivism: sex crime rearrest, sex crime reconviction, sex crime reincarceration, non-sex crime rearrest, non-sex crime reconviction, non-sex crime reincarceration, any crime rearrest, any crime reconviction, and any crime reincarceration.

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<sup>3</sup> For the purposes of this study, "sex crime" is defined as 1<sup>st</sup>-5<sup>th</sup> degree Criminal Sexual Conduct.

<sup>4</sup> Non-sex offense was defined as any crime other than 1<sup>st</sup>-5<sup>th</sup> degree Criminal Sexual Conduct.

Arrest, conviction and incarceration data were collected on offenders through December 31, 2005. The minimum follow-up period was three years. The maximum was 16 years. Because use of the FBI data requires a manual check for each offender, these data were not used due to the relatively large number (N = 3,166) of offenders examined here. Instead, data on arrests (misdemeanor, gross misdemeanor, and felony) and convictions (misdemeanor, gross misdemeanor, and felony) were obtained electronically from the BCA. Incarceration data were derived from the Correctional Operations Management System (COMS) database.<sup>5</sup> The main limitation with using these data is that they measure only arrests, convictions or incarcerations that took place in the State of Minnesota. Because neither source includes arrests, convictions or incarcerations occurring in other states, the findings presented later likely underestimate the true rearrest, reconviction and reincarceration rates for the offenders examined here.

Nevertheless, the number of out-of-state arrests and prosecutions that go undetected from relying on Minnesota crime data is likely to be relatively small. In their study of 272,111 offenders released from prison in 1994, Langan and Levin (2002) reported that 67.5 percent were rearrested within three years. Of the 67.5 percent, Langan and Levin found that five percent were not rearrested in the state in which they were released, but did have a rearrest in another state within three years. The amount of undetected out-of-state arrests is likely to be even smaller, however, when focusing on a specific type of reoffense such as a sex crime. As noted earlier, for example, sex crimes constitute only about one-fourth of the reoffenses committed by recidivist sex offenders.

To accurately measure the total amount of time an offender was actually at risk to reoffend (i.e. “street time”), it was necessary to account for supervised release violators in the recidivism analyses by deducting the amount of time they spent in prison from their total at-risk period, or “street time.” Failure to deduct time spent in prison as a supervised release violator would artificially increase the length of the at-risk periods for

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<sup>5</sup> Due to the low baseline rate for sexual recidivism and the relatively large number of sex offenses that go unreported, prior research has generally attempted to use the most sensitive measure of sexual offending. Consistent with this approach, the current study includes all three offense levels (misdemeanor, gross misdemeanor, and felony) in measuring recidivism.

these offenders (Bales et al., 2005). Therefore, the time that an offender spent in prison as a supervised release violator was subtracted from his/her “street” time (i.e. at-risk period), but only if it preceded a rearrest, reconviction, reincarceration for a new offense, or if the offender did not recidivate.

Because recidivism is distinguished by reoffense type in this study, it was necessary to also account for non-sex crime incarcerations when recidivism was measured as a sex crime reoffense and vice versa. Consider, for example, an offender released from prison on January 1, 1995, who returned to prison two years later on January 1, 1997, for a non-sex crime and remained incarcerated for this offense through December 31, 2005. If recidivism is defined as a sex reoffense, but the time spent in prison for the non-sex crime offense is not accounted for in the analysis, then the data would misleadingly suggest that this offender had successfully returned to society and remained sex-crime free for 11 years. As a result, when recidivism is measured as a sex crime reoffense, the time spent in prison for a non-sex crime was deducted from an offender’s “street time” as long as 1) the non-sex crime incarceration preceded a sex crime rearrest, reconviction, or reincarceration, or 2) the offender did not recidivate with a sex crime. Likewise, when recidivism was defined as a non-sex crime reoffense, the time spent in prison for a sex crime was subtracted from an offender’s “street time” when 1) the sex crime incarceration preceded a non-sex crime rearrest, reconviction, or reincarceration, or 2) the offender did not recidivate with a non-sex crime.

An arrest, conviction, and/or incarceration was considered a recidivism event only if it pertained to an offense that had taken place following release. For example, there were a handful of offenders who returned to prison for a “new” sex offense that had been committed prior to the beginning of their previous prison term, e.g. an offender who was incarcerated from 1994 to 2000 (the beginning of the at-risk period) returns to prison in 2002 for an offense committed in 1992. In these instances, the offenses were not considered recidivism events, but the time that offenders served in prison was deducted from their at-risk period.

In September 1991, the courts began using the civil commitment statute, which had been on the books since 1939. Because civilly committed sex offenders are not in the community and, thus, not at risk to reoffend, it is necessary to account for those who were civilly committed between September 1991 and December 31, 2005. Failure to do so would bias the findings because the data would show that these offenders had not recidivated when, in fact, they never had a chance to reoffend because they were incapacitated in a mental health institution.

Sex offenders were not included in this study if, following their admission to prison, they were later civilly committed without ever spending any time in the community. There were 72 offenders who were removed from the study for this reason. Other sex offenders, however, were civilly committed after spending time in the community following their release from prison. For these offenders, they were civilly committed after returning to prison for either a supervised release violation or a new crime. For offenders who were civilly committed after returning to prison as a supervised release violator, they were included in the study but were “right censored” at the time they were civilly committed; that is, if an offender was civilly committed three years after the initial release from prison but spent one year in prison as a supervised release violator, then the total at-risk period would be 24 months (36 months minus 12 months).

For offenders who returned to prison for a new crime, the at-risk period was handled differently depending on the type of reoffense. For example, if a sex offender in this study was released from prison in January 1992, returned to prison for another sex offense in January 1995, and then civilly committed in 2001, this offender would be considered a recidivist (when recidivism is measured as a sex reoffense or any reoffense) whose total “street” time was 36 months. This assumes, of course, that this offender did not return to prison during those 36 months as a supervised release violator. If the offender had, then the amount of time spent in prison would be deducted from the total at-risk period. If, however, recidivism is measured as a non-sex reoffense, then the actual “street” time would still be 36 months, but this offender would be “right censored”



insofar as s/he would be considered a non-sex offense recidivist whose time at risk stopped as soon as he entered prison for the sex offense in 1995.

