



Assessing Risk Among Sex Offenders in Virginia



**Virginia Criminal
Sentencing Commission**



January 2001

Assessing Risk Among Sex Offenders in Virginia

Virginia Criminal Sentencing Commission

Virginia Criminal Sentencing
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Supreme Court of Virginia Virginia Criminal Sentencing Commission

January 15, 2001

To: The Honorable Harry L. Carrico, Chief Justice of Virginia
The Honorable James S. Gilmore, III, Governor of Virginia
The Honorable Members of the General Assembly of Virginia

In 1999, the Virginia General Assembly directed the Virginia Criminal Sentencing Commission to develop a sex offender risk assessment instrument, based on the risk of re-offense, for integration into the sentencing guidelines for sex offenses. Senate Joint Resolution 333 requires the Commission to submit its findings and recommendations to the Governor and the General Assembly. Pursuant to our statutory obligation, we respectfully submit for your review this report entitled Assessing Risk among Sex Offenders in Virginia.

This document embodies the culmination of the Commission's work under Senate Joint Resolution 333. The report contains a review of relevant research literature examining recidivism among sex offenders and the impact of sex offender treatment on rates of re-offense. Several risk assessment instruments currently utilized for evaluating sex offender risk are provided. Also included are the characteristics and recidivism rates of felony sex offenders convicted in Virginia's circuit courts. Following a discussion describing the Commission's research methodology and the development of the risk instrument, the sex offender risk assessment instrument proposed by the Commission is presented. Application of the proposed risk assessment instrument to the sample data yields several interesting findings and these are noted. The report concludes with the Commission's proposal for integrating risk assessment with Virginia's sentencing guidelines for sex offenses.

The Commission gratefully acknowledges the cooperation of the Virginia Department of Corrections and the Virginia State Police whose invaluable assistance enabled us to conduct this important research.

Respectfully submitted,

A handwritten signature in cursive script that reads "Ernest P. Gates".

Ernest P. Gates, Chairman

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Executive Summary

In 1999, the Virginia General Assembly requested the Virginia Criminal Sentencing Commission to develop a sex offender risk assessment instrument, based on the risk of re-offense, for integration into the state’s sentencing guidelines system. In accordance with Senate Joint Resolution (SJR) 333 of the 1999 General Assembly, the Commission embarked on an empirical study of recidivism among sex offenders convicted in the Commonwealth. The Commission’s goal was to develop a reliable and valid predictive instrument, specific to the population of sex offenders in Virginia, that could be a valuable tool for the judiciary when sentencing sex offenders. If put in place, Virginia would be the first state in the nation to integrate sex offender risk assessment into sentencing guidelines.

Research Methodology

The Commission tracked 579 felony sex offenders who were released from incarceration (or sentenced to probation without an active term of incarceration) during fiscal years (FY) 1990 through 1993. Selecting offenders returning to the community from FY1990 to FY1993 allowed for a minimum five-year follow-up for all offenders in the sample, with some offenders followed for as long as ten years. On average, offenders in the Commission’s study were tracked for eight years. The offenders were selected in such a way that the overall sample reflects the characteristics of a random sample of sex offenders sentenced in Virginia’s circuit courts in calendar years (CY) 1996 and 1997. This design

enables the Commission to generalize the results of the study to the population of sex offenders sentenced in circuit courts in the Commonwealth.

Automated data was supplemented through manual data collection. Through examination of narrative accounts found in pre/post-sentence investigation (PSI) reports, rich contextual detail of the sex offenses committed by offenders in the sample was gathered. Criminal history “rap sheets” from the Virginia Criminal Information Network (VCIN) system maintained by the Virginia State Police and from the FBI’s Central Criminal Records Exchange (CCRE) system provided recidivism data and supplemented prior record information.

Measuring Recidivism

There are many barriers to accurate measurement of recidivism among sex offenders, including reluctance to report sexual victimization and evidentiary problems resulting in offenders not being charged or convicted of their crimes. Victims and witnesses may refuse to come forward to testify, particularly when the victim is young. These and other obstacles hinder the prosecution of sex offense cases and often mean that charges must be dropped or reduced in a plea agreement. In order to avoid the underestimation of recidivism that is inherent with measurement based solely on reconviction, the Commission elected to define recidivism using official records of arrests. The Commission believes that mea-

asuring recidivism by a new arrest more closely approximates the true rate of re-offense behavior among sex offenders. To the extent that sex offenders go on to commit other types of violent crimes, re-arrests for new sex offenses will underestimate the predatory nature of these offenders. The Commission, therefore, chose as its operational definition of recidivism a new arrest for a sex offense or any other crime against the person.

Treatment of Sex Offenders

SJR 333 requests the Commission to consider the impact of treatment interventions on the reduction of recidivism among this particular population of offenders. The Commission, however, determined that assessing the effectiveness of post-conviction treatment services among offenders in the study sample would be extremely difficult. In 1992, the Joint Legislative Audit and Review Commission (JLARC) determined that, during the time in which the offenders under study were incarcerated, “the Department of Corrections had not promulgated any standards to govern the development of treatment programs in the prisons and field units” (p. iii). JLARC found no agency specific requirements for the service providers, no minimum qualifications for counselors conducting group therapy and no guidelines outlining the basic elements of therapeutic counseling (p. iv-v). Moreover, only half (53%) of imprisoned sex offenders received any treatment services prior to reaching their

first parole eligibility date (JLARC 1992, p. iv). Of those receiving treatment services when they become eligible for parole, a large share (40%) were provided only sex offender education programming, and not sex offender therapy. Furthermore, little consistent documentation about participation in prison-based sex offender treatment programs was available in files at the headquarters of the Department of Corrections.

Given these serious limitations, the Commission concluded that the impact of post-conviction treatment and its effect on rates of recidivism among sex offenders returned to the community from FY1990 through FY1993 could not be accurately assessed as part of the current study. Although the impact of specialized sex offender treatment provided after conviction was not examined, the Commission analyzed available automated data indicating whether or not the offender had received some type of mental health treatment or participated in an alcohol or drug treatment program prior to committing the offense under study. A review of literature on the effectiveness of sex offender treatment is provided in this document.

Risk Assessment Findings

In risk assessment research, the characteristics, criminal histories and patterns of recidivism among offenders are carefully analyzed. Factors proven statistically significant (i.e., those with a known level of success)

in predicting recidivism can be assembled on a risk assessment worksheet, with scores determined by the relative importance of the factors in the statistical model. The risk assessment instrument developed by the Commission reflects the characteristics and recidivism patterns of the population of felony sex offenders convicted and sentenced in Virginia. The risk assessment instrument proposed by the Commission can be found in Figure 26 on page 56 of this report. Relevant findings are presented below.

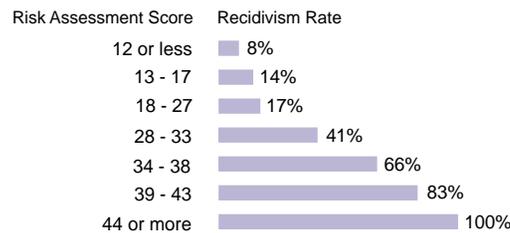
- **Offender Age.** Younger offenders, particularly those under age 35, recidivate at higher rates than older offenders.
- **Offender Education.** Offenders with less than a ninth grade education recidivate at higher rates than offenders who completed education beyond the ninth grade.
- **Employment.** Those offenders not employed or not regularly employed (employed at least 75% of the time) were found to recidivate at higher rates than offenders who have experienced stable employment.
- **Offender Relationship with Victim.** In predicting recidivism, the importance of the offender’s relationship to the victim is dependent on the age of the victim at the time of the offense.
 - In cases with victims under age ten, offenders who were step-parents to their victims recidivated at highest rates, while blood relatives were the least likely to recidivate.
 - For victims age ten or more, offenders who were strangers to their victims recidivated at rates higher than acquaintances or relatives.

- **Aggravated Sexual Battery.** Offenders convicted of aggravated sexual battery whose offense involved sexual penetration or attempted penetration of the victim were at higher risk of recidivism.
- **Location of Offense.** Offenders who committed their sex crimes in their own residence or a residence other than the victim’s recidivated at higher rates.
- **Criminal History.** An offender’s prior history of arrests for sex crimes or other crimes against the person was found to be indicative of the likelihood of recidivism.
- **Prior Incarceration.** Offenders who had served a term of incarceration in jail or prison prior to committing the sex offense were more likely to recidivate.
- **Prior Treatment.** An offender’s history of mental health and/or substance abuse treatment prior to committing the offense under study was also found to influence recidivism.
 - Offenders in the sample who had never had any type of mental health, sex offender or substance abuse treatment prior to the offense were linked with higher recidivism rates than offenders who had experienced any of these forms of treatment prior to committing the sex crime under study.
 - As noted above, the Commission concluded it could not accurately assess the effect of treatment received after conviction for the offense under study due to serious limitations in sex offender treatment programming available during the period in which sample offenders were incarcerated and inconsistent documentation of treatment participation.

The Risk Assessment Instrument

In essence, risk assessment means developing profiles or composites based on overall group outcomes. Groups are defined by having a number of factors in common that are statistically relevant to predicting repeat offending. Those groups exhibiting a high degree of re-offending are labeled high risk. In the figure below, the actual rate of recidivism is shown relative to the risk assessment score. Although no risk assessment model can ever predict a given outcome with perfect accuracy, the Commission’s instrument, overall, produces higher scores for the groups of offenders who exhibited higher recidivism rates during the course of the study. In this way, the instrument developed by the Commission is indicative of offender risk.

- Every offender scoring 44 points or more on the risk assessment instrument recidivated within the study period.
- Offenders falling into the highest risk categories were among the most likely to be re-arrested for a felony as opposed to a misdemeanor offense.
- Offenders predicted to be at the very highest risk level according to the Commission’s risk assessment instrument (those scoring 44 or more) did not last in the community as long as other offenders, and failed after an average of less than two years.
- The majority of sex offenders who were re-arrested were subsequently convicted of one or more charges.



Commission Proposals

The Commission’s objective was to develop a reliable and valid predictive scale based on independent empirical research and to determine if the resulting instrument could be a useful tool for judges in sentencing sex offenders coming before the circuit court. The Commission concluded that the risk assessment instrument developed under SJR 333 would be a useful tool for the judiciary in Virginia. The Commission has several proposals for integrating sex offender risk assessment with Virginia’s sentencing guidelines.

Proposal

Increase the upper end of the sentence range recommended by the guidelines in cases of sex offenders determined by the risk assessment instrument to be at relatively high risk for re-offense.

For each offender recommended for a period of incarceration that includes a prison term, the sentencing guidelines are presented to the judge in the form of a midpoint recommendation and an accompanying range (a low recommendation and a high recommendation). Increasing the upper end of the recommended range would provide judges the flexibility to sentence higher risk sex offenders to terms above the current guidelines range and still be in compliance with the guidelines. This approach allows the judge to incorporate sex offender risk assessment into the sentencing decision while providing him with flexibility to evaluate the circumstances of each case. The Commission’s proposals for adjusting the guidelines ranges based on offender risk are summarized below.

- For offenders scoring 44 or more, increase the upper end of the guidelines range by 300%.
- For offenders scoring 34 through 43 points, increase the upper end of the guidelines range by 100%.
- For offenders scoring 28 through 33 points, increase the upper end of the guidelines range by 50%.

Offenders scoring less than 28 points would receive no sentencing guidelines adjustments. The Commission’s proposal for increasing the upper end of the guidelines range is estimated to affect approximately half (48%) of the rape and sexual assault cases covered by the sentencing guidelines. Slightly more than one in five would be subject to a 50% increase in the upper end of the guidelines range. Another one in five should receive a 100% increase. In only a small portion of the cases would the 300% increase apply.

Proposal

Adjust the sentencing guidelines for sex offenses such that offenders who are at relatively high risk for re-offense are always recommended for a term of incarceration that includes prison.

While offenders convicted for rape, forcible sodomy, and object sexual penetration are always recommended for a term of incarceration that includes prison time under current sentencing guidelines, this is not the case for offenders convicted of other sex offenses. Some offenders convicted of aggravated sexual battery, indecent liberties with children, carnal knowledge or other sexual assault felonies are not recommended for a prison term, particularly if they have minimal or no prior record. These offenders could, nonetheless, represent a

relatively high risk of re-offending once those factors found to be important in predicting recidivism are taken into account through risk assessment. The Commission, therefore, proposes that the guidelines be adjusted so that all offenders scoring 28 or more on risk assessment are recommended for a term of incarceration that includes prison.

Proposal

Notify the judge when and how the range recommended by the sentencing guidelines has been modified due to the offender’s risk assessment score.

The Commission proposes revising the sentencing guidelines cover sheet for rape and sexual assault cases to communicate this information to the sentencing judge. The proposed wording is shown in Figure 37 on page 66.

Proposal

Require pre-sentence investigation reports in all cases involving sex offenses.

Assessment of risk using the instrument proposed by the Commission depends on a complete and accurate identification of prior arrests for crimes against the person (both adult and juvenile) including out-of-state arrests, as well as accurate determination of employment, education, and prior treatment experience. When a pre-sentence investigation report is prepared, it is much more likely that a thorough and accurate criminal history check and social history will be completed. The Commission proposes that all felony sex offense cases be accompanied by a pre-sentence investigation report. In FY1998, pre-sentence reports were prepared in approximately three-fourths of felony sex offense cases.

Implementation

The Commission’s proposals relating to sex offender risk assessment and integration of the proposed instrument into the sentencing guidelines are among the recommendations presented in the Commission’s 2000 Annual Report. Per §17.1-806 of the Code of Virginia, any modifications to the sentencing guidelines adopted by the Commission and contained in its annual report shall, unless otherwise provided by law, become effective on the following July 1. Thus, these recommendations are scheduled to take effect on July 1, 2001.

Risk assessment occurs both formally and informally throughout the various stages of the criminal justice system. Judges, for instance, make sentencing decisions based on the perceived risk an offender poses to public safety in terms of new offense behavior. In those states with parole, the parole board must also make a decision based on what is believed to be the risk posed by the offender should he be released on parole supervision. In recent years risk assessment, particularly for sex offenders, has become a more formalized process. In large part, this is due to legislative trends that have singled out sex offenders for special provisions not extended to other types of offenders.

As part of the federal crime bill approved by Congress in August 1994, the Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act was designed to encourage the states to create registries of offenders convicted of crimes against children or sexually violent offenses (Matson and Lieb 1996). States that did not create registries following enactment of the law faced a 10% reduction in their federal crime control grant funds. By 1999, all 50 states required sex offenders to register, although Massachusetts' law was struck down in December 1999 by that state's superior court (Sullivan 1999). With federal enactment of "Megan's Law" legislation in 1996, states were also encouraged to include community notification in their statutes or face similar reductions in their federal grant monies.

Notification programs can be directed at a number of audiences including law enforcement, victims and witnesses, schools, and citizens in a particular neighborhood or community. In 1996, 32 states had legislation either authorizing community notification for released sex offenders or allowing access to sex offender registration information (Matson and Lieb 1996). All states had adopted some form of community notification policy by 1998. In some states, such as Minnesota and Washington, the language of these laws specifies tiers of notification standards, with those sex offenders determined to present the greatest risk subject to the highest level of community notification. Criminal justice decision makers in those states must identify which sex offenders should be subject to the most stringent notification conditions. In addition, several states, including Virginia, have enacted civil commitment legislation, by which an offender deemed to be a sexually violent predator can be involuntarily committed after serving his criminal sanction if he is found to have a "mental abnormality" or "personality disorder" that renders him so likely to commit a sexually violent offense that he constitutes a menace to the health and safety of others. Virginia's civil commitment law is scheduled to take effect July 1, 2001. Sex offender registry, community notification and civil commitment laws have brought formal risk assessment for sex offenders to the forefront (Epperson, Kaul, and Hesselton 1999).

Sex offender risk assessment often relies on a clinical evaluation performed by a psychiatrist or psychologist who interviews the offender and makes recommendations regarding the offender's future dangerousness. Increasingly, however, mental health professionals and criminal justice decision makers alike are invoking empirically-based risk assessment tools to assist them in the evaluation of risk (Doren 1999). Risk assessment tools are now being used for a variety of purposes, including parole considerations, assignments to sex offender registry and community notification reporting levels, and referrals for civil commitment.

In 1999, the Virginia General Assembly requested the Virginia Criminal Sentencing Commission to develop a sex offender risk assessment instrument, based on the risk of re-offense, which can be integrated into the state's sentencing guidelines system. In accordance with Senate Joint Resolution (SJR) 333 of the 1999 General Assembly, the Commission embarked on an empirical study of sex offenders convicted in the Commonwealth. Thus, the instrument developed by the Commission reflects the characteristics and recidivism patterns of the population of felony sex offenders convicted and sentenced in Virginia. If put in place, Virginia would be the first state in the nation to integrate sex offender risk assessment into sentencing guidelines used by the judiciary.

This report embodies the culmination of the Commission's work and presents both the Commission's findings and its proposal for a sex offender risk assessment instrument for use within the Virginia sentencing guidelines system. After reviewing the legislative directive, this report discusses the nature of risk assessment and its utilization in criminal justice decision making. Next, prior research on the factors related to recidivism among sex offenders and the impact of sex offender treatment is examined. Several risk assessment instruments currently utilized for evaluating sex offender risk are provided. The report then describes the Commission's research methodology for the study requested by SJR 333. Characteristics of the Commission's sample data are highlighted. Following a discussion regarding the development of a risk instrument, the sex offender risk assessment instrument proposed by the Commission is presented. Application of the proposed risk assessment instrument to the sample data yields several interesting findings and these are noted. Finally, the report concludes with the Commission's proposals for integrating risk assessment with Virginia's sentencing guidelines for sex offenses and the implementation time frame.

Legislative Directive

During its 1999 legislative session, the Virginia General Assembly adopted legislation requesting the Virginia Criminal Sentencing Commission to examine recidivism among offenders convicted of rape and other sexual offenses. Specifically, Senate Joint Resolution (SJR) 333 directs the Commission to develop a risk assessment instrument, based upon the risk of re-offense, for integration into Virginia's sentencing guidelines for sex offenses. Such a risk assessment instrument can be used as a tool to identify those offenders who, as a group, represent the greatest risk for committing a new offense once released back into the community. The resolution highlights legislators' concerns about sex offenders and the crimes they commit, particularly the high risk of re-offense often associated with sex offenders and the victimization of vulnerable populations, such as children. Furthermore, the resolution requests the Commission to consider the impact of treatment interventions on the reduction of recidivism among this particular population of offenders.

The resolution instructs the Commission to report its findings and recommendations to the General Assembly. Preliminary findings were included in the Commission's 1999 Annual Report, submitted to the legislature, the Governor and the Chief Justice of the Supreme Court of Virginia on December 1, 1999. This report, Assessing Risk among Sex Offenders in Virginia, presents the outcome of the Commission's work under SJR 333.

SENATE JOINT RESOLUTION NO. 333

Requesting the Virginia Criminal Sentencing Commission to develop a risk assessment instrument for utilization in the sentencing guidelines for sex offenses.

WHEREAS, research indicates that certain sex offenders are at high risk for reoffense; and

WHEREAS, such sex offenders typically prey on vulnerable populations, such as children; and

WHEREAS, it is important to identify and incapacitate, to the extent possible, these predatory sex offenders; and

WHEREAS, the Sentencing Commission has developed and piloted a risk assessment instrument for certain offenses for purposes of providing alternatives to incarceration; and

WHEREAS, a similar assessment instrument could be used to determine the range of sentences which should be imposed upon a convicted sex offender based upon the risk for reoffending; now, therefore, be it

RESOLVED by the Senate, the House of Delegates concurring, that the Virginia Criminal Sentencing Commission be requested to develop a risk assessment instrument for utilization in the sentencing guidelines for sex offenses. In developing the risk assessment instrument, the Commission shall consider the impact of treatment interventions on the reduction of sex offenses. The Commission shall collaborate with the Department of Corrections in the development of such instrument. All agencies of the Commonwealth shall provide assistance to the Commission, upon request.

The Commission shall complete its work in time to submit its findings and recommendations to the Governor and the 2000 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems.

The Nature of Risk Assessment

In essence, criminal risk assessment is the estimation of an individual's likelihood of repeat criminal behavior and the classification of offenders in terms of their relative risk of such behavior. Typically, risk assessment is practiced informally throughout the criminal justice system (e.g., prosecutors when charging, judges at sentencing, probation officers in developing supervision plans). Empirically-based risk assessment, however, is a formal process using knowledge gained through observation of actual behavior within groups of individuals.

Effectively, risk assessment means developing profiles or composites based on overall group outcomes. Groups are defined by having a number of factors in common that are statistically relevant to predicting the likelihood of repeat offending. Those groups exhibiting a high degree of re-offending are labeled high risk. This methodological approach to studying criminal behavior is an outgrowth from life-table analysis used by demographers and actuaries and in many scientific disciplines. A useful analogy can be drawn from medicine. In medical studies, individuals grouped by specific characteristics are studied in an attempt to identify the correlates of the development or progression of certain diseases.

The risk profiles for medical purposes, however, do not always fit every individual. For example, research demonstrates a strong statistical link between smoking and the development of lung cancer. However, some very heavy smokers may never develop lung cancer. Similarly, not every offender that fits the lower risk profile will refrain from criminal activity. No risk assessment research can ever predict a given outcome with 100% accuracy. Rather, the goal is to produce an instrument that is broadly accurate and provides useful additional information to decision makers. The standard used to judge the success of risk classification is not perfect prediction. It is, instead, the degree to which decisions made with a risk assessment tool improve upon decisions made without the tool.

Failure, in the criminal justice system, is typically referred to as recidivism. Offender recidivism, however, can be measured in several ways. Potential measures vary by the act defined as recidivism. For instance, recidivism can be defined as any new offense, a new felony offense, a new offense for a specific type of crime (e.g., a new sex offense), or any number of other behaviors. The true rate at which offenders commit new crimes likely will never be known, since not all crimes come to the attention of the criminal justice system. Recidivism, therefore, is nearly always measured in terms of a criminal justice response to an act that has been detected by law enforcement. Probation revocation, re-arrest, reconviction and recommitment to prison are all examples of recidivism measures.

In risk assessment research, the characteristics, criminal histories and patterns of recidivism among offenders are carefully analyzed. Factors proven statistically significant (i.e., those with a known level of success) in predicting recidivism can be assembled on a risk assessment worksheet, with scores determined by the relative importance of the factors in the statistical model. The instrument then can be applied to an individual offender to assess his or her relative risk of future criminality. Behavior of the individual is not being predicted. Rather, this type of statistical risk tool predicts an individual's membership in a subgroup that is correlated with future offending. Individual factors do not place an offender in a high-risk group. Instead, the presence or absence of certain combinations of factors determine the risk group of the offender.

Utilization of risk assessment in criminal justice decision making has withstood constitutional challenges. According to Witt, Del Russo, Oppenheim, and Ferguson (1996), the federal courts found that the "...likelihood of future criminality and the potential for danger to society are determinations implicit in sentencing decisions" and every court of appeals that has considered the question "has rejected the claim that prediction of future conduct is unconstitutionally vague" (p. 350). Similarly, Janus and Meehl (1997) have concluded that, while there are statutory and evidentiary standards limiting prediction testimony, "it seems well established that there is no constitutional impediment to using predictions of dangerousness in legal proceedings..." (p. 36; see also Epperson, Kaul, and Hesselton 1999).

Predicting risk to commit violence in general, and sexual aggression in particular, is a challenging task. Nonetheless, there is evidence to suggest empirically-based risk assessment outperforms purely clinical assessment by mental health professionals in terms of predicting future dangerousness. Indeed, research over the last two decades has consistently demonstrated the general superiority of actuarial, or empirically-based, risk assessment over clinical prediction in virtually every decision-making situation that has been studied (Epperson, Kaul, and Hesselton 1999; Harris, Rice, and Quinsey 1993; Gottfredson 1987). Improving violence prediction, then, may rely in large part on the increased use of actuarial (statistical) methods (Monahan 1996).

Prior Research

With the passage of civil commitment, sex offender registration and community notification laws around the country, the accurate assessment of a sex offender's risk of recidivism has become increasingly important to many areas of the criminal justice system. Understanding the risk factors associated with re-offense behavior has major implications for the areas of risk management and disposition planning for the sex offender population. Although little has been done heretofore to study factors associated with recidivism among sex offenders convicted in Virginia, there is a growing body of work in the field of recidivism research related to this population. Some research efforts, particularly in the area of the efficacy of specialized sex offender treatment, are ongoing.

It should be noted that all recidivism studies share significant shortcomings (Doren 1998). The true rate of sex offense behavior is unknown since not all offenses come to the attention of law enforcement, social services or other official agencies. Researchers can only define recidivism in terms of discovered acts for specified behavior. Therefore, all recidivism research underestimates the actual rate at which these acts are committed. Additionally, a large share of recidivism research defines recidivism as reconviction, which may further limit that portion of re-offense behavior that is captured for study. Reconviction rates have been shown to seriously underestimate the extent of recidivism among sex offenders (Romero and Williams 1985; see also Doren 1998; Prentky, Lee, Knight, and Cerce 1997). Moreover, recidivism research is limited by time constraints.

Some offenders may actually recidivate after the conclusion of the study and yet be considered a "success" in terms of the research because they did not recidivate during the study's window of data collection. An additional limitation of most sex offender recidivism research is that the studies employ samples consisting totally of male sex offenders (Doren 1998). Although direct application of research findings to female sex offenders cannot be made, the effect of this constraint is minimal since few female offenders enter the criminal justice system charged with sexual offenses.

At present, there are no standards or universal criteria for conducting recidivism research (Furby, Weinrott, and Blackshaw 1989; Marshall and Barbaree 1990; Quinsey, Khanna, and Malcolm 1998). Investigation of recidivism has occurred in a variety of settings on a wide array of sex offender populations. Researchers in the field have not adopted a uniform measure for differentiating recidivists and non-recidivists. Previous studies have utilized a variety of measures to identify recidivists, such as a new arrest, new conviction, supervision failure, probation revocation or recommitment to prison. Therefore, the extent of sex offender recidivism detected across research studies varies considerably. Narrow definitions of recidivism such as reconviction tend to produce lower recidivism rates than broader definitions of recidivism such as re-arrest or supervision failure.

The length of follow-up, the period of time for which an offender is tracked in an effort to detect new offense behavior, is also widely disparate, with some studies following offenders for a relatively brief period of time (e.g., a year or two) while other studies have documented follow-ups as long as two decades. In addition, recidivism researchers have studied diverse groups of subjects. In some studies, the subjects represent a population provided sex offender or psychiatric treatment. In others, the subjects are sex offenders released after serving a term of incarceration in prison or jail. Still others target sex offenders who received or who were under community supervision at the time of the study. Some researchers select sex offenders based on the type of crime committed, such as offenders convicted on charges of child molestation or rape. Because there are no standards or uniform practices for studying recidivism among sex offenders, it is difficult to directly compare studies in this field to one another. Taken as a whole, however, patterns emerge which shed light on not only the extent of recidivism among this particular population but also those offender and offense characteristics which seem to be most often associated with recidivist behavior.

Factors Related to Recidivism

Figure 1 displays summary information for 20 empirical studies conducted during the 1980s and 1990s relating to sex offender recidivism. For each study, a brief description of the subjects, the length of the follow-up period and the particular measure of recidivism is provided. The rate of recidivism detected during the course of the study is also noted.

Of the 20 studies listed in Figure 1, seven define recidivism using reconviction. These reconviction measures vary. In some studies, the reconviction measure reflects only those convictions for a new sex offense. Other studies operationalize the reconviction measure more broadly to include convictions for any violent crime or, at the most general level, convictions for any type of crime. However, there is evidence that conviction records provide a diluted measure of the prevalence of recidivism among sex offenders (Romero and Williams 1985; see also Doren 1998; Prentky, Lee, Knight, and Cerce 1997). For instance, Prentky, Lee, Knight, and Cerce (1997) found recidivism rates based on re-arrest during a five-year follow-up to be 73% higher for rapists and 36% higher for child molesters than reconviction rates. Some researchers, therefore, turn to broader measures of recidivism. Eleven of the studies in Figure 1 utilize re-arrest to define recidivism. This type of measure captures as recidivism behaviors for which an offender is arrested by law enforcement regardless of

whether or not the offender was subsequently convicted of a crime. Other studies included in Figure 1 record recidivism based on alternative measures, such as re-commitment to a correctional facility, probation revocation, offender self-report or other unofficial records. A number of studies listed in Figure 1 examine recidivism using more than one measure.

Hanson and Bussiere's 1996 study and Hanson's 1997 study, shown in Figure 1, are meta-analyses. The technique of meta-analysis surfaced in psychology in the 1970s and 1980s. It is a statistical procedure that integrates the results of several independent studies that are considered by the researcher to be "combinable." Meta-analysis is helpful because it allows researchers to examine outcomes and the importance of factors across many studies at the same time. Hanson and Bussiere's meta-analysis, for example, is based on 61 different data sets from six different countries.

Figure 1

Overview of Sex Offender Recidivism Studies

Study	Sample	Follow-up	Recidivism Measure	Detected Recidivism Rate
Abel, Mittelman, Becker, Rathner and Rouleau (1988)	98 treated outpatient child molesters	1 year	Self-report of sex offense	12.2%
Barbaree and Marshall (1988)	35 untreated outpatient child molesters	1 to 9.75 years	Reconviction, new charge or unofficial record of new sex offense	42.9%
Barbaree and Seto (1998)	315 imprisoned sex offenders receiving treatment	Up to 8 years	Revocation of parole, relapse, or a new sex offense	27.5% (offenders released on conditional parole)
Berliner, Miller, Schram, and Milloy (1991)	646 felony sex offenders	2 years	Any re-arrest (excluding traffic infractions) Reconviction	17.3% (supervision/ treatment participants); 11.2% (supervision/treatment participants); 25.7% (non-participants)
Epperson, Kaul, and Hesselton (1999)	256 incarcerated non-incest sex offenders	6 years	Re-arrest for sex offense	34.8%
Hanson (1997)*	2,592 sex offenders	2 to 23 years average	Re-arrest or recommitment for sex offense	6% - 35%
Hanson and Bussiere (1996)*	28,972 sex offenders	4 years median	Non-sexual violent recidivism Any sexual recidivism	12.2% 13.4%
Hanson and Harris (1998)	208 recidivist sex offenders matched to 201 non-recidivists	2 years average (for non-recidivists)	Re-offense (documented with some reasonable evidence)	Not applicable
Hanson, Steffy, and Gauthier (1992)	197 incarcerated child molesters	19 to 28 years average	Reconviction for sex or violent offense	42%
Konicek (1996)	826 sex offenders	5 years	Return/recommitment to Ohio prison system Return/recommitment to Ohio prison system for sex offense	28.3% 7.6%
Maletsky (1991)	3,795 sex offenders receiving treatment in the community	1 to 17 years	Re-arrest for sex offense or failure to reach treatment goals	9%

* Studies marked with an asterisk are based on meta-analysis. Meta-analysis is a statistical procedure that integrates the results of several independent studies that are considered by the researcher to be "combinable." Meta-analysis is helpful because it allows researchers to examine outcomes and the importance of factors across many studies at the same time.

