

# New York State Division of Probation and Correctional Alternatives



Eliot Spitzer  
Governor

## Research Bulletin: Sex Offender Populations, Recidivism and Actuarial Assessment



Robert Maccarone  
State Director

During the summer of 2006, the Division of Probation and Correctional Alternatives (DPCA) conducted a survey of County Probation Departments to assess sex offender management practices. Among the resulting recommendations was that DPCA draft and disseminate a series of research bulletins on issues related to sex offender management so that probation officers in the field would have the latest information.

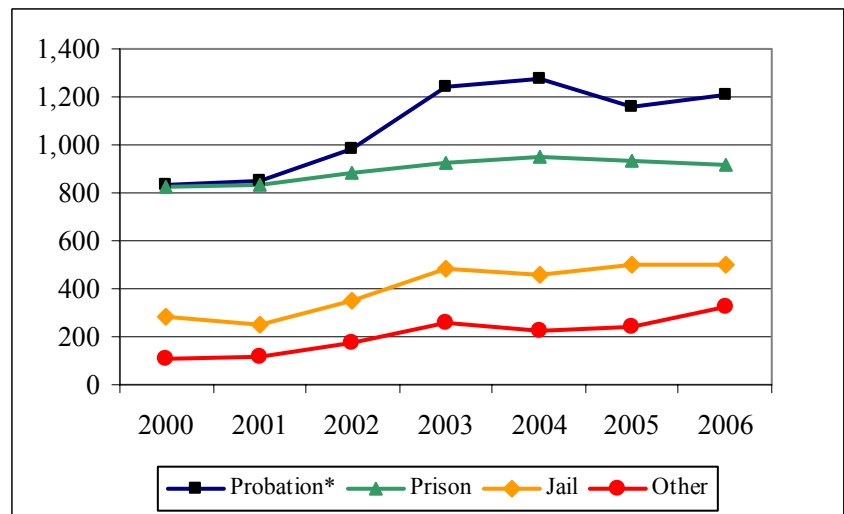
This bulletin represents the first in a series expected to be completed by the end of 2007 that will bring together issues in managing sex offenders on probation, including assessment, pre-sentence investigation, treatment, supervision strategies to reduce risk, the use of technology such as Global Positioning Systems (GPS), and forensic computer searches.

A copy of the survey and results can be found at:

<http://www.dpca.state.ny.us>

Probation is the most common sentence for sex offenders in New York State. Of the 2,944 sentences for offenses requiring registration on the Sex Offender Registry (SOR) in 2006, 1,206 were to probation, representing 41.0% of the total. Sentences to prison accounted for 31.0% (913) and sentences to local jails accounted for 16.9% (500). There were 325 offenders in the “other” sentencing category, including fines and conditional discharges. A small number of sentences were categorized as unknown (120).

**Figure One: Criminal Sentences for Sex Offenses Requiring Registration: 2000-2006<sup>1</sup>**



\*Probation includes split sentences to jail and probation.

Source: New York State Division of Criminal Justice Services, Computerized Criminal History system (as of 4/07).

In mid-2006, probation departments reported supervising 3,671 sex offenders requiring SOR registration. They also identified 1,970 offenders who, although not required to register because of youthful offender status or pleading to a charge that does not require registration, were also being supervised as sex offenders due to the nature of the offense for a total of 5,641 supervised sex offenders. Specialized supervision typically includes enhanced pre-sentence investigation protocol, intensive supervision, small and/or specialized caseloads, and specialized probation officers or units within the department to supervise the offenders.

<sup>1</sup> Includes Youthful Offenders, who are not required to register. These figures were included because probation departments may supervise such offenders under the same supervision levels and protocols as sex offenders who are required to register. In 2006, YOs made up 9.9% of the total sentences for registerable offenses, but account for 16.0% of the registerable sentences to probation. Increases in sentences may reflect changes in sentencing laws that increased the number of offenses requiring SORA registration.