In the statistical analyses presented later, recidivism is the dependent variable. Because recidivism was, as noted earlier, measured nine different ways in this study, nine separate statistical models were estimated. The independent variables included in the statistical models were those that were not only available in the COMS database, but also might theoretically have an impact on whether an offender recidivates, sexually or otherwise. As a result, some predictors were not included in the statistical analyses because data were not available for each offender (e.g. intimacy deficits and emotional identification with children). Moreover, because victim-offender relationship information was not consistently available for every prior sex offense, only the offender's instant offense (i.e. the one for which s/he was incarcerated) is used to measure victim characteristics. Despite these limitations, the independent variables included in the statistical models cover the salient factors that are either known or hypothesized to have an impact on recidivism.

The following lists the independent variables used in this study and describes how they were created:

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

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

**Age at Release:** the age of the offender in years at the time of release.

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

**Prior Sex Crime Convictions:** offenders who had at least one prior sex crime conviction (excluding the instant offense) were given a value of “1,” whereas those without a prior sex crime conviction were assigned a value of “0.”

**Victim-Offender Relationship:** three dichotomous dummy variables were created to measure the offender’s relationship to the victim for the governing sex offense<sup>6</sup>, i.e. the crime for which the offender was incarcerated. The three variables were stranger victims (1 = stranger victim, 0 = known or non-stranger victim), acquaintance victims (1 = acquaintance victim, 0 = non-acquaintance victim), and family member victims (1 = family member victim, 0 = non-family member victim). The family member victim variable serves as the reference in the statistical analyses.

**Male Child Victims:** dichotomized as either male child victims (1) or non-male child victims (0), this variable measures whether offenders victimized a male under the age of 13 in their instant offense.

**Adult Female Victims:** dichotomized as either adult female victims (1) or non-adult female victims (0), this variable quantifies whether offenders victimized women ages 18 and older in their instant offense.

**Metro-Area:** this variable measures an offender’s county of commitment, dichotomizing it into either Metro-area (1) or Greater Minnesota (0). The seven Metro-area counties include Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington. The remaining 80 counties were coded as Non-Metro area or Greater Minnesota counties.

**Recent Disciplinary History:** this variable measures the number of disciplinary convictions that an offender received in the final 12 months prior to the initial release from prison. Because sex offenders often serve relatively long sentences, disciplinary convictions at the end of their term of imprisonment may be a more valid predictor of

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<sup>6</sup> The “governing offense” is the crime carrying the sentence on which an offender’s scheduled release date is based. Although offenders may be imprisoned for multiple offenses, each with its own sentence, the governing offense is generally the most serious crime for which an offender is incarcerated.

post-release behavior than the total number of convictions throughout the full prison term.

**Sex Offender Treatment:** three dichotomous dummy variables were created to measure prison-based sex offender treatment during the offender's term of imprisonment.

Offenders' involvement in sex offender treatment was not included, however, if they participated in treatment during either a prior commitment to prison or a subsequent return to prison (either for a supervised release violation or new crime) following the release that initiated their at-risk period. The three variables were offenders who successfully completed treatment or were participating until the time of release (1 = treatment completers/participants; 0 = treatment dropouts or non-participants), offenders who were terminated from treatment or voluntarily quit (1 = treatment dropouts; 0 = treatment completers/participants or non-participants), and those who never entered treatment (1 = non-participants; 0 = treatment completers/participants, and dropouts). The treatment non-participant variable serves as the reference in the statistical analyses.

Although sex offender treatment is included in the statistical model, it is important to emphasize that this study is not a definitive assessment of the efficacy of treatment. As noted above, not all treatment episodes were counted for the 3,166 offenders examined here, particularly for the relatively small number of offenders who entered treatment after returning to prison as a supervised release violator. Moreover, because the objective of this report is to further clarify the factors associated with sex offender recidivism in general, no effort was made to match a control group of offenders who did not participate in treatment with an experimental group of offenders who did. Despite these caveats, the results presented later still offer a long-term, relatively comprehensive look at the impact of treatment on recidivism.

**Length of Post-Release Supervision:** the number of months between an offender's first release date and the end of post-release supervision, i.e. the sentence expiration or conditional release date, the greater of the two.

**Intensity of Post-Release Supervision:** three dichotomous dummy variables were created to measure the level of post-release supervision to which offenders were released. The three variables were intensive supervised release (ISR) (1 = ISR, 0 = Non-ISR), supervised release (SR) (1 = SR, 0 = Non-SR), and discharge (1 = discharge or no supervision, 0 = released to supervision). Discharge is the variable that serves as the reference in the statistical analyses.

**Supervised Release Violations (SRV's):** the number of times during an offender's sex crime sentence when he returned to prison as a supervised release violator.

**Release Year:** measuring the year in which offenders were first released from prison for the instant sex offense, this variable is included to control for any unobserved differences between the 13 different release year cohorts from 1990-2002.

In analyzing recidivism, survival analysis models are preferable in that they utilize time-dependent data, which are important in determining not only whether offenders recidivate, but also when they recidivate. As a result, this study uses a Cox proportional hazards model, which uses both "time" and "status" variables in estimating the impact of the independent variables on recidivism. For the analyses presented here, the "time" variable measures the amount of time from the date of release until the date of first rearrest, reconviction, reincarceration, or December 31, 2005 for those who did not recidivate.

For offenders who returned to prison as supervised release violators, the time they spent in prison was deducted from their total survival time when: 1) the supervised release return preceded a rearrest, reconviction, or reincarceration, or 2) the offender did not have a rearrest, reconviction or reincarceration. In addition, when recidivism was measured as a sex reoffense (i.e. rearrest, reconviction, or reincarceration), the time that offenders spent in prison for a non-sex reoffense was deducted from their total survival time when: 1) the non-sex crime incarceration preceded a sex crime rearrest, reconviction, or reincarceration, or 2) the offender did not have a sex crime rearrest, reconviction, or

reincarceration. Similarly, when recidivism was measured as a non-sex reoffense (i.e. rearrest, reconviction, or reincarceration), the time that offenders spent in prison for a sex reoffense was deducted from their total survival time when: 1) the sex crime incarceration preceded a non-sex crime rearrest, reconviction, or reincarceration, or 2) the offender did not have a non-sex crime rearrest, reconviction, or reincarceration. The “status” variable used in the analyses was one of the nine recidivism variables mentioned above, e.g. sex crime rearrest, non-sex crime reconviction, any crime reincarceration, etc.