Figure 1: Overview of Sex Offender Recidivism Studies continued

Study	Sample	Follow-up	Recidivism Measure	Detected Recidivism Rate
Montiuk and Brown (1996)	570 community-supervised sex offenders	3.5 years average	Reconviction	33.5%
Prentky, Knight and Lee (1997)	111 incarcerated child molesters	Not Reported	New charge for hands-on sex offense New charge for non-sexual person offense New charge for violent offense	35.4% 16.8% 15%
Quinsey, Khanna and Malcolm (1998)	483 incarcerated sex offenders referred for treatment	3.67 years average	Re-arrest for sex offense Re-arrest for violent offense	Not Reported 38%
Quinsey, Rice and Harris (1995)	178 sex offenders assessed at psychiatric facility	4.9 years average	Reconviction for sex offense Re-arrest or return to facility for any person offense	28% 40%
Rice, Harris and Quinsey (1990)	54 incarcerated rapists	3.8 years average	Reconviction for sex offense Re-arrest or return for violent offense Reconviction for any offense	28% 43% 59%
Rice, Quinsey and Harris (1991)	136 non-familial child molesters	6.3 years average	Reconviction for sex offense Re-arrest or return for violent offense Any re-arrest or return to facility	31% 43% 56%
Romero and Williams (1985)	231 sex offenders receiving treatment in the community	10 years	Re-arrest for sex offense Any re-arrest	11.3% 57.1%
Schram and Milloy (1995)	139 imprisoned sex offenders placed in highest level of community notification	.6 to 4.5 years	Any re-arrest Re-arrest for sex offense	79% (juveniles); 42% (adults) 43% (juveniles); 14% (adults)
Schram and Milloy (1998)	61 adult offenders referred for civil commitment for whom petitions were not filed	.4 to 6.5 years	Any re-arrest Re-arrest for sex offense	59% 28%

Figure 2 summarizes the findings of the sex offender recidivism studies presented in Figure 1. Thirty-seven factors commonly studied in sex offender recidivism research are listed across the top of Figure 2. The factors relate to the type of the offense under study (e.g., rape or child molestation), actual offense behavior, victim information, use of force or weapons, offender demographic information, prior criminal history and psychological/deviance parameters. Figure 2 does not capture all the factors ever examined in sex offender recidivism research, but it is designed to present those frequently investigated in these and other studies. If a study found a particular factor to be statistically significant in predicting recidivism among sex offenders, a “+” is found in that factor’s column. If the study examined the factor, but it was found not to be relevant statistically in predicting sex offender recidivism, an “o” is found in the column. If the factor was not examined or reported, the column for the factor contains a blank space. For example, Hanson and Bussiere, in their 1996 study, concluded that rape offenders are more likely to recidivate than other types of sex offenders. Therefore, a “+” is found in the column labeled “Current Rape Offense.”

Although the studies presented in Figures 1 and 2 vary considerably in terms of recidivism measure, sample characteristics and follow-up period, there are common findings that are notable. Factors reflecting the marital status of the offender and factors capturing the offender’s history of arrests and/or convictions for sex offenses were identified more frequently than any of the other factors as being important in the prediction of recidivism among sex offenders. This body of research indicates that offenders who have never been married (or in some studies not currently married) are more likely to recidivate than offenders who have been or are currently married. As a whole, existing research also indicates that offenders who have a history of prior sexual crimes are more likely to recidivate than offenders for whom the crime under study represents the first sex offense. An offender’s prior record of non-sexual offenses and other measures of criminal history, most notably juvenile record, were also found to be relevant in predicting recidivist behavior in numerous studies. Overall, the findings suggest that offenders who commit their crimes against persons who are unrelated to them are more likely to recidivate, particularly if the offender selects a victim who is a stranger. Younger offenders and offenders who victimized males were found to recidivate at higher rates in approximately half of the analyses that included such parameters, while unemployment proved to be an indicator of recidivism slightly less often. It is

interesting to note that most of the studies which included factors relating to an offender’s deviant sexual preferences, degree of psychopathy or personality (e.g., anti-social) disorders and the offender’s paraphilias, found these factors to contribute significantly to prediction of sex offender recidivism. These measures may be captured as a part of a clinical assessment of the offender, in conjunction with a treatment program or a risk evaluation conducted by a mental health professional.

Reviewing previous research on sex offender recidivism in this way highlights those findings that have been found repeatedly to be significant across multiple professional research studies. While the predictive strength of these parameters relative to one another cannot be deduced using this approach, such a review serves as a basis for current and future research. Other publications reviewed by the Commission provided additional information, but were not amenable for summary in Figure 2. A reference list including these and other publications related to sex offender recidivism can be found at the end of this document.

Figure 2

Summary of Findings from Sex Offender Recidivism Studies

Study	Recidivism Measure	Current rape offense	Current child molestation offense	Current or past indecent exposure/exhibitionism	Seriousness level of offense	Offense location	Alcohol or drug use at time of offense	Legal restraint at time of offense	Stranger	Known victim	Unrelated	Use of Force
Abel, Mittelman, Becker, Rathner & Rouleau (1988)	Self-report of sex offense											
Barbaree & Marshall (1988)	Reconv., new charge, unofficial record for sex offense											+
Barbaree & Seto (1998)	Revocation of parole, relapse, or a new sex offense											
Berliner, Miller, Schram, & Milloy (1991)	Any re-arrest (excluding traffic infractions)	Not Reported										
	Reconviction				0		0					
Epperson, Kaul & Hesselton (1999)	Re-arrest for sex offense					+		+	+			+
Hanson (1997)	Re-arrest or recommitment for sex offense								+		+	
Hanson and Bussiere (1996)	Non-sexual violent recidivism	+									+	
	Any sexual recidivism	+		+					+		+	
Hanson and Harris (1998) ¹	Re-offense								+	0	+	
Hanson, Steffy & Gauthier (1992)	Reconviction for sex or violent offense			0			0				+	
Konicek (1996)	Return to Ohio prison system	+							+	+		
	Return to Ohio prison system for sex offense	+							+	+		
Maletsky (1990)	Re-arrest for sex offense or fail treatment goals								+			+
Montiuk and Brown (1996)	Reconviction	+					+					+
Prentky, Knight and Lee (1997)	New charge for hands-on sex offense											
	New charge for non-sexual person offense											
	New charge for violent offense											
Quinsey, Khanna & Malcolm (1998)	Re-arrest for sex offense				+		0		+		+	
	Re-arrest for violent offense				+		+		+		+	
Quinsey, Rice & Harris (1995)	Reconviction for sex offense	+										
	Re-arrest or return to facility for any person offense											
Rice, Harris and Quinsey (1990)	Reconviction for sex offense	0										
	Re-arrest or return for violent offense											
	Reconviction for any offense											
Rice, Quinsey and Harris (1991)	Reconviction for sex offense											
	Re-arrest or return for violent offense	Not Reported										
	Any re-arrest or return to facility	Not Reported										
Romero & Williams (1985)	Re-arrest for sex offense			+								
	Any re-arrest											
Schram & Milloy (1995)	Any re-arrest	0	0				+		+			
	Any re-arrest for sex offense	0	0				0		0			
Schram & Milloy (1998)	Any re-arrest	Not Reported										
	Any re-arrest for sex offense	Not Reported										

Key: "+" indicates that the study found that factor to be positively associated with recidivism.
 "-" indicates that the study found the factor to be negatively associated with recidivism.
 "0" indicates that the study analyzed the factor but found no association with recidivism.

Weapon	Injury	Number of victims	Penetration	Young victim/large offender-victim age difference	Male victim (s)	Young offender	Education	Unemployment/low SES	Never married/unmarried	History of alcohol abuse or drug use	Experienced physical/emotional abuse or neglect	Experienced sexual abuse	Separated from parents at early age	Prior sex arrests/convictions	Prior non-sex arrests/convictions	Prior violent offenses	Prior non-violent offenses	Any prior arrests/convictions	Prior incarcerations/commitments	Juvenile record	Age at first arrest/incarceration	Psychopathy/personality disorders (e.g. antisocial)	Multiple paraphilias	Deviant sexual arousal/phalometric testing	Prior treatment	
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Sex Offender Treatment and Recidivism

Determining the extent to which treatment may reduce recidivism among convicted sex offenders is of particular interest to researchers, clinicians and criminal justice decision makers. For researchers, it is an ongoing challenge to design and execute studies with the power to demonstrate a treatment effect if, indeed, one exists.

There are researchers and mental health professionals who see reason for optimism in more recent studies on the effectiveness of treatment in reducing the prevalence of recidivism among sex offenders brought under criminal control. For criminal justice decision makers, the answer to the treatment question has major implications for how best to utilize correctional resources and how best to protect public safety.

Addressing the question of whether treatment works is extremely complex. Certainly, not all treatment programs are the same. There are various types of treatment, administered by a variety of providers. Treatment programs can vary in length and mode of delivery (e.g., individual therapy or in a group). Programs may be offered at different points in the criminal justice process (e.g., at the end of incarceration, in transition from incarceration to the community, or during community supervision). Programs may target particular types of offenders

for treatment, such as child molesters or offenders in psychiatric facilities. With such diversity in treatment programs and treatment participants, an answer to the global question of “Does treatment work?” is unlikely to be forthcoming. Moreover, approaches to sex offender treatment have evolved over the decades, with current approaches typically focusing on cognitive-behavioral methods and relapse prevention.

Another reason the treatment question is so difficult to address lies in the challenges researchers face in the design and execution of scientifically rigorous studies to evaluate sex offender treatment programs. Rigorous scientific standards are very difficult to accommodate outside of research laboratories in actual program settings (English 1996). According to English (1996), methodological problems common to scientific studies on the effectiveness of sex offender treatment programs include, but are not limited to:

- Difficulty in adequately capturing the exact treatment delivered;
- Lack of comparison/control groups to measure the difference between the outcome for those who received treatment and the outcome of a comparable group who did not receive treatment;
- Ethical problems involved in random assignment to study/comparison groups (related to withholding treatment for research purposes);
- Poor or limited outcome data or use of unreliable measures;

- Samples that are not representative of a correctional population or of the population of interest (e.g., treatment participants comprised of only volunteers, who may be more amenable to treatment);
- Samples that exclude offenders who refuse treatment or drop out (treatment dropouts have been found to recidivate at significantly higher rates than those who complete treatment);
- Samples so small that a treatment effect, if one exists, cannot reach the level of statistical significance;
- The lack of comparable follow-up periods across studies.

When outcome studies do not adequately address these issues, it is “difficult to draw conclusions with confidence” and it is even more “difficult to generalize the findings to other sex offender treatment settings” (English 1996, p. 18-4).

Nevertheless, determining whether or not treatment, or a specific type of treatment, is effective in reducing recidivism among sex offenders is of utmost concern to clinicians and criminal justice decision makers. To try to address questions about the efficacy of treatment programs, researchers have searched for general themes or overarching patterns revealed through previous research efforts. Figure 3 summarizes nine publications released since 1989. These studies are not themselves outcome studies but, rather, reviews of sex offender treatment studies compiled by the authors.

From Figure 3, it is clear that at least three groups of researchers are optimistic about the evidence of a treatment effect linked to specific types of programs (Marshall and Barbaree 1990; Marshall, Jones, Ward, Johnston, and Barbaree 1991; Marshall and Pithers 1994). After reviewing four outcome studies published between 1988 and 1993 that compared treated and untreated offenders, Marshall and Pithers (1994) believe “there are clearly, on all indices of treatment outcome, good grounds for optimism about the value of the more recent comprehensive cognitive-behavioral treatment programs” for sex offenders. Two of the publications listed in Figure 3 have taken a more quantitative approach to reviewing existing studies. One (Hall 1995) is based on meta-analysis, a statistical technique that integrates the results of several independent studies, of 12 sex offender treatment studies published since 1989 considered by the author to be methodologically adequate for such an analysis. Hall (1995) reports a small but consistent effect of treatment in reducing sexual recidivism. In another quantitative examination of existing research studies, Alexander (1999) uses an exploratory technique to search for patterns across 79 recidivism studies. Among the studies analyzed, Alexander (1999) found that 13% of treated sexual offenders recidivated compared to 18% of untreated offenders, but the data suggest that treatment may lower recidivism rates for some sexual offenders and be less effective for others (treatment effects appeared greater for child molesters and exhibitionists than rapists).

Figure 3
Reviews of Sex Offender Treatment Outcome Studies, 1989-1999

Furby, Weinrott and Blackshaw (1989) reviewed 42 sex offender recidivism studies conducted between 1953 and 1989.

- “The variety and gravity of methodological problems in existing recidivism studies... often undermines confidence in their results.” (p. 4)
- “The fact that treated and untreated groups differ in ways other than whether they received treatment makes these already ambiguous results even more difficult to interpret.” (p. 25)
- “We must consider the possibility that treatment is effective for only some types of offenders.” (p. 25)
- “Treatment models have been evolving constantly, and many of those evaluated in the studies reviewed here are now considered obsolete.” (p. 25)
- “There is as yet no evidence that clinical treatment reduces rates of sex re-offenses in general and no appropriate data for assessing whether it may be differentially effective for different types of offenders.” (p. 27)

Marshall and Barbaree (1990) examined studies of four comprehensive outpatient programs.

- “While the data on institutionally based programs encourage limited optimism with respect to the value of cognitive-behavioral programs, it cannot be said that these data are more than tentative.” (p. 373)
- “Outpatient treatment of sex offenders by cognitive-behavioral procedures, then, seems to be effective.” (p. 379)
- “It is worth noting here that what limited evidence there is indicates that rapists are the least responsive to cognitive-behavioral interventions, and further development of programs for those men is warranted.” (p. 382)

Marshall, Jones, Ward, Johnston and Barbaree (1991) reviewed treatment outcome studies to examine the value of different treatment approaches.

- “In examining the value of the different approaches, we concluded that comprehensive cognitive/ behavioral programs (at least for child molesters, incest offenders and exhibitionists) are likely to be effective, although there is a clear value for the adjunctive use of antiandrogens with those offenders who engage in excessively high rates of sexual activities.” (p. 465)
- “We believe that the evidence provides an unequivocally positive answer” to the question of treatment effectiveness, “although clearly, not all programs are successful and not all sex offenders profit from treatment.” (p. 480)
- “At the moment, there is insufficient data to identify in advance those patients who will profit the least (except of course rapists), and this topic urgently needs research.” (p. 481)

Quinsey, Harris, Rice and LaLumiere (1993) assessed methodologies used to study sex offender recidivism.

- “The effectiveness of treatment in reducing sex offender recidivism has not yet been scientifically demonstrated.” (p. 512)
- “Only truly randomized assignment [to treatment and non-treatment groups] can allow a strong test to be made...” (p. 514)
- “The second difficulty in making inferences from the outcome literature... involves a potential overestimate of treatment effectiveness caused by not considering those who refuse treatment and dropouts when comparing the outcomes of those who complete treatment with outcomes of untreated men... Treatment refusers and treatment dropouts should not be ignored in considering treatment efficacy.” (p. 514)
- “In general, statistical significance is a necessary criterion for clinical and economic significance.” (p. 521)
- “In the end, there is no substitute for scientific rigor... Meta-analyses offer the field of sex offender treatment the opportunity of drawing definitive quantitative conclusions by combining the results of many studies, none of which alone would be decisive.” (p. 521)

Marshall and Pithers (1994) reviewed treatment outcome studies on four sex offender treatment programs that compared the outcome of treated sex offenders with a group of untreated offenders.

- “Non-familial child molesters who were treated had significantly lower re-offense rates than did their untreated counterparts. The same was true for father-daughter incest offenders and exhibitionists.” (p. 20)
- Three studies found that “specialized treatment programs result in diminished recidivism rates for child abusers and rapists in comparison to untreated samples, but the reduction in recidivism rates is consistently greater for child abusers than for rapists.” (p. 20)
- “There are clearly, on all indices of treatment outcome, good grounds for optimism about the value of the more recent comprehensive cognitive-behavioral treatment programs.” (p. 21)

Hall (1995) performed a meta-analysis, or statistical integration, on 12 studies of treatment with sexual offenders published since 1989 considered by the author to be methodologically adequate for inclusion.

- “A small, but robust, overall effect size was found for treatment versus comparison conditions [alternative treatment or no treatment].” (p. 802)
- Treatment effects were larger “in studies that had higher base rates of recidivism, had follow-up periods longer than five years, included out-patients, and involved cognitive behavioral or hormonal treatments.” (p. 802)
- “Of the sexual offenders who completed treatment in the studies in the present meta-analysis, 19% committed additional sexual offenses, whereas over 27% of sexual offenders in comparison conditions committed additional offenses.” (p. 806)

The **United States General Accounting Office (1996)** examined 22 qualitative and quantitative summaries of research on sex offender treatment and reported its findings to Congress.

- “Most research reviews identified methodological problems with sex offender research as a key impediment to determining the effectiveness of treatment programs. As a result, little is certain about whether, and to what extent, treatments work with certain types of offenders, in certain settings, or under certain conditions.” (p. 3)
- “There seemed to be little consensus among reviewers about what an optimal indicator of recidivism would be. As a result, it was difficult to determine whether, and by how much, sex offender treatment reduced recidivism.” (p. 10)
- “Most reviewers, even those who were quite positive about the promise of sex offender treatment programs, felt that more work was needed before firm conclusions could be reached.” (p. 7)

Margaret Alexander (1999) analyzed data from 79 sexual offender treatment outcome studies to identify patterns.

- “Data from multiple studies suggest that treatment may lower recidivism rates, at least for some sexual offenders [treatment effects appeared greater for child molesters and exhibitionists than rapists].”
- Overall, 13% of treated sexual offenders recidivated compared to 18% of untreated offenders.
- “The elimination of the data on dropouts could have skewed the results” since “studies such as that by Miner and Dwyer (1995) point to a differential effect that treatment may have in completers as opposed to dropouts.”
- Recidivism rates decreased in studies conducted after 1980, suggesting that newer treatment approaches may be more effective or evaluation methods have improved or both.

Washington State Institute for Public Policy (Phipps, Korinek, Aos, and Lieb 1999) reviewed research findings for eight prison-based and five community-based adult sex offender treatment programs in the U.S. and Canada.

- “The GAO concluded in 1996 that the research results are inconclusive regarding the effectiveness of sex offender treatment in reducing recidivism. We have reached the same conclusion for both in-prison and community-based treatment.” (p. 107)
- “Given the small number of rigorous studies on this subject, scientific conclusions about the effectiveness of sex offender treatment are likely to remain ambiguous for a number of years.” (p. 107)

For other researchers cited in Figure 3, the effectiveness of treatment cannot be pronounced in the absence of more rigorous scientific research. Because of the methodological deficiencies found in nearly all sex offender treatment studies, Furby et al. (1989) and Quinsey et al. (1993) conclude that the effectiveness of treatment in reducing sex offender recidivism has not yet been scientifically demonstrated. The United States’ General Accounting Office and the Washington State Institute for Public Policy have concurred. The U.S. General Accounting Office (1996), Congress’ watchdog agency, found that “most research reviews identified methodological problems with sex offender research as a key impediment to determining the effectiveness of treatment programs. As a result, little is certain about whether, and to what extent, treatments work with certain types of offenders, in certain settings, or under certain conditions” (p. 3). According to the Washington State Institute for Public Policy, “given the small number of rigorous studies on this subject, scientific conclusions about the effectiveness of sex offender treatment are likely to remain ambiguous for a number of years” (Phipps et al. 1999, p. 107).

As shown in Figure 3, it appears that researchers who have reviewed sex offender treatment outcome studies have not reached a consensus as to whether or not such treatment has been demonstrated to be effective in reducing the prevalence of recidivism among sex offenders. There does appear, however, to be agreement among researchers that rigorous scientific study of sex

offender treatment outcomes is a desirable goal. After examining 22 qualitative and quantitative reviews of research on sex offender treatment previously published, the U.S. General Accounting Office (1996) found that “most reviewers, even those who were quite positive about the promise of sex offender treatment programs, felt that more work was needed before firm conclusions could be reached” (p. 7).

Several recent research efforts examining the efficacy of sex offender treatment have been produced. Although a portion of these recent studies have reported findings of a positive treatment effect for certain sex offenders in particular program settings, these studies are not without many of the methodological weaknesses discussed earlier in this chapter. Moreover, each evaluation study targets a specific program (e.g., a program for sex offenders in prison who volunteer to participate in treatment) which may limit the applicability of the results to sex offenders in other correctional settings. Because of the methodological limitations of these studies and the specificity of the programs, the results of these studies are likely not generalizable to the population of sex offenders who come in contact with the criminal justice system. Nonetheless, the studies discussed below, released between 1995 and 1999, are among the most recent efforts to address the question of treatment effectiveness.

Researchers in Canada have reported evidence of a treatment effect associated with that nation’s Clearwater Sex Offender Treatment Program (Looman, Abracen, and Nicholaichuk 2000; Phipps et al. 1999). The program utilizes a structured, cognitive-behavioral approach and a relapse prevention treatment framework for incarcerated sex offenders described as “high risk.” Although offenders were not randomly assigned to treatment and non-treatment groups, an important element for making scientific comparisons of treatment effects, researchers matched treated offenders with a group of untreated offenders according to the offender’s age, date of offense and prior criminal history. Based on 296 treated offenders and a matched sample of 283 untreated offenders released from prison, researchers found after an average follow-up of six years that treatment participants had lower rates of sexual (15%) and non-sexual (32%) convictions than the untreated offenders (33% and 35%, respectively). The difference was statistically significant. However, because offenders must volunteer to enter the treatment program, treated offenders differ from untreated offenders based on their motivation to participate and complete the treatment program. Offenders motivated to pursue treatment in general may be less likely to re-offend after release from prison, regardless of the treatment intervention itself (Phipps et al. 1999). Replication of the study on a sample of sex offenders treated at another facility, a residential psychiatric facility on the grounds of a maximum-security prison in Ontario, produced similar findings on the effectiveness of treatment in reducing recidivism (Looman et al. 2000).

Researchers in Minnesota also have reported a positive treatment effect for sex offenders released from the state’s prison system (Minnesota Department of Corrections 2000). Tracking 251 sex offenders for a minimum of six years, researchers compared treated offenders with offenders who did not enter the prison treatment program and those who began treatment but quit or were terminated prior to completing the program. The results indicate that 34% of sex offenders who completed treatment prior to release were re-arrested after release, compared to 59% of sex offenders released during the same period who never entered treatment and 45% of sex offenders who began but failed to complete the treatment program. Treated offenders were also re-arrested less often for sex offenses and other crimes against the person than untreated offenders. Under the Minnesota program, treatment appears to be more effective with offenders who have no history of felony sex offense convictions prior to their current offense. Although this study reported differential outcomes for treated and untreated offenders, the researchers did not statistically control for other factors that might have been associated with lower recidivism rates. Therefore, the differences in recidivism rates detected in the study may not be attributed solely to the effects of Minnesota’s prison-based sex offender treatment program.

Alaska's Hiland Mountain sex offender treatment program, a prison-based program based on a relapse prevention model with a cognitive behavioral approach, has yielded a positive treatment effect, according to a report released in 1996 (Mander, Atrops, Barnes, and Munafo 1996). Researchers studied recidivism among three sex offender groups: a group who received treatment while in prison, a motivated non-treatment group (inmates who volunteered but did not receive treatment), and an unmotivated non-treatment group (inmates who did not seek or request treatment). The motivated non-treatment group was comprised of offenders who were willing to accept treatment but did not receive treatment due to an insufficient sentence or the lack of available treatment beds. Researchers found that treated sex offenders lasted longer in the community before they re-offended than offenders in any other group, and the longer offenders were treated, the longer the period before re-offense. Analysis revealed the groups were roughly equivalent on several demographic variables, but any differences between treatment and non-treatment groups in criminal history variables or other risk factors were not reported and were not controlled by the researchers. Differences in the overall average re-arrest rates (4.4 for the treatment group; 4.9 for the motivated non-treatment group; 4.7 for the unmotivated non-treatment group) were not statistically significant (Phipps et al. 1999). Lack of statistical controls and potential bias in the selection of offenders for treatment (the motivated non-treatment group volunteered for treatment but did not receive it, in part, due to insufficient sentence length) limit a scientific assessment of treatment effects (Phipps et al. 1999).

As with Canada's and Minnesota's prison-based treatment programs, Alaska's results, based only on imprisoned offenders, may not be generalizable to sex offenders who receive other types of criminal sanctions or who receive treatment in the community.

Washington researchers found that recidivism rates among sex offenders treated in that state's prison-based Twin Rivers sex offender treatment program were not significantly different from sex offenders who did not receive treatment prior to release. The Twin Rivers program uses a combination of treatment techniques including group therapy, psycho-educational classes, behavioral treatment, drama therapy, and family involvement lasting for one to four years (Song and Lieb 1995). Offenders with at least one year left to serve in prison must volunteer and admit guilt to the crime for which they are incarcerated to enter the program. Researchers analyzed 159 treated sex offenders for 20 months following release and compared their recidivism patterns to a group of untreated sex offenders incarcerated during the same period. This comparison group differed in terms of the number of prior sex offenses, the type of offenses committed and race, but these disparities were controlled for in the analysis. The re-arrest rates for sex offenses and violent offenses were 11% and 1%, respectively, for the treatment group; 12% and 3%, respectively for the non-treatment group. These differences were not statistically significant. It should be noted that the follow-up was far shorter than most studies of sex offender recidivism. Treated offenders were tracked for less than two years on average.

In their examination of 483 Canadian sex offenders referred for treatment and followed for an average of 44 months following release from the prison-based Regional Treatment Centre Sex Offender Treatment program, Quinsey, Khanna and Malcolm (1998) found that, after controlling for several variables that predicted re-offending, the treatment program was associated with a decrease in violent (non-sexual) recidivism, as measured by re-arrest. This result was evident regardless if treated sex offenders were compared with offenders who were assessed as not requiring treatment, those who were judged unsuitable or those who refused it. However, the reverse pattern was observed for sexual recidivism. After controlling for certain risk factors, treated offenders had a higher re-arrest rate for sex offenses than those who were not treated. The net result of these two effects on the overall measure of recidivism (any violent or sexual re-arrest) was a finding of no overall effect of treatment. Among treated offenders, clinical assessment of gains made by the offender as the result of the treatment program was not significantly associated with subsequent recidivism. Entry to the program is limited to volunteers subsequently approved through evaluation by staff. The program has emphasized sex education and training designed to increase social skills, assertiveness and temper control, along with empathy control training and relapse prevention training (Quinsey, Khanna and Malcolm 1998).

A recent Vermont study tracked sex offenders placed on community correctional probation supervision in a rural county for an average of over five years in order to compare recidivism among a group of offenders who received specialized sex offender treatment, a group participating in a less specialized mental health treatment program, and a non-treatment group comprised of offenders who refused to participate in a treatment program (McGrath, Hoke, and Vojtisek 1998). The specialized treatment program revolved around several components, including establishing probation conditions, accepting responsibility, modifying cognitive distortions, developing victim empathy, controlling sexual arousal, improving social competence, and developing relapse prevention skills. Non-specialized treatment involved a variety of mental health interventions, primarily individual counseling. Measuring recidivism as a new arrest, conviction or probation revocation, findings indicate that sex offenders who received specialized sex-offender treatment recidivated at lower rates than those who received non-specialized treatment and the difference was statistically significant. The highest recidivism rates were associated with the non-treatment group (those who refused treatment). It should be noted that assignment to the three groups was not randomized but based on offender self-selection. No offender who admitted committing the offense for which he was convicted and who agreed to enroll in treatment was denied access to the specialized treatment program. While the specialized and non-specialized treatment groups appeared comparable on

a variety of demographic and offense characteristics, offenders in the non-treatment group had more extensive prior criminal histories and longer sentences than either of the treatment groups. Offenders in the non-treatment group, therefore, may have been more likely to recidivate for reasons other than the lack of treatment. In addition, the specialized treatment group had nearly twice as many incest offenders than the non-specialized treatment group. As incest offenders typically have the lowest rate of officially recorded sexual re-offense among all sex offenders, this could be a biasing factor in favor of the specialized treatment approach (McGrath et al. 1998). It should be noted that the study sample was extremely small. The total sample included 122 offenders, only 19 of whom were in the non-treatment group. Moreover, the study targeted only offenders placed on community corrections supervision. These offenders likely represent moderate to lower-risk sex offenders. The results, then, may not be generalizable to more serious sex offender populations such as those in prison. Because the researchers found a statistically significant benefit for specialized treatment over non-specialized treatment, however, the authors feel the results provide support for the efficacy of cognitive-behavioral and relapse-prevention treatment approaches for the treatment of sex offenders.

In addition to evaluating Minnesota's prison-based treatment program for sex offenders, researchers there have examined the effectiveness of Minnesota's community-based sex offender treatment programming (Minnesota Department of Corrections 2000). Evaluators attempted to track over 1400 offenders given probation sanctions for over six years following sentencing. Although treatment information was missing for approximately one-third of the sample, overall re-arrest rates were lower for offenders who completed treatment (13%) versus those who began but did not complete treatment (45%) and those who never entered treatment (42%). Offenders completing treatment were also less likely to be re-arrested for a new sex offense. Researchers did not employ any statistical controls for other factors in order to isolate the effects of treatment. Of particular note is the fact that treatment for sex offenders sentenced to non-prison sanctions is initiated by order of the sentencing court. Because sex offenders ordered by the court to treatment may differ in many ways from offenders not ordered to receive treatment in the community, the effect of treatment in Minnesota's community-based sex offender treatment program cannot adequately be assessed.