On a daily basis, probation officers must make decisions on sentencing recommendations, supervision levels and tactics, filing violations for non-compliance with the orders and conditions of the court, and multiple other areas that affect public safety. Risk assessment methods enhance decision-making by ensuring that factors empirically proven to predict risk are considered in a systematic manner.

The purpose of this bulletin is to summarize the research on sex offender recidivism rates, and to provide an overview of the availability, validity and usefulness of actuarial risk assessment instruments specific to sex offenders. Six instruments are included: the Minnesota Sex Offender Screening Tool Revised (MnSOST-R); the Rapid Risk Assessment of Sex Offender Recidivism (RRASOR); the Risk Matrix 2000; Sexually Violent Predator Assessment instruments from Colorado; Static-99; and the Vermont Assessment of Sex Offender Risk (VASOR).

Actuarial assessment is only one type of assessment method. Other types include structured professional judgment and clinical assessment. Structured professional judgment was developed in the area of violence assessment and combines informed judgment with instruments that reflect current theory, empirical research and clinical experience about the behavior being assessed (Kropp, 2002). This approach uses multiple assessment resources to arrive at a final judgment.

Clinical assessments may be unstructured; or clinicians may use items such as an interview schedule, actuarial assessments, or behavior rating protocols such as the DSM-IV-R (American Psychiatric Association, 2000), among other options.

Both structured professional judgment and clinical assessment are an important part of sex offender management and will be addressed in a subsequent bulletin.

### Issues in Actuarial Assessment of Sex Offenders

Several issues relevant to sex offender assessment must be addressed before discussing the instruments themselves, as well as why specialized sex offender assessment instruments are preferable to those that predict general (non-sexual) recidivism:

- Recidivism rates for sex offenders differ from those of other offenders.
- Generalized assessment instruments predict general offending, but are not designed to predict sexual offending. Therefore, those instruments should be used only to predict general offending. The theoretical underpinnings of general recidivism differ from sexual recidivism. Generalized instruments tend to not measure the underlying theoretical constructs driving sexual recidivism and may guide officers down the incorrect path in supervising sex offenders.
- Most generalized assessment instruments base recidivism rates on a two to five year follow-up period for offending. However, sex offenders remain at risk for a significantly longer period of time, possibly up to age 60. It has been estimated that when the follow-up period for offending is limited to 24 to 36 months, only about 1/3 of new sexual offenses committed by rapists, and 1/4 of those committed by child molesters would have been detected (Prentky, Lee, Knight and Cerce, 1997).
- Sex offenders are often compliant while under community supervision, or are able to avoid detection, and therefore a much longer follow-up period for re-offending is necessary for proper validation. On the other hand, one must take into account historical factors that may affect the results when a longer follow-up period is used, such as changes in sentencing laws, public policy initiatives, and access to treatment.

Relevant to any discussion on assessment is an understanding of the actual recidivism rates of the

type of population under consideration, and predictors of recidivism.

**Recidivism Rates of Sex Offenders v. Non-Sex Offenders**

Recidivism can be defined as a new arrest, charge, conviction or incarceration, which also affects the reported rates. Any figures presented will underestimate re-offense rates because not all offenses are reported to police, and some that are reported are not cleared by arrest. For example, Prentky, Lee, Knight and Cerce (1997) estimate that true sexual re-offense rates are underestimated by 30-40% when using the simple proportion of offenders rearrested.

Methodologies also vary. Basing recidivism rates on a new conviction or incarceration decreases the rate because offenders who are arrested but not convicted, convicted of a non-sex offense, and those convicted but not incarcerated are potentially excluded.

A meta-analysis of 85 studies on sex offender recidivism indicates that sex offenders have comparably high rates of recidivism for all offenses, but the rate of sexual re-offending is significantly lower (i.e. 36.3% v. 13.4%) over an average period of 4 to 5 years (Hanson and Bussière, 1998):<sup>2</sup>

- Sexual Offense: 13.4%
- Non-Sexual Violent Offense: 12.2%
- Any Offense: 36.3%

This finding was reflected in the DPCA survey as well. Of the 133 cases in 2005 where a violation was filed on a sex offender for a new arrest, only 15 involved an arrest for a new sex offense (11.3%; 75.9% of departments reported data).