## **RESULTS**

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The recidivism findings in this section are presented first for sexual recidivism. The results for non-sexual recidivism are then discussed, followed by those for general recidivism.

### Sexual Recidivism

Table 1 displays the sex offense recidivism rates for the 3,166 offenders. The average length of follow-up time for these offenders was 8.4 years, with a minimum of three years and a maximum of 16 years. At the end of the follow-up period, 12 percent of the offenders had been rearrested for a new sex offense, 10 percent reconvicted, and seven percent reincarcerated. Of the offenders who recidivated sexually, most reoffended within the first five years. This is consistent with research showing that the longer offenders are offense-free in the community, the less likely they are to reoffend (Hanson, 2001).

**Table 1. Sexual Recidivism Rates**

<i>Follow-Up Period</i>	<i>Sex Rearrest</i>	<i>Sex Reconviction</i>	<i>Sex Reincarceration</i>
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
One Year	3.2	2.0	0.7
Two Years	5.5	3.7	1.9
Three Years	7.3	5.7	3.2
Five Years	9.3	7.4	4.7
Ten Years	11.3	9.1	6.6
Total	11.8	9.6	7.0
<b>N</b>	3,166	3,166	3,166

The results in Table 2 depict the three-year sexual recidivism rates by the year in which the sex offenders were first released. Clearly, the extent to which sex offenders have recidivated sexually has declined substantially since 1990, but especially since 1997. For example, 19 percent of the sex offenders released in 1990 were rearrested for a new sex crime within three years. In 2002, however, this percentage dropped to 3.8 percent. Similarly, the three-year reconviction rate was 17 percent for the 1990 releasees, but only

three percent for those released in 2002. Finally, the three-year reincarceration rate was five percent in 1990 compared to just one percent in 2002.

**Table 2. Three-Year Sexual Recidivism Rates by Release Year, 1990-2002**

<i>Release Year</i>	<i>Sex Rearrest</i>	<i>Sex Reconviction</i>	<i>Sex Reincarceration</i>	<i>Number</i>
1990	19.0	16.7	4.8	126
1991	15.3	11.7	5.4	111
1992	10.9	7.4	4.7	256
1993	13.1	11.9	5.1	176
1994	10.7	9.8	6.7	225
1995	8.2	6.5	4.5	245
1996	6.5	4.5	2.4	246
1997	8.6	6.2	3.5	257
1998	4.2	2.9	2.6	312
1999	4.3	3.3	2.6	303
2000	3.3	2.6	1.3	302
2001	2.7	1.7	1.4	292
2002	3.8	2.5	1.0	315
<b>Total</b>	7.3	5.7	3.2	3,166

Table 3 describes the sex offender sample, and compares the recidivists with the non-recidivists along the variables used in the statistical analyses. The sex offenders examined here were overwhelmingly male; in addition, 64 percent were white and the average age at the time of release was 34. Prior to their incarceration, 29 percent had been convicted of a sex crime, and 60 percent had been convicted of a felony.

Consistent with research on sexual offending, most of the 3,166 sex offenders victimized someone they knew (Greenfield, 1997). For example, the victim-offender relationship was acquaintance in 57 percent of the cases, a family member in 32 percent, and a stranger in 11 percent. Regarding sentencing county, the distribution was evenly split, for the most part, between the Metro area and Greater Minnesota.

The average length of stay for the 3,166 offenders was 29 months, or approximately 2 ½ years. In addition, these offenders had, on average, 1.3 discipline convictions in the final 12 months preceding their initial release from prison. Nearly one-third (32 percent) of

the offenders completed, or were successfully participating in, sex offender treatment at the time of their release. Of the remaining inmates, 56 percent never entered treatment, while 12 percent quit or were terminated from the program.

The average length of post-release supervision was 37 months. When offenders were released from prison, 72 percent were placed on supervised release, 23 percent on ISR, while 5 percent were discharged with no supervision because they had served their entire sentence. Finally, these offenders had, on average, a little less than one supervised release revocation during their sex crime sentence.

The results in Table 3 reveal several notable differences between the offenders who sexually reoffended and those who did not. For example, the findings, which were relatively consistent across the three measures of recidivism (i.e. rearrest, reconviction, and reincarceration), indicate that sex offender recidivists were more likely to have a prior sex crime conviction and have a history of victimizing males under the age of 13 and strangers. Further, recidivists were more likely to have a Metro-area county of commitment, a greater number of recent disciplinary convictions while incarcerated, and to have dropped out of prison-based sex offender treatment. Non-recidivists, on the other hand, were more likely to have completed sex offender treatment. Finally, with regard to post-release supervision, recidivists had shorter lengths of supervision, fewer supervised release revocations, and were less likely to be placed on ISR.

Although the bivariate comparison in Table 3 sheds light on which factors may affect sexual recidivism, it does not account for time at risk or time from release to reoffense. Nor does it statistically control for the effects of the other independent variables on recidivism. For example, without the appropriate statistical controls, the apparent effect of prior sex crimes on recidivism may be a spurious one. As discussed earlier, a multivariate statistical technique was used to model the impact of the variables shown in Table 3 on recidivism. More specifically, a series of Cox proportional hazards models was estimated to assess the relative impact of each variable, while controlling for the effects of the other independent variables, on the dependent variable, recidivism.