Similarly, the effect of Washington State's Special Sex Offender Sentencing Alternative (SSOSA), a community treatment sentence granted to certain first-time sex offenders (who must volunteer and meet eligibility criteria), cannot be determined (Song and Lieb 1995). By following 787 offenders for an average just under six years, the researchers compared recidivism among

offenders who received a SSOSA sanction, those who were eligible but did not receive such a sanction and those who were statutorily excluded from SSOSA. The groups differed by age (SSOSA offenders were older than SSOSA-eligible offenders who did not receive the program) and race (SSOSA offenders were more likely to be white than those in the other two groups) and criminal histories (because SSOSA is restricted to first-time offenders, the non-eligible group contained offenders with the most serious criminal histories). Controlling for age, race, criminal history and type of conviction, differences in the re-arrest rates for sex offenses between the SSOSA treatment group and the SSOSA-eligible group disappeared. However, the SSOSA group had a significantly lower re-arrest rate for non-sex felony offenses than the SSOSA-eligible group, even after statistical controls. Nonetheless, the Washington State Institute for Public Policy concluded that “this analysis cannot determine whether these lower rates were due to treatment effectiveness, or because low-risk offenders were selected for the SSOSA treatment sentence” (Song and Lieb 1995, p. 6).

True controlled experiments on the effects of sex offender treatment are difficult to achieve. Random assignment to treatment and non-treatment study groups is required to scientifically assess treatment effects. Ethical concerns have been raised concerning the withholding of treatment for research purposes from offenders who desire and may need therapy. In the mid-1980s, however, the California Department of Corrections and the California Department of Mental Health initiated a controlled experiment using prisoner populations

(Marques, Day, Nelson, and Miner 1989; Marques, Day, Nelson, and West 1994; Marques and Day 1998). Researchers are evaluating treatment efficacy by comparing recidivism rates for a treatment group (sex offenders who volunteer and are randomly selected for treatment), a volunteer non-treatment group (those who volunteer but are not randomly selected for treatment), and a non-volunteer control group (subjects who refused the opportunity for treatment). The California program, known as the Sex Offender Treatment and Evaluation Program or SOTEP, is based on a cognitive-behavioral treatment method that uses a relapse prevention framework to help offenders identify factors that place them at risk for re-offense and to develop coping responses to these risks. For this study, recidivism has been defined as a new arrest for either a sex crime or a violent non-sex crime. The 1998 progress report did not demonstrate a statistically significant difference between treated and untreated offenders in re-arrest for sex offenses or other crimes against the person. The study is ongoing, thus the results could change over time.

In sum, there are researchers (e.g., English 1996; Quinsey et al. 1993; Furby et al. 1989) who contend after reviewing the literature that the effectiveness of treatment in reducing sex offender recidivism has not yet been scientifically demonstrated due to the numerous methodological deficiencies common to this type of research. Other researchers reviewing the literature, Marshall and Barbaree (1990), Marshall et al. (1991), and Marshall and Pithers (1994), believe that clear patterns are emerging from the data, despite the methodological problems. Some recent research efforts (1995

to 1999) have yielded positive reports on treatment effects, but nearly all suffer from certain methodological weaknesses that make it difficult to exclude non-treatment explanations for lower recidivism rates among treated offenders. One study-in-progress (Marques and Day 1998) based on random assignment to treatment and the non-treatment control group has found no significant treatment effect to date. Given the tremendous diversity in treatment programs, participants, and settings, the question “Does treatment work?” may be unanswerable. Instead of asking “Does treatment work?”, the more appropriate question may be “What works for whom?”. For instance, some researchers have suggested that rapists may be less responsive to treatment than other types of offenders (Marshall and Pithers 1994). Alexander (1999) emphasizes the importance of studying the effects for different treatment approaches and different treatment locations (e.g., prison, hospital and community settings). English (1996) emphasizes the importance of providing appropriate services for offenders, incorporating the principles of 1) delivering services to high risk cases, 2) targeting criminogenic risk factors (such as increasing self-control and self-management skills), and 3) using treatment styles and methods (such as cognitive and behavioral approaches) that are matched with client needs and learning styles (see also Andrews and Bonta 1994, Chapter 10). Certainly, reducing recidivism is an important goal in terms of the human and financial cost that society bears for the crimes committed by sex offenders. Pursuit of rigorous scientific study of the effectiveness of treatment in reducing recidivism should continue.

Existing Risk Assessment Instruments

In response to SJR 333, the Commission designed an empirical analysis of recidivism among sex offenders convicted and sentenced in the Commonwealth. The Commission's goal was to produce a reliable and valid predictive instrument, based on independent empirical research, specific to the population of sex offenders in Virginia. As background for its own research, the Commission reviewed existing risk instruments utilized in the assessment of sexual offenders. This chapter presents six such instruments. In particular, this chapter provides three instruments currently used by correctional agencies in other states.

The Rapid Risk Assessment for Sex Offense Recidivism (RRASOR) was developed by Hanson (1997) based on data from seven different sex offender follow-up studies. Hanson's objective was not to maximize prediction for each sample but to develop an easily administered scale that "was likely to be valid for a range of settings." Hanson used previous outcome studies to select items for his brief actuarial risk scale which he then tested on an independent sample of sex offenders. The scale contains four items that are easily scored from administrative records: prior sexual offenses, offender age less than 25, presence of extrafamilial victims and presence of male victims. The scale showed moderate predictive

accuracy with little variation between the development sample and the sample of offenders upon which it was tested. For the study, recidivism was defined as any new sexual offense as indexed by official records (arrests, conviction, re-admissions). Figure 4 presents the items contained in the RRASOR instrument and the interpretation of the total score in terms of the estimated rates of recidivism adjusted for time. There has been some criticism of the RRASOR instrument for not scoring rapists and offenders with personality disorders high enough and for scoring child molesters higher relative to the rapists (Doren 1999).

Figure 4

Rapid Risk Assessment for Sex Offense Recidivism (RRASOR) Instrument

I. Prior Sex Offenses (arrests and convictions) _____		
<u>Score</u>	<u>Prior convictions</u>	<u>Prior charges (arrests)</u>
0	0	0
1	1	1 or 2
2	2 or 3	3, 4, or 5
3	4 or more	6 or more
II. Age at Release _____		
<u>Score</u>	<u>Age</u>	
1	18 to 24.99 years	
0	25 or more years	
III. Victim Information _____		
<u>Score</u>	<u>Victim gender</u>	
1	ever any male victim(s)	
0	only female victim(s)	
IV. Relationship to Victim _____		
<u>Score</u>	<u>Relationship</u>	
1	any unrelated victim(s)	
0	only related victim(s)	
Total score is the sum of the individual item scores		
Interpretation _____		
<u>RRASOR</u>	<u>Estimated recidivism (re-arrest) rates adjusted for time</u>	
Score	5 year follow-up	10 year follow-up
0	4.4%	6.5%
1	7.6%	11.2%
2	14.2%	21.1%
3	24.8%	36.9%
4	32.7%	48.6%
5	49.8%	73.1%

Originally developed to predict sexual and non-sexual violent recidivism among offenders referred to a maximum-security psychiatric institution, the Violence Risk Appraisal Guide (VRAG) has attracted interest as an actuarial predictor of violence for other populations. The instrument estimates risk of re-arrest for a violent offense within ten years. An application of the VRAG to an independent sample of 159 sex offenders (Rice and Harris 1997) found the VRAG score to be moderately correlated with violent recidivism, but the predictive ability fell by half for sexual offense recidivism. There are twelve items on the VRAG, including the score from Hare's Psychopathy Checklist (Revised), which several researchers have found to be a significant factor in predicting recidivism among sex offenders. Psychopathy generally refers to mental disorders. For instance, a psychopathic personality is one usually characterized by largely amoral and asocial behavior, irresponsibility, impulsiveness, lack of remorse, and perverse or related behaviors. The Psychopathy Checklist developed by Hare is designed to assess psychopathic (anti-social) personality disorders in forensic populations. Completion of the Psychopathy Checklist requires a semi-structured interview with the offender and a review of relevant file information for the offender. The VRAG instrument also contains two items that require the administrator of the instrument to score diagnoses based on the DSM-III, a tool used by mental health professionals to diagnose personality disorders. Figure 5 contains the VRAG instrument and the interpretative information (Quinsey, Harris, Rice, and Cormier 1998).

Figure 5

Violence Risk Appraisal Guide (VRAG) Instrument

1. Psychopathy Checklist- Revised (PCL-R)

PCL-R Range	Score
0-4	-5
5-9	-3
10-14	-1
15-24	0
25-34	+4
35-40	+12

2. Elementary Maladjustment

No problems	-1
Slight	+2
Moderate	+2
Severe	+5

3. DSM-III Diagnosis of Personality Disorder

No	-2
Yes	+3

4. Age at Index Offense

39 or older	-5
34-38	-2
28-33	-1
27	0
26 or younger	+2

5. Lived with Both Parents to Age 16
(except for death of parents)

Yes	-2
No	+3

6. Failure on Prior Conditional Release

No	0
Yes	+3

7. Non-Violent Offense Score - Score offenses committed that are listed below and then add scores together

Robbery (bank, store)	7
Robbery (purse snatching)	3
Arson (church, house, barn)	5
Arson (garbage can)	1
Threatening with weapon	3
Threatening	2
Possession of weapon	1
Theft – Felony	5
Theft – Misdemeanor	1
Burglary	2
Break and Enter	1
Fraud (extortion, bank scams)	5
Fraud (forged check, impersonation)	1
Mischief – Felony	5
Mischief – Misdemeanor	1
Trafficking in narcotics	1
Dangerous driving, DWI	1
Procuring a person for prostitution	1
Obstructing officer	1
Causing a disturbance	1
Wearing disguise to commit offense	1
Sum of offense scores:	0 = -2
	1 or 2 = 0
	3 or more = +3

8. Marital Status

Ever married (or equivalent)	-2
Never married	+1

9. DSM-III Diagnosis of schizophrenia

Yes	-3
No	+1

10. Most Serious Victim Injury

(for index offense, the most serious injury is scored)

Death	-2
Hospitalized	0
Treated & Released	+1
None or slight	+2

11. History of Alcohol Abuse

Score all characteristics listed below and add scores together

Parental alcoholism	1
Teenage alcohol problem	1
Adult alcohol problem	1
Alcohol involved in prior offense	1
Alcohol involved in current offense	1

Sum of characteristic scores

0	=	-1
1 or 2	=	0
3	=	+1
4 or 5	=	+2

12. Female Victim (index offense)

Yes	-1
No	+1

Total score is the sum of the individual item scores

Interpretation of VRAG

Estimated probability of violent recidivism

VRAG Score	7 year follow-up	10 year follow-up
Less than -21	0%	8%
-21 through -15	8	10
-14 through -8	12	24
-7 through -1	17	31
0 through +6	35	48
+7 through +13	44	58
+14 through +20	55	64
+21 through +27	76	82
+28 or higher	100	100

The Sex Offender Risk Appraisal Guide (SORAG) is a tool derived from the VRAG instrument just described (Quinsey, Harris, Rice and Cormier 1998). In addition to nearly all the VRAG items, the SORAG instrument includes factors scoring previous arrests for violent offenses, previous convictions for sex offenses, and previous sex offenses against victims other than girls under the age of 14. The SORAG instrument also requires physiological testing. Physiological testing involves the physical measurement of sexual arousal patterns to visual stimuli. It is used to assess an offender's preferences for deviant sexual activities such as violent rape and child molestation.

The Sexual Violence Risk (SVR-20) instrument was developed in an attempt to improve the accuracy of assessment of risk for future sexual violence. The 20 factors scored fall into three main categories: psychosocial adjustment, history of sexual offenses and future plans. The predicted risk is based on not just the number but the combination of factors present and whether there has been any recent change in the status of a factor. This instrument requires some degree of psychological and/or clinical training to administer. Since the instrument is not in the public domain, the material must be purchased. Because it is proprietary, the instrument is not shown here.

Several states have led the way in the use of risk assessment instruments as a routine part of decision-making related to convicted sex offenders. Most notably Minnesota, Colorado, and Washington use risk assessment instruments for key decisions regarding sex offenders, such as sex offender registry placement and civil commitment referrals.

During the 1990s, the state of Minnesota conducted independent empirical research to develop a revised version of the Minnesota Sex Offender Screening Tool. The new instrument, the Minnesota Sex Offender Screening Tool-Revised (MnSOST-R), was constructed and tested on incarcerated sex offenders and is currently being used as a screening tool for referring offenders for commitment under Minnesota's Sexual Psychopathic Personality and Sexually Dangerous Persons law and as part of that state's Community Notification Act for placement of sex offenders in one of three levels of reporting requirements (Epperson, Kaul, and Hesselton 1999). The goal of researchers was to develop a reliable and valid instrument that could be easily scored by correctional case managers and did not require clinical qualifications to administer. Based on the re-arrest patterns of 256 sex offenders followed for six years in the community, Minnesota's researchers selected 16 items that satisfied three conditions: 1) the factor reflected at least a five-percentage point difference between recidivists and

non-recidivists, 2) the factor reached statistical significance in relation to re-offense behavior, and 3) the factor contributed a unique element to the instrument not captured by other items already selected. Scoring an independent sample of sex offenders revealed that the instrument was correlated with re-arrest among sex offenders released from Minnesota's prisons. This instrument (shown in Figure 6) is designed for assessing the risk posed by sex offenders nearing release from prison. It contains what are known as static, or historical, variables (Epperson, Kaul, Hout, Hesselton, Alexander, and Goldman 1999). These are variables not subject to change unless an offender commits another sex offense, which would add to the subject's record of offenses. In addition, four of the 16 factors are labeled institutional, or dynamic, factors. These are factors subject to change after the offender enters prison and prior to his release. They include discipline record and treatment participation while incarcerated. It is interesting to note that the institutional/dynamic factors include not only sex offender treatment participation but also performance in drug and alcohol treatment. Completion of drug and alcohol treatment by offenders recommended for such treatment (or participation in such programming at the time of release) was found to reduce recidivism among Minnesota's sex offender population.

The state of Washington also uses a risk assessment instrument for evaluating risk of future dangerousness posed by sex offenders about to be released to the community. Washington's risk tool is used primarily for assigning offenders to a level for sex offender registry/community notification purposes (Washington Department of Corrections 1999). Washington's instrument (Washington State Sex Offender Risk Level Classification Screening Tool-Revised) is based on the first risk assessment instrument developed by the Minnesota Department of Corrections, a forerunner to the MnSOST-R now used in Minnesota. In addition to the factors and weights from the earlier Minnesota instrument, Washington added and revised several factors using both empirical and qualitative approaches (see Figure 7). Future study will be required in order to test the predictive accuracy of the modified instrument among Washington sex offenders.

Figure 7

Washington State Sex Offender Risk Level Classification Screening Tool - Revised



**STATE OF WASHINGTON
DEPARTMENT OF CORRECTIONS**

**WASHINGTON STATE SEX OFFENDER
RISK LEVEL CLASSIFICATION**

NAME: _____ **AGENCY:** _____

DATE OF BIRTH OF OFFENDER: _____ **DSHS/DOC #:** _____

COMPLETED BY: _____ **DATE REVIEWED:** _____

RELEASE DATE: _____ **MAX DATE:** _____

PART I: RISK ASSESSMENT (Minnesota SOST)

1. Number of sex/sex related convictions (juvenile, felony, gross misdemeanor):

a. None 0

b. One 1

c. Two 4

d. Three or more 8

Actual #: _____ **Score:** _____

2. Number of convictions for felony offenses (exclude sex/sex related offenses):

a. None 0

b. One or two 2

c. Three or more 5

Actual #: _____ **Score:** _____

3. Other sex/sex related arrests or charges not resulting in conviction:

a. None 0

b. One or more 1

Actual #: _____ **Score:** _____

4. Age at first conviction or adjudication for sex/sex related offense:

a. 24 or older 0

b. 20 to 23 2

c. 19 or younger 4

Actual #: _____ **Score:** _____

5. Use or threat of weapon in sex/sex related convictions (most severe across all offenses):

a. None present 0

b. Displayed/implied during offense 4

c. Used to inflict injury 6

Score: _____

6. Total number of victims of all sex/sex related offenses:

a. None 0

b. One 1

c. Two or three 4

d. Four or more 8

Actual #: _____ **Score:** _____

7a. (Adult) Age of victims of sex/sex related offenses at time of offense (circle all that apply):

a. Six or younger 2

b. Seven to 12 years 2

c. 13 to 15 years; offender not five years older than victim 1

d. 13 to 15 years; offender five or more years older than victim 2

e. 16 or older 2

Add a through e: _____ **Score:** _____

7b. (Juvenile) Age of victims of sex/sex related offenses (circle all that apply):

a. Six or more years younger than offender 2

b. Less than six years, but greater than two years younger 1

c. Between two years younger and two years older than offender 2

d. Two or more years older than offender 2

Add a through e: _____ **Score:** _____

8. Use of force in sex/sex related convictions, choose most severe:

a. None 0

b. Manipulative 1

c. Coercive/position of authority 2

d. Threats of violence 3

e. Physical force or violence 5

f. Substantial/great bodily harm 8

Score: _____

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9. Other characteristics of offense(s), circle all that apply:

- a. Victim tied up 4
- b. Duration of offense more than three hours 4
- c. Victim transported forcefully to another location 4
- d. Victim torture/mutilated 4
- e. Does not apply 0

Score: _____

10. Length of sexual offending history:

- a. Less than one 0
- b. One to five years 1
- c. Five years or more 3

Score: _____

11. Felony committed upon previous release from institution/secure facility/halfway house:

- a. Not applicable 0
- b. More than 12 months after release 2
- c. Seven to 12 months after release 4
- d. Three to six months after release 6
- e. Less than three months after release 8

Score: _____

12. Alcohol/drug use pattern

- (12 months prior to most recent offense):
- a. No interference with functioning 0
 - b. Occasional abuse; some disruption of functioning 2
 - c. Frequent abuse; serious disruption of functioning 4

Score: _____

13. Prior sex offender treatment/programming:

- a. No involvement in sex offender treatment prior to current offense 0
- b. Involvement in sex offender treatment prior to current offense 6

Score: _____

14. Number of significant/marital relationships:

- a. Under the age of 25 0
- b. One or two after the age of 25 0
- c. Three or four after the age of 25 1
- d. Five or more after the age of 25 2
- e. None and age 25 or older 3

Score: _____

15a. (Adult) Employment history pattern:

- a. Generally satisfactorily employed 0
- b. Student, retired, disabled/unable work 1
- c. Part-time, seasonal/unstable or in need of additional employment 2
- d. Unemployed or history of Unemployment 4

Score: _____

15b. (Juvenile) Early school history pattern

- (Grades K through 6 only):
- a. Generally satisfactorily 0
 - b. Moderate adjustment problems/multiple disciplinary actions and/or suspensions 1
 - c. Severe adjustment problems/frequent disciplinary actions and/or one permanent expulsion 2
 - d. Multiple expulsions/chronic inability to be maintained in the school setting 4

Score: _____

16. Presence of multiple paraphilias, check all that apply:

- | | |
|-------------------------------------|--|
| <input type="checkbox"/> Fetishism | <input type="checkbox"/> Exhibitionism |
| <input type="checkbox"/> Pedophilia | <input type="checkbox"/> Frotteurism/Frottage |
| <input type="checkbox"/> Voyeurism | <input type="checkbox"/> Sexual Sadism |
| <input type="checkbox"/> Bestiality | <input type="checkbox"/> Sexual Masochism |
| <input type="checkbox"/> Other (s) | <input type="checkbox"/> Obscene Phone Calling |
| | <input type="checkbox"/> Rape NOS |
- a. None 0
 - b. One 2
 - c. Two or three 4
 - d. Four or more 6
 - e. Offender is under 16 years 0

Score: _____

The remaining items refer to the offender's current term of incarceration:

17. Release environment:

- a. Relatively stable 0
- b. Moderate disorganization/stress 2
- c. Major disorganization/stress 4

Score: _____

18. Age at release from institution/confinement:

- a. 30 or older 0
- b. 24 to 29 years 2
- c. 23 or younger 4

Score: _____

19. Discipline history while incarcerated (most serious):

- a. No major discipline reports 0
- b. History of major discipline report not involving violence 4
- c. History of major discipline report involving violence 8

Score: _____

20. Chemical dependency treatment during current incarceration:

- a. Not recommended/unknown 0
- b. Recommended and successfully completed 2
- c. Recommended and currently in program, or on a waiting list, or recommended but insufficient time to get into a program 2
- d. Recommended and refused/quit 4
- e. Recommended and terminated from program 6

Score: _____

21. Sex offender treatment during current incarceration:

- a. Not recommended/unknown 0
- b. Recommended and successfully completed 2
- c. Recommended and currently in program, or on a waiting list, or recommended but insufficient time to get into program 2
- d. Recommended and refused/quit 4
- e. Recommended and terminated from program 6

Score: _____

SUBTOTAL (17 - 21): _____

TOTAL: _____

PART II: OTHER NOTIFICATION CONSIDERATIONS

- A. Victim(s) of the non-familial sex offense (s) were particularly vulnerable or incapable of resistance due to physical or mental disability or ill health. Y / N
- B. Sex offense(s) was/were of a predatory nature or the non-familial offender used a position of trust, authority, or professional relationship to facilitate the commission of non-familial sex offense(s). Y / N
- C. Offender continued to act out his/her sexual deviancy during incarceration. Y / N
- D. Adult offender has a Hanson Quick Risk Score of over four? Y / N

Hanson Quick Risk Assessment (Adults Only)

- 1. Number of sex convictions:
 - a. None 0
 - b. One 1
 - c. Two 1
 - d. Three to five 2
 - e. Six or more 3

Actual #: _____ Score: _____

- 2. Offender age at release:
 - a. Twenty six or older 0
 - b. Twenty five or younger 1

Actual #: _____ Score: _____

- 3. Significant/Marital relationships:
 - a. Ever married/significantly included 0
 - b. Never married/significantly included 1

Score: _____

- 4. Any stranger victims:
 - Yes 1
 - No 0

Score: _____

- 5. If male offender, any male victims:
 - Yes 1
 - No 0

Score: _____

HANSON TOTAL: _____

Figure 7: Washington State Sex Offender Risk Level Classification Screening Tool – Revised continued

PART III: DEPARTURE LANGUAGE

The risk level calculated from aggregating the risk facts and other standard notification considerations is "presumptive" because the Department/Committee may depart from it if special circumstances warrant. The ability to depart is premised on a recognition that an objective instrument, no matter how well designed, will not fully capture the nuances of every case. Not to allow for departures would therefore deprive the Department/Committee of the ability to exercise sound judgment and to apply its expertise to the offender. Of course, were there to be a departure in every case, the objective instrument would be of minimal value. The expectation is that the instrument will result in the proper classification in most cases so that departures will be the exception not the rule.

Generally, the Department/Committee may not depart from the presumptive risk level unless it concludes that there exists an aggravating or mitigating factor of a kind, or to a degree, not otherwise adequately taken into account by the guidelines. Circumstances that may warrant a departure cannot by their nature be comprehensively listed in advance. The departure must be justified in writing and have the support of the majority of Department/Committee members.

RISK LEVEL: _____

ESR CHAIR OR DESIGNATED AGENCY STAFF: _____

AGENCY WITH JURISDICTION: _____

Level 1 = Assessment score 46 or less and no notification considerations.
 Level 2 = Assessment score 46 or less and/or 1 - 2 notification considerations.
 Level 3 = Assessment score 46 or less and/or 3 or more notification considerations, or assessment score 47 or higher.

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DOC 350.250

The state of Colorado has developed a risk assessment instrument for use in the identification of sexually violent predators, who face more stringent reporting requirements under the state’s sex offender registry program than offenders not declared as predators (English, Boyce, and Patzman 1999). While designation of an offender as a sexually violent predator is at the discretion of the presiding judge, the instrument (called the Colorado Sexually Violent Predator Risk Assessment Screening Instrument) is designed to clinically and empirically identify the most dangerous offenders (Figure 8). Probation officers complete part of the instrument (those items containing identifying information, statutory criteria, criminal history information, offense information, employment, and education background). Evaluators from the Sex Offender Management Board complete the remaining portions of the instrument (elements related to offense behavior, assessment of denial, deviancy, motivation for change, and mental abnormality). To develop the empirical portion of the instrument, researchers analyzed cases of offenders placed on probation supervision, in community corrections, on parole and in prison treatment. The researchers followed 494 sex offenders for 12 months following release and measured failure as a new sex crime, probation revocation (including pending revocation), treatment termination for non-compliance, absconding and being on the brink of failure according to the supervising officer or prison therapist. To complete the Colorado instrument, evaluators may use a wide variety of data sources beyond official arrest and conviction histories and police reports, including polygraph testing, child protective or social services documents, education records, self-report, sexual deviance testing, and victim statements.

Figure 8

Colorado's Sexually Violent Predator Risk Assessment Screening Instrument

Instructions:

Please complete the entire form (7 pages) for each sex offender on your caseload. This form applies to offenses committed on or after July 1, 1997, whose conviction or plea (finding of guilt) occurred on or after July 1, 1999. DCJ is continuing to analyze the data gathered from these forms to strengthen the predictive capacity of the instrument. In order to accurately do this, the data must reflect both those offenders who are identified as sexually violent predators and those who are not. Thank-you for your ongoing assistance with the development of this instrument.

P PROBATION

Completes Part 1 and Part 3, items 1-6 then forwards this form to the Evaluator with copies of the police reports and any victim statements. If either are not forwarded with this report, please indicate why here:

E SOMB EVALUATOR

Completes Part 2, Part 3, items 7-10 and Part 4 including the Instrument Summary then return the completed form to probation with the completed mental health sex offense specific evaluation.

DATA SOURCES

Please identify the data sources by number when completing the following sections of this instrument.

- | | |
|--|---|
| 1 Criminal History | 10 Polygraph |
| 2 Pre-Sentence Investigation Process | 11 Sexual History (official record, self report) |
| 3 Police Report | 12 Sex Offense Specific Mental Health Evaluation |
| 4 Mental Health Evaluation | 13 Prison Record |
| 5 Official Record/Documentation | 14 Self-Report |
| 6 Child Protection or Social Service Records | 15 CCIC |
| 7 Demographic Information | 16 Results of a Plethysmograph Examination or an Abel Screen (SOMB Standards) |
| 8 NCIC | 17 Victim Report (from any data source including victim statements) |
| 9 Education Records | 18 Other (Please Specify) |

COLORADO SEXUAL PREDATOR RISK ASSESSMENT SCREENING INSTRUMENT
July, 1999 Version 1

Part 1

P (PROBATION complete Part 1)

CLIENT INFORMATION

Offender Name:		
SS#:	SID#:	DOB:
Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female	Race: <input type="checkbox"/> Anglo <input type="checkbox"/> Black <input type="checkbox"/> Hispanic <input type="checkbox"/> Other	
Referring PO:	Date PO Referred Instrument to Evaluator:	
Judicial District:		
SOMB Evaluator:	Date of Eval:	Date Returned to PO:

DEFINING SEXUAL ASSAULT CRIMES

The offender has been convicted of an offense committed on or after July 1, 1997, of one or more of the following crimes (attempts, conspiracies, and deferred judgements *do not* apply.) (check all those that apply):

- Sexual Assault in the First Degree (18-3-402)
- Sexual Assault in the Second Degree (18-3-403)
- Sexual Assault in the Third Degree (felony convictions only)(18-3-404)(1.5 or 2)
- Sexual Assault on a Child (18-3-405)
- Sexual Assault on a Child by one in a position of Trust (18-3-405.3).

Meets DEFINING CRIMES Criterion:	<input type="checkbox"/> Yes <input type="checkbox"/> No
----------------------------------	--

Please proceed to Part 2.

COLORADO SEXUAL PREDATOR RISK ASSESSMENT SCREENING INSTRUMENT
July, 1999 Version 1

Figure 8: Colorado's Sexually Violent Predator Risk Assessment Screening Instrument continued

Part 2

E (EVALUATOR complete Part 2)

The following criteria were developed to assist in the identification of a sexually violent predator as outlined in 18-3-414.5 C.R.S.

THE OFFENDER MUST MEET ONE OF THE FOLLOWING THREE SEXUALLY VIOLENT PREDATOR RELATIONSHIP DEFINITIONS: 1) STRANGER, 2) ESTABLISHED A RELATIONSHIP, OR 3) PROMOTED A RELATIONSHIP.

STRANGER

The victim is a **stranger** to the offender when the victim has never known or met the offender, or has met the offender in such a casual manner as to have little or no familiar or personal knowledge of said offender, prior to the current offense.

Meets STRANGER Criterion: <i>If yes, go to the Summary on page 5. If no, continue in Part 2.</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
---	------------------------------	-----------------------------

Please select the appropriate data source from the list on Page 2.

Data Source(s):

ESTABLISHED A RELATIONSHIP

(Consider only when **stranger** criteria above does not apply.) The offender **established a relationship** primarily for the purpose of sexual victimization when **any two** of the following criteria are present (check all that apply).

- The offender has a **history** of multiple victims and similar behavior.
- The offender has actively manipulated the environment to gain access to this victim.
- The offender introduced sexual content into the relationship, such as but not limited to, pornography or inappropriate discussion of sexual relations with a child.
- The offender persisted in the introduction of sexual contact or inappropriate behavior of a sexual nature despite lack of consent or the absence of the ability to consent.

Meets ESTABLISHED Criteria: <i>If yes, go to the Summary on page 5. If no, continue in Part 2.</i>	<input type="checkbox"/> Yes	<input type="checkbox"/> No
---	------------------------------	-----------------------------

Please select the appropriate data source from the list on Page 2.

Data Source(s):

COLORADO SEXUAL PREDATOR RISK ASSESSMENT SCREENING INSTRUMENT
July, 1999 Version 1

Part 2 (continued)

PROMOTED A RELATIONSHIP

(Consider only when **stranger** or **established a relationship** criteria above do not apply.) The offender **promoted an existing relationship** primarily for the purpose of sexual victimization when the **first item below is present and** any other item is present (check all that apply).

- The offender took steps to change the focus of the relationship to facilitate the commission of a sexual assault, such as but not limited to, planning, increased frequency of contact, introduction of inappropriate sexual contact, stalking, seduction or drugging of the victim,

and

- The offender engaged in contact with the victim that was progressively more sexually intrusive, or
- The offender used or engaged in threat, intimidation, force or coercion in the relationship, or
- The offender engaged in repetitive non-consensual sexual contact, or
- The offender established control of the victim through means, such as but not limited to, emotional abuse, physical abuse, financial control or isolation of the victim in order to facilitate the sexual assault.