Most sex offender recidivism studies have focused on sex offenders released from prison, and those rates may differ from those found in a community correction sample. A Bureau of Justice Statistics

<sup>2</sup> There is substantial research that indicates recidivism rates vary by type of offender (rapist, child molester, etc.). This issue is important to sex offender management and will be addressed in detail in a subsequent bulletin.

report released by the Department of Justice (Langan, Schmitt and Durose, 2003) indicates:

- Of the 9,691 inmates convicted of a sex offense and released in 1994, 43.0% were arrested for any type of crime and 24.0% were convicted for any type of crime within three years of release.
- 5.3% were arrested for any new sex crime within three years of release, and 3.5% were convicted of any new sex crime.

An analysis conducted by the Division of Criminal Justice Services (DCJS) of all registered sex offenders indicates that they are more likely to be arrested for any type of offense than a sex offense. Of a sample of 19,458 male sex offenders appearing on the Sex Offender Registry, 15% were arrested for a new offense within a year, and 2% were arrested for a new sex offense. This pattern held through the eight year mark but the differences increased in magnitude, as illustrated in Table One.

**Table One: Proportion of Registered Sex Offenders Rearrested (Among 19,827 offenders on the registry on March 31, 2005)**

Time from Registration Date	Any New Arrest	Any New Registerable Sex Offense
~ 1 Year	15%	2%
~ 2 Years	24%	3%
~ 5 Years	41%	6%
~ 8 Years	48%	8%

Source: DCJS: NYS Sex Offender Registry and NYS Computerized Criminal History Data Base.

The DCJS data above included probationers, as well as parolees, those under custody and offenders whose sentence had expired. Specific analysis of the recidivism rates of sex offenders on probation in New York State has yet to be undertaken.

Research on a sample of 917 sex offenders on probation across the U.S. in 17 states from 1986 to 1989 indicates that while under probation supervision, 11.7% were arrested for a non-sex offense during a three year follow-up period, and 4.5% were arrested for a new sex crime within three

years (Meloy, 2005). Another study involving sex offender probationers revealed that after five years, 5.6% were arrested for a new sex offense (Kruttschnitt, Uggen and Shelton, 2000).

For comparison purposes, criminal history and probation registration data recently analyzed by DCJS indicates that for the 41,974 sentences to probation in 2003 for *any* type of crime (misdemeanor and felony), 8.7% were arrested for a Violent Felony Offense (NY Penal Law § 70.02-1), 7.0% for a felony drug offense, and 14.8% were arrested for other felony offenses within three years. Thus, sex offenders are arrested and/or convicted of committing a new sex crime at a *lower* rate than other offenders who commit other new non-sexual crimes.

### **Predictors of Recidivism**

In the adult offender population, meta-analysis has confirmed the static factors most highly associated with recidivism include age, criminal history, and family rearing practices. Dynamic factors include antisocial personality traits, social companions, criminogenic needs,<sup>3</sup> interpersonal conflict and social achievement (Gendreau, Little and Goggin, 1996).

A meta-analysis conducted by Hanson and Bussière (1998) revealed that with sex offenders, the risk of recidivism was increased when offenders:

- had prior sexual offenses
- victimized strangers, selected male or extrafamilial victims
- had started offending at an earlier age
- had engaged in diverse sex offending
- failed to complete sex offender treatment

A recent update to the original 1998 meta-analysis found that several dynamic factors are related to sexual recidivism that typically would not be precursors to offending in the general population:

- deviant sexual interests measured by phallometry
- sexual interest in children or paraphilic interests
- emotional identification with children (i.e. adults who have children as friends)
- conflicts with intimate partners

Measures of antisocial personality were also shown to predict sexual recidivism, as were offenders with general self-regulation problems (lifestyle instability, impulsiveness). Furthermore, employment instability was found to predict sexual recidivism in the later analysis but was not in the previous analysis (Hanson and Morton-Bourgon, 2004).