**Table 3. A Descriptive Comparison of Sex Offense Recidivism for Sex Offender Releasees, 1990-2002**

<i>Characteristics</i>	<i>Sex Rearrest</i>		<i>Sex Reconviction</i>		<i>Sex Reincarceration</i>		<i>Total</i>
	<u>Recidivists</u>	<u>Non-Recidivists</u>	<u>Recidivists</u>	<u>Non-Recidivists</u>	<u>Recidivists</u>	<u>Non-Recidivists</u>	
Offender Sex							
Male	99.5	98.6	99.3	98.6	100.0	98.6	98.7
Female	0.5	1.4	0.7	1.4	0.0	1.4	1.3
Offender Race							
White	63.6	64.4	67.4	63.9	65.5	64.2	64.3
Minority	36.4	35.6	32.6	36.1	34.5	35.8	35.7
Average Age at Release (years)	33.2	34.4	33.1	34.3	33.2	34.3	34.2
Prior Sex Crime	33.4	27.9	35.2	27.9	32.7	28.2	28.6
Prior Felony	60.7	59.5	60.5	59.5	59.2	59.6	59.6
Victim-Off. Relationship							
Stranger	14.7	10.2	14.8	10.3	14.8	10.2	10.7
Acquaintance	57.0	57.4	56.6	57.4	57.0	57.4	57.4
Family	27.5	32.4	28.6	32.3	28.2	32.4	31.9
Victim Age-Sex							
Female < 13	31.0	32.3	30.7	32.1	31.1	32.1	32.0
Female 13-17	33.6	37.5	32.4	37.5	33.5	37.3	37.0
Adult Female	21.4	19.5	21.7	19.8	20.8	19.9	20.0
Male < 13	9.6	6.1	10.7	6.0	10.8	6.1	6.4
Male 13-17	3.8	4.0	3.8	4.0	3.3	4.0	4.0
Adult Male	0.6	0.6	0.7	0.6	0.5	0.7	0.6
Sentencing County							
Metro-Area	56.4	47.4	54.6	47.8	54.7	48.0	48.5
Greater MN	43.6	52.6	45.4	52.2	45.3	52.0	51.5
Avg. Length of Stay (months)	26.1	29.4	26.2	29.3	27.7	29.1	29.0
Avg. # of Recent Disc. Convictions	1.46	1.24	1.40	1.25	1.30	1.26	1.27
Sex Off. Treatment							
Comp/Participate	25.4	32.5	25.3	32.3	26.5	32.0	31.7
Dropout	15.0	12.2	16.1	12.1	15.3	12.3	12.5
Never Entered	59.6	55.3	58.6	55.6	58.2	55.7	55.8
Post-Release Supervision							
Length of Supervision (mos.)	26.1	38.8	22.8	38.9	21.7	38.5	37.3
ISR	14.2	24.1	13.5	23.9	12.6	23.7	22.9
SR	76.7	71.0	79.0	70.9	80.7	71.0	71.7
Avg. # of SRVs	0.5	0.9	0.5	0.9	0.5	0.9	0.9
<b>N</b>	374	2,792	304	2,862	224	2,942	3,166

The results presented in Table 4 reveal that several factors significantly increased the risk of timing to sexual reoffense. For example, prior sex crimes, stranger victims, male child victims, a Metro-area county of commitment, and treatment failure (i.e. dropouts) significantly increased the risk of timing to a sex crime rearrest. In particular, a prior sex crime conviction increased the risk of timing to rearrest by 170 percent, stranger victims by 72 percent, male child victims by 44 percent, treatment failure by 37 percent, and Metro area by 25 percent. Although all of these variables also significantly increased the risk of timing to reconviction, only prior sex crimes and stranger victims were statistically significant predictors of reincarceration.

**Table 4. Cox Proportional Hazards Models: Time to Sex Offense Recidivism**

<i>Variables</i>	<i>Sex Offense Rearrest</i>			<i>Sex Offense Reconviction</i>			<i>Sex Offense Reincarceration</i>		
	<u>Hazard Ratio</u>	<u>SE</u>	<u>p Value</u>	<u>Hazard Ratio</u>	<u>SE</u>	<u>p Value</u>	<u>Hazard Ratio</u>	<u>SE</u>	<u>p Value</u>
Male <sup>†</sup>	2.533	0.71	0.192	2.130	0.71	0.289			
Minority	1.189	0.12	0.144	1.009	0.13	0.949	1.183	0.16	0.280
Age at Release	0.996	0.01	0.449	0.994	0.01	0.347	0.993	0.01	0.330
Prior Sex Crimes	2.699	0.13	0.000*	3.159	0.14	0.000*	2.710	0.17	0.000*
Prior Felonies	0.960	0.11	0.719	0.881	0.13	0.313	0.864	0.15	0.317
Stranger Victims	1.723	0.19	0.004*	1.722	0.21	0.009*	1.712	0.24	0.026*
Acquaintance Victims	1.221	0.12	0.109	1.186	0.14	0.216	1.310	0.16	0.094
Male Child Victims	1.440	0.18	0.044	1.521	0.19	0.031*	1.469	0.23	0.088
Adult Female Victims	0.891	0.14	0.421	0.916	0.16	0.581	0.786	0.19	0.201
Metro-Area	1.251	0.11	0.045*	1.172	0.12	0.198	1.086	0.14	0.570
Length of Stay	0.998	0.00	0.532	1.000	0.00	0.968	1.006	0.00	0.097
Recent Discipline	1.003	0.02	0.880	0.995	0.02	0.837	0.973	0.03	0.350
Treatment Completer	0.764	0.14	0.049*	0.776	0.15	0.098	0.838	0.18	0.319
Treatment Dropout	1.373	0.15	0.041*	1.456	0.17	0.026*	1.378	0.20	0.107
Length of Supervision	1.001	0.00	0.491	0.997	0.00	0.261	0.996	0.00	0.235
ISR	0.515	0.25	0.007*	0.561	0.29	0.044*	0.762	0.35	0.443
SR	0.457	0.18	0.000*	0.516	0.21	0.001*	0.677	0.26	0.130
SRVs	0.875	0.06	0.018*	0.930	0.06	0.231	0.936	0.07	0.349
Release Year	0.819	0.02	0.000*	0.817	0.03	0.000*	0.812	0.03	0.000*

\* Statistically Significant at the .05 level

<sup>†</sup> Because all 224 of the offenders reincarcerated for a sex offense were males, this variable was not included in the “Sex Offense Reincarceration” model

Table 4 also indicates that several variables significantly decreased the risk of timing to sexual reoffense. In particular, successful completion or participation in sex offender treatment reduced the risk of timing to rearrest for a sex crime by 24 percent. Moreover,

ISR reduced the risk of timing to rearrest by 49 percent, while the risk was lowered by 54 percent for offenders placed on supervised release. Contrary to prior research, which has indicated that supervised release violations (SRVs) increase the risk of recidivism, the results in Table 4 suggest that SRVs reduced the risk of timing to rearrest by 12 percent. Although ISR and supervised release significantly decreased the risk of time to sexual reconviction, they were not statistically significant in the reincarceration model. Treatment completion and SRVs, meanwhile, did not achieve statistical significance in either the reconviction or reincarceration models. Release year, on the other hand, was statistically significant in all three models, suggesting that other unidentified factors were also responsible for the reduction in sexual recidivism over the 1990-2002 period.