Meets PROMOTED Criteria:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
--------------------------	------------------------------	-----------------------------

Please select the appropriate data source from the list on Page 2.

Data Source(s):

SUMMARY OF RELATIONSHIP INFORMATION

Meets STRANGER Criterion:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Meets ESTABLISHED A RELATIONSHIP Criteria:	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Meets PROMOTED A RELATIONSHIP Criteria:	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Please proceed to Part 3.

COLORADO SEXUAL PREDATOR RISK ASSESSMENT SCREENING INSTRUMENT
July, 1999 Version 1

Part 3

DCJ SEX OFFENDER RISK SCALE (SORS)

The offender is at **greater risk** of subsequently committing one of the identified crimes (16-11.7-103 (1) C.R.S.) when **four or more** of the following descriptions apply to this offender. Each of the ten items are worth one point. **Missing information must be scored no.** (Please indicate your data sources by documenting the corresponding number from the data source list found on page 2.)

P (PROBATION complete items 1 through 6)

- | | | |
|--------------------------|--------------------------|--|
| Yes | No | |
| <input type="checkbox"/> | <input type="checkbox"/> | 1. The offender has one or more juvenile felony adjudications. (Includes attempts and conspiracies but not deferred judgments.) |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. The offender has one or more prior adult felony convictions. (Include attempts/conspiracies and deferred judgments/sentences.) |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. The offender was employed less than full time at arrest. (Part-time or sporadic work are not considered full-time. Multiple, concurrent, stable part-time jobs are considered full-time employment. Full-time work refers to 35 or plus hours per week) |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. The offender failed first or second grade. (Whatever the reason, if the offender failed these grades or was held back or repeated the grade, this item scores "yes". Probation Officers may need to work closely with the SOMB evaluator and polygrapher to obtain this information.) |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. The offender possessed a weapon during the current crime. (A weapon was present and is defined as a gun, knife, or object that could be used to intimidate or harm a victim. The offender need only to possess the weapon during the crime, not use the weapon. If the victim was lead to believe that a weapon was present, regardless if it was, score this criterion "yes".) |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. The victim had ingested or was administered alcohol or drugs during or immediately prior to the current crime. |

E (EVALUATOR complete items 7 through 10)

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 7. The offender was NOT sexually aroused during the sexual assault. (Sexual arousal refers to an erection. The erection must have been sustained throughout the sexual assault. Data sources include self-report and/or corroborating documentation such as the victim report and police report). |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. The offender scored 20 or above on the CO-SOMB Denial Scale. |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. The offender scored 20 or above on the CO-SOMB Deviancy Scale. |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. The offender scored 20 or below on the CO-SOMB Motivation Scale. |

Item 8 through 10 on this scale are scored from the Colorado Sex Offender Management Board Checklist (page 8).

Yes	No	
<input type="checkbox"/>	<input type="checkbox"/>	8. The offender scored 20 or above on the CO-SOMB Denial Scale.
<input type="checkbox"/>	<input type="checkbox"/>	9. The offender scored 20 or above on the CO-SOMB Deviancy Scale.
<input type="checkbox"/>	<input type="checkbox"/>	10. The offender scored 20 or below on the CO-SOMB Motivation Scale.

TOTAL DCJ SEX OFFENDER RISK SCALE SCORE (Add number of "yes" responses)

Meets DCJ Sex Offender Risk Scale Criteria (Total score of 4 "yes" responses or more) Yes No
Please proceed to Part 4.

Part 4

E (EVALUATOR complete Part 4 and Instrument Summary)

MENTAL ABNORMALITY

The offender meets the **mental abnormality criterion** when he scores:

- 18 or more on the Psychopathy Checklist Screening Version (PCL:SV), **OR**
 - 30 on the PCL - R, **OR**
 - Scores of 85 or more on each of the following MCMI3 scales: narcissistic, antisocial, and paranoid.
- Please indicate the score of the appropriate test below.

Psychopathy Checklist:

PCL:SV SCORE:

OR

PCL-R SCORE:

- OR -

MCMI3:

Narcissistic

AND

Antisocial

AND

Paranoid

Meets Mental Abnormality Criterion: Yes No

INSTRUMENT SUMMARY:

To be identified a sexually violent predator, the offender must have yes on Parts 1 + 2 + (3 or 4).

PART 1 (Defining Sexual Assault Crimes Criterion) Yes No

PART 2 (Relationship Criteria) Yes No

PART 3 (DCJ Sex Offender Risk Scale Criteria) Yes No

PART 4 (Mental Abnormality Criterion) Yes **OR** No

This risk assessment instrument identifies the offender as a:

Probation Officer/Evaluator Feedback:

While not all of the risk assessment instruments currently utilized to evaluate sex offenders and their risk of future dangerousness are presented here, the instruments included in this report nonetheless are examples of those being used in the field today. The Commission reviewed these and other instruments as a background for its own research on recidivism among convicted sex offenders in Virginia.

Research Methodology

The Virginia General Assembly requested the Commission to develop a risk assessment instrument, based upon the risk of re-offense, for integration into Virginia's sentencing guidelines for sex offenses. The Commission's goal was to develop a reliable and valid predictive instrument, specific to the population of sex offenders in the Commonwealth, that could be a valuable tool for the judiciary when sentencing sex offenders. The Commission responded to the legislative mandate by designing and executing a research methodology to study a sample of felony sex offenders convicted in Virginia. This is very similar to the approach taken in Minnesota, which currently utilizes its risk assessment instrument as a screening tool for referring offenders for commitment under the Sexual Psychopathic Personality and Sexually Dangerous Persons law and for assigning sex offenders to one of three reporting levels as required by that state's Community Notification Act. With the Commission's research design, the resulting risk assessment instrument reflects the offender characteristics and the recidivism patterns of sex offenders sanctioned within the state.

For integration into sentencing guidelines, the results of the recidivism study must be applicable to offenders who are at the sentencing stage of the criminal justice process. However, conducting recidivism research on a group of offenders at the sentencing stage is challenging and complex. In any given year, many sex offenders are sentenced to serve long prison terms. In order to study these offenders, researchers would have to wait until offenders served out their prison sentences and were released from incarceration in order to then track the offenders and study re-offense patterns.

Most recidivism studies examine offenders released from incarceration during a particular time period. However, the Commission could not use this approach exclusively because a group of sex offenders released from incarceration during a given period does not possess the same characteristics as the group of offenders who were sentenced during the same period. Any risk assessment instrument developed as the result of the Commission's study is to be applied to sex offenders at the point of sentencing, not at release from incarceration. To address this requirement, the Commission developed an alternative approach, unique in the field of risk assessment research.

Sample Data

To begin, 600 felony sex offenders convicted and sentenced during calendar years (CY) 1996 and 1997 were selected at random from the Pre-/Post-Sentence Investigation (PSI) database. The PSI database contains a vast amount of offense and offender information for nearly all felony cases sentenced in circuit courts around the Commonwealth. The Commission did not include offenders convicted of misdemeanor sex crimes or any felony prostitution, adultery or fornication crimes (except incest). The Commission also excluded offenses of nonforcible sodomy between two adults when there was no victim injury. Because females comprise less than 2% of Virginia's convicted sex offender population, female offenders were excluded from the study as well.

A sample size of 400 is usually adequate to achieve the level of statistical accuracy sought by the Commission. The Commission, however, wanted to be sure that enough recidivists would be captured in the sample to support detailed analysis of the characteristics most associated with recidivist behavior. A 1989 Virginia Department of Criminal Justice Services report found that 28% of rapists released from the state's prisons were re-arrested and 26% were reconvicted for a violent felony. More recently, the state of Washington, based on an eight-year follow-up of sex offenders, reported that 19% of released prisoners and 11% of adults placed on community supervision were convicted for a new person felony. Guided by this information, it was estimated that approximately 20% of sex offenders in the study would recidivate with a new arrest for a person or sex offense. The Commission used this estimate to decide on the appropriate sample size for the study. The Commission was also aware that it would be difficult to obtain detailed offense and offender information on all the cases in the study. Some information would simply be missing and some offender files would be unavailable. In order to ensure a sufficient number of recidivists would be captured by the study, the Commission increased the sample size from 400 to 600. Because the sampled cases closely reflect the characteristics of all sex offenders convicted and sentenced in 1996 and 1997, the Commission will be able to generalize the results of the study to sentenced offenders.

Matching Sentenced Offenders to Released Offenders

In the next step, the Commission used the PSI database and the Department of Corrections' Offender-Based State Correctional Information System (OBSCIS) to identify offenders who were released from incarceration (or sentenced to probation without an active term of incarceration) during fiscal years (FY) 1990 through 1993. Selecting offenders returning to the community from FY1990 to FY1993 allowed for a minimum five-year follow-up for all offenders in the sample. Using a sophisticated statistical technique (called cluster analysis), every case in the sample of sentenced sex offenders was carefully matched to a similar case for an offender released during FY1990-1993. The technique matched offenders according to a variety of offense and offender characteristics available on the automated data files. The objective was to match the sample of sentenced offenders to cases of released offenders that most closely resembled the characteristics of the sentenced group. The result was a sample of offenders released from FY1990-1993 who, because of the way in which they were selected, reflect the characteristics of the offenders sentenced in CY1996 and CY1997. It is the sample of released offenders who were then tracked for recidivism.

Supplemental Data Collection

Automated data was supplemented in two ways. First, hard copies of the PSI reports for the study cases were obtained in order to tease out rich offense detail from the report's narrative sections. The Commission was particularly interested in details relating to the circumstances of the offense, the offender's relationship with the victim, victim injury and the offender's criminal and family history. Many of these details sought by the Commission are not maintained on the automated data systems. Next, prior criminal history was supplemented by examination of each offender's criminal history "rap sheet." Rap sheets from the Virginia Criminal Information Network (VCIN) system maintained by the Virginia State Police and from the FBI's Central Criminal Records Exchange (CCRE) system were used to track each offender for recidivism. The FBI rap sheets were vital to the Commission's study because they were the best way of identifying crimes committed outside of the Commonwealth. The Commission felt that it was very important for the study to capture prior criminal offenses and recidivist activity occurring outside Virginia.

Supplemental information was coded and entered into a database for analysis. As anticipated, the Commission was not able to obtain supplemental information for all cases in the study. In some instances, the PSI had been purged or the Department of Corrections' file containing the PSI was being microfiched and was unavailable for review. In a few cases, although the PSI was located, the narrative portions did not provide the level of detail the Commission desired. Twenty-one cases had to be excluded because a rap sheet could not be located or because manual review of the case suggested that the match between the sentenced case and the released case was inappropriate. In all, 579 cases were included in the recidivism analysis.

The supplemental data collection form utilized by the Commission is duplicated in Appendix A of this document.

Measures of Recidivism

The Commission considered very carefully how recidivism should be defined for the study requested in SJR 333. Measures of sex offender recidivism used in previous studies have varied widely. Although re-arrest and reconviction are the most common measures of recidivism used by researchers, other studies have recorded recidivism based on alternative measures, such as recommitment to a correctional facility, probation revocation, offender self-report or other unofficial records. To assist the Commission in its deliberations, Commission staff conducted a thorough review of criminological literature on recidivism among sex offenders.

Measuring recidivism is difficult, particularly among sex offenders. First, evidence suggests that sexual victimization is far more extensive than official records indicate. Abel et al. (1987) conducted a breakthrough study which provided an important clue as to the frequency and variety of sexual offending behaviors. By receiving a federal certificate of confidentiality to assure confidentiality of the data revealed to researchers, persons participating in the study could admit to current and prior offending behaviors without fear that the information would be reported to law enforcement. Subjects were seen in the context of an evaluation and treatment program for sex offenders voluntarily seeking assessment and/or treatment in a psychiatric setting. Abel et al. (1987) found that the group of 561 sex offenders had

committed an average of 520 crimes and had an average 348 victims each. These crimes included hands-on offenses as well as hands-off sex offenses such as exposing, peeping and obscene phone calls. Very striking is the fact that 126 rapists admitted to 907 rapes and that 377 non-incest pedophiles admitted to over 48,000 acts against children. Another study (Freeman-Longo and Blanchard 1998) on 23 rapists and 30 child molesters engaged in an institutional forensic mental health sex offender program also revealed sex offending behavior far beyond official records of arrests and convictions. Although the rapists had an average of less than two arrests each, they collectively admitted to more than 5,000 offenses including 319 child molestations and 178 rapes (Freeman-Longo and Blanchard 1998). While in treatment, the 30 child molesters, with an average of only 1.5 arrests each, admitted to over 20,000 acts, including nearly 6,000 child molestation offenses and 213 rapes of adult women. Using polygraph testing, the Colorado Department of Corrections found that sex offenders in prison disclosed on average 184 victims per inmate, while official records indicated an average of only two victims per offender (Heil et al. 1998). Results indicated that 80% of the inmates were still being deceptive on their polygraph examinations, suggesting even more offenses exist. Findings such as these underscore the extent to which official records underestimate the true rate of recidivism among sex offenders.

Not only are sex offenses under-reported to law enforcement, those offenses reported to police do not always result in arrest and conviction of the perpetrator. A recent study using National Incident-Based Reporting System (NIBRS) data found that an arrest was made in 27% of all sexual assault victimizations reported to law enforcement (Snyder 2000). Sex offense cases can be particularly difficult to prosecute as well. Victims and witnesses may refuse to come forward to testify and, often, evidentiary problems exist, particularly when the victim is very young. These and other obstacles hinder the prosecution of sex offense cases and often mean that charges must be dropped or reduced in a plea agreement.

From the information above, it is clear that measuring recidivism using official records most likely seriously underestimates the actual rate at which sex offenders commit new crimes. Reconviction, in particular, is a diluted measure of re-offending (Romero and Williams 1985; see also Marques et al. 1994; Doren 1998; Prentky, Lee, Knight, and Cerce 1997). Barbaree and Marshall (1988) found that using unofficial data of new sexual offending (including re-arrests, probation/parole records and self-report) increased their measure of recidivism by 2.7 times. Other researchers have found that using data

beyond reconviction increases sexual recidivism by 27-47% (Doren 1998). Prentky, Lee, Knight and Cerce (1997) also found a marked underestimation of recidivism when the criterion was based on conviction. For example, after five years of being “at-risk” for re-offending, 19% of the rapists had been re-arrested but only 11% had been reconvicted. For child molesters, after five years, 19% had been arrested while 14% were subsequently convicted (Figure 9).

Members of the Commission elected to measure recidivism using official records of arrests, believing that measuring recidivism by a new arrest would come closer than any reconviction measure to reflecting the true rate of repeat criminal behavior among sex offenders in the study. Furthermore, the Commission believed that defining recidivism solely based on a new sex offense

would underestimate the rate at which sex offenders go on to commit violent crimes. In some cases, sex offenders, particularly rapists, go on to recidivate by committing crimes against the person other than sex offenses, such as non-sexual assault or even robbery. In other cases, the offender may be arrested for or plead guilty to a non-sexual charge even though the offense was sexually motivated. This may occur due to the stage in the offense in which the offender was detected and arrested, evidence problems, reluctance of the witness to testify or other prosecutorial obstacles. Because of the human cost associated with crimes against the person, the Commission felt it important to consider crimes beyond sex offenses when measuring recidivism.

Ultimately, the Commission chose as its operational definition of recidivism a new arrest for any crime against a person, including any new sex offense. Although some portion of the people charged with a new sexual crime may be innocent both of the charge and of any other recidivist acts, this portion is likely far smaller than the number of re-offenders who are never caught and charged (Doren 1998). Many professional studies on sexual offender recidivism have utilized arrest as the measure of recidivism (see Figure 1, on p. 17).

Figure 9
Cumulative Failure Rates for Sex Offenders

Disposition	Rate after years at-risk (%)		
	3 years	5 years	10 years
Rapists			
Charge	15	19	26
Conviction	8	11	16
Prison	7	10	14
Child Molesters			
Charge	14	19	30
Conviction	10	14	23
Prison	9	13	21

Data source: Prentky, Lee, Knight and Cerce (1997)

For its study, the Commission captured multiple arrest measures in order to better understand recidivism among offenders in the sample. The overall recidivism measure was computed using a combination of four re-arrest measures:

- Re-arrest for a felony sex offense.
- Re-arrest for felony crime against the person (non-sex offense);
- Re-arrest for misdemeanor sex offense; and
- Re-arrest for misdemeanor crime against the person (non-sex offense);

The Sentencing Commission also recorded whether or not the offender was actually convicted subsequent to arrest.

Follow-up Period

The Commission chose to examine cases of offenders released into the community during FY1990 to 1993 in order to provide at least a five-year follow-up for all offenders in the study. Whereas a three-year follow-up may be adequate for general studies of recidivism, more than one study reviewed by Commission staff suggested that a longer follow-up period is needed to track recidivism among sex offenders. These studies found that a significant portion of sex offenders recidivate after the three-year window utilized by many general recidivism studies. Longer-term studies on sex offenders have consistently found that a significant portion of known recorded first-time recidivism occurs after the initial five years of the follow-up period (Hanson et al. 1992; Prentky, Lee, Knight, and Cerce 1997; see also Doren 1998). In the Commission's study, all sex offenders were tracked for a minimum of five years. For offenders returned to the community early in FY1990 (e.g., in July 1989), the follow-up period was as long as ten years. On average, offenders in the Commission's study were tracked for eight years.

Recidivism Analysis

The Commission utilized three different statistical techniques to analyze the recidivism data. The three methods were performed independently by different analysts. The preliminary models generated by each method were compared. Differences in results were identified, assessed and tested. In this way, the Commission can be assured that the final model does not reflect spurious results associated with a particular technique or with the style of any individual analyst.

One of the statistical methods used by the Commission (called logistic regression) requires that all offenders be tracked for the same length of time after release. When applying this method, the Commission used a five-year follow-up period in determining recidivism. Any offender re-arrested for a person or sex crime within five years of release was defined as a recidivist. A second method often used in recidivism studies (known as survival analysis) allows researchers to utilize and control for varying follow-up periods. This meant that Commission staff could utilize the entire study period (through July 1999) to look for recidivist behavior, even if some offenders were tracked for only five years while others were tracked for as long as ten years. Both statistical methods allow multiple factors to be included in the model simultaneously as predictors. As a result, an offender's re-arrest probability can be determined using the unique contribution of several factors to that offender's overall likelihood of recidivism.

A third method (called classification tree analysis) was used to assist researchers in examining the relationships among the variables under analysis. This technique is used to create classification systems which help to reveal interactions between two or more variables and to dissect complex relationships. The results of this analysis provided researchers with additional insight into the data, which they could then utilize in the development of the recidivism models using the two primary analytical techniques.

See Appendix B for additional technical detail on the Commission's research methodology.

Effect of Sex Offender Treatment on Recidivism

Senate Joint Resolution Number 333, which directed the Commission to conduct the sex offender risk assessment study, requests the Commission to consider the impact of treatment interventions on the reduction of sex offenses. The Commission initially designed the research study to include data on treatment received by the sample offenders prior to conviction for the crime under study and treatment received after conviction for the offense. The Commission determined that quantifying post-conviction treatment would be extremely difficult.

The Commission found that sex offender treatment available to prison inmates during the period of time the offenders in the study sample were serving (offenders in the sample were released between FY1990 to FY1993) was limited. In 1992, the Joint Legislative Audit and Review Commission (JLARC) of the General Assembly found that sex offender treatment was available only in a limited number of Department of Corrections (DOC) facilities and that only half (53%) of imprisoned sex offenders received any treatment services prior to reaching their first parole eligibility date (p. iv). Of those receiving treatment services when they became eligible for parole, a large share (40%) were provided only sex offender education programming, and not sex offender therapy. Moreover, JLARC was critical of the fact that at the time of the study, "DOC had not promulgated any standards to govern the development of treatment programs in the prisons and field units" (p. iii). JLARC found no agency specific requirements for the service

providers, minimum qualifications for counselors conducting group therapy or guidelines outlining the basic elements of the therapeutic counseling (p. iv-v). During this period, treatment programs were operating in a very decentralized manner at the institutional level. Based on JLARC's study, the Commission concluded that what treatment was offered to inmates incarcerated for sex offenses during this period was not delivered in a consistent format by a staff trained specifically in treatment for sex offenders. Moreover, a review of inmate records revealed little consistent documentation about participation in prison sex offender treatment programs in files available at the headquarters of the Department of Corrections. Due to serious limitations in sex offender treatment programming available during the period of interest and inconsistent documentation of treatment participation, the Commission concluded that the impact of post-conviction treatment and its effect on rates of recidivism among sex offenders in Virginia could not be accurately assessed as part of the current study.

Nonetheless, the Commission analyzed data available on the pre/post-sentence investigation database, the automated version of the pre/post-sentence reports prepared for the court by probation officers. This data system contains fields which report whether or not the offender has received some sort of mental health services prior to committing the current offense before the court and whether or not the offender had ever been committed for mental health treatment. In addition, the database indicates if the offender has previously participated in alcohol or drug treatment programs prior to the offense of interest.

Offender/Offense Characteristics and Recidivism Rates

In order to study recidivism among sex offenders in Virginia, the Commission tracked 579 sex offenders released from incarceration (or given probation without incarceration) from FY1990 to FY1993. Commission staff examined a variety of offender and offense characteristics in order to gain a better understanding of the circumstances surrounding sex offenses committed in Virginia and the individuals convicted for these crimes.

Study cases can be categorized based on the most serious sex crime for which the offender was convicted, sentenced and subsequently released (or given probation). This offense, the current or “instant” offense, is the basis for inclusion in the Commission’s study. Of the 579 study cases, the most common instant offense was aggravated sexual battery, which carries a 20-year statutory maximum penalty (Figure 10). Nearly one-third of the offenders in the study were convicted of this offense. More than 28% of offenders were convicted of

Figure 10

Number and Percentage of Cases by Most Serious Sex Offense

	Cases	Percent
Rape/Object Sexual Penetration	165	28.5%
Forcible Sodomy	76	13.1
Aggravated Sexual Battery	176	30.4
Carnal Knowledge	69	11.9
Indecent Liberties	83	14.4
Other	10	1.7

a rape or object sexual penetration, but another 13% were convicted of forcible sodomy. Rape, forcible sodomy and object sexual penetration offenses carry a maximum penalty of life in prison. Over 14% of the study cases were based on a conviction for indecent liberties with a child, a Class 6 felony with a five-year maximum penalty. Carnal knowledge of a child, a Class 4 felony if the offender is an adult and a Class 6 felony if the offender is a minor at least three years older than the victim, is the instant offense in 12% of the study cases.

Sex offenders in the study received a broad array of punishments for the crimes they committed, and the punishments varied by the type of instant offense. Nearly all rape and forcible sodomy offenders were sentenced to incarceration of one year or more (Figure 11). While just over half of the aggravated sexual battery offenders were given terms of one year or more, fewer than four out of ten offenders convicted of indecent liberties with a child were given such a sanction. In fact, one-third of indecent liberties offenders were given probation without an accompanying term of incarceration.

Figure 11

Type of Disposition by Most Serious Sex Offense

Most Serious Offense	Probation	Incarceration	
		Up to 12 Mos.	1 Year or more
Rape/Inanimate Obj. Pen.	4.3%	3.6%	92.1%
Forcible Sodomy	3.9	6.6	89.5
Aggravated Sex. Battery	23.9	22.1	53.0
Carnal Knowledge	46.4	21.7	31.9
Indecent Liberties	33.7	27.7	38.6
Other	50.0	20.0	30.0

Of those convicted of carnal knowledge, less than one-third were sentenced to prison and nearly half (46%) were given probation without any incarceration.

Among offenders in the study given an incarceration term of one year or more, sentences varied considerably by offense. For offenders whose most serious sex offense was rape or object sexual penetration, the median sentence (the middle value, where half the sentences fall above and half below) was ten years (Figure 12). Offenders in the study group served time under the parole system and were eligible for discretionary parole release. In general, the length of time served by these offenders was considerably less than the sentence pronounced in the courtroom. Rapists in the study typically served less than five years. Offenders convicted of forcible sodomy were sentenced, typically, to eight years in prison, but served a little over four years before being released on parole. The median time served for aggravated sexual battery offenders was less than 2½ years, despite a median sentence of five years. The median

Figure 12

Median Prison Sentence Length and Time Served by Most Serious Sex Offense (in years)

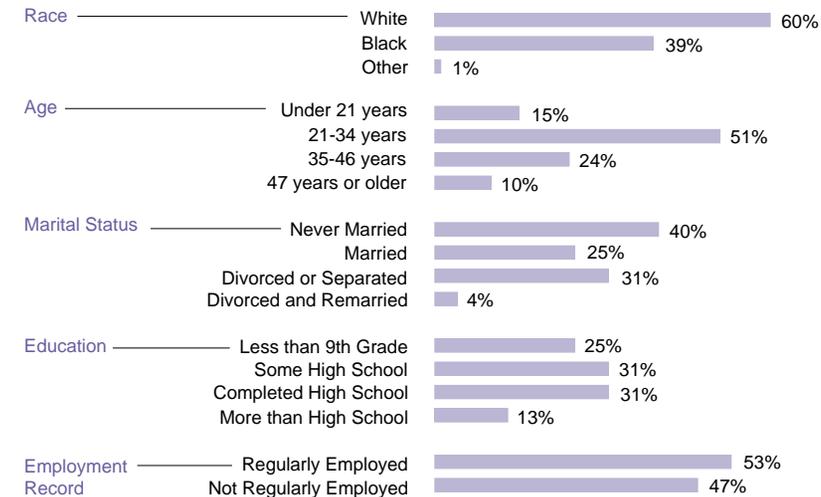
Offense	Sentence	Time Served
Rape/Inanimate Obj. Penetration	10 yrs.	4.9 yrs.
Forcible Sodomy	8	4.2
Aggravated Sexual Battery	5	2.4
Carnal Knowledge	3	1.3
Indecent Liberties	3	1.3
Other	3	1.0

prison sentence for both the carnal knowledge and indecent liberties offense categories was three years, but these offenders typically served only 15 months. Since the abolition of parole and implementation of Virginia’s truth-in-sentencing system in 1995, many rape and sex offenders are serving sentences which will result in significantly longer terms in prison than offenders convicted of similar crimes served under the parole system.

Of the 579 offenders in the Commission’s study, nearly two-thirds (60%) are white. More than half were between the ages of 21 and 34 at the time of conviction for the offense under study (Figure 13). Few offenders (15%) committed the offense prior to age 21. One-quarter of the offenders were between 35 and 46 years of age.

Figure 13

Characteristics of Sex Offenders



Only 10% of sex offenders in the study were over age 46 at the time the offense occurred. Nearly 40% of the offenders had never been married at the time they were convicted of the instant offense. Several recidivism studies reviewed by Commission staff found that younger offenders and offenders who had never been married recidivated at higher rates than older offenders and offenders who were or had been married.

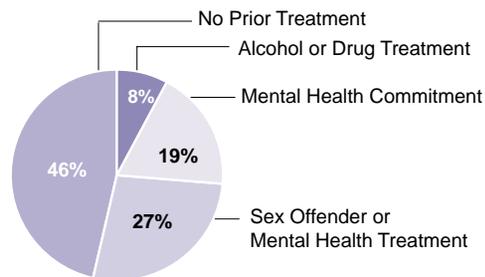
Of the sex offenders being studied, over half (56%) had not completed high school (Figure 13). In fact, one in four of the offenders had less than a ninth grade education. At the time of the offense, about 20% were unemployed, but nearly half (47%) had not been regularly employed (defined as being employed 75% of the time)

for the two years prior to committing the offense or had only maintained part-time work during that period. A court-appointed attorney represented about three of five offenders in the study. This is generally indicative of the offender's income level. In 1996, an offender living alone must have had less than \$9,675 in average annual funds in order to qualify for an attorney appointed by the court.

Nearly half (46%) of the offenders had never participated in treatment of any kind at the time they were convicted for the sex offense under study (Figure 14). More than one-quarter, however, had experienced some type of sex offender or general mental health treatment prior to the instant offense. It is striking that nearly one in five (19%) of the offenders had been previously treated as part of a mental health commitment. Only 8% of the offenders had undergone some type of alcohol or drug treatment.

Figure 14

Prior Treatment



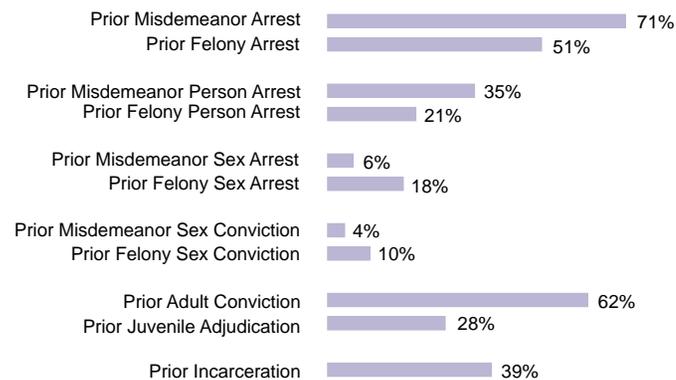
The majority of sex offenders examined by the Commission had some type of prior criminal record at the time they were convicted of the sex crime under study. Most of the offenders (62%) had at least one prior adult conviction and more than one-fourth had known juvenile delinquency adjudications (Figure 15). Over half (51%) of the sampled offenders had previously been arrested for a felony, and nearly three out of four had a prior arrest for a misdemeanor. Although 18% of the offenders had been arrested previously for a felony sex crime, only about half of those (10%) had been convicted of a felony sex offense. Four out of ten sex offenders being studied had served an incarceration term prior to the instant offense.

Hard copies of the PSI reports for the study cases were obtained and Commission staff extracted rich offense detail from the reports' narrative sections. The Commis-

sion was particularly interested in details relating to the offense behavior and the victim not available on the automated data systems. Through its supplemental data collection efforts, the Commission attempted to discover the mode or approach used by the offender to commit the sex offense (narrative file information examined by the Commission varied in the depth and quality of the detail provided). The Commission's supplemental data reveal that offenders in the study sample were most likely to use a position of authority as the mode of committing the sex offense. This mode was recorded if the offender did not use or threaten to use physical force, but the offender was responsible for the health, welfare or supervision of the victim at the time of the offense.