A few notable factors that failed to predict recidivism with an acceptable level of accuracy include: phallometric measurements revealing an interest in rape/violence, social skill deficits, loneliness, general psychological problems such as anxiety and depression, and low self-esteem (Hanson and Bussière 1998; Hanson and Morton-Bourgon, 2004).

Research conducted by the Washington State Institute for Public Policy found that sex offenders with a conviction for failure to register as required had higher rates of recidivism (conviction) in all categories when compared to sex offenders without a conviction for failure to register: 4.3% v. 2.8% for felony sex convictions; any felony conviction 38.5% v. 22.9%; and violent felony conviction 15.8% v. 9.4%. However, it was not possible to predict which offenders would fail to register based on demographic and criminal history information (Barnoski, 2006). Therefore, the static predictors that make up many of these instruments are unlikely to predict failure to register.

Most sex offender assessment instruments do not count failure to register as a sexual offense to be considered in scoring or are silent on the issue. It may be advisable to review whether failure to register would contribute to the accuracy of the models as a predictive variable of its own rather than an outcome.

---

<sup>3</sup> Defined as “antisocial attitudes supportive of an antisocial lifestyle and behavior regarding education, employment” (Gendreau, Little and Goggin, 1996, p. 597).

Sex offender registration requirements are intended to inform and protect the public. Generally speaking, assignment to a level can be based on an objective or actuarial classification instrument, clinical judgment, or at the discretion of the judge. In theory, the levels should be associated with reoffending levels (e.g. Level 3, considered the highest risk, should have the highest rate of recidivism).

In 1999, the End of Sentence Review Committee of Washington State adopted the Washington State Sex Offender Risk Classification Tool.<sup>4</sup> This extensive instrument contains a risk assessment and a section on community notification considerations. It also contains the Rapid Risk of Sexual Offense Recidivism (RRASOR), and only the highest scores (4 to 6) are included in the overall risk score. In this instance, the researchers found that the instrument had weak accuracy in predicting recidivism (Barnoski, 2005). Therefore, a level of risk assigned in association with Sex Offender Registry may not, in fact, be a valid predictor of risk.

### **Sex Offender Assessment Instruments**

It should be noted that this summary reflects current research, but new studies are emerging. Several important studies were released already this year (Knight and Thornton, 2007; Langton, Barbaree, Seto, Peacock, Harkins and Hansen, 2007) and several are being published that analyze the comparative predictive ability of these instruments. One research study notes:

“...it remains unclear from the results reported here which instruments might be recommended under what circumstances or whether the use of multiple instruments in a given case may increase prediction accuracy. As well, the essentially atheoretical approach taken in the development of these instruments does little to advance our understanding of sexual offending behavior...” (Langton et. al. 2007, p. 56).

This research bulletin should be regarded as a preliminary overview of the current state of sex

offender risk assessment since both the knowledge and theoretical foundations underlying the instruments continue to grow at a rapid pace. For example, these types of instruments have a history of being combined to create new ones; and the authors of the Static-99 are currently researching the effect of adding items to the instrument. Finally, other instruments exist that are based on clinical and professional judgment, which may be more accurate in some situations.

Assessment instruments differ from each other in many respects. In evaluating this group of assessment instruments for use in probation departments, the following items were taken into consideration:

- Assessment instruments differ on how they define recidivism: arrest, charge, (re)conviction or (re)incarceration. Although there is evidence that arrest is the preferred definition because it is a more inclusive category and eliminates the issue of plea bargaining to a non-sexual offense, most of the instruments defined recidivism as a conviction (Knight and Thornton, 2007).
- The type of outcome measured may differ: sexual or nonsexual reoffending and violent or non-violent reoffending. Some broadly define any sexual recidivism involving attempted or completed contact as violent recidivism. Other instruments combine sexually-violent and non-sexually violent offenses together to improve predictive accuracy. Therefore, sex offender assessment instruments should be used to predict sex offending behavior, and not general or violent offending. Although several of the tools highlighted here state that they predict general offending, research indicates that they are better predictors of sexual offending, and as such, should be used *only* to predict sexual offending.
- There has been some research on the validity of the instruments based on whether the offender is classified as a rapist or child molester, and predictive accuracy can vary by offender type and over time (Knight and Thornton, 2007).