#### Non-Sexual Recidivism

As shown in Table 5, the non-sex offense recidivism rates are, compared to those for sex offenses, substantially higher. At the end of the follow-up period, 42 percent of the offenders had been rearrested for a non-sex offense, 39 percent had been reconvicted, and 19 percent had been reincarcerated. Of those who reoffended, roughly half did so within three years. For example, the three-year rate was 24 percent for rearrest, 19 percent for reconviction, and 9 percent for reincarceration.

**Table 5. Non-Sex Recidivism Rates**

<i>Follow-Up Period</i>	<i>Non-Sex Rearrest</i>	<i>Non-Sex Reconviction</i>	<i>Non-Sex Reincarceration</i>
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
One Year	8.8	5.7	2.9
Two Years	16.8	12.4	5.9
Three Years	23.6	18.8	8.6
Five Years	32.4	28.1	12.7
Ten Years	41.0	38.0	18.0
Total	42.1	39.3	19.1
<b>N</b>	3,166	3,166	3,166

Table 6 depicts the comparison between the offenders who recidivated with a non-sexual offense versus those who did not. The results show that non-sex recidivists were younger at the time of release, less likely to be white, and more likely to have a prior felony

**Table 6. A Descriptive Comparison of Non-Sex Offense Recidivism for Sex Offender Releasees, 1990-2002**

<i>Characteristics</i>	<i>Non-Sex Rearrest</i>		<i>Non-Sex Reconviction</i>		<i>Non-Sex Reincarceration</i>		<i>Total</i>
	<u>Recidivists</u>	<u>Non-Recidivists</u>	<u>Recidivists</u>	<u>Non-Recidivists</u>	<u>Recidivists</u>	<u>Non-Recidivists</u>	
Offender Sex							
Male	99.2	98.3	99.2	98.3	99.5	98.5	98.7
Female	0.8	1.7	0.8	1.7	0.5	1.5	1.3
Offender Race							
White	57.1	69.5	57.8	68.5	50.3	67.6	64.3
Minority	42.9	30.5	42.2	31.5	49.7	32.4	35.7
Average Age at Release	30.9	36.7	30.7	36.5	29.9	35.2	34.2
Prior Sex Crime	23.8	32.0	24.3	31.3	23.6	29.7	28.6
Prior Felony	69.1	52.7	69.6	53.1	73.3	56.4	59.6
Victim-Off. Relationship							
Stranger	11.9	9.9	12.4	9.7	15.7	9.6	10.7
Acquaintance	64.0	52.6	63.4	53.5	61.2	56.4	57.4
Family	24.1	37.5	24.2	36.8	23.1	34.0	31.9
Victim Age-Sex							
Female < 13	26.8	32.3	26.6	35.6	23.2	34.1	32.0
Female 13-17	42.6	37.5	42.9	33.1	45.5	35.0	37.0
Adult Female	23.5	19.5	23.1	17.9	25.4	18.7	20.0
Male < 13	3.9	8.3	4.1	7.9	3.3	7.2	6.4
Male 13-17	2.4	5.1	2.6	4.9	1.9	4.5	4.0
Adult Male	0.7	0.6	0.7	0.6	0.9	0.6	0.6
Sentencing County							
Metro-Area	52.2	45.8	51.4	46.6	58.1	46.2	48.5
Greater MN	47.8	54.2	48.6	53.4	41.9	53.8	51.5
Avg. Length of Stay (months)	25.4	31.5	25.7	31.1	26.8	29.5	29.0
Avg. # of Recent Discipline Conv.	1.70	0.95	1.73	0.97	1.99	1.10	1.27
Sex Off. Treatment							
Comp/Participate	29.1	33.5	29.4	33.1	29.5	32.1	31.7
Dropout	11.3	13.4	11.1	13.4	11.7	12.7	12.5
Never Entered	59.6	53.1	59.5	53.5	59.8	55.2	55.8
Post-Release Supervision							
Length of Supervision (mos.)	29.9	42.7	30.2	42.0	28.9	39.3	37.3
ISR	15.8	28.0	16.5	27.1	15.5	24.6	22.9
SR	78.7	66.6	77.8	67.8	78.7	70.0	71.7
Avg. # of SRVs	0.7	0.7	0.8	0.7	0.9	0.7	0.7
<b>N</b>	<b>374</b>	<b>2,792</b>	<b>304</b>	<b>2,862</b>	<b>224</b>	<b>2,942</b>	<b>3,166</b>

conviction before being admitted to prison for the sex offense. The recidivists, moreover, were more likely to have offended against females above the age of 12, especially an acquaintance, and less likely against family members and juvenile male victims.

Offenders who reoffended non-sexually were more likely to have a Metro-area county of commitment, a shorter length of stay, and more recent discipline convictions. Finally, the recidivists were supervised for shorter periods of time and were less likely to have been intensively supervised.

The results from the Cox proportional hazards models are shown in Table 7. The findings indicate that the factors that significantly increase the risk of non-sexual recidivism are different from those for sexual recidivism. For example, prior sex crimes, stranger victims, and treatment failure did not have a statistically significant impact on non-sexual recidivism. Instead, prior felony convictions, recent discipline convictions,

**Table 7. Cox Proportional Hazards Models: Time to Non-Sex Offense Recidivism**

<i>Variables</i>	<i>Non-Sex Rearrest</i>			<i>Non-Sex Reconviction</i>			<i>Non-Sex Reincarceration</i>		
	<u>Hazard Ratio</u>	<u>SE</u>	<u>p Value</u>	<u>Hazard Ratio</u>	<u>SE</u>	<u>p Value</u>	<u>Hazard Ratio</u>	<u>SE</u>	<u>p Value</u>
Male	1.599	0.30	0.124	1.902	0.32	0.044*	2.784	0.58	0.078
Minority	1.411	0.06	0.000*	1.295	0.06	0.000*	1.666	0.09	0.000*
Age at Release	0.963	0.00	0.000*	0.962	0.00	0.000*	0.954	0.01	0.000*
Prior Sex Crimes	0.932	0.07	0.316	0.941	0.07	0.405	0.937	0.10	0.531
Prior Felonies	1.845	0.06	0.000*	1.853	0.06	0.000*	2.201	0.10	0.000*
Stranger Victims	1.186	0.11	0.110	1.209	0.11	0.083	1.306	0.15	0.073
Acquaintance Victims	1.299	0.07	0.000*	1.227	0.07	0.005*	1.087	0.11	0.426
Male Child Victims	0.576	0.15	0.000*	0.615	0.15	0.001*	0.571	0.24	0.018*
Adult Female Victims	1.215	0.07	0.007*	1.140	0.08	0.084	1.116	0.11	0.305
Metro-Area	1.097	0.06	0.114	1.048	0.06	0.443	1.290	0.09	0.004*
Length of Stay	0.999	0.00	0.620	1.001	0.00	0.612	1.004	0.00	0.060
Recent Discipline	1.037	0.01	0.000*	1.036	0.01	0.000*	1.033	0.01	0.014*
Treatment Completer	1.010	0.07	0.877	1.006	0.07	0.934	1.073	0.10	0.482
Treatment Dropout	1.053	0.09	0.574	1.022	0.10	0.824	1.139	0.14	0.336
Length of Supervision	0.996	0.00	0.001*	0.996	0.00	0.001*	0.996	0.00	0.056
ISR	0.835	0.14	0.205	0.833	0.14	0.204	0.730	0.21	0.134
SR	0.892	0.12	0.350	0.892	0.12	0.359	0.820	0.18	0.268
SRVs	0.952	0.03	0.060	0.989	0.03	0.660	1.052	0.03	0.137
Release Year	1.011	0.01	0.315	1.044	0.01	0.000*	1.032	0.02	0.066