Figure 15

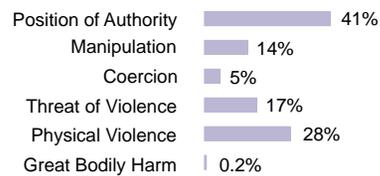
Prior Criminal Record of Sex Offenders



Offenses committed through a position of authority typically involved a young child and a step-parent or other relative. Approximately 41% of the offenders in the study used their position of authority in relation to the victim to facilitate the offense (Figure 16). Nearly 14% of the offenders manipulated one or more victims into the offense. Manipulation was coded in the supplemental data if the offender engaged in sexual activity while the victim was impaired, if the offender used some type of deception, trickery or bribery (such as video games or candy), or if the offender threatened to withdraw love and affection. Only 5% of the offenders coerced a victim. For this study, coercion was defined as forcing the victim to act in a given manner by pressure, non-physical threats, intimidation or domination without physical force. More than one-fourth (28%) of the victims experienced physical violence during the offense, but another 17% were threatened with physical violence if they did not submit to the assault.

Figure 16

Mode of Offense

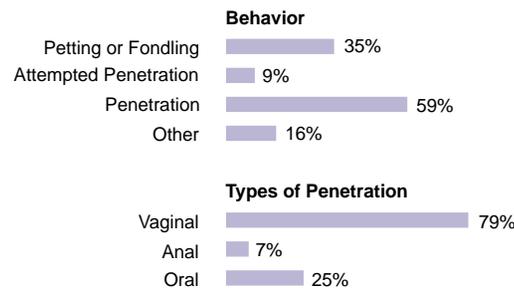


Analysis is based on cases for which supplemental offense data is available. These percentages do not sum to 100% because offenders could have committed multiple sex offenses using more than one mode.

For the 579 sex offenders in the study, the Commission was able to identify 670 victims related to the instant offenses. However, PSI narratives provided sufficient detail for only 647 victims. Well over half (59%) of the victims experienced some kind of sexual penetration during the assault (Figure 17). When penetration was reported, it most often related to vaginal penetration (79%), although one-quarter of the penetrations were committed orally. Multiple types of penetration were recorded in some cases. For nearly one in ten victims, penetration was attempted but not achieved. Well over one-third of the victims (35%) were petted or fondled by the offender. For nearly 16% of the victims, the offense involved some other form of behavior, such as exposure. The Commission attempted to collect data on as many types of sex offense behaviors as could be identified in the PSI narrative.

Figure 17

Type of Sex Offense Behavior



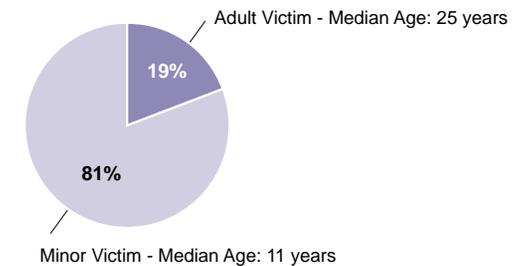
Analysis is based on cases for which supplemental victim data is available. These percentages do not sum to 100% because offenders could have committed multiple assaults against the same victim. Type of penetration data includes only those cases involving penetration or attempted penetration.

The majority of victims of the sexual assaults committed by offenders in the study were minors. About 81% of the victims were under age 18 at the time of the assault (Figure 18). When the age of a minor victim was identified, the median age was 11 years. However, 197 of the 556 victims (35%) for which age-specific data is available were under age 10 when the assault occurred. The median age for an adult victim was 25 years. Overall, one out of ten victims in the study was identified as male.

The Commission was very interested in the types of injuries sustained by the victims of the sexual assaults under study. Emotional injury is recorded by the probation officer if the officer is aware that the victim met with some type of counselor, psychologist or psychiatrist as the result of the assault. Also, probation officers often record emotional injury if the parents, guardians or other person with knowledge of the victim reports some type of continuing trauma in the victim's life (e.g., bad dreams,

Figure 18

Age of Victims

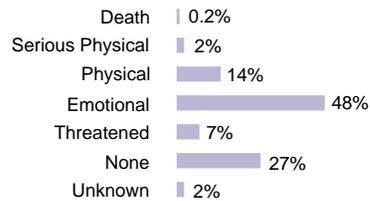


Analysis is based on cases for which supplemental victim data is available.

behavioral problems, anxiety attacks), even if formal counseling is not pursued. The probation officer, however, must complete the PSI based on knowledge of victim injury documented at the time the PSI report is prepared. The probation officer writing the report may not be aware of certain types of injuries, particularly emotional injury, sustained by the victim. Based on PSI data, half of the victims were reported as having suffered only emotional injury (Figure 19). More than 7% of the victims reported having been threatened with injury. Physical injury (injury leaving visible bruising or abrasions or requiring first-aid, broken bones, etc.) was sustained by 14% of the victims. For only 2% of the victims, the assault resulted in serious physical injury (injury was life-threatening or resulted in the loss or impairment of any limb or organ) or death.

Figure 19

Most Serious Type of Victim Injury Sustained

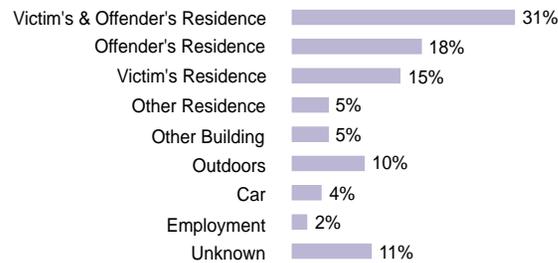


Analysis is based on cases for which supplemental victim data is available. These percentages do not sum to 100% due to rounding.

The Commission recorded information relating to the location of each sex offense. Of the offenses for which location could be identified, only about 20% were committed in a public place (outdoors, car, non-residential building). One study of sex offender recidivism reviewed by Commission staff associated sexual assaults committed in public places with higher rates of recidivism. Overall, more than two-thirds of the victims were assaulted in a residence (Figure 20). Nearly a third of the victims were assaulted in a residence that they shared with the offender. For more than 18% of the victims, the assault took place at the home of the offender (not the victim's). More than 15% of the victims were assaulted in their own homes by an offender who did not live there. About 14% of the crimes were committed outdoors or in a car.

Figure 20

Location of Sex Offense

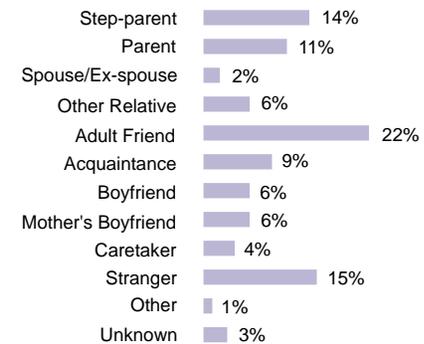


Analysis is based on cases for which supplemental victim data is available. These percentages do not sum to 100% because offenders could have committed multiple assaults against the same victim.

The supplemental data collection revealed that only 15% of the victims did not know the offender at the time of the assault. For over 80% of the victims, the offender was known to the victim at the time of the offense (Figure 21). For one-third of the victims, the offender was a member of the family, such as a step-parent. More than one in five of the victims were minors assaulted by an adult friend of the family, but another 6% of the victims were assaulted specifically by their mother's boyfriend.

Figure 21

Offender's Relationship to Victim



Analysis is based on cases for which supplemental victim data is available.

The Commission tracked sample offenders using rap sheets from the Virginia Criminal Information Network (VCIN) system maintained by the Virginia State Police and from the FBI's Central Criminal Records Exchange (CCRE) system so that new arrests both in Virginia and outside the Commonwealth could be detected. Each offender was tracked for five to ten years. The Commission found that nearly 31% of offenders in the sample recidivated, as measured by re-arrest for a new sex offense or other crime against the person, within five years of being returned to the community (Figure 22). Using data for the entire study period, in which some offenders were tracked for up to ten years, reveals a recidivism rate of nearly 37%.

Figure 22

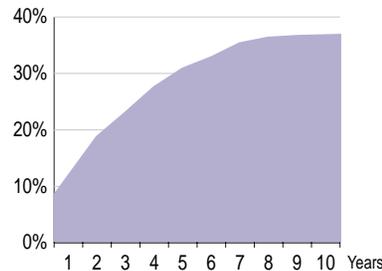
Recidivism Rates

Recidivism with	
Five Year Follow-up	30.6%
Five to Ten Year Follow-up	36.6%

Although some recidivists were re-arrested in the first year after being released to the community, a few recidivists were not re-arrested until the tenth and final year of the study. Only 8% of the offenders in the sample who recidivated did so in the first year of follow-up (Figure 23). By the end of the second year of follow-up, the overall recidivism rate jumped to nearly 19%. The recidivism rate continued to grow in each successive year and did not level off until after year seven. This finding underscores the need for a follow-up period for sex offenders that is considerably longer than the three-year window utilized by many general recidivism studies. The overall recidivism rate for the study (36.6%) was achieved in year 10.

Figure 23

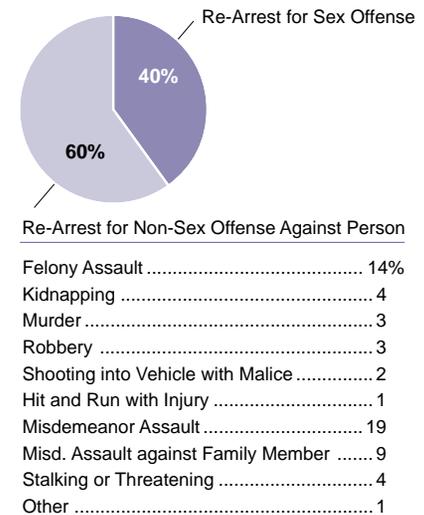
Cumulative Recidivism Rate by Year of Follow-up



Of the offenders in the study who recidivated, data revealed that 40% had been re-arrested for a new sex offense (Figure 24). Nearly all of the new sex offenses were felony level crimes. The remaining 60% of the recidivists were re-arrested for non-sexual crimes against the person. Of the recidivists arrested for non-sex crimes against the person, nearly half of the new crimes were felonies, most typically a felony assault, but also including kidnapping, murder, robbery, and shooting into a vehicle with malice. The other half of the non-sexual recidivists were re-arrested for misdemeanor person crimes, such as assault and battery, assault against a family member and stalking.

Figure 24

Type of Recidivist Offense



Development and Application of a Risk Assessment Instrument

To examine the correlates of recidivism among sex offenders in Virginia, the Commission developed and implemented a methodology that would promote thorough analysis of the available data and reduce the chance that the final results would contain spurious findings related to the particular sample data used, a specific method, or an individual analyst. The results from the three statistical methods were compared and differences were investigated. This “reconciliation” process provided additional insight and yielded information for additional analysis and improvement of the models.

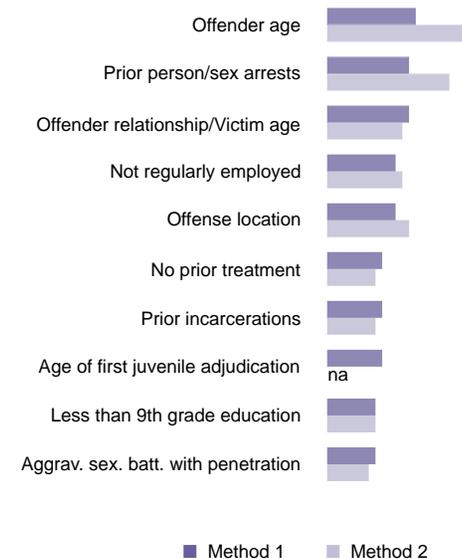
Significant Factors in Predicting Recidivism

The final stage of reconciliation yielded two models predictive of sex offender recidivism that contained the identical set of factors, with one exception. The importance of the various factors, however, was not the same. Some factors were more important in predicting recidivism in one model than in the other. Figure 25 displays the significant factors in predicting recidivism by the relative degree of importance for both modeling techniques.

Models developed under Method 1 (logistic regression) and Method 2 (survival analysis) are remarkably similar in terms of the factors found to be statistically significant in predicting recidivism. Both models contain factors related to the offender’s age at time of conviction, prior history of arrests for sex offenses and other crimes against the person, the offender’s relationship with the victim in conjunction with the victim’s age,

employment status, the location in which the offense occurred, prior history of sex offender or substance abuse treatment, prior history of incarceration terms, level of education achieved by the offender, and an indicator for cases resulting in conviction for aggravated sexual battery that actually involved penetration or attempted penetration of the victim. The model resulting from Method 1 contains one additional factor not found in the other model, a factor related to the age at which the offender received his first juvenile adjudication of delinquency.

Figure 25
Significant Factors in Predicting Recidivism by Relative Degree of Importance



Both analytical strategies revealed that younger offenders, particularly those under age 35, recidivate at higher rates than older offenders, all other circumstances being equal. Furthermore, analysis indicated that offenders with less than a ninth grade education recidivate at higher rates than offenders who completed education beyond the ninth grade. An offender's record of employment for the previous two years is also indicative of the likelihood of recidivism among the offenders in the study sample. Those offenders who have been unemployed or not regularly employed (i.e., employed with a full-time job at least 75% of the time) were found to recidivate at higher rates than offenders who have experienced stable employment.

The importance of the offender's relationship to the victim in predicting recidivism is dependent on the age of the victim at the time of the offense. In cases with victims under age ten, offenders who were step-parents to their victims recidivated at highest rates, followed by offenders who were strangers or acquaintances to the young child. Blood relatives who committed a sex offense against a family member were the least likely to recidivate among offenders who committed their offenses against young children. For victims age ten or more, offenders who were strangers to their victims recidivated at rates higher than acquaintances or relatives, including step-parents.

Both models revealed that certain offenders convicted of aggravated sexual battery were more likely to recidivate than other sex offenders. More detailed analysis showed that when an offense involved sexual penetration or

attempted penetration of the victim but resulted in a conviction for aggravated sexual battery, the offender was at higher risk of re-offense than other offenders in the study. This circumstance may arise in situations where the charge is pled down from a more serious charge, such as rape, due to evidence problems or the reluctance of witnesses or victims to testify.

The Commission's research showed that the location in which the offender committed the sex crime appears to be associated with recidivism. Offenses committed in the offender's residence or another (but not the victim's) residence were committed by offenders who were more likely to be re-arrested for a new sex crime or other crime against the person, all other circumstances being equal. Offenders who committed their crimes in the victim's residence, in a motor vehicle, outdoors or in a residence shared by the offender and the victim were somewhat less likely to recidivate, while offenders who assaulted in the victim's place of employment were the least likely to be re-arrested for a person or sex crime.

An offender's prior history of arrests for sex crimes or other crimes against the person was highly indicative of the likelihood of recidivism. A more extensive record of such arrests was associated with higher recidivism rates for the offenders in the sample. In addition, offenders who had served a term of incarceration in jail or prison prior to committing the sex offense were more likely to go on to be arrested for a new sex or person crime than those offenders who had never served an incarceration term.

An offender's history of mental health, sex offender and substance abuse treatment was found to influence recidivism after controlling for all other factors in the model. Offenders in the sample who had never had any type of mental health, sex offender or substance abuse treatment were linked with higher recidivism rates than offenders who had experienced any of these forms of treatment prior to committing the sex crime under study. When considering treatment, offenders who had undergone a prior mental health commitment recidivated at lowest rates. This factor reflects treatment received by the offender prior to the sex offense studied by the Commission. As noted in the *Research Methodology* chapter of this report, the Commission concluded it could not accurately assess the effect of sex offender treatment received after conviction for the offense under study.

As demonstrated in Figure 25, the relative importance of the factors differs between the models. Although the relative importance of factors such as the offender's relationship together with the victim's age, prior incarcerations and education are comparable across the two models, the importance of other factors differs substantially. For example, the offender's age and his arrest history are far more important in predicting recidivism under Model 2 than Model 1. Offense location is also somewhat more important within Model 2 than Model 1. For Model 1, however, the age at which the offender received his first adjudication of delinquency (age 15 or less versus over 15) was also found to be a significant predictor of recidivism. This particular factor did serve as a useful predictor in the model developed using the other analytical technique.

Other Factors Analyzed

In general, the Commission was guided by the body of literature on sex offender recidivism as the basis for developing the data collection instrument and for selecting variables to test in the models under development. The factors found in these two recidivism models represent those factors found to be statistically significant in predicting the likelihood of recidivism among sex offenders in the study sample that also added to the predictive power of the model. These were not the only factors examined by the Commission. Many other factors were tested in the models. For the variables included in the models, many forms of the factors were developed and analyzed. The form specified in the proposed models added more to the predictive power of the instrument than other forms that were tested. Other factors examined by the Commission included, but were not limited to, the following:

- Race of offender
- Marital status
- Race of victim
- Gender of victim
- Age of victim(s)
- Difference in age between offender and victim(s)
- Type of conviction offense under study (aggravated sexual battery, carnal knowledge, indecent liberties, incest, rape, forcible sodomy, object sexual penetration)
- Number of victims
- Number of codefendants
- Type of behavior(s) in offense under study (petting/fondling, attempted penetration, penetration)
- Type of penetration (vaginal, anal, or oral)
- Duration of offense behavior (single assault, multiple assaults within 24 hours, multiple assault over more than 24 hours)
- Mode of offense (position of authority, coercion, manipulation, physical force, threat of physical force)
- Victim injury (threatened, emotional, physical, serious physical)
- Weapon use
- Substance abuse history
- Age at first sex offense
- Previous sex offenses against minors
- Prior misdemeanor convictions
- Prior felony convictions
- Prior felony sex convictions
- Prior felony convictions for crimes against person
- Prior felony convictions for property crimes
- Prior felony convictions for drug crimes

The Commission attempted to gather extensive data about each offender's childhood experiences and his entire sexual offense history. Some data, such as an indication that the offender suffered sexual abuse as a child, was simply unavailable in a large portion of the cases, despite the Commission's best attempts to locate the information during the data collection phase of the study. Some of this information, although difficult to obtain, may have improved the models' predictive accuracy. The Commission's goal, however, was to develop a useful risk assessment tool that could be scored relatively easily from court records, like pre-sentence investigation reports, and other official documents, such as criminal history "rap sheets." Because of the inaccessibility of some of the data the Commission initially sought, those factors could not have been scored easily on a risk assessment instrument even if found to be statistically significant in the study.

Proposed Risk Assessment Instrument

Two recidivism models were developed based on different analytical techniques. As described in the *Research Methodology* section of this report, one of the techniques (logistic regression) required a consistent follow-up period on every offender in the sample, which for the Commission's study was five years. The second technique (survival analysis) allowed for variable follow-up periods on the offenders. Research in the field of sex offender recidivism has documented that sex offenders often re-offend many years after their initial offense (Prentky et al. 1997). In the Commission's study, the second method provides a longer follow-up period than the first method for many offenders, up to ten years in some cases, and more accurately predicts recidivist behavior over the entire study period. For these reasons, the Commission selected Model 2 (produced by survival analysis) for development of its risk assessment instrument. Based on the relative importance of the factors in Model 2, an instrument was devised which contains all the factors found in the model, with points assigned to the factors that reflect their relative importance in predicting recidivism. The proposed risk assessment instrument is displayed in Figure 26.

Figure 26
Proposed Risk Assessment Instrument

Sex Offender Risk Assessment							
Offender's Age at Time of Offense Younger than 35 years12 35 to 46 years 4 Older than 46 years 0	<input type="text"/>						
Less Than 9th Grade Education if YES, add 4	<input type="text"/>						
Not Regularly Employed if YES, add 5	<input type="text"/>						
Offender's Relationship with Victim <u>Victim under Age 10</u> <u>Victim Age 10 or more</u> Relative 0 Relative/Step-parent 2 Known to victim (not relative or step-parent).. 4 Known to victim (not relative or step-parent).. 3 Stranger 4 Stranger 8 Step-parent 9	<input type="text"/>						
Aggravated Sexual Battery (Primary Offense §18.2-67.3) No penetration or attempted penetration of victim..... 0 Penetration or attempted penetration of victim 4	<input type="text"/>						
Location of Offense Place of employment 0 Victim's residence (not offender's) 5 Shared victim/offender residence ...3 Offender's residence or other residence ...9 Outdoors 3 Location other than listed 3 Motor vehicle 4	<input type="text"/>						
Prior Felony/Misdemeanor Arrests for Crimes Against Person <table border="0" style="width: 100%;"> <tr> <td style="border-right: 1px solid black;">0 Felonies 1-3 Misd 1</td> <td style="border-right: 1px solid black;">1 Felony 0-2 Misd 5</td> <td>2+ Felonies 0-3 Misd 8</td> </tr> <tr> <td style="border-right: 1px solid black;">4+ Misd 8</td> <td style="border-right: 1px solid black;">3+ Misd 8</td> <td>4+ Misd 15</td> </tr> </table>	0 Felonies 1-3 Misd 1	1 Felony 0-2 Misd 5	2+ Felonies 0-3 Misd 8	4+ Misd 8	3+ Misd 8	4+ Misd 15	<input type="text"/>
0 Felonies 1-3 Misd 1	1 Felony 0-2 Misd 5	2+ Felonies 0-3 Misd 8					
4+ Misd 8	3+ Misd 8	4+ Misd 15					
Prior Incarcerations/Commitments if YES, add 3	<input type="text"/>						
Prior Treatment Prior mental health commitment 0 Prior alcohol or drug treatment ... 3 Prior mental health or sex offender treatment...2 No prior treatment 4	<input type="text"/>						
Risk Score	<input type="text"/>						

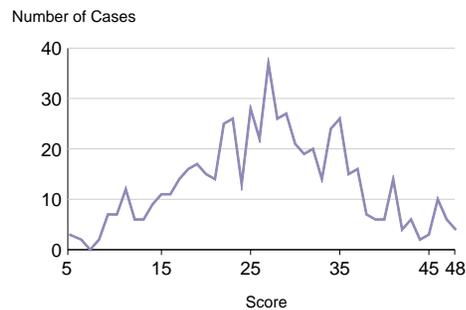
Application of Risk Assessment Instrument to Study Sample

The application of the proposed risk assessment instrument to offenders in the Commission’s study sample yields some additional insight into the utility of the instrument as a screening tool to gauge risk of future dangerousness. The average risk assessment score for offenders in the sample is 27.1 points. The median score (middle value) received by offenders is 27 points. More offenders in the sample of 579 cases received 27 points than any other score (Figure 27). Half of the offenders scored from 21 to 34 points. Only one-fourth of the offenders scored 20 points or less and only one-fourth of the offenders scored 35 points or more.

Given the results of the analysis which led to the construction of the risk assessment instrument, offenders who score in the low end of the scale are the least likely to recidivate, while offenders who score at the upper

Figure 27

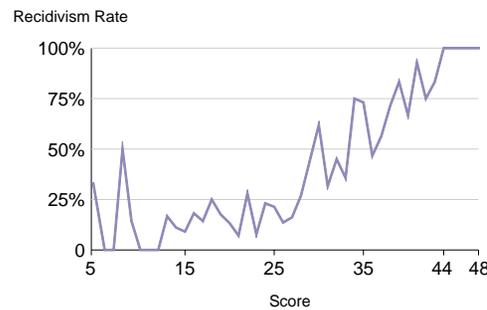
Distribution of Risk Assessment Scores



end of the scale are the most likely to recidivate. Figure 28 presents the rates of recidivism for offenders by risk assessment score. Overall, as the risk assessment score increases, the rate of recidivism attributable to offenders scoring at that level also increases, although this is not a perfect linear relationship. The most notable exceptions to the increasing function of recidivism rates with risk assessment scores can be seen at the very lowest levels of risk assessment scores (less than 15 points), where rates appear to vary from 0% to 50%. While this appears to be a dramatic fluctuation, it should be noted that, for the most part, there are very few cases that score out at these particular point levels. For instance, 33% of the offenders who scored five points actually recidivated, but this is based on only three offenders. While 50% of the offenders scoring eight points recidivated, only two offenders received this point total (one of the two recidivated). In general, the higher the score computed from the risk assessment instrument, the higher the rate of recidivism among offenders who

Figure 28

Recidivism Rates by Risk Assessment Score

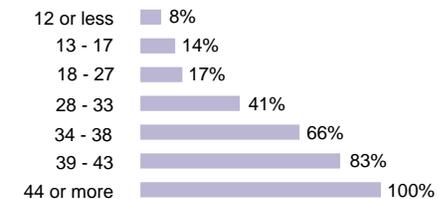


scored at each successive level. If more and more sex offenders were scored out on the instrument, it is likely that the fluctuations in the line representing the rate of recidivism at each score would lessen considerably. Overall, however, the instrument’s scores reflect the level of risk associated with offenders.

Certainly for groups or ranges of scores, the actual rate of recidivism rises with the range of score (Figure 29). Offenders scoring 12 or less recidivated at an aggregate rate of 8%. Offenders scoring 13 to 17 points recidivated at a rate of 14% overall. A slightly higher rate of recidivism (17%) was detected for those with scores of 18 through 27. Offenders with scores 28 and above tended to recidivate at much higher rates overall than offenders with scores less than that threshold. Recidivism rates jump dramatically to 41% among offenders scoring 28 through 33 points. Two-thirds of offenders scoring 34 through 38 points. Two-thirds of offenders with 34 to 38 points were found to have recidivated.

Figure 29

Recidivism Rates by Range of Risk Assessment Score



For those scoring 39 through 43, however, the aggregate rate exceeded 83%. Finally, every offender scoring 44 points or more on the risk assessment instrument devised by the Commission recidivated within the study period.

For its study of sex offender recidivism, the Commission elected to use a measure which would capture any new arrest for a sex offense or other crime committed against the person. Scoring offenders on the proposed risk assessment instrument reveals that offenders falling into the highest risk categories were among the most likely to be re-arrested for a felony. Of offenders scoring above 38 points, more than three out of four were re-arrested for a felony, with only one in four arrested for a misdemeanor charge (Figure 30). Among offenders scoring in the lower ranges of the risk scale, the rate of felony arrest was slightly lower. The exception, offenders who scored 12 or less, reflects the fact that only three offenders scoring in that range recidivated, but all three were re-arrested for a felony. The risk assessment in-

strument developed by the Commission was designed to estimate an offender's relative risk of being re-arrested upon return to the community. Overall, it appears that the instrument also identifies those offenders most at risk for recidivating with the more serious type of charge.

While the Commission's recidivism measure focused on re-arrest, the Commission also tracked the rate of new convictions. Analysis reveals that the majority of sex offenders under study who were re-arrested were subsequently convicted of one or more of the charges (Figure 31). The rates presented in Figure 31 are likely underestimations of the true rate at which recidivist offenders were actually re-convicted because they capture only those convictions which occurred on or before July 31, 1999. This is the date on which the Commission's supplemental data collection ended. Some number of offenders in the study had been re-arrested but were still awaiting trial at the end of the study period.

These offenders may have since been convicted of those charges. The resulting convictions, however, are not included in the rates shown in Figure 31.

Not only were offenders with higher risk scores more likely to recidivate and, if they did recidivate, more likely to be re-arrested for a felony, recidivists with higher scores were also more likely to recidivate sooner than those scoring in the lower ranges on the proposed risk assessment instrument. Among recidivists, those scoring in the highest range (44 or more) did not last as long in the community, on average, as other offenders (Figure 32). Offenders predicted to be at the very highest risk level according to the Commission's risk assessment instrument failed after an average of less than two years in the community. While the average time until failure is greatest for offenders who scored 13 to 17 points on the risk assessment instrument, this group includes only seven recidivists.

Figure 30

Type of Recidivist Event by Range of Risk Assessment Score

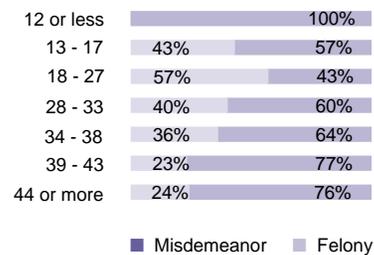


Figure 31

Recidivist Events Resulting in Conviction By Range of Risk Assessment Score

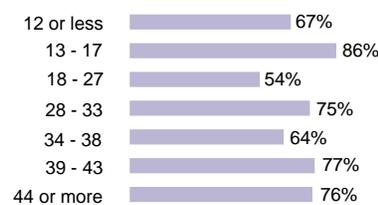
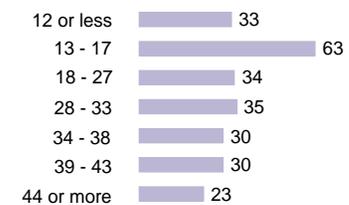


Figure 32

Mean Time to Failure by Range of Risk Assessment Score (in months)



Examples

To illustrate the application of the risk assessment instrument, several example cases are presented below, each based on an actual case file.

In Example 1, a 26-year old male was charged with aggravated sexual battery of his girlfriend's six-year old niece while visiting the girlfriend's home. The offender attempted to sexually penetrate the young girl, but the girl's cries alerted her mother. The offender was convicted as charged. Although the offender quit school after the eighth grade, he has maintained regular employment for three years. This offender has a prior felony conviction for robbery for which he served a one-year incarceration sentence. He has received prior inpatient and outpatient treatment at a mental health facility and treatment for previous alcohol abuse. On the risk assessment instrument, this offender scores 46 points, placing him in a group of offenders which recidivated in 100% of the study cases. For the current offense, he received a six-year sentence, from which he was released in 1990 after serving five and a half years. Within three years of release, the offender was arrested and convicted of another aggravated sexual battery offense.

In Example 2, a 39-year old male forcibly raped his 14-year old sister-in-law in his vehicle after she had asked him to give her a ride to school. Other than the rape itself, the victim sustained no additional physical injury. The offender was convicted of rape and abduction of a child under age 16 for immoral purposes. The offender last completed the seventh grade. The offender is self-employed as a logger and painter, but has only worked sporadically over the last two years. He has a prior criminal record that contains four felony arrests and five misdemeanor arrests for crimes against the person, including a prior arrest for rape. He has served at least one prior term of incarceration as the result of his prior convictions, ranging from assaulting a police officer, to breaking and entering and escape from custody. He has never received any type of mental health, sex offender or substance abuse treatment. On the Commission's risk assessment instrument, this offender would receive a score of 41 points, placing him among a group of offenders that recidivates in four of five cases (offenders scoring 39 through 43). For the current rape charge, the offender served less than three years of a seven-year sentence before being released on parole in September 1990. He was arrested and convicted of assault and battery in early 1996.