<sup>4</sup> <http://www.doc.wa.gov/cpu/docs/05-729.pdf>

- The role of “hands off” offending, such as exhibitionism or voyeurism, is not clearly understood or systematically assessed. Research indicates that convicted offenders tend to engage in such behavior while in the community and it is included as a predictor of reoffending in at least two instruments (Static-99, Risk Matrix 2000; it is taken into account with the overall score in the VASOR):
  - In a sample of 180 sex offenders who underwent a polygraph examination of their sexual offending history and/or behaviors during community supervision, 46.7% engaged in exhibitionism, 53.9% in voyeurism, 38.3% viewed pornography, 46.7% masturbated to deviant fantasies, and 65.6% engaged in other offenses, such as grooming behavior, engaging in prostitution or having deviant sexual fantasies (English, Jones, Patrick and Passini-Hill, 2003).
  - Offenders who committed non-contact offenses were more likely to recidivate than those whose offenses involved physical contact with a victim (Hanson and Morton-Bourgon, 2004).
- Many of these instruments were designed with specific purposes in mind that may or may not coincide with the intended use by probation departments. In addition to predicting recidivism rates, instruments have been developed to identify sexually violent predators or candidates for civil commitment.

All of the assessment instruments discussed here require training, which is critical to successful and reliable implementation. Officers must understand how the scale is constructed, scored, be able to interpret and communicate the results, and know how the distribution of scores fits with local supervision policy (e.g. what risk levels correspond with level of supervision, case planning, home visits, collateral contacts, etc.), and supervisors must periodically review the forms for accuracy in scoring.

The reliability of the instrument is established in the validation phase, but departments that choose to implement any of these instruments have a responsibility to provide quality assurance so that reliability in the field is not compromised by inconsistent or inaccurate scoring. This is particularly important with instruments that have a tight range of scores where an error of one point may change a risk level. The more complex or difficult the coding structure, the greater potential for error and the more critical training and quality assurance becomes.

Five instruments were selected for inclusion, each of which has reached an acceptable level of validity in predicting sexual reoffending (one additional instrument is included as an example). This is partially due to the fact that they tend to measure the same constructs. However, base rate calculations and distributions vary. None of the instruments have been sufficiently cross-validated on a purely community corrections sample representing the racial diversity of New York State. Cut points are generally provided with the instruments, but corresponding recidivism rates should be viewed with caution, as they do not necessarily reflect what would be found in a sample of sex offender probationers in New York State.

### **Statistical Methods**

A current statistical method used to gauge the predictive accuracy of assessment instruments is the Area Under the Curve (AUC) statistic associated with the Receiver Operating Characteristics (ROC) curve (see Hanley and McNeil, 1982; Swets, 1986). The metric ranges from 0 (no predictive ability) to 1 (perfect predictive ability), and .5 is chance (i.e. a guess). The AUC statistic can be interpreted as “...the probability that a randomly selected recidivist would have a higher score than a randomly selected nonrecidivist” (Thornton, et. al., 2003, p. 227). Higher numbers are associated with greater validity: values above .7 with small confidence intervals and statistical significance ( $p < .05$  or greater) are considered acceptable.