\* Statistically Significant at the .05 level

minority offenders, and age at release each significantly increased the risk of timing to a non-sexual offense for all three measures of recidivism. Acquaintance victims was a

statistically significant predictor of non-sexual rearrest and reconviction, while offender sex (reconviction), adult female victims (rearrest), Metro-area (reincarceration), and release year (reconviction) were statistically significant in at least one of the models. Although successful treatment completion/participation, ISR, supervised release, and SRVs each reduced the risk of timing to rearrest for a sex offense, none had a statistically significant effect on non-sexual recidivism. Rather, the only factors that significantly decreased the risk of timing to non-sexual reoffending in all three models were the length of post-release supervision and male child victims. For every one month increase in post-release supervision, there was a 0.4 percent decrease in the risk of time to reoffense. Put another way, a 50-month increase (the difference between the 1990 and 2002 release cohorts) results in a risk reduction of 20 percent. Contrary to the sexual recidivism findings, the risk of timing to non-sexual reoffense was significantly lower for offenders who victimized male children, which suggests that these offenders are highly likely to specialize in sex offenses, particularly against males under the age 13.

General Recidivism

As shown in Table 8, nearly half (49 percent) of the 3,166 sex offenders were rearrested for any offense (misdemeanor, gross misdemeanor, or felony) at the end of the follow-up period. Less than one-fourth (23 percent), however, were reincarcerated for a new crime. Because the recidivism measure used here also includes misdemeanors and gross misdemeanors, the three-year reconviction rate is slightly higher than a three-year rate based only on felony-level offenses, which is the standard reconviction measure used by the Department of Corrections.

**Table 8. General Recidivism Rates**

<i>Follow-Up Period</i>	<i>Any Rearrest</i>	<i>Any Reconviction</i>	<i>Any Reincarceration</i>
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
One Year	12.6	9.1	2.2
Two Years	22.3	18.0	5.9
Three Years	29.8	25.4	9.5
Five Years	38.9	35.3	14.4
Ten Years	47.4	44.6	21.2
Total	48.8	46.0	23.0
<b>N</b>	3,166	3,166	3,166

When sex offenders recidivated, what type of crime did they commit? Information pertaining to the offense code (i.e. type of offense) was not available for every rearrest or reconviction. Moreover, there were offenders who were reincarcerated more than once for different offenses over the entire follow-up period. As a result, Table 9 depicts the first offense for which the sex offender recidivists were reincarcerated.

The results reveal that when sex offenders first returned to prison for a new offense, it was most likely for a new sex offense. Indeed, 28 percent were reimprisoned for a sexual reoffense. However, this also means that when sex offenders are reincarcerated for a new crime, the majority of the time it will be for a non-sex offense. Failure to register as a predatory offender was the second most common reoffense type, accounting for 17 percent of the cases. Within the broad offense type categories, person offenses (including sex offenses) made up 43 percent of the reoffenses. Property offenses accounted for 17 percent, drugs for 13 percent, and other crimes for 27 percent.

**Table 9. First Reoffense Type for Reincarcerated Sex Offenders**

<i>Reoffense Type</i>	<i>Number</i>	<i>Percent</i>
Criminal Sexual Conduct	202	27.6
Failure to Register	127	17.4
Drugs	93	12.7
Assault	70	9.6
Theft	54	7.4
Burglary	41	5.6
Weapons	25	3.4
Forgery/Counterfeit	21	2.9
Robbery	17	2.3
Kidnapping	17	2.3
Traffic (Accidents/DWI)	13	1.8
Sex-Related/Obscenity	7	1.0
Homicide	6	0.8
Other	38	5.2
<b>Total</b>	<b>731</b>	<b>100.0</b>

Given that sex offender recidivists are much more likely to commit a non-sex crime when they reoffend, the results were similar to those for non-sexual recidivism when recidivism was operationalized as any crime. For example, the findings in Table 10 show that recidivists were more likely to be younger minority offenders from a Metro-area county