In Example 3, a 34-year old male was arrested for having sexual intercourse with his 13-year old stepdaughter over approximately a one-year period in the home shared with the victim's mother and other children. Child Protective Services was notified and an investigation was conducted which led to charges of statutory rape and indecent liberties with a child. The offender completed high school and has been regularly employed for at least two years. The offender has one prior misdemeanor arrest for simple assault, but served no term of incarceration. He has never received any type of mental health, sex offender or substance abuse treatment. On the risk assessment instrument, this offender would receive a score of 25 points, placing him among a group of offenders that recidivates in approximately one in five cases (offenders scoring 18 through 27). The subject made an Alford Plea to the current indecent liberties charge and was sentenced to four years in prison, of which he served less than half. No recidivism offense could be associated with this offender during the follow-up period, through July 1999.

Additional examples are provided in Appendix C of this report.

Proposals for Integrating Risk Assessment and Virginia Sentencing Guidelines

Discussion of the sex offender risk assessment instrument was a significant component of the Commission's agenda during 1999 and 2000. The Commission's objective was to develop a reliable and valid predictive scale based on independent empirical research and to determine if the resulting instrument could be a useful tool for judges in sentencing sex offenders who come before the circuit court. The Commission concluded that the risk assessment instrument developed under SJR 333 would be a useful tool for the judiciary in Virginia. Therefore, the Commission approved the risk assessment instrument and proceeded to the next step: determining the best way to integrate the risk assessment instrument into Virginia's sentencing guidelines system.

The Commission focused on issues relating to the operationalization and integration of the risk assessment instrument into the existing sentencing guidelines. The Commission divided its discussions into two key decisions: 1) how guidelines recommendations should account for the offender's risk of recidivism and 2) how to best inform judges of an offender's risk.

Adjusting the Guidelines to Account for Offender Risk

Adjusting the guidelines recommendations based on offender risk was a very important issue to the Commission. Discussion of this issue was a significant part of the Commission's April and June (2000) meetings, as well as the primary focus of the May meeting of the Commission's Executive Committee.

The Commission considered doing nothing to adjust the guidelines ranges based on risk. Under this option, the presiding judge would simply be informed of the likelihood of recidivism associated with the offender's risk assessment score or the range encompassing the offender's score. This option would allow the judge to decide how to incorporate risk information into the sentencing decision. The recommended sentence range presented to the judge would not be altered under this scenario. If the judge elected to depart from the guidelines due to the offender's predicted risk, he or she must enter the reason for the departure on the sentencing guidelines form. For instance, the judge could simply indicate the offender's relatively high risk of recidivism as the reason for the sentencing departure. Commission members identified several disadvantages with this option. First, under this option, the judge would be notified of an offender's risk level but not be provided any guidance on how to utilize that information in developing a sentence for the offender. Second, identifying

high-risk offenders seems to indicate that a longer sentence is needed and, yet, if the judge gives a sentence that exceeds the guidelines recommendation, he or she is considered out of compliance with the guidelines. For these reasons, this option was rejected.

The Commission also considered an option that would increase the recommended guidelines midpoint and recommended sentence range for offenders deemed high risk by the risk assessment instrument. Under this option, specific amounts of incarceration time would be added on to the existing guidelines recommendation for high-risk offenders. Commission researchers developed a method for computing the amount of add-on time by calculating the difference between the offender's date of release from incarceration and the date on which he was subsequently re-arrested. If a recidivist offender had served this additional time in incarceration, he would not have been at liberty in the community to be re-arrested for a new crime. In some cases, only a short amount of additional incarceration would have been necessary, while in others, significant additional prison time would have been necessary because the offender recidivated well after being released. Commission researchers computed the amount of added incarceration time that, on average, would have been required in order to prevent a significant share of the recidivist offenses (an average of about five years). During the course of the SJR 333 study, however, the Commission found that younger sex offenders are more likely to recidivate than older offenders. Therefore, instead of adding a flat amount of time onto the guidelines recommendation for all sex offenders found to be high risk, this option called

for varying the add-on time according to both the offender's age and the current guidelines recommendation. Those high-risk offenders who are young and have the shortest guidelines recommendations would receive the most time added on to their recommendations. Sentencing guidelines recommendations for high-risk offenders who are older or who already receive lengthy incarceration recommendations would be incremented to a lesser degree. Using this type of incapacitation approach, young offenders with short guidelines recommendations would have more than five years added to their recommendation, while older offenders with longer sentence recommendations would receive an add-on of less than five years. If judges followed the recommendations under this option, younger offenders would be incarcerated longer through the years of age when they are most at risk for re-offending.

Since 1995, however, the truth-in-sentencing guidelines have succeeded in incapacitating violent offenders, such as rapists, for longer terms than those served by violent offenders prior to 1995. The sex offenders under study, released from incarceration between FY1990 and FY1993, were incarcerated during an era governed by parole laws. All of the offenders in the study were sentenced prior to the introduction of Virginia's truth-in-sentencing system and the accompanying truth-in-sentencing guidelines. Under the truth-in-sentencing system, parole has been abolished for felony offenders who commit their crimes on or after January 1, 1995.

In addition, the truth-in-sentencing guidelines contain legislatively-mandated enhancements for violent offenders which provide sentence recommendations that are up to six times longer than the terms violent offenders served historically under the parole system. With tough sentences for violent offenders under Virginia's truth-in-sentencing system, sex offenders facing sentencing today are subject to guidelines recommendations that will result in incarceration terms substantially longer than those they would have served had they been sentenced a decade earlier (see the Commission's *2000 Annual Report* for additional discussion of the impact of truth-in-sentencing on prison length of stay). Moreover, analysis revealed that, had the offenders in the Commission's study served incarceration terms such as those recommended under current guidelines, more than half of the offenders who recidivated would still have been incarcerated at the time they committed their new crimes. Today's sentencing guidelines, when followed by judges, produce longer prison terms for sex offenders, and therefore serve to incapacitate these offenders for longer periods of time than in the past. Although the Commission considered an option to add time on to guidelines recommendations based on the offender's age and the current guidelines recommendation, a large share of the increase considered by the Commission are already reflected in Virginia's truth-in-sentencing guidelines in place since 1995. Therefore, this option for integrating risk assessment was not selected.

Another option discussed by the Commission involved expanding the upper end of the guidelines range for offenders who represent a relatively higher risk of re-offending. For each offender recommended for a term of incarceration that includes a prison term, the guidelines are presented to the judge in the form of a midpoint recommendation and an accompanying range (a low recommendation and a high recommendation). Increasing the upper end of the range would provide judges the flexibility to sentence higher risk sex offenders to terms above the current guidelines range and still be in compliance with the guidelines. For the highest risk range (those scoring 44 or more on the risk assessment instrument), the Commission discussed increasing not only the high end of the range but the midpoint recommendation as well. Ultimately, the Commission decided to retain the current guidelines midpoints, while proceeding with the concept of increasing the upper end of the guidelines range based on the projected risk level. This approach provides judges with additional flexibility when incorporating sex offender risk assessment into the sentencing decision. The Commission’s proposals for adjusting the guidelines ranges based on offender risk are summarized below:

- For offenders scoring 44 or more, increase the upper end of the guidelines range by 300%;
- For offenders scoring 34 through 43 points, increase the upper end of the guidelines range by 100%;
- For offenders scoring 28 through 33 points, increase the upper end of the guidelines range by 50%;
- Offenders scoring less than 28 points would receive no sentencing guidelines adjustments.

Within Virginia’s sentencing guidelines, rape, forcible sodomy and object sexual penetration, all of which carry a maximum penalty of life in prison, are covered by the Rape worksheets. Aggravated sexual battery, indecent liberties, carnal knowledge, non-forcible sodomy and incest offenses (with maximum penalties ranging from five to 20 years) are covered by the Other Sexual Assault worksheets. The Commission’s proposal calls for increasing the upper end of the guidelines range for both Rape and Other Sexual Assault guidelines by increasing percentages based on risk level. Figure 33 demonstrates the effect of this proposal on guidelines recommendations.

The tables displayed in Figure 33 present portions of the Section C Recommendation Tables for both the Rape guidelines and the Other Sexual Assault guidelines. Guidelines preparers use these tables to look up the total score an offender receives on Section C (prison sentence length worksheet) in order to find the guidelines midpoint recommendation and the accompanying recommended range. Although scores from seven to 600 are provided in the Rape Section C Recommendation Table in the sentencing guidelines manual, only scores from 144 through 168 are presented here. This range of scores was selected because the median midpoint recommenda-

Figure 33

Proposed Modifications to the Rape Section C Recommendation Table

Score	Midpoint	Low	Risk Assessment Score			
			Up to 27 High	28 to 33 High	34 to 43 High	44 or more High
144	12 yr. 0 mo.	6 yr. 8 mo.	14 yr. 5 mo.	21 yr. 8 mo.	28 yr. 10 mo.	57 yr. 8 mo.
145	12 yr. 1 mo.	6 yr. 9 mo.	14 yr. 6 mo.	21 yr. 9 mo.	29 yr. 0 mo.	58 yr. 0 mo.
146	12 yr. 2 mo.	6 yr. 9 mo.	14 yr. 7 mo.	21 yr. 11 mo.	29 yr. 2 mo.	58 yr. 4 mo.
147	12 yr. 3 mo.	6 yr. 10 mo.	14 yr. 8 mo.	22 yr. 0 mo.	29 yr. 4 mo.	58 yr. 8 mo.
148	12 yr. 4 mo.	6 yr. 10 mo.	14 yr. 10 mo.	22 yr. 3 mo.	29 yr. 8 mo.	59 yr. 4 mo.
149	12 yr. 5 mo.	6 yr. 11 mo.	14 yr. 11 mo.	22 yr. 5 mo.	29 yr. 10 mo.	59 yr. 8 mo.
150	12 yr. 6 mo.	7 yr. 0 mo.	15 yr. 0 mo.	22 yr. 6 mo.	30 yr. 0 mo.	60 yr. 0 mo.
151	12 yr. 7 mo.	7 yr. 0 mo.	15 yr. 1 mo.	22 yr. 8 mo.	30 yr. 2 mo.	60 yr. 4 mo.
152	12 yr. 8 mo.	7 yr. 1 mo.	15 yr. 2 mo.	22 yr. 9 mo.	30 yr. 4 mo.	60 yr. 8 mo.
153	12 yr. 9 mo.	7 yr. 1 mo.	15 yr. 4 mo.	23 yr. 0 mo.	30 yr. 8 mo.	61 yr. 4 mo.
154	12 yr. 10 mo.	7 yr. 2 mo.	15 yr. 5 mo.	23 yr. 2 mo.	30 yr. 10 mo.	61 yr. 8 mo.
155	12 yr. 11 mo.	7 yr. 2 mo.	15 yr. 6 mo.	23 yr. 3 mo.	31 yr. 0 mo.	62 yr. 0 mo.
156	13 yr. 0 mo.	7 yr. 3 mo.	15 yr. 7 mo.	23 yr. 5 mo.	31 yr. 2 mo.	62 yr. 4 mo.
157	13 yr. 1 mo.	7 yr. 3 mo.	15 yr. 8 mo.	23 yr. 6 mo.	31 yr. 4 mo.	62 yr. 8 mo.
158	13 yr. 2 mo.	7 yr. 4 mo.	15 yr. 10 mo.	23 yr. 9 mo.	31 yr. 8 mo.	63 yr. 4 mo.
159	13 yr. 3 mo.	7 yr. 5 mo.	15 yr. 11 mo.	23 yr. 11 mo.	31 yr. 10 mo.	63 yr. 8 mo.
160	13 yr. 4 mo.	7 yr. 5 mo.	16 yr. 0 mo.	24 yr. 0 mo.	32 yr. 0 mo.	64 yr. 0 mo.
161	13 yr. 5 mo.	7 yr. 6 mo.	16 yr. 1 mo.	24 yr. 2 mo.	32 yr. 2 mo.	64 yr. 4 mo.
162	13 yr. 6 mo.	7 yr. 6 mo.	16 yr. 2 mo.	24 yr. 3 mo.	32 yr. 4 mo.	64 yr. 8 mo.
163	13 yr. 7 mo.	7 yr. 7 mo.	16 yr. 4 mo.	24 yr. 6 mo.	32 yr. 8 mo.	65 yr. 4 mo.
164	13 yr. 8 mo.	7 yr. 7 mo.	16 yr. 5 mo.	24 yr. 8 mo.	32 yr. 10 mo.	65 yr. 8 mo.
165	13 yr. 9 mo.	7 yr. 8 mo.	16 yr. 6 mo.	24 yr. 9 mo.	33 yr. 0 mo.	66 yr. 0 mo.
166	13 yr. 10 mo.	7 yr. 8 mo.	16 yr. 7 mo.	24 yr. 11 mo.	33 yr. 2 mo.	66 yr. 4 mo.
167	13 yr. 11 mo.	7 yr. 9 mo.	16 yr. 8 mo.	25 yr. 0 mo.	33 yr. 4 mo.	66 yr. 8 mo.
168	14 yr. 0.0 mo.	7 yr. 10 mo.	16 yr. 10 mo.	25 yr. 3 mo.	33 yr. 8 mo.	67 yr. 4 mo.

tion under the Rape guidelines is 13 years. Similarly, the scores of seven to 31 were selected for presentation in the Other Sexual Assault Section C Recommendation Table in Figure 33 because a large share of cases covered by the Other Sexual Assault guidelines receive recommendations with midpoints between seven months and two years, seven months. Selecting these ranges demonstrates the impact of the Commission’s proposals for typical cases. Under the Commission’s proposal, the recommended midpoint and the low end of the guidelines ranges would remain unchanged. As can be seen in Figure 33, the high end of the guidelines range would

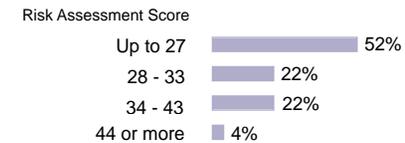
vary based on the offender’s score on the risk assessment instrument. In other words, for an offender scoring 44 or more on risk assessment, the upper end of the guidelines range would be higher than for an offender with a risk assessment score of 27, even if both offenders had the same score on the current sentencing guidelines. The result is that the judge would have the flexibility to use his discretion to sentence the offender considered a high risk for re-offense to a longer term of incarceration than the lower risk offender and still be in compliance with the guidelines.

The Commission’s proposal for increasing the upper end of the guidelines range for higher risk sex offenders affects approximately half (48%) of the rape and sexual assault cases covered by the sentencing guidelines (Figure 34). Slightly more than one in five of the cases would be subject to a 50% increase in the upper end of the guidelines range. Another one in five should receive a 100% increase. In only a small portion of the cases (offenders scoring 44 points or more on risk assessment), will the 300% increase in the upper end of the guidelines range apply.

Proposed Modifications to the Other Sexual Assault Section C Recommendation Table

Score	Midpoint	Low	Risk Assessment Score			
			Up to 27 High	28 to 33 High	34 to 43 High	44 or more High
7	0 yr. 7 mo.	0 yr. 7 mo.	1 yr. 2 mo.	1 yr. 9 mo.	2 yr. 4 mo.	4 yr. 8 mo.
8	0 yr. 8 mo.	0 yr. 7 mo.	1 yr. 3 mo.	1 yr. 11 mo.	2 yr. 6 mo.	5 yr. 0 mo.
9	0 yr. 9 mo.	0 yr. 7 mo.	1 yr. 4 mo.	2 yr. 0 mo.	2 yr. 8 mo.	5 yr. 4 mo.
10	0 yr. 10 mo.	0 yr. 7 mo.	1 yr. 4 mo.	2 yr. 0 mo.	2 yr. 8 mo.	5 yr. 4 mo.
11	0 yr. 11 mo.	0 yr. 7 mo.	1 yr. 5 mo.	2 yr. 2 mo.	2 yr. 10 mo.	5 yr. 8 mo.
12	1 yr. 0 mo.	0 yr. 7 mo.	1 yr. 6 mo.	2 yr. 3 mo.	3 yr. 0 mo.	6 yr. 0 mo.
13	1 yr. 1 mo.	0 yr. 7 mo.	1 yr. 8 mo.	2 yr. 6 mo.	3 yr. 4 mo.	6 yr. 8 mo.
14	1 yr. 2 mo.	0 yr. 7 mo.	1 yr. 10 mo.	2 yr. 9 mo.	3 yr. 8 mo.	7 yr. 4 mo.
15	1 yr. 3 mo.	0 yr. 7 mo.	2 yr. 0 mo.	3 yr. 0 mo.	4 yr. 0 mo.	8 yr. 0 mo.
16	1 yr. 4 mo.	0 yr. 7 mo.	2 yr. 2 mo.	3 yr. 3 mo.	4 yr. 4 mo.	8 yr. 8 mo.
17	1 yr. 5 mo.	0 yr. 7 mo.	2 yr. 4 mo.	3 yr. 6 mo.	4 yr. 8 mo.	9 yr. 4 mo.
18	1 yr. 6 mo.	0 yr. 8 mo.	2 yr. 6 mo.	3 yr. 9 mo.	5 yr. 0 mo.	10 yr. 0 mo.
19	1 yr. 7 mo.	0 yr. 9 mo.	2 yr. 8 mo.	4 yr. 0 mo.	5 yr. 4 mo.	10 yr. 8 mo.
20	1 yr. 8 mo.	0 yr. 9 mo.	2 yr. 9 mo.	4 yr. 2 mo.	5 yr. 6 mo.	11 yr. 0 mo.
21	1 yr. 9 mo.	0 yr. 10 mo.	2 yr. 10 mo.	4 yr. 3 mo.	5 yr. 8 mo.	11 yr. 4 mo.
22	1 yr. 10 mo.	0 yr. 10 mo.	2 yr. 11 mo.	4 yr. 5 mo.	5 yr. 10 mo.	11 yr. 8 mo.
23	1 yr. 11 mo.	0 yr. 11 mo.	3 yr. 0 mo.	4 yr. 6 mo.	6 yr. 0 mo.	12 yr. 0 mo.
24	2 yr. 0 mo.	1 yr. 0 mo.	3 yr. 2 mo.	4 yr. 9 mo.	6 yr. 4 mo.	12 yr. 8 mo.
25	2 yr. 1 mo.	1 yr. 1 mo.	3 yr. 3 mo.	4 yr. 11 mo.	6 yr. 6 mo.	13 yr. 0 mo.
26	2 yr. 2 mo.	1 yr. 1 mo.	3 yr. 5 mo.	5 yr. 2 mo.	6 yr. 10 mo.	13 yr. 8 mo.
27	2 yr. 3 mo.	1 yr. 2 mo.	3 yr. 6 mo.	5 yr. 3 mo.	7 yr. 0 mo.	14 yr. 0 mo.
28	2 yr. 4 mo.	1 yr. 3 mo.	3 yr. 8 mo.	5 yr. 6 mo.	7 yr. 4 mo.	14 yr. 8 mo.
29	2 yr. 5 mo.	1 yr. 4 mo.	3 yr. 9 mo.	5 yr. 8 mo.	7 yr. 6 mo.	15 yr. 0 mo.
30	2 yr. 6 mo.	1 yr. 5 mo.	3 yr. 11 mo.	5 yr. 11 mo.	7 yr. 10 mo.	15 yr. 8 mo.
31	2 yr. 7 mo.	1 yr. 6 mo.	4 yr. 1 mo.	6 yr. 2 mo.	8 yr. 2 mo.	16 yr. 4 mo.

Figure 34
Cases Affected by Risk Assessment Proposal



Prison Recommendations for High-Risk Offenders

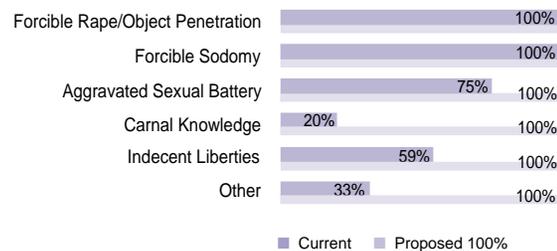
In addition to adjusting the recommended sentence ranges, the Commission discussed whether or not offenders whose predicted risk surpasses a certain threshold should always be recommended for a term of incarceration that includes prison. While offenders convicted for rape, forcible sodomy, and object sexual penetration are always recommended for a term of incarceration that includes prison time under current sentencing guidelines, this is not the case for offenders convicted of sex offenses with statutory maximum penalties of less than life. Some offenders who are at high-risk for recidivating are nonetheless recommended for probation or short-term incarceration in jail under the current guidelines. Although guidelines account for prior criminal history and factors related to the current offense, existing guidelines do not explicitly account for risk of future dangerousness. As a result, some offenders convicted of aggravated sexual battery, indecent liberties with children, carnal knowledge or other Class 4, 5 or 6 sexual assault felonies are not always recommended for a prison term by the guidelines, particularly if they have a minimal or no prior record. These offenders could, nonetheless, represent a relatively high risk of re-offending once those factors found to be important in predicting recidivism are taken into account through risk assessment. The Commission, therefore, proposes that the guidelines be adjusted so that all high-risk offenders are recommended for a term of incarceration that includes prison time.

Specifically, the Commission proposes the following:

- For offenders scoring 28 or more points, adjust the guidelines to always recommend a term of incarceration that includes prison.
- Offenders scoring less than 28 points would receive no sentencing guidelines adjustments.

Figure 35 displays the effect of this proposal on guidelines recommendations. Because offenders convicted of offenses covered by the Rape guidelines (rape, forcible sodomy and object sexual penetration) are always recommended for a prison term, the Commission’s proposal to ensure prison recommendations for high-risk offenders will not affect those cases. The proposal would, however, have an impact in aggravated sexual battery, carnal knowledge, indecent liberties cases, and other felony sexual assault cases. Offenders convicted of these crimes who score 28 or more on the risk assessment instrument would always be recommended for a term of incarceration that includes prison under the Commission’s proposal.

Figure 35
Prison Recommendations for Offenders Scoring 28 or More on Risk Assessment



Adding a Risk Assessment Worksheet

To implement the Commission’s proposals and integrate sex offender risk assessment into the sentencing guidelines, the Rape and Other Sexual Assault worksheets must be modified. Under the Commission’s proposals, the offender’s risk level must be determined prior to completing the existing guidelines. Because rape, forcible sodomy and object sexual penetration offenders are automatically recommended for incarceration that includes a prison term under current guidelines, there is no In/Out Decision (Section A) worksheet to complete. Because risk level must be calculated prior to scoring Section C (the worksheet for incarceration greater than six months), the sex offender risk assessment instrument would simply become a Section A worksheet for the

Rape guidelines (Figure 36). For sex offenses covered by the Other Sexual Assault guidelines (aggravated sexual battery, carnal knowledge, indecent liberties, etc.), the guidelines already include an In/Out Decision (Section A) worksheet. For the Other Sexual Assault offense group, the sex offender risk assessment instrument would be inserted and labeled Section A – Part 1 (Figure 36). This will ensure that risk assessment is completed first. The existing Section A under the Other

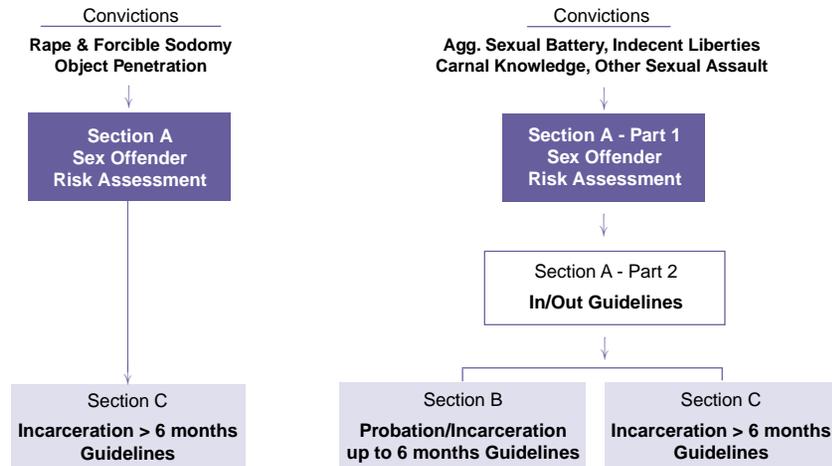
Sexual Assault guidelines would be labeled Section A – Part 2. A new factor on the Section A – Part 2 worksheet, not scored under current guidelines, will ensure that offenders who score 28 points or more on risk assessment (Section A – Part 1) receive enough points to be recommended for a prison term (forcing the guidelines preparer to complete the worksheet for incarceration recommendations in excess of six months – Section C).

Informing Judges of Risk

Commission members examined several options for communicating risk information to judges. The Commission elected to modify the front-side of the sentencing guidelines cover sheet, which contains offender identifiers and the offenses at conviction as well as the sentencing guidelines recommendation in the case. Several options were considered for exactly how the guidelines cover sheet should be modified. The Commission first discussed simply selecting a threshold in the range of scores, and identifying offenders scoring above that threshold as high risk. Under this option, a check box would be added to the cover sheet form. If the offender scored above the threshold on the risk assessment instrument, the box would be checked which would indicate the offender was considered high risk for recidivism. Several Commission members were concerned that if the box were not checked that would seem to imply that the offender was “low risk.” This would ignore the fact that offenders not labeled high risk would nonetheless represent a wide range of risk that should not necessarily be considered low risk. The members also discussed the option of establishing several risk ranges and providing check boxes which would indicate which risk level was attributable to the offender (e.g., low, moderate, high, very high). Several members felt that labels such as

Figure 36

Addition of Sex Offender Risk Assessment to Sentencing Guidelines System



“high risk” or “moderate risk” could be potentially inflammatory at sentencing. The Commission, therefore, elected not to include labels such as “high risk” to communicate to judges the result of the risk assessment.

Ultimately, the Commission concluded that the judge should be informed when and how the recommended range has been modified due to the sex offender’s risk assessment score. The Commission proposes the wording shown in Figure 37 to accompany check boxes on the guidelines cover sheet presented to the judge in every sex offense case in which the guidelines apply.

Figure 37

Informing Judges of Adjustments to Guidelines Based on Risk Assessment

Sex Offender Risk Assessment

Score	Due to the offender’s statistical likelihood of being re-arrested for a new crime against the person or a new sex offense, as indicated by risk assessment:
<input type="checkbox"/> Level IV	the guidelines recommendation has not been adjusted.
<input type="checkbox"/> Level III	the upper end of the recommended sentence range has been increased by 50%.
<input checked="" type="checkbox"/> Level II	the upper end of the recommended sentence range has been increased by 100%.
<input type="checkbox"/> Level I	the upper end of the recommended sentence range has been increased by 300%.

Pre-Sentence Investigation Reports

Under current law, pre-sentence investigation reports are not required in all cases involving rape and sex offenses. Consequently, a probation officer does not always complete the sentencing guidelines form in sex offender cases. It was felt that a probation officer would be the best individual, however, to complete the risk assessment instrument. Assessment of risk depends on a complete and accurate identification of prior arrests for crimes against the person (both adult and juvenile)

including out-of-state arrests. When a pre-sentence investigation report is prepared, it is much more likely that a thorough and accurate criminal history check will be completed. Also, there is a concern that if a pre-sentence investigation report is not ordered, some of the other factors in the risk assessment form may not be completed accurately (e.g., employment, education, prior treatment experience). In FY1998, pre-sentence reports were prepared in approximately 72% of the 714 rape, forcible sodomy, object sexual penetration and felony sexual assault conviction cases in the Commonwealth. Under the Department of Corrections’ present policy, if a pre-sentence report is not completed in a sex offender case and the offender receives either supervised probation or any prison incarceration time, then a post-sentence investigation report must be prepared. Post-sentence investigations were completed in all or nearly all of the FY1998 sex offender cases processed through the court without a pre-sentence report. Based on FY1998 experience, if pre-sentence

investigations were required in all sex offender cases, approximately 196 post-sentence investigations would have to be completed prior to sentencing as pre-sentence reports. It is acknowledged that completion of a pre-sentence investigation report may take more time than a post-sentence report because of the additional narrative information required. In addition to providing valuable information for accurate completion of sex offender risk assessment, a pre-sentence report will give a judge a more thorough and comprehensive picture of the offender and establish a context for the proper consideration and role of risk assessment. The impact of shifting to all pre-sentence reports in these cases likely would be negligible in any single jurisdiction.

Implementation

The Commission's proposals relating to sex offender risk assessment and integration of the proposed instrument into the sentencing guidelines are among the recommendations presented in the Commission's 2000 Annual Report. Per §17.1-806 of the Code of Virginia, any modifications to the sentencing guidelines adopted by the Commission and contained in its annual report shall, unless otherwise provided by law, become effective on the following July 1. Thus, these recommendations are scheduled to take effect on July 1, 2001.