One advantage is that ROC/AUC statistics are not constrained by base rates or selection ratios. In

NYS DPCA Research Bulletin: Sex Offender Assessment

other words, when dealing with an event that does not occur with great frequencies, large samples are normally required to establish predictive outcomes with statistical reliability. Using the ROC/AUC statistical methodology allows for evaluation of accuracy with smaller samples and low base rates. Table Two is a summary of the major studies indicating AUC values and confidence intervals (when available), interrater reliability (if established), the number of questions on each instrument, information necessary to score the

instrument, and what the instrument predicts. The values presented are from the most recent study that compared the accuracy of the instruments with a sample of 571 incarcerated Canadian adult sex offenders (Langton, et. al., 2007). A second study compared the predictive accuracy of the instruments in a sample of offenders from the Bridgewater Treatment Facility in Massachusetts (Knight and Thornton, 2007). Those data are presented in Table Three.

<b>Table Two: Comparison of Basic Elements of Selected Sex Offender Assessment Instruments</b>					
	<b>MnSOST-R</b>	<b>RRASOR</b>	<b>Risk Matrix 2000/Sexual</b>	<b>Static-99</b>	<b>VASOR</b>
<b>AUC</b>	.70***	.68***	not tested	.64**	not tested
<b>Confidence Interval<sup>††</sup></b>	.62 to .77	.61 to .75		.57 to .71	
<b>AUC from Other Studies<sup>‡</sup></b>	.65 (Barbaree, et. al., 2001; dynamic items omitted from analysis)	.73** (Barbaree, et. al., 2001)	.60 (2 years) .68 (5 years) (Craig, et al. 2006)	.68* (Barbaree, et. al., 2001)	.75** (Langton, et. al, 2002)
<b>Interrater Reliability</b>	.83 <sup>†</sup>	.94 <sup>†</sup>	not located	.88 <sup>†</sup>	.83 (McGrath, et. al, 2001)
<b>All instruments are designed to be used with adult, male sex offenders age 18 and above.</b>					
<b>Questions</b>	16	4	7	10	19
<b>Information Required for Scoring</b>	Criminal, sexual offense and supervision history; victim/offense information; treatment (sex offense/chemical dependency) information; age	Sex offense history; victim characteristics; age	Sexual and criminal offense history; age, victim characteristics, single	Criminal history; victim/offense information; single; age	Criminal, sexual offense and supervision history; victim and offense characteristics; deviant sexual fixation; substance use patterns; address changes; employment or school history
<b>Predicts</b>	Arrest for non-violent sexual recidivism (hands-on); any criminal offense; highest scores are referred for civil commitment	Conviction for a sexual offense	Conviction for a sexual offense  Five, ten and fifteen year reconviction rates on UK sample	Conviction for a sexual offense	“Sexual reoffending”; assessment of violence history
<sup>‡</sup> AUC values provided for sexual recidivism only. <sup>†</sup> Langton, Barbaree, Seto, Peacock, Harkins and Hansen, 2007 (using conviction to measure recidivism); other studies are cited in the table when data are reported. * $p < .05$ ; ** $p < .01$ ; *** $p < .001$ .					

The most recent information available indicates acceptable levels of predictive accuracy on four of the five instruments under consideration. As indicated in Table Three, those instruments meet validity standards, and do so over three, ten and fifteen year intervals. The VASOR was not included in this particular study; nor were the Colorado SVP instruments.

**Table Three: AUC Values for Serious Sexual Charges (Confidence Intervals in parentheses; Knight and Thornton, 2007, Table Five, p. 122).**

Scale	3 Years	10 Years	15 Years
<b>MnSOST-R Total Sample</b>	.684*** (.618-.729)	.672*** (.603-.742)	.664** (.564-.765)
<b>RM2000/Sexual Total Sample</b>	.674*** (.603-.745)	.644*** (.575-.714)	.633*** (.538-.727)
<b>Static-99 Total Sample</b>	.713*** (.650-.777)	.684*** (.619-.749)	.647** (.557-.736)
<b>RRASOR Total Sample</b>	.669*** (.603-.735)	.681*** (.615-.748)	.649** (.559-.739)

\* p. < .05; \*\* p < .01; \*\*\* p < .001

All instruments under discussion have reached an acceptable level of construct validity in that they measure similar concepts and domains, and have consistently predicted sexual recidivism across multiple samples. What is not known, however, is how the scores predict recidivism in the New York State community corrections population. Therefore, utility is limited until research can establish recidivism rates within our population.