**Table 10. A Descriptive Comparison of General Recidivism for Sex Offender Releasees, 1990-2002**

<i>Characteristics</i>	<i>Any Rearrest</i>		<i>Any Reconvictions</i>		<i>Any Reincarceration</i>		<i>Total</i>
	<u>Recidivists</u>	<u>Non- Recidivists</u>	<u>Recidivists</u>	<u>Non- Recidivists</u>	<u>Recidivists</u>	<u>Non- Recidivists</u>	
Offender Sex							
Male	99.2	98.2	99.2	98.2	99.7	98.4	98.7
Female	0.8	1.8	0.8	1.8	0.3	1.6	1.3
Offender Race							
White	58.7	69.6	59.5	68.3	55.4	66.9	64.3
Minority	41.3	30.4	40.5	31.7	44.6	33.1	35.7
Average Age at Release	31.5	36.9	31.4	36.6	31.0	35.2	34.2
Prior Sex Crime	26.0	31.0	26.4	30.4	26.5	29.2	28.6
Prior Felony	67.7	51.8	67.9	52.5	69.9	56.5	59.6
Victim-Off. Relationship							
Stranger	12.2	9.3	12.5	9.2	14.3	9.7	10.7
Acquaintance	62.5	52.5	62.3	53.2	60.4	56.4	57.4
Family	27.3	38.2	27.2	37.6	25.3	33.9	31.9
Victim Age-Sex							
Female < 13	27.8	36.1	27.8	35.7	26.0	33.8	32.0
Female 13-17	41.1	33.0	40.9	33.6	42.0	35.5	37.0
Adult Female	22.6	17.4	22.4	17.8	22.6	19.2	20.0
Male < 13	5.2	7.6	5.4	7.3	6.0	6.5	6.4
Male 13-17	2.6	5.3	2.8	5.0	2.6	4.4	4.0
Adult Male	0.7	0.6	0.6	0.6	0.9	0.6	0.6
Sentencing County							
Metro-Area	51.6	45.5	51.2	46.1	56.3	46.1	48.5
Greater MN	48.4	54.5	48.8	53.9	43.7	53.9	51.5
Avg. Length of Stay (months)	25.7	32.1	26.1	31.5	27.7	29.1	29.0
Avg. # of Recent Discipline Conv.	1.64	0.91	1.65	0.95	1.79	1.11	1.27
Sex Off. Treatment							
Comp/Participate	29.0	34.2	29.3	33.6	29.4	32.3	31.7
Dropout	12.0	13.0	12.0	13.0	12.8	12.4	12.5
Never Entered	59.0	52.3	58.6	55.6	58.2	55.7	55.8
Post-Release Supervision							
Length of Supervision (mos.)	30.2	44.1	29.9	43.7	26.9	40.5	37.3
ISR	16.6	28.9	22.3	33.4	20.3	30.7	22.9
SR	77.9	65.8	77.7	66.6	79.7	69.3	71.7
Avg. # of SRVs	0.6	0.7	0.7	0.7	0.8	0.8	0.7
<b>N</b>	<b>374</b>	<b>2,792</b>	<b>304</b>	<b>2,862</b>	<b>223</b>	<b>2,943</b>	<b>3,166</b>



who have a prior felony conviction. In addition, these offenders were more likely to have offended against females ages 13 and over, particularly acquaintances. Compared to the non-recidivists, those who reoffended had, on average, shorter lengths of stay and a greater number of discipline convictions. The non-recidivists, on the other hand, were more likely to have successfully completed or participated in sex offender treatment. Further, compared to recidivists, they were supervised for longer periods of time following release from prison, and were more likely to be intensively supervised.

The results in Table 11 show that offender race, offender sex, age at release, and prior felony convictions were significant predictors of reoffending in general for all three measures of recidivism. Stranger victims, acquaintance victims, recent discipline convictions and SRVs significantly increased the risk of timing to reoffense in at least

**Table 11. Cox Proportional Hazards Models: Time to General Recidivism**

<i>Variables</i>	<i>Any Rearrest</i>			<i>Any Reconviction</i>			<i>Any Reincarceration</i>		
	<u>Hazard Ratio</u>	<u>SE</u>	<u>p Value</u>	<u>Hazard Ratio</u>	<u>SE</u>	<u>p Value</u>	<u>Hazard Ratio</u>	<u>SE</u>	<u>p Value</u>
Male	1.799	0.29	0.044*	2.118	0.30	0.014*	5.369	0.71	0.018*
Minority	1.355	0.06	0.000*	1.239	0.06	0.000*	1.436	0.08	0.000*
Age at Release	0.971	0.00	0.000*	0.970	0.00	0.000*	0.969	0.00	0.000*
Prior Sex Crimes	1.119	0.06	0.083	1.124	0.07	0.078	1.167	0.09	0.096
Prior Felonies	1.664	0.06	0.000*	1.634	0.06	0.000*	1.682	0.08	0.000*
Stranger Victims	1.255	0.10	0.021*	1.309	0.10	0.007*	1.288	0.14	0.065
Acquaintance Victims	1.281	0.06	0.000*	1.245	0.07	0.001*	1.141	0.09	0.156
Male Child Victims	0.802	0.12	0.063	0.829	0.12	0.123	1.028	0.16	0.866
Adult Female Victims	1.120	0.07	0.099	1.080	0.07	0.277	0.958	0.10	0.667
Metro-Area	1.074	0.05	0.193	1.061	0.06	0.294	1.206	0.08	0.019*
Length of Stay	0.998	0.00	0.186	1.000	0.00	0.900	1.005	0.00	0.015*
Recent Discipline	1.033	0.01	0.000*	1.032	0.01	0.001*	1.017	0.01	0.151
Treatment Completer	0.976	0.06	0.704	0.977	0.06	0.717	1.020	0.09	0.832
Treatment Dropout	1.122	0.08	0.170	1.104	0.09	0.253	1.186	0.12	0.152
Length of Supervision	0.996	0.00	0.000*	0.995	0.00	0.000*	0.994	0.00	0.000*
ISR	0.798	0.13	0.084	0.783	0.13	0.067	0.759	0.20	0.163
SR	0.837	0.11	0.112	0.846	0.11	0.146	0.876	0.17	0.426
SRVs	1.007	0.03	0.779	1.053	0.02	0.039*	1.130	0.03	0.000*
Release Year	0.988	0.01	0.264	1.006	0.01	0.604	1.021	0.02	0.184

\* Statistically Significant at the .05 level

two of the models, while length of stay and Metro area were statistically significant predictors of reincarcerations for a new crime. Length of supervision was the only predictor that significantly reduced the chances of reoffending in all three models.

**Table 12. Summary of Results for Sex Offender Recidivism Analyses**

<i>Predictors</i>	<i>Sexual Recidivism</i>			<i>Non-Sexual Recidivism</i>			<i>General Recidivism</i>		
	<u>Rearrest</u>	<u>Reconviction</u>	<u>Reincarceration</u>	<u>Rearrest</u>	<u>Reconviction</u>	<u>Reincarceration</u>	<u>Rearrest</u>	<u>Reconviction</u>	<u>Reincarceration</u>
Male					+		+	+	+
Minority				+	+	+	+	+	+
Age at Release				+	+	+	+	+	+
Prior Sex Crimes	+	+	+						
Prior Felonies				+	+	+	+	+	+
Stranger Victims	+	+	+				+	+	
Acquaintance Victims				+	+		+	+	
Male Child Victims	+	+		—	—	—			
Adult Female Victims				+					
Metro-Area	+					+			+
Length of Stay						+			+
Recent Discipline				+	+	+	+	+	
Treatment Completer	—								
Treatment Dropout	+	+							
Length of Supervision				—	—	—	—	—	—
ISR	—	—							
SR	—	—							
SRVs	—					+		+	+
Release Year	—	—	—						

Notes: + : Significantly Increases Risk of Timing to Recidivism  
 — : Significantly Decreases Risk of Timing to Recidivism

## **CONCLUSION**

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Overall, the results presented above confirm a number of findings from the literature on sex offender recidivism. First, prior sex crimes, stranger victims, male child victims (i.e. deviant sexual interests), and treatment failures significantly increase an offender's risk of recidivating with a sex crime (see Table 12). Second, the factors that increased the risk of sexual recidivism are not the same as those for non-sexual recidivism, as the latter includes prior felony convictions, offender race, age at release, recent discipline convictions, and acquaintance victims.