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Risk Assessment Data Collection Form

PRE/POST-SENTENCE REPORT (PSI) INFORMATION [][][][]

64203

JUVENILE CRIMINAL HISTORY - ADJUDICATIONS OF DELINQUENCY

Juvenile Record Narrative Completed
 Y N
 O O

Adjudicated for Misdemeanor Sex Offense VCC of 1st Misdemeanor Sex Offense Offender's Age at 1st
 Y N U [][][] - [][][][] - [][] [][] 88 - Not Applicable
 O O O 88888888 - Not Applicable 99999999 - Missing 99 - Missing

Adjudicated for Felony Sex Offense VCC of 1st Felony Sex Offense Offender's Age at 1st
 Y N U [][][] - [][][][] - [][] [][] 88 - Not Applicable
 O O O 88888888 - Not Applicable 99999999 - Missing 99 - Missing

JUVENILE CRIMINAL HISTORY - ADJUDICATION EVENTS FOR SEX OFFENSES

EVENT 1 [][][] [][][] [][][] [][][] [][][] [][][]

VCC [][][] - [][][][] - [][][] Counts [][]
 [][][] - [][][][] - [][][] [][]
 [][][] - [][][][] - [][][] [][]

Date of Offense: [][] / [][] / [][]

Offender's Relationship (Mark all that apply)
 Friend Boyfriend/Girlfriend
 Parent Acquaintance
 Step-parent Caretaker
 Sibling Stranger
 Spouse/Ex-Spouse Other
 Other Relative Not Applicable
 Mother's Boyfriend Unknown

Victim Ages (Mark all that apply)
 1-2 14 30-39
 3-5 15 40+
 5-8 16 NA
 8-11 17 Minor
 12 18-22 Exact Age Unknown
 13 23-29 Unknown

Number of Victims [][] Any Male Victims Y N NA U
88 - Not Applicable
99 - Missing

Physical Injury to Victim Y N NA U
 Unknown

Type of Sanction
 Indeterminate Sentence- DJJ
 Post-Detention (16.1-284.1)
 Special Placement (16.1-286)
 Valid Court Order
 Not Applicable
 Unknown

EVENT 2 [][][] [][][] [][][] [][][] [][][] [][][]

VCC [][][] - [][][][] - [][][] Counts [][]
 [][][] - [][][][] - [][][] [][]
 [][][] - [][][][] - [][][] [][]

Date of Offense: [][] / [][] / [][]

Offender's Relationship (Mark all that apply)
 Friend Boyfriend/Girlfriend
 Parent Acquaintance
 Step-parent Caretaker
 Sibling Stranger
 Spouse/Ex-Spouse Other
 Other Relative Not Applicable
 Mother's Boyfriend Unknown

Victim Ages (Mark all that apply)
 1-2 14 30-39
 3-5 15 40+
 5-8 16 NA
 8-11 17 Minor
 12 18-22 Exact Age Unknown
 13 23-29 Unknown

Number of Victims [][] Any Male Victims Y N NA U
88 - Not Applicable
99 - Missing

Physical Injury to Victim Y N NA U
 Unknown

Type of Sanction
 Indeterminate Sentence- DJJ
 Post-Detention (16.1-284.1)
 Special Placement (16.1-286)
 Valid Court Order
 Not Applicable
 Unknown

2

PRE/POST-SENTENCE REPORT (PSI) INFORMATION [][][][]

64203

JUVENILE CRIMINAL HISTORY - ADJUDICATION FOR MOST SERIOUS PERSON CRIME (EXCLUDING SEX OFFENSES)

VCC [][][] - [][][][] - [][][] Counts [][]
 [][][] - [][][][] - [][][] [][]
 [][][] - [][][][] - [][][] [][]

Date of Offense: [][] / [][] / [][]

Offender's Relationship (Mark all that apply)
 Friend Boyfriend/Girlfriend
 Parent Acquaintance
 Step-parent Caretaker
 Sibling Stranger
 Spouse/Ex-Spouse Other
 Other Relative Not Applicable
 Mother's Boyfriend Unknown

Number of Victims [][] Weapon Use Y N NA U
88 - Not Applicable
99 - Missing

Physical Injury to Victim Y N NA U
 Unknown

Type of Sanction
 Indeterminate Sentence- DJJ
 Post-Detention (16.1-284.1)
 Special Placement (16.1-286)
 Valid Court Order
 Not Applicable
 Unknown

JUVENILE SOCIAL HISTORY

Physical Abuse Y N U Emotional Abuse or Neglect Y N U
 O O O O

Physical Injury Suffered from Physical Abuse Y N U NA Age at 1st Foster Care Placement
 O O O [][] 88 - Not Applicable
 O O O 99 - Missing

Sexual Abuse Y N U Age at 1st Sexual Abuse Incident [][] Sexual Abuse Perpetrator (Mark all that apply)
 O O 88 - Not Applicable
 O O 99 - Missing
 Parent Adult Friend
 Step-parent Acquaintance
 Sibling Stranger
 Other Relative Other
 Mother's Boyfriend Unknown
 Boyfriend/Girlfriend Not Applicable

Lived With Both Parents to Age 16 (Except for Death of Parents)
 Yes No Unknown

ADULT CRIMINAL HISTORY - TOTAL SEX OFFENSE CONVICTIONS

Number of Misd. Sex Convictions [][] Offender's Age at 1st [][] Number of Felony Sex Offenses [][] Offender's Age at 1st [][]
88 - Not Applicable 99 - Missing 88 - Not Applicable 99 - Missing

3



PRE/POST-SENTENCE REPORT (PSI) INFORMATION

Four empty boxes for identification numbers

ADULT CRIMINAL HISTORY - MOST RECENT AND SERIOUS SEX CONVICTION EVENTS

EVENT 1

VCC [] - [] - [] Counts [] []

Date of Offense: [] / [] / []

Offender's Relationship (Mark all that apply)
 Adult Friend Boyfriend/Girlfriend
 Parent Acquaintance
 Step-parent Caretaker
 Sibling Stranger
 Spouse/Ex-Spouse Other
 Other Relative Not Applicable
 Mother's Boyfriend Unknown

Victim Ages (Mark all that apply)
 1-2 14 30-39
 3-5 15 40+
 5-8 16 NA
 8-11 17 Minor
 12 18-22 Exact Age Unknown
 13 23-29 Unknown

Number of Victims [] []

Any Male Victims Y N NA U

Effective Sentence in Months [] [] [] []

Physical Injury to Victim Y N NA U

7200 - Life
8400 - Youthful Offender (DOC)
9600 - 2 Life
8888 - Not Applicable
9999 - Missing

EVENT 2

VCC [] - [] - [] Counts [] []

Date of Offense: [] / [] / []

Offender's Relationship (Mark all that apply)
 Adult Friend Boyfriend/Girlfriend
 Parent Acquaintance
 Step-parent Caretaker
 Sibling Stranger
 Spouse/Ex-Spouse Other
 Other Relative Not Applicable
 Mother's Boyfriend Unknown

Victim Ages (Mark all that apply)
 1-2 14 30-39
 3-5 15 40+
 5-8 16 NA
 8-11 17 Minor
 12 18-22 Exact Age Unknown
 13 23-29 Unknown

Number of Victims [] []

Any Male Victims Y N NA U

Effective Sentence in Months [] [] [] []

Physical Injury to Victim Y N NA U

7200 - Life
8400 - Youthful Offender (DOC)
9600 - 2 Life
8888 - Not Applicable
9999 - Missing

EVENT 3

VCC [] - [] - [] Counts [] []

Date of Offense: [] / [] / []

Offender's Relationship (Mark all that apply)
 Adult Friend Boyfriend/Girlfriend
 Parent Acquaintance
 Step-parent Caretaker
 Sibling Stranger
 Spouse/Ex-Spouse Other
 Other Relative Not Applicable
 Mother's Boyfriend Unknown

Victim Ages (Mark all that apply)
 1-2 14 30-39
 3-5 15 40+
 5-8 16 NA
 8-11 17 Minor
 12 18-22 Exact Age Unknown
 13 23-29 Unknown

Number of Victims [] []

Any Male Victims Y N NA U

Effective Sentence in Months [] [] [] []

Physical Injury to Victim Y N NA U

7200 - Life
8400 - Youthful Offender (DOC)
9600 - 2 Life
8888 - Not Applicable
9999 - Missing



PRE/POST-SENTENCE REPORT (PSI) INFORMATION

Four empty boxes for identification numbers

INSTANT OFFENSE

VICTIM 1

Sex of Victim Male Female Unknown

Victim's Age Group Adult Minor Unknown

Victim Age [] []

Type of Behavior (Mark all that apply)
 Petting or Fondling Only
 Attempted Sexual Penetration
 Sexual Penetration
 Other
 Unknown

Type of Penetration (Mark all that apply)
 Vaginal
 Anal
 Oral
 None
 Unknown

Mode of Penetration (Mark all that apply)
 Penis
 Finger
 Object
 Other

Mode of Force (Mark all that apply)
 Firearm
 Knife
 Blunt Instrument
 Hands/Feet
 Other
 Not Applicable
 Unknown

Duration of Sex Offense(s)
 Single assault
 Multiple assaults within 24 hours
 Multiple assaults over >24 hours
 Unknown

Location of Offense
 Victim's Residence
 Offender's Residence
 Victim & Offender's Residence
 Other Residence
 Place of Employment
 Other Building
 Motor Vehicle
 Outdoors
 Unknown

Offense Occurred in Public Place Yes No Unknown

Offender's Relationship
 Adult Friend Boyfriend/Girlfriend
 Parent Acquaintance
 Step-parent Caretaker
 Sibling Stranger
 Spouse/Ex-Spouse Other
 Other Relative Not Applicable
 Mother's Boyfriend Unknown

Victim Injury
 Death Threatened
 Serious Physical None
 Physical Unknown
 Emotional

Mode of Inflicting Injury (Mark all that apply)
 Shot Physical Injury Threatened Only
 Cut, Stabbed Not Applicable (No injury threatened or sustained)
 Hit, Beaten Unknown
 Other

Risk Assessment Data Collection Form

PRE/POST-SENTENCE REPORT (PSI) INFORMATION □ □ □ □

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INSTANT OFFENSE

VICTIM 2

Sex of Victim	Victim's Age Group	Victim Age
<input type="radio"/> Male	<input type="radio"/> Adult	□ □
<input type="radio"/> Female	<input type="radio"/> Minor	
<input type="radio"/> Unknown	<input type="radio"/> Unknown	

Type of Behavior <i>(Mark all that apply)</i>	Type of Penetration <i>(Mark all that apply)</i>	Mode of Penetration <i>(Mark all that apply)</i>
<input type="radio"/> Petting or Fondling Only	<input type="radio"/> Vaginal	<input type="radio"/> Penis
<input type="radio"/> Attempted Sexual Penetration	<input type="radio"/> Anal	<input type="radio"/> Finger
<input type="radio"/> Sexual Penetration	<input type="radio"/> Oral	<input type="radio"/> Object
<input type="radio"/> Other _____	<input type="radio"/> None	<input type="radio"/> Other _____
<input type="radio"/> Unknown	<input type="radio"/> Unknown	

Mode of Force (Mark all that apply)	Duration of Sex Offense(s)
<input type="radio"/> Firearm	<input type="radio"/> Single assault
<input type="radio"/> Knife	<input type="radio"/> Multiple assaults within 24 hours
<input type="radio"/> Blunt Instrument	<input type="radio"/> Multiple assaults over >24 hours
<input type="radio"/> Hands/Feet	<input type="radio"/> Unknown
<input type="radio"/> Other _____	
<input type="radio"/> Not Applicable	
<input type="radio"/> Unknown	

Location of Offense	Offense Occurred in Public Place	Offender's Relationship
<input type="radio"/> Victim's Residence	<input type="radio"/> Yes	<input type="radio"/> Adult Friend <input type="radio"/> Boyfriend/Girlfriend
<input type="radio"/> Offender's Residence	<input type="radio"/> No	<input type="radio"/> Parent <input type="radio"/> Acquaintance
<input type="radio"/> Victim & Offender's Residence	<input type="radio"/> Unknown	<input type="radio"/> Step-parent <input type="radio"/> Caretaker
<input type="radio"/> Other Residence		<input type="radio"/> Sibling <input type="radio"/> Stranger
<input type="radio"/> Place of Employment		<input type="radio"/> Spouse/Ex-Spouse <input type="radio"/> Other _____
<input type="radio"/> Other Building		<input type="radio"/> Other Relative <input type="radio"/> Not Applicable
<input type="radio"/> Motor Vehicle		<input type="radio"/> Mother's Boyfriend
<input type="radio"/> Outdoors		<input type="radio"/> Unknown
<input type="radio"/> Unknown		

Victim Injury	Mode of Inflicting Injury (Mark all that apply)
<input type="radio"/> Death <input type="radio"/> Threatened	<input type="radio"/> Shot <input type="radio"/> Physical Injury Threatened Only
<input type="radio"/> Serious Physical <input type="radio"/> None	<input type="radio"/> Cut, Stabbed <input type="radio"/> Not Applicable (No injury threatened or sustained)
<input type="radio"/> Physical <input type="radio"/> Unknown	<input type="radio"/> Hit, Beaten <input type="radio"/> Unknown
<input type="radio"/> Emotional	<input type="radio"/> Other _____

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PRE/POST-SENTENCE REPORT (PSI) INFORMATION □ □ □ □

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INSTANT OFFENSE

VICTIM 3

Sex of Victim	Victim's Age Group	Victim Age
<input type="radio"/> Male	<input type="radio"/> Adult	□ □
<input type="radio"/> Female	<input type="radio"/> Minor	
<input type="radio"/> Unknown	<input type="radio"/> Unknown	

Type of Behavior <i>(Mark all that apply)</i>	Type of Penetration <i>(Mark all that apply)</i>	Mode of Penetration <i>(Mark all that apply)</i>
<input type="radio"/> Petting or Fondling Only	<input type="radio"/> Vaginal	<input type="radio"/> Penis
<input type="radio"/> Attempted Sexual Penetration	<input type="radio"/> Anal	<input type="radio"/> Finger
<input type="radio"/> Sexual Penetration	<input type="radio"/> Oral	<input type="radio"/> Object
<input type="radio"/> Other _____	<input type="radio"/> None	<input type="radio"/> Other _____
<input type="radio"/> Unknown	<input type="radio"/> Unknown	

Mode of Force (Mark all that apply)	Duration of Sex Offense(s)
<input type="radio"/> Firearm	<input type="radio"/> Single assault
<input type="radio"/> Knife	<input type="radio"/> Multiple assaults within 24 hours
<input type="radio"/> Blunt Instrument	<input type="radio"/> Multiple assaults over >24 hours
<input type="radio"/> Hands/Feet	<input type="radio"/> Unknown
<input type="radio"/> Other _____	
<input type="radio"/> Not Applicable	
<input type="radio"/> Unknown	

Location of Offense	Offense Occurred in Public Place	Offender's Relationship
<input type="radio"/> Victim's Residence	<input type="radio"/> Yes	<input type="radio"/> Adult Friend <input type="radio"/> Boyfriend/Girlfriend
<input type="radio"/> Offender's Residence	<input type="radio"/> No	<input type="radio"/> Parent <input type="radio"/> Acquaintance
<input type="radio"/> Victim & Offender's Residence	<input type="radio"/> Unknown	<input type="radio"/> Step-parent <input type="radio"/> Caretaker
<input type="radio"/> Other Residence		<input type="radio"/> Sibling <input type="radio"/> Stranger
<input type="radio"/> Place of Employment		<input type="radio"/> Spouse/Ex-Spouse <input type="radio"/> Other _____
<input type="radio"/> Other Building		<input type="radio"/> Other Relative <input type="radio"/> Not Applicable
<input type="radio"/> Motor Vehicle		<input type="radio"/> Mother's Boyfriend
<input type="radio"/> Outdoors		<input type="radio"/> Unknown
<input type="radio"/> Unknown		

Victim Injury	Mode of Inflicting Injury (Mark all that apply)
<input type="radio"/> Death <input type="radio"/> Threatened	<input type="radio"/> Shot <input type="radio"/> Physical Injury Threatened Only
<input type="radio"/> Serious Physical <input type="radio"/> None	<input type="radio"/> Cut, Stabbed <input type="radio"/> Not Applicable (No injury threatened or sustained)
<input type="radio"/> Physical <input type="radio"/> Unknown	<input type="radio"/> Hit, Beaten <input type="radio"/> Unknown
<input type="radio"/> Emotional	<input type="radio"/> Other _____

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PRE/POST-SENTENCE REPORT (PSI) INFORMATION

Four empty boxes for identification numbers

USE OF FORCE

Use of Force in Sex/Sex Related Convictions

	None	One Victim	More than One
Manipulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Coercion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Position of Authority	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Threats of Violence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Physical Force or Violence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Substantial/Great Bodily Harm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unknown	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

VICTIM IMPACT STATEMENT(S)

Any Victim Impact Statements Attached to PSI?
 Y N U

SEX OFFENDER TREATMENT

Sex Offender Treatment in Community?
 Y N U

CLINICAL REPORT(S)

Any Clinical Reports Attached to PSI?
 Y N U



NCIC VCIN (RAP SHEET) INFORMATION

Four empty boxes for identification numbers

RECIDIVISM

RE-ARRESTS FOR MISDEMEANOR PERSON CRIMES- EXCLUDING SEX OFFENSES

Any Re-arrest for Misdemeanor Person Crime (Excluding Sex Offenses)
 Y N U

Date of 1st Rearrest []/[]/[]	VCC- Most Serious in Arrest Event []-[]-[]	Outcome <input type="radio"/> Not Guilty <input type="radio"/> Dismissed/Nolle Prossed <input type="radio"/> Convicted <input type="radio"/> No Disp. Received/Unknown
Conviction Date []/[]/[]	VCC- Most Serious at Conviction []-[]-[]	

88/88/88 - Not Applicable 99/99/99 - Missing 88888888 - Not Applicable 99999999 - Missing

If Not Convicted in 1st Re-arrest Event:		
Date of 2nd Rearrest []/[]/[]	VCC- Most Serious in Arrest Event []-[]-[]	Outcome <input type="radio"/> Not Guilty <input type="radio"/> Dismissed/Nolle Prossed <input type="radio"/> Convicted <input type="radio"/> No Disp. Received/Unknown
Conviction Date []/[]/[]	VCC- Most Serious at Conviction []-[]-[]	

88/88/88 - Not Applicable 99/99/99 - Missing 88888888 - Not Applicable 99999999 - Missing

If Not Convicted in 1st or 2nd Re-arrest Event:		Any Reconviction for Misdemeanor Person Crime (Excluding Sex Offenses) <input type="radio"/> Y <input type="radio"/> N <input type="radio"/> U
Date of 1st Reconviction []/[]/[]	VCC- Most Serious at Conviction []-[]-[]	

88/88/88 - Not Applicable 99/99/99 - Missing 88888888 - Not Applicable 99999999 - Missing

RE-ARRESTS FOR FELONY PERSON CRIMES- EXCLUDING SEX OFFENSES

Any Re-arrest for Felony Person Crime (Excluding Sex Offenses)
 Y N U

Date of 1st Rearrest []/[]/[]	VCC- Most Serious in Arrest Event []-[]-[]	Outcome <input type="radio"/> Not Guilty <input type="radio"/> Dismissed/Nolle Prossed <input type="radio"/> Convicted <input type="radio"/> No Disp. Received/Unknown
Conviction Date []/[]/[]	VCC- Most Serious at Conviction []-[]-[]	

88/88/88 - Not Applicable 99/99/99 - Missing 88888888 - Not Applicable 99999999 - Missing

If Not Convicted in 1st Re-arrest Event:		
Date of 2nd Rearrest []/[]/[]	VCC- Most Serious in Arrest Event []-[]-[]	Outcome <input type="radio"/> Not Guilty <input type="radio"/> Dismissed/Nolle Prossed <input type="radio"/> Convicted <input type="radio"/> No Disp. Received/Unknown
Conviction Date []/[]/[]	VCC- Most Serious at Conviction []-[]-[]	

88/88/88 - Not Applicable 99/99/99 - Missing 88888888 - Not Applicable 99999999 - Missing

If Not Convicted in 1st or 2nd Re-arrest Event:		Any Reconviction for Felony Person Crime (Excluding Sex Offenses) <input type="radio"/> Y <input type="radio"/> N <input type="radio"/> U
Date of 1st Reconviction []/[]/[]	VCC- Most Serious at Conviction []-[]-[]	

88/88/88 - Not Applicable 99/99/99 - Missing 88888888 - Not Applicable 99999999 - Missing

Risk Assessment Data Collection Form



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NCIC VCIN (RAP SHEET) INFORMATION

RECIDIVISM

RE-ARRESTS FOR MISDEMEANOR SEX OFFENSES

Any Re-arrest for Misdemeanor Sex Offense
 Y N U

Date of 1st Rearrest
 / /

Conviction Date
 / /

88/88/88 - Not Applicable 99/99/99 - Missing

VCC- Most Serious in Arrest Event
 - -

VCC- Most Serious at Conviction
 - -

88888888 - Not Applicable 99999999 - Missing

Outcome
 Not Guilty
 Dismissed/Nolle Prossed
 Convicted
 No Disp. Received/Unknown

If Not Convicted in 1st Re-arrest Event:

Date of 2nd Rearrest
 / /

Conviction Date
 / /

88/88/88 - Not Applicable 99/99/99 - Missing

VCC- Most Serious in Arrest Event
 - -

VCC- Most Serious at Conviction
 - -

88888888 - Not Applicable 99999999 - Missing

Outcome
 Not Guilty
 Dismissed/Nolle Prossed
 Convicted
 No Disp. Received/Unknown

If Not Convicted in 1st or 2nd Re-arrest Event:

Date of 1st Reconviction
 / /

88/88/88 - Not Applicable 99/99/99 - Missing

VCC- Most Serious at Conviction
 - -

88888888 - Not Applicable 99999999 - Missing

Any Reconviction for Misdemeanor Sex Offense
 Y
 N
 U

RE-ARRESTS FOR FELONY SEX OFFENSES

Any Re-arrest for Felony Sex Offense
 Y N U

Date of 1st Rearrest
 / /

Conviction Date
 / /

88/88/88 - Not Applicable 99/99/99 - Missing

VCC- Most Serious in Arrest Event
 - -

VCC- Most Serious at Conviction
 - -

88888888 - Not Applicable 99999999 - Missing

Outcome
 Not Guilty
 Dismissed/Nolle Prossed
 Convicted
 No Disp. Received/Unknown

If Not Convicted in 1st Re-arrest Event:

Date of 2nd Rearrest
 / /

Conviction Date
 / /

88/88/88 - Not Applicable 99/99/99 - Missing

VCC- Most Serious in Arrest Event
 - -

VCC- Most Serious at Conviction
 - -

88888888 - Not Applicable 99999999 - Missing

Outcome
 Not Guilty
 Dismissed/Nolle Prossed
 Convicted
 No Disp. Received/Unknown

If Not Convicted in 1st or 2nd Re-arrest Event:

Date of 1st Reconviction
 / /

88/88/88 - Not Applicable 99/99/99 - Missing

VCC- Most Serious at Conviction
 - -

88888888 - Not Applicable 99999999 - Missing

Any Reconviction for Felony Sex Offense
 Y
 N
 U

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NCIC VCIN (RAP SHEET) INFORMATION

ADULT CRIMINAL HISTORY (PRIOR TO INSTANT OFFENSE)

Total Crim. Misd. Arrests	Total Felony Arrests	Misd. Arrests-Person (Excluding Sex Offenses)	Felony Arrests-Person (Excluding Sex Offenses)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1 <input type="radio"/>	1 <input type="radio"/>	1 <input type="radio"/>	1 <input type="radio"/>
2 <input type="radio"/>	2 <input type="radio"/>	2 <input type="radio"/>	2 <input type="radio"/>
3 <input type="radio"/>	3 <input type="radio"/>	3 <input type="radio"/>	3 <input type="radio"/>
4 <input type="radio"/>	4 <input type="radio"/>	4 <input type="radio"/>	4 <input type="radio"/>
5 <input type="radio"/>	5 <input type="radio"/>	5 <input type="radio"/>	5 <input type="radio"/>
6 <input type="radio"/>	6 <input type="radio"/>	6 <input type="radio"/>	6 <input type="radio"/>
7 <input type="radio"/>	7 <input type="radio"/>	7 <input type="radio"/>	7 <input type="radio"/>
8 <input type="radio"/>	8 <input type="radio"/>	8 <input type="radio"/>	8 <input type="radio"/>
9 <input type="radio"/>	9 <input type="radio"/>	9 <input type="radio"/>	9 <input type="radio"/>
0 <input type="radio"/>	0 <input type="radio"/>	0 <input type="radio"/>	0 <input type="radio"/>

Misd. Arrests-Sex

1
2
3
4
5
6
7
8
9
0

Felony Arrests-Sex

1
2
3
4
5
6
7
8
9
0

Date of 1st Felony Arrest - Sex Offense
 / /

Date of Last Record Update
 / /

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80 assessing risk among sex offenders in virginia

Appendix B

Research Methodology Technical Supplement

In 1999, the Virginia General Assembly requested the Virginia Criminal Sentencing Commission to develop a sex offender risk assessment instrument, based on the risk of re-offense, for integration into the state's sentencing guidelines system. In accordance with Senate Joint Resolution (SJR) 333 of the 1999 General Assembly, the Commission embarked on an empirical study of recidivism among sex offenders convicted in the Commonwealth. The Commission's goal was to develop a reliable and valid predictive instrument, specific to the population of sex offenders in Virginia, that could be a valuable tool for the judiciary when sentencing sex offenders. The Commission responded to the legislative mandate by designing and executing a research methodology to study a sample of felony sex offenders convicted in Virginia. With the Commission's research design, the resulting risk assessment instrument reflects the offender characteristics and the recidivism patterns of sex offenders sanctioned within the state. An overview of the Commission's study design can be found in the *Research Methodology* chapter of this report as well as the chapter entitled *Development and Application of a Risk Assessment Instrument*. This appendix provides supplemental technical detail describing the Commission's sample selection process and statistical analysis.

In designing the study, the Commission recognized that, in order to integrate risk assessment into the sentencing guidelines, the results of the recidivism study must be applicable to offenders who are at the sentencing stage

of the criminal justice process. However, conducting recidivism research on a group of offenders at the sentencing stage is challenging and complex. In any given year, many sex offenders are sentenced to serve long prison terms. In order to study these offenders, researchers would have to wait until offenders served out their prison sentences and were released from incarceration in order to then track the offenders and study re-offense patterns. Most recidivism studies examine offenders released from incarceration during a particular time period. However, the Commission could not use this approach exclusively because a group of sex offenders released from incarceration during a given period does not possess the same characteristics as the group of offenders who were sentenced during the same period. Any risk assessment instrument developed as the result of the Commission's study is to be applied to sex offenders at the point of sentencing, not at release from incarceration. To address this requirement, the Commission developed an alternative approach, unique in the field of risk assessment research.

Sample Data

A multistage sampling frame was developed for the Commission's study. The Department of Corrections' (DOC) Pre/Post-Sentence Investigation (PSI) database served as the sampling frame for the first stage. The PSI database contains a vast amount of offense and offender information for nearly all felony cases sentenced in circuit courts around the Commonwealth. Offenders sentenced during the calendar years (CY) 1996 through 1997 comprised the sentencing cohort identified for the Commission's study. After isolating PSI cases involving sex offenses, the Commission excluded cases of offenders convicted for misdemeanor sex crimes or any felony prostitution, adultery or fornication crimes (except incest). The Commission also removed cases involving nonforcible sodomy between two adults when there was no victim injury was reported. Because females comprise less than 2% of Virginia's convicted sex offender population, female offenders were excluded from the study as well. The Commission determined that a simple random sample would sufficiently represent the universe of felony sex offenses in Virginia.

A sample size of 400 is usually adequate to achieve the level of statistical accuracy sought by the Commission (95% confidence that the true proportion is within $\pm 5\%$ of the proportion observed in the sample). The Commission, however, wanted to be sure that enough recidivists would be captured in the sample to support detailed analysis of the characteristics most associated with recidivist behavior. When the condition of interest is considered to be a relatively rare occurrence, as recidivism may be regarded, then inverse sampling is considered a more viable approach in estimating the sample size needed (Cochran 1977). The inverse sampling approach requires researchers to determine the number of cases possessing the condition of interest that are needed for the study. The overall sample size is determined by dividing the number of cases with the identified condition by the proportion of the population which these cases represent. In order to apply the inverse sampling technique, however, an estimate of the proportion of the population having the characteristic of interest is required prior to the study.

The Commission developed its a priori estimate from two primary sources. A 1989 Virginia Department of Criminal Justice Services report found that 28% of rapists released from the state's prisons were re-arrested and 26% were reconvicted for a violent felony within five years. More recently, the state of Washington, based on an eight-year follow-up of sex offenders, reported that 19% of released prisoners and 11% of adults placed on community supervision were convicted for a

new person felony. Guided by this information, it was estimated that approximately 20% of sex offenders in the study would recidivate with a new arrest for a person or sex offense. The Commission used this estimate to decide on the appropriate sample size using the inverse sampling technique. Based on a 20% recidivism rate, a sample size of 500 was determined necessary to obtain approximately 100 recidivists.

The Commission, however, was also aware at the outset of the study that it would be difficult to obtain detailed offense and offender information on all the cases in the study. Some information would simply be missing and some offender files would be unavailable. In order to ensure a sufficient number of recidivists would be captured by the study, the Commission increased the sample size from 500 to 600.

In the next step of the multistage sampling process, the Commission combined the automated PSI database and elements of the Department of Corrections' Offender-Based State Correctional Information System (OBSCIS) to construct a second sampling frame. This sampling frame was designed to capture all felony sex offenders returned to the community. It is composed of offenders released from incarceration after serving time in jail or prison and offenders sentenced to probation in the community without an active term of incarceration. The Commission selected a cohort of felony sex offenders returned to the community from FY1990 through FY1993.

Offenders released from jail and those sentenced directly to probation were identified utilizing the PSI database. The PSI, which represents sentencing events in the circuit courts, can include multiple records for an offender. PSI data was converted from an event-based database to a data set based on individual offenders. Offenders sentenced to probation without incarceration were considered to be at liberty following the recorded sentencing date. The release date for offenders sentenced to jail was estimated using the following formulas:

Time Served on or after July 1, 1990:

Release date = Sentence date + $\frac{1}{2}$ *(Days of Incarceration Imposed – Days of Incarceration Suspended-Credit for Time Served Awaiting Trial)

Time Served Prior to July 1, 1990:

Release date = Sentence date + $\frac{2}{3}$ *(Days of Incarceration Imposed – Days of Incarceration Suspended-Credit for Time Served Awaiting Trial)

These formulas account for the sentence credits for which felony offenders serving out their sentences in jail were eligible prior to 1995 (e.g., offenders serving jail time on or after July 1, 1990, received 30 days for every 30 days served). These credits effectively reduced the time felons served in jail. This formula also accounts for credits received by offenders for time served in jail while awaiting trial.

Offenders released from prison for felony sex offenses were identified from the TIPS segment of DOC's OBSCIS system. Although parole has been abolished in Virginia for felony offenses committed on or after January 1, 1995, the OBSCIS data examined by the Commission dated from a period prior to the elimination of parole. In identifying sex offenders released from prison to parole supervision in the community, the Commission excluded offenders who had been previously released from prison and returned for parole violation and subsequently re-released to parole supervision. For these offenders, many of whom were returned to prison for technical violations of the conditions of parole, it is very difficult to obtain detailed documentation relating to the first parole release once the offender has been re-released from prison. Also, because the risk instrument developed by the Commission is designed to be used at sentencing, the Commission's primary focus was to identify factors associated with recidivism following the offender's initial return to the community. For these reasons, inmates released to parole for the second or subsequent time were removed from the sampling frame developed at this stage.