**Overview of Actuarial Sex Offender Assessment Instruments**

**MnSOST-R (Minnesota Sex Offender Screening Tool- Revised)**

The MnSOST-R was Developed by the Minnesota Department of Corrections in 1991 to identify predatory and violent sex offenders, and not intended to be used with incest offenders. It was designed to be scored from existing correctional records by case managers, developed based on existing instruments and research, and revised in 1996.

**MnSOST-R Items:** Prior sex convictions; length of sexual offending history; under supervision at offense; offense in public place; use of force; multiple acts on a single victim/event; age range of victim(s); statutory offending; victim stranger; history of antisocial behavior; pattern of substantial drug or alcohol use; employment history; disciplinary history while incarcerated; chemical dependency and sex offender treatment; age at release.

Although the instrument contains four items under the heading “Institutional/Dynamic Variables” it can be adapted for community use. Probation compliance could be substituted for disciplinary history; sex offender and chemical dependency treatment are equally relevant to community supervision; and current age can be used instead of age at release. The effect of this type of modification is unknown until the instrument is tested on the appropriate population.

Predictive ability was confirmed in the development sample for sexual reoffending (AUC .77, CI .71-.83) and a cross-validation sample (AUC .73, CI 65-.82 over six years; Epperson, et. al. 2003). Two early cross-validation studies did not indicate predictive accuracy reaching acceptable levels (Barbaree, et. al. 2001; Bartosh, Garby, Lewis, Gray, 2003) but more recent studies indicate acceptable levels of predictive ability (Knight and Thornton, 2007; Langton, et. al. 2007).

It is interesting to note that the authors of a 2007 study point out that the difference in the lack of predictive significance of the MnSOST-R between the 2001 study and the significant predictive ability found in the 2007 study may be due to the amount of training received. In the earlier study, coders had received a single day of training on scoring the MnSOST-R; but in the 2007 study, coders had received three weeks of training on all of the instruments tested (Langton, et. al., 2007, p. 56).

**RRASOR (Rapid Risk Assessment of Sexual Offense Recidivism) and the Static-99**

The RRASOR and Static-99 are the most widely used and validated instruments in the U.S. and



abroad. It is comprised of a short, four item version (RRASOR) and a full ten item instrument (Static-99). It was developed by merging the Canadian RRASOR with the Structured Anchored Clinical Judgment Scale (SAC-J) used in England and Wales.

**RRASOR and Static-99 Items:**  
*RRASOR:* Prior sex offenses; unrelated and male victims; age  
*Static-99:* Prior sex offenses, sentencing dates; convictions for non-contact offenses; stranger, unrelated and male victims; age; single

Analysis of a Canadian prison sample suggests that the RRASOR is more correlated with child sexual abuse, persistence, and male victims; while the Static-99 appears to be more correlated with detached predatory offenders who are young, single, and less likely to victimize females (Barbaree, Langton and Peacock, 2006).

The Static-99 has shown promise for prediction of technical violations with sex offenders on probation (Austin, Peyton and Johnson, 2003) in two samples with different follow up periods:

**Table Three: Violation Rates by Static-99 Risk Level in a two Probation Samples (p. 18).**

Static-99 Risk Level	Sample					
	Six Year Follow Up			12 Month Follow Up		
	R	T	C	R	T	C
Low	32.9	25.9	7.1	25.4	20.9	4.5
Medium-Low	54.9	37.2	17.7	35.3	29.4	5.9
Medium-High	70.7	45.5	25.3	44.7	36.2	8.5
High	61.0	37.3	23.7	66.7	41.7	25.0

Cells indicate percent R=Recidivated (arrests, return to prison or deaths); T=Technical Violation; and C=Convicted.