The results also suggest, however, that post-release supervision has had a significant impact on the extent to which sex offenders have recidivated. In particular, the findings imply that the intensity of post-release supervision has decreased the extent to which sex offenders have recidivated with sex offenses, while the length of supervision has reduced the risk of non-sexual reoffending. Although prior research has noted that supervised release (or parole) violations increase the likelihood of sexual recidivism, the results presented here suggest they lower the chances, at least for rearrest.

It is worth noting, however, that this study is not a definitive assessment of the impact of post-release supervision on recidivism, as no control group was used to examine the effects of different supervision practices. Similarly, there was no attempt to match a control group of offenders who did not enter prison-based treatment with an experimental group of offenders who did. The findings still suggest, however, that treatment completion/participation significantly reduced the risk of timing to rearrest for a sex offense, but not for reconviction or reincarceration.

Despite these limitations, the evidence shown here provides tentative support for the notion that part of the reason why sexual recidivism rates have dropped over the last 15 years is because sex offenders have been supervised more intensively for longer periods of time following release from prison. For example, as noted earlier, the average length of post-release supervision for the 2002 releasees was a little more than five years, which is roughly four years longer than the average for the 1990 releasees. Moreover, when sex offenders are

placed on ISR, they are continuously supervised by a team of three to five supervision agents, whose caseloads are capped at 15 per state law. During all four phases of ISR, offenders are required to maintain steady employment, comply with random alcohol/drug testing, and are subjected to unannounced face-to-face contacts with their supervision agents at both their residence and place of work. Further, offenders must remain on ISR until they successfully complete all four phases of the program, or until they reach the expiration of their sentence. Due to the longer, more intensive periods of post-release supervision, offenders have been getting revoked more often and, thus, have returned to prison for cumulatively greater periods of time.

Sex offenders often operate under a veil of secrecy, which enables them to obtain access, either directly or indirectly, to unwitting victims. Moreover, prior to committing their crimes, offenders frequently engage in behaviors such as consuming alcohol/drugs, viewing pornography, associating with minors, “grooming” their victims, and so on. However, the increased length and intensity of supervision may not only deter offenders from engaging in this type of pre-offense behavior, but it also increases the likelihood that supervision agents will detect this behavior when it does occur. The enhanced detection afforded by longer, more intensive supervision has led to a marked increase in supervised release revocations. But it may have also enabled supervision agents to revoke offenders before they fully relapse and have an opportunity to reoffend sexually.

It is important to emphasize, however, that other factors besides prison-based treatment and post-release supervision may have also helped reduce the extent to which sex offenders have recidivated sexually. For example, in a study that examined declining sexual recidivism rates in England and Wales, Friendship and Thornton (2001) found that the decline was not due to less recidivism, but to police investigation and prosecuting practices. Moreover, due to the lack of data, the present study did not examine the impact of community-based treatment on recidivism. Existing research has demonstrated, however, that cognitive-behavioral treatment in the community significantly reduces the risk of sexual recidivism (Aos, Miller, and Drake, 2006). Further, in 1997, the Community Notification Act went into effect, requiring offenders subject to predatory offender registration to be assigned a risk level prior

to their release from prison. For offenders assigned a Level 3 (i.e., those considered highest risk to reoffend sexually), broad public notification is required in which their residential vicinities are published on the Department of Corrections' website and law enforcement is responsible for notifying the communities where Level 3 offenders will be residing. Given that the findings from prior research have not conclusively demonstrated whether community notification has an effect on sex offender recidivism (Adkins et al., 2001; Barnoski, 2005; Petrosino and Petrosino, 1999; Schram and Milloy, 1995), it is possible that the reduction in sexual reoffending, at least since 1997, may be partly due to the inception of community notification. Finally, there may be other factors not identified in this study that have also led to the decline in sexual recidivism over the last 16 years.

These results presented in this report carry several policy implications regarding the management and supervision of sex offenders. First, considering that changes in post-release supervision practices have likely played a role in reducing sexual recidivism in Minnesota, increasing the resources available for intensive supervised release may enhance public safety by further reducing the extent to which sex offenders recidivate. Still, it is important to point out that the intensity of post-release supervision had only a modest impact on non-sexual reoffending, which constitutes approximately three-fourths of the crimes committed by sex offender recidivists. Just as important, it is unlikely that an increase in supervision resources would yield a reduction commensurate with that observed over the last 15 years. Whereas the three-year sexual reconviction rate was 17 percent for those released in 1990, it was only three percent for the 2002 releasees. With such a low baseline rate, a substantial increase in supervision resources could very well produce diminishing returns in that there would be few offenses to prevent from occurring. Similarly, increasing the length of supervision (e.g. for the offender's lifetime) might also yield diminishing returns in that the longer offenders are in the community, the more likely they are to remain crime-free, regardless of whether they are under supervision.

Second, the results from this report are promising in that they suggest that treatment significantly lowers the extent to which offenders get rearrested for sex crimes. Accordingly, efforts to further reduce sex offender recidivism might very well include an expansion of

resources for prison- and community-based treatment. Again, however, it is unlikely that an increase in resources would lead to a substantial reduction in sexual recidivism given how low the rates have been for the most recently released sex offenders. Moreover, it is worth reiterating that this study did not conduct a definitive assessment of the efficacy of treatment by using an experimental or quasi-experimental research design. Future research should therefore more rigorously evaluate the efficacy of prison-based treatment by comparing the recidivism rates of sex offenders who entered treatment with a carefully matched control group of offenders who did not.

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