Because DOC's OBSCIS system provides only limited data on inmates released from prison and their offenses, the Commission attempted to obtain PSI information for each prison releasee in the sampling frame. The PSI report currently used in Virginia's circuit courts is a standardized form that has been automated since 1985. Prior to 1985, however, PSI reports were not standardized, were subject to variation from court to court and were not entered into an automated data system. For

prison releasees sentenced in 1985 or after, the Commission attempted to match the release record to an automated PSI record. Nearly 73% of the prison releases sentenced since 1985 were successfully matched to a PSI. The remaining cases were examined more closely, and it was found that virtually all of the non-matches had originally been sentenced to probation or jail and were sent to prison based partially or wholly on a probation violation. However, offenders originally sanctioned with probation or a jail term were identified using PSI data. In addition, as noted above, the Commission's primary focus was to identify factors associated with recidivism following the offender's initial return to the community. Therefore, offenders who were in prison as the result of a probation violation were excluded from the sampling frame. For prison offenders who were sentenced prior to 1985, paper-copy PSI reports were obtained for as many cases as possible from either DOC central records or from the probation district office to which the offender was paroled. Where paper-copy PSIs were obtained, the required elements were entered into the automated PSI data system. This step provided the Commission with PSI data for all probation and jail cases as well as the majority of prison cases in the sampling frame composed of released offenders. Once completed, this second stage of the Commission's multi-stage sampling process captured a cohort of released offenders returned to the community during FY1990 through FY1993.

Matching Sentenced Offenders to Released Offenders

Using a statistical technique known as cluster analysis, every case in the sample of sentenced sex offenders selected at the first stage was carefully matched to a similar case for an offender released during FY1990-1993. The objective was to match the sample of sentenced offenders to cases of released offenders that most closely resembled the characteristics of the sentenced group. The technique matched offenders according to a variety of offense and offender characteristics available on the automated data files. After controlling for specific offense types (e.g., rape of a victim under age 13) and type of disposition (e.g., jail), hierarchical cluster analysis was used to identify which case from the release cohort most closely resembled a sampled case from the sentencing cohort.

Typically, cluster analysis is used to reveal the natural groupings of cases within a data set. The concept behind hierarchical cluster analysis is that cases with similar characteristics on a number of factors should fall into the same cluster (or group), while cases that greatly differ should fall into different groupings. The criterion for grouping is based on minimizing the distance between data points on a multidimensional set of axes. For example, if there were two grouping factors, one factor would be represented by the horizontal axis on a scatter plot, while the other factor would be represented by the vertical axis. Each case could be located by finding the intersection of the case's values on the two factors. In this scatter plot, distance would be measured as a

straight line from one case to another. The two cases with the shortest distance would be grouped together first. When two or more cases have been grouped, the distance is measured from the group's center, called a centroid. The procedure uses a stepwise process that begins with each case representing a group of one (numbers of groups = number of cases), and, by combining two groups in each step, eventually combines all cases into a single group (number of groups = 1). In this application of cluster analysis, the sentencing-cohort sample data was merged with the release-cohort data. Then, using factors found in PSI data, it was determined which release-cohort case most closely resembled a given case from the sentencing-cohort sample. Sentenced and released cases were grouped based on the specific sex offense committed, the type of disposition received, victim injury, weapon use and criminal history factors. The stepwise process is chronicled in a dendrogram (a flow-chart showing the movement as cases were combined into groups) and an agglomeration schedule (a detailed list of when groups are combined); these were used to determine when a sentencing-cohort sample case was combined with a release-cohort case, thus constituting a match. Release-cohort cases were allowed to represent more than one sentencing-cohort sample case if the release case was determined to be the closest match for both cases.

The result of this process was a sample of offenders released from FY1990-1993 who, because of the way in which they were selected, reflect the characteristics of the offenders sentenced in CY1996 and CY1997. It is the sample of released offenders who were then tracked for recidivism.

Comparative Analysis

The goal of sampling is to provide a precise picture of the population from which the sample is drawn. In this study, the sample was being drawn from a release population, but with the intent for the sample to reflect a sentenced population. The sampling methodology was complex, thus it is critical to ensure that the release sample adequately represents the sentencing population. If the release sample appears to represent the sentenced population well, then the results from this analysis should be generalizable to felony sex offenders convicted and sentenced in Virginia.

Figure 1 presents a comparison of selected demographic, offense, and prior record variables for the release sample and the sentenced population. Virtually all comparisons were within the expected sampling variation.

The percentage of offenders who had never been married at the time of conviction was slightly outside of the expected sampling variation. The release sample was six percentage points lower than the sentenced population (39.5% vs. 45.5%). This difference was notable because the factor of "never married" was identified as a risk factor in some of the sex offender recidivism literature reviewed by the Commission. The most likely explanation for the difference is that sex offenders are more likely to be single now than when the offenders making up the release population were sentenced.

Figure 1

Selected Characteristics of a Sentenced Population and the Risk Assessment Sample

		Sentenced Population	Risk Assessment (Release) Sample
Type of Offense	Rape/Object Sexual Penetration	26.0%	28.4%
	Forcible Sodomy	12.3	13.1
	Aggravated Sexual Battery	31.3	30.5
	Carnal Knowledge	13.4	11.9
	Indecent Liberties/Incest	12.9	14.5
	Other	4.1	1.7
Age at Offense	Median	33.0	31.0
	Low	14.0	15.0
	High	83.0	85.0
Education	Less than High School	53.4	54.9
	High School	34.3	31.3
	More than High School	12.3	13.8
Marital	Never Married	45.5	39.4
	Married	22.8	25.3
Race	Caucasian	60.6	60.4
	African-American	33.5	38.4
Employment History	Full-time	58.1	63.4
	Part-time	10.4	7.7
	Unemployed	20.1	20.8
	Regular with Few Changes	47.6	45.8
	Regular with Many Changes	12.6	13.2
	Irregular	21.4	25.1
	Skilled	15.7	19.1
	Semi-skilled	36.5	38.9
	Unskilled	45.3	40.6
Source of Subsistence	Job	58.7	63.0
	Spouse	2.1	1.5
	Family	12.6	9.1
	Public Assistance	7.7	7.3
Prior Record	Adult Criminal Record	71.1	71.1
	Juvenile Record	27.5	29.8
	Incarceration	38.3	38.7

Indeed, from CY1985 through CY1994, the never married percentage among sentenced offenders averaged almost 40%, which compares well with the percentage observed for the release-cohort sample.

As a result of the Commission's multistage sampling and case-matching design, the risk assessment study sample, though composed of 600 offenders released during FY1990 through FY1993, reflects the characteristics of a random sample of sex offenders sentenced in Virginia's circuit courts in calendar years (CY) 1996 and 1997. Although complex, the sampling design enables the Commission to generalize the results of the study to felony sex offenders sentenced in circuit courts in the Commonwealth.

Supplemental Data Collection

Automated data was supplemented in two ways. First, hard copies of the PSI reports for the study cases were obtained in order to tease out rich offense detail from the report's narrative sections. The Commission was particularly interested in details relating to the circumstances of the offense, the offender's relationship with the victim, victim injury and the offender's criminal and family history. Many of these details sought by the Commission are not maintained on the automated data systems. Next, prior criminal history was supplemented by examination of each offender's criminal history "rap sheet." Rap sheets from the Virginia Criminal Information Network (VCIN) system maintained by the Virginia

State Police and from the FBI's Central Criminal Records Exchange (CCRE) system were also used to track each offender for recidivism. The FBI rap sheets were vital to the Commission's study because they were the best way of identifying crimes committed outside of the Commonwealth. The Commission felt that it was very important for the study to capture prior criminal record and recidivist activity occurring outside Virginia.

Supplemental information was coded and entered into a database for analysis. As anticipated, the Commission was not able to obtain supplemental information for all cases in the study. In some instances, the PSI had been purged or the Department of Correction's file containing the PSI was being microfiched and was unavailable for review. In a few cases, although the PSI was located, the narrative portions did not provide the level of detail the Commission desired. Twenty-one cases had to be excluded because a rap sheet could not be located or because manual review of the case suggested that the match between the sentenced case and the released case was inappropriate. In all, 579 cases were included in the recidivism analysis.

The supplemental data collection form utilized by the Commission is duplicated in Appendix A of this report.

Measures of Recidivism

As discussed in the *Research Methodology* chapter of this report, the Commission elected to measure recidivism using official records of arrests, believing that measuring recidivism by a new arrest would come closer than any reconviction measure to reflecting the true rate of repeat criminal behavior among sex offenders in the study. Furthermore, the Commission believed that defining recidivism solely based on a new sex offense would underestimate the rate at which sex offenders go on to commit violent crimes. In some cases, sex offenders, particularly rapists, go on to recidivate by committing crimes against the person other than sex offenses, such as non-sexual assault or even robbery. In other cases, the offender may be arrested for or plead guilty to a non-sexual charge even though the offense was sexually motivated. This may occur due to the stage in the offense in which the offender was detected and arrested, evidence problems, reluctance of the witness to testify or other prosecutorial obstacles. Because of the human cost associated with crimes against the person, the Commission felt it important to consider crimes beyond sex offenses when measuring recidivism.

Ultimately, the Commission chose as its operational definition of recidivism a new arrest for any crime against a person, including any new sex offense. Although some portion of the people charged with a new sexual crime may be innocent both of the charge and of any other recidivist acts, this portion is likely far smaller than the number of re-offenders who are never caught and charged (Doren 1998).

For its study, the Commission captured multiple arrest measures in order to better understand recidivism among offenders in the sample. The overall recidivism measure was computed using a combination of four re-arrest measures:

- Re-arrest for a felony sex offense.
- Re-arrest for felony crime against the person (non-sex offense);
- Re-arrest for misdemeanor sex offense; and
- Re-arrest for misdemeanor crime against the person (non-sex offense);

The Commission also recorded whether or not the offender was actually convicted subsequent to arrest.

Follow-up Period

The Commission chose to examine cases of offenders released into the community during FY1990 to 1993 in order to provide at least a five-year follow-up for all offenders in the study. Whereas a three-year follow-up may be adequate for general studies of recidivism, more than one study reviewed by Commission staff suggested that a longer follow-up period is needed to track recidivism among sex offenders. These studies found that a significant portion of sex offenders recidivate after the three-year window utilized by many general recidivism studies. Longer-term studies on sex offenders have consistently found that a significant portion of known recorded first-time recidivism occurs after the initial five years of follow-up (Hanson et al. 1992; Prentky et al. 1997; see also Doren 1998). In the Commission's study, all sex offenders were tracked for a minimum of five years. For offenders returned to the community early in FY1990 (e.g., in July 1989), the follow-up period was as long as ten years. On average, offenders in the Commission's study were tracked for eight years.

Recidivism Analysis

The Commission utilized three different statistical techniques to analyze the recidivism data. The three methods were performed independently by different analysts. One of the statistical methods used by the Commission, logistic regression, requires that all offenders be tracked for the same length of time after release. When applying this method, the Commission used a five-year follow-up period in determining recidivism. Any offender re-arrested for a person or sex crime within five years of release is defined as a recidivist. The response, therefore, is a binary random variable (recidivate or not) rather than a continuous measurement. The log relative odds of recidivism within five years of release are modeled as a function of the important predictive factors. Once an appropriate model is chosen, the probability of recidivism within five years of release can be estimated for each offender in the sample. These estimated probabilities can be used to predict which offenders will recidivate and which will not, and the predicted outcomes can be compared to the actual outcomes to judge how well the predictive model is performing.

A second method used in recidivism studies, survival analysis (also known as Cox regression), allows for varying lengths of follow-up. Although the study was designed to follow released offenders for a period of at least five years, some offenders were followed for up to ten years. The survival analysis technique allows for the additional five years of information to be used in

predicting re-arrest by controlling for a partial follow-up period for many offenders. This means that Commission staff can utilize the entire study period (through July 1999) to look for recidivist behavior. Offenders who do not recidivate during the study (or are lost to follow-up) are treated as censored observations. They contribute their lengths of follow-up, but differ from recidivist cases in how their information is handled when computations are performed. An offender followed for 900 days without recidivating, for example, differs from an offender who recidivates 900 days after release. This approach leads to a semiparametric model that accommodates censored data but does not assume that the times to re-arrest follow a normal distribution. The model parameters are estimated by the method of maximum likelihood.

Both statistical methods allow multiple factors to be included in the model simultaneously as predictors. As a result, an offender's re-arrest probability can be determined using the unique contribution of several factors to that offender's overall likelihood of recidivism. In addition, most statistical packages allow the models to be built in a sequential fashion, with factors being added or taken away one at a time, and a choice of strategies. This stepwise approach helps identify the relative importance of the factors, since the most important factors are generally the earliest to enter the model or the last to remain in the model.

A third method, classification tree analysis, was used to assist researchers in examining the relationships among the variables under analysis. This technique is used to create classification systems that help to reveal interactions between two or more variables and to dissect complex relationships. The results of this analysis provided researchers with additional insight into the data, which they could then utilize in the development of the recidivism models using the two primary analytical techniques.

The preliminary models generated by each method were compared. Differences in results were identified and investigated. In this way, the Commission can be assured that the final model does not reflect spurious results associated with a particular technique or with the style of any individual analyst. This “reconciliation” process provided additional insight and yielded information for additional analysis and improvement of the models.

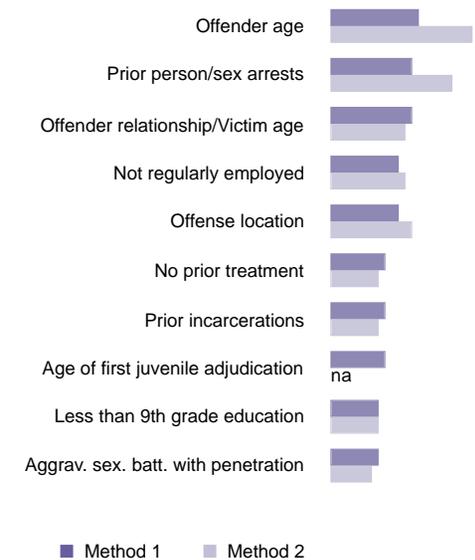
Development of a Risk Assessment Instrument

Using techniques described above, the characteristics, criminal histories and patterns of recidivism among offenders were carefully analyzed. In general, the Commission was guided by the body of literature on sex offender recidivism as the basis for developing the data collection instrument and for selecting variables to test in the models. For the variables included in the models, many forms of the factors were developed and analyzed. The factors specified in the proposed models added more to the predictive power of the instrument than other forms of these variables that were tested. Other factors examined by the Commission are listed in the *Development and Application of a Risk Assessment Instrument* chapter of this report.

The final stage of reconciliation yielded two models predictive of sex offender recidivism: one model derived using logistic regression and one model developed with survival analysis. The two models contain those factors found to be statistically significant in predicting the likelihood of recidivism among sex offenders in the sample ($p < .05$) that also added to the predictive power of the model. The two models contain the identical set of factors, with the exception of a factor related to the offender’s age at his first adjudication of delinquency as a juvenile. The importance of the various factors, however, is not the same. Some factors are more important in predicting recidivism in one model than in the other.

Figure 2 displays the significant factors in predicting recidivism by the relative degree of importance for both modeling techniques. The chapter *Development and Application of a Risk Assessment Instrument* in this report contains a complete discussion of these factors and the construction used in the models.

Figure 2
Significant Factors in Predicting Recidivism by Relative Degree of Importance



The results from statistical risk assessment must be examined to evaluate the accuracy of predictions. The question to be evaluated is: Do these models help predict who, among convicted felony sex offenders, will be arrested for a new person crime following release? In this context, there are two types of statistical prediction error that can occur. First, the model may falsely predict re-arrest. In this instance, case attributes place the offender in a group with a higher likelihood of recidivating, but a new offense was not uncovered during the post-release follow-up period. Second, the model may err by incorrectly predicting that an offender will not be re-arrested. In this situation, case attributes place the offender in a group considered to have a lower likelihood of recidivating but, in fact, the offender was re-arrested within the follow-up period.

In evaluating the model of recidivism produced by logistic regression, the accuracy of the model depends on the selection of a threshold of probability above which the offender is predicted to recidivate. In order to compute the accuracy of the logistic regression model, a threshold was selected that maximizes the accurate identification of recidivist sex offenders while minimizing the proportion of incorrect predictions for non-recidivists. The results indicate the logistic regression model accurately identifies 72.9% of non-recidivists and 80.2% of the recidivists in the study (Figure 3). These results are based on the five-year recidivism measure. For recidivism during the entire study period, in which some offenders were followed as long as ten years, the predictive accuracy of the logistic regression model in identifying recidivists drops to 75.9%.

Figure 3
Predictive Accuracy of Logistic Regression Model

	Predicted Recidivism		Percent Correct
	No	Yes	
Five Year Follow-up Period			
Observed Recidivism			
No	293	109	72.9%
Yes	35	142	80.2%
Follow-up Period up to Ten Years			
Observed Recidivism			
No	277	90	75.5%
Yes	51	161	75.9%

In addition to identifying factors statistically relevant to predicting repeat offending, the survival analysis model can provide a measure of the relative risk of recidivism for each offender. This measure is the ratio of risk of recidivism for an offender with a given set of factor values relative to that for an “average” offender with an average value for every factor. The measure will be greater than one for offenders with an increased risk of recidivism and less than one for offenders with a reduced risk. This index can be used to compare the relative risk for different offenders. Relative risk groups can then be defined and their actual recidivism rates examined to evaluate the adequacy of the predictive model produced through survival analysis. Based on

sample data, offenders judged to have an increased risk of recidivism by this measure had an actual recidivism rate of 54.5%, approximately 3.5 times that of offenders judged to be at a reduced risk. Measuring recidivism over the entire study period reveals that the survival model predicts recidivists with an accuracy of 80.7%, while non-recidivists are accurately classified at a rate of 61% (Figure 4).

Figure 4
Predictive Accuracy of Survival Analysis Model

Observed Recidivism:	Relative Risk		Percent Correct
	Below Avg.	Above Avg.	
No	224	143	61.0%
Yes	41	171	80.7%

Research in the field of sex offender recidivism has documented that sex offenders often re-offend many years after their initial offense (Prentky et al. 1997). Survival analysis does not require researchers to use an identical length of follow-up for all offenders, as does the logistic regression technique. Survival analysis allows researchers to take advantage of all available follow-up data by controlling for varying follow-up across offenders.

In the Commission's study, the survival analysis method allows for a longer follow-up period than the logistic regression method for many offenders, up to ten years in some cases, and captures additional re-offense behavior excluded by the five-year measure. Measuring recidivism over the entire study, the Commission's data indicate that the survival model more accurately identifies recidivist offenders than the model based on logistic regression (80.7% versus 75.9%, respectively). The Commission selected the recidivism model produced by survival analysis for development of its risk assessment instrument.

Based on the relative importance of the factors in the survival analysis model, an instrument was devised which contains all the factors found in the model, with points assigned to the factors that reflect their relative importance in predicting recidivism. The translation of the survival model into a risk assessment worksheet involved two steps. First, the survival model was transformed into a discriminant function model. The survival method utilized by the Commission, Cox regression, produces a model form that is multiplicative. Multiplicative models are not easily translatable into worksheets like that of the existing guidelines. The guidelines are designed so that worksheet factors are simply summed to produce the total score, rather than multiplied, in order to ensure that the guidelines are easy to compute

and interpret. Discriminant function analysis is a method that uses the predictor variables to produce an additive model that maximizes the differences between group means on the recidivism measure. In this first step, discriminant function analysis was applied to the variables found in the survival model.

The second step, constructing worksheet scores from the discriminant function results, was straightforward. The unstandardized discriminant function coefficients were multiplied by the values associated with potential responses for each factor. The results were scaled to yield a minimum point value of one for the risk assessment worksheet. Several scaling schema were tested to find the one that minimized the need for rounding (partial points were rounded to the nearest whole point value).

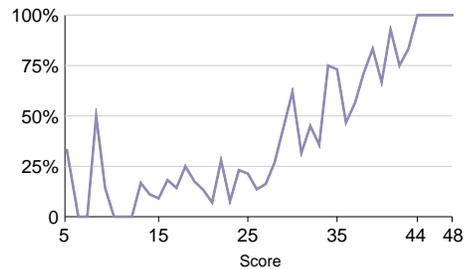
The risk assessment instrument developed using this methodology is presented in Figure 26 (page 56) of the Commission's full report.

Application of Risk Assessment Instrument to Study Sample

Given the results of the analysis that led to the construction of the risk assessment instrument, offenders who score in the low end of the scale are the least likely to recidivate, while offenders who score at the upper end of the scale are the most likely to recidivate. Figure 5 presents the rates of recidivism for offenders by risk assessment score. Overall, as the risk assessment score increases, the rate of recidivism attributable to offenders scoring at that level also increases, although this is not a perfect linear relationship. The most notable exceptions to the increasing function of recidivism rates with risk assessment scores can be seen at the very lowest levels of risk assessment scores (less than 15 points), where rates appear to vary from 0% to 50%. While this appears to be a dramatic fluctuation, it should be noted that, for the most part, there are very few cases that score out at these particular point levels. For instance, 33% of the offenders who scored five points actually recidivated, but this is based on only three offenders who scored five points. While 50% of the offenders scoring eight points recidivated, only two offenders received this point total (one of the two recidivated). In general, the higher the score computed from the risk assessment instrument, the higher the rate of recidivism among offenders who scored at each successive level. If more and more sex offenders were scored out on the instrument, it is likely that the fluctuations in the line representing the rate of recidivism at each score would lessen considerably.

Figure 5

Recidivism Rates by Risk Assessment Score



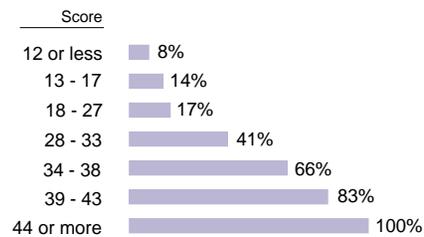
Based on the Commission’s sample data, the correlation between an offender’s score on the risk assessment instrument and whether or not he actually recidivated during the study period is .49, and the level of association is statistically significant ($p < .001$). In the 1990s, the state of Minnesota developed a sex offender risk assessment instrument based on an empirical study of 256 sex offenders released from the Minnesota Department of Corrections who were followed for six years following their return to the community. The latest version of the Minnesota Sex Offender Screening Tool (MnSOST-Revised) produced a .45 correlation with sexual recidivism (Epperson, Kaul, and Husselton, 1999). Currently, Minnesota utilizes its risk assessment instrument as a screening tool for referring offenders for commitment under the Sexual Psychopathic Personality and Sexually Dangerous Persons law and for assigning sex offenders to one of three reporting levels as required by that state’s Community Notification Act. Another

instrument, the Rapid Risk Assessment for Sexual Offense Recidivism (RRASOR) developed by Hanson (1997), demonstrated an average correlation of .27 with sexual offense recidivism among sample data composed of 2,592 sex offenders. These comparisons suggest that the risk assessment instrument developed by the Commission performs as well as, if not better than, these other instruments in predicting recidivism among convicted sex offenders.

For groups or ranges of scores, the actual rate of recidivism is associated with the range of score (Figure 6). Offenders scoring 12 or less recidivated at an aggregate rate of less than 8%. Offenders scoring 13 to 17 points recidivated at a rate of 14% overall. A slightly higher rate of recidivism (17%) was detected for those with scores of 18 through 27. Offenders with scores 28 and above tended to recidivate at much higher rates overall than offenders with scores less than that threshold.

Figure 6

Recidivism Rates by Range of Risk Assessment Score



Recidivism rates jump dramatically to 41% among offenders scoring 28 through 33 points. Just under two-thirds of offenders with 34 to 38 points were found to have recidivated. For those scoring 39 through 43, however, the aggregate rate exceeded 83%. Finally, every offender scoring 44 points or more on the risk assessment instrument devised by the Commission recidivated within the study period. These differences in recidivism rates by score groups are statistically significant ($\chi^2 = 166.915, p < .001$), indicating that the score groups are effective in differentiating multiple levels of offender risk.

In the field of risk assessment, there is a trade-off between sensitivity of a risk tool and its specificity. Sensitivity is measured as the percentage of offenders predicted to recidivate among all those that actually do. A corollary measure, specificity, is the percentage of offenders predicted to be non-recidivists among all offenders who remain crime-free. The level of sensitivity and specificity associated with an instrument may vary depending on the threshold selected to categorize offenders as high or low risk. Setting a low threshold ensures that the model has a high rate of sensitivity. This means that the model will predict a recidivism outcome for all or nearly all offenders who actually recidivate. A low threshold, however, typically increases the rate of false positives, which decreases the level of specificity associated with the model. Conversely, setting a high threshold, while reducing the rate of false positives, will likely lower the rate at which recidivists are accurately identified by the model. Researchers often use a tool known as

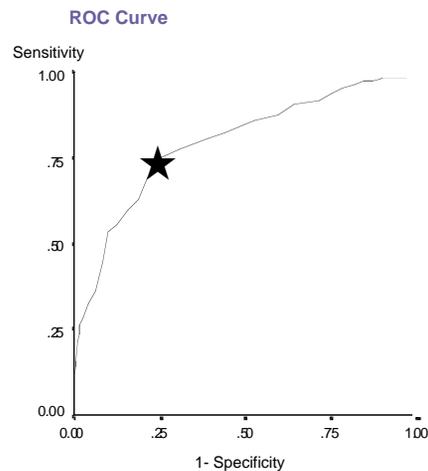
the receiver operator characteristic, or ROC, curve in assessing the tradeoffs between sensitivity (accurately predicting recidivist outcomes) and specificity (accurately predicting non-recidivist outcomes) across all potential threshold values. The area under the ROC curve represents the average sensitivity over all possible rates of specificity. For the risk assessment instrument developed by the Commission, the area under the curve is .796 (average sensitivity=79.6%). The ROC curve can also be helpful in selecting the optimal threshold defining high-risk offenders, depending whether the researcher wants to maximize sensitivity or specificity, or achieve some balance of the two. The ROC curve dis-

played in Figure 7 illustrates these tradeoffs for the Commission's risk assessment instrument. This curve is based on the risk assessment scores for offenders in the Commission's study data.

The point marked on the curve model identifies what the Commission believes is the optimal threshold for the sex offender risk assessment instrument. The risk assessment score associated with this point maximizes the accurate identification of recidivist sex offenders while minimizing the rate of incorrect classification of non-recidivist offenders. For the Commission's risk assessment instrument, this optimal threshold score is between 28 and 29 points. The Commission's proposals for integrating the sex offender risk assessment instrument into the sentencing guidelines system call for modifications to the Rape and Other Sexual Assault guidelines that would be applicable to offenders scoring 28 points or more the risk assessment tool. Offenders scoring less than 28 points would receive no sentencing guidelines adjustments. For full discussion of the Commission's specific recommendations, see the chapter of this report entitled *Proposals for Integrating Risk Assessment and Virginia Sentencing Guidelines*.

Figure 7

Receiver Operator Curve (ROC) for the Risk Assessment Instrument



Appendix C

Case Examples Using the Sex Offender Risk Assessment Instrument

To illustrate the application of the risk assessment instrument, several example cases are presented below, each based on an actual case file.

Example 1

After attempting anal penetration of his girlfriend's six-year old niece in the victim's home, the 26-year old offender was charged and convicted of aggravated sexual battery. The offender completed the 8th grade but maintained regular employment as a part-time dishwasher. The prior criminal history of the offender includes robbery, assault, and having a concealed weapon. The offender has received mental health treatment on an outpatient basis and both inpatient and outpatient alcohol treatment services. On the risk assessment instrument, the offender scores 46 points, placing him in the group of offenders who recidivated in 100% of study cases. The offender served approximately four years for the above offense, having been released at the end of 1990. In less than two years following release, the offender was charged with, and later convicted of, indecent exposure to a child and aggravated sexual battery.

Example 2

A 30-year old male was charged with rape and assault and battery of his 25-year old estranged girlfriend. The charges stemmed from an incident where the offender forced the victim behind an apartment building where he beat and raped her. He was convicted as charged. The offender dropped out of school while he was in the 8th grade and has an irregular work history. Prior to these charges, the offender had been convicted on three felony drug charges, misdemeanor assault and destruction of property. No mental health, drug, or alcohol treatment is reported in the offender's history. On the risk assessment instrument, the offender scores 40 points, placing him among the group of offenders that recidivates in nearly eight out of ten cases. For the rape and assault offenses, he received five months confinement and was released in 1988. Within two years, the offender was arrested and convicted of assault and battery.

Example 3

A 68-year old male was charged with three counts of indecent liberties with a child and three counts of aggravated sexual battery after a father reported to the police that his seven-year old son had been fondled and forced to touch the offender's genitals several times. The events occurred while the victim was babysat at the offender's girlfriend's home. Further investigation by the police resulted in other children who lived nearby also alleging that the offender had fondled them. The offender was convicted for a single count of each offense with which he was charged. The offender dropped out of school after the 4th grade to help support his family. The offender served in the Army for five years during World War II and worked regularly as a maintenance man before retiring eight years prior to the offense. At the time of the offense he was supported through social security and his military pension. The offender has a prior conviction for felony hit and run and has never received any mental health, drug or alcohol treatment. However, after conviction for the offenses described above, the offender was charged and convicted for sexual battery and aggravated sexual battery stemming from crimes committed several years earlier. On the risk assessment instrument, this offender scores 32 points. For the described of-

fenses, the offender served two years, and for the prior offenses he served an additional year. Within approximately three years of release, the offender was charged and convicted for two counts of aggravated sexual battery for offenses he committed after being released.

Example 4

A 36-year old male was charged with forcible sodomy and aggravated sexual battery of his 13-year old stepdaughter. The charges were brought after the victim reported that the offender molested her for more than a year through fondling and oral sodomy, ultimately leading to attempted vaginal penetration. The offender is a high school graduate with a history of regular employment. The offender has a history of mental health treatment and was convicted of robbery and burglary 13 years prior to assaulting his stepdaughter. On the risk assessment instrument, the offender scores 23 points, placing him in a group of offenders that recidivated in approximately 20% of sampled cases. The offender was placed on probation following the current offense, and has not been arrested for any subsequent person or sex offenses since his sentence in 1993.

Example 5

A 38-year old male was charged with abduction with intent to defile, malicious wounding, rape, forcible anal sodomy and oral sodomy of his wife following substance abuse. He was convicted of marital sexual assault. The offender is a high school graduate who has maintained regular full-time employment. He has a history of inpatient mental health treatment, drug treatment, and alcohol treatment. He has a history of misdemeanor theft, destruction of property, and public drunkenness. On the risk assessment instrument, the offender scores six points, placing him in the lowest risk group of sampled offenders. The offender served 15 months for the offense and has not been arrested for or convicted of any subsequent offenses since his release.