One potential drawback of the Static-99 is the coding rules for prior and current (index) offenses are complex and thus subject to error. Offense history must be parsed on several dimensions that sometimes overlap: prior sex offenses, prior sentences, any non-contact offenses, index non-sexual violence, and prior non-sexual violence. What constitutes a conviction also has several underlying dimensions, such as military dismissals,

official reprimands, professional sanctions, probation violations, etc.

While this issue can be addressed through training, practice scoring test cases, and quality assurance review, there is potential for impact on risk levels with even the slightest error. While the Static-99 instrument includes ten items and a score of up to 12, the scoring instructions group all offenders with a score of six and higher into the high risk category. The scoring weights for prior sex offenses leave slight room for error (i.e. 2 to 3 convictions or 3 to 5 charges warrants a score of 2), the other four categories are a yes/no determination (i.e. they each may add one point.)

With proper cautions, the Static-99 and RRASOR are appropriate for use in gauging risk when access to information is limited. However, the resulting scores should not be used as the sole source of information on which to base decisions where public safety concerns are salient, and other factors are more relevant.

Recent research was published that evaluated an update to the Static-99 (Langton, et. al., 2007). The Static-2002 represents an overhaul of the Static-99 where single status is dropped, and 13 items are arranged into five domains: age at release, persistence of sexual offending, deviant sexual interests, relationship to victim(s), and general criminality. In this study, the Static-2002 outperformed the Static-99 (AUC and CI of .71 and .64 to .78,  $p < .001$ , compared to .64  $p < .01$  and .57 to .71,  $p < .01$ ).

**Risk Matrix 2000**

This instrument was developed for and validated on a sample from the United Kingdom prison releases. It is intended to measure sexual reoffending, violent reoffending, or a combination of scores in three different scales. The instrument is based on the theoretically and empirically derived Structured Anchored Clinical Judgment framework in use by prison, police and probation services in the U.K. and was revised in 2000.

**Risk Matrix 2000 Items:**

*Sexual:* age; sexual appearances; criminal appearances; male, stranger victims; single; non-contact sex offense

*Violence:* age, violent appearances, burglary

The assessment process includes up to three steps: 1) score sexual reoffense risk factors and categorize the offender on risk of sexual reoffense (low, medium, high, very high), then consider aggravating factors that may increase the sexual reoffense (S) risk level and determine final sexual offense risk level; 2) score the violence risk factors and determine violence (V) risk level; and 3) add the levels and determine the combined (C) score. To determine the risk of sexual reoffense score, only complete the first step.

Unfortunately, this instrument has not been widely used or tested on U.S. community corrections populations even though it is considered by many to be easier to score on sexual and criminal history offenses than the Static-99.

**Sexually Violent Predator Assessment Screening Instrument; Sex Offender Risk Scale; and SOMB Checklist - Colorado**

A collaborative effort spearheaded by the Colorado Division of Criminal Justice, the Sex Offender Management Board (SOMB) and the Office of Research and Statistics involved criminal justice, research, mental health and law enforcement officials and resulted in a series of assessment instruments. It offers a model for states that wish to develop their own instruments: a ten item Sex Offender Risk Scale (SORS) used in placement decisions; a SOMB Checklist covering seven dimensions, three of which are elements of the SORS; a Sexually Violent Predator Screening Instrument (SVAPSI) for use by the SOMB to classify offenders for registration and parole purposes (includes the SORS); and a lengthy sexual history disclosure form intended to be used in conjunction with post-conviction polygraph examination.

The SVPASI/SORS are the only instruments located during this review that report to be

appropriate for use with female sex offenders, but are limited to use with felony sex offenders. The SVPASI is also unique in that probation and an approved clinician each fill out their respective sections of the form. The clinical criteria were developed through the collaboration of the SOMB, Parole Board, Division of Parole, treatment providers and victim services agencies.

**SORS Items:** juvenile and adult felony convictions; employment at arrest; failure of first or second grade; possessed a weapon during current crime; use (ingested or administered) of alcohol or drugs by the victim prior to the current crime; SOMB-scales for denial, deviancy and motivation.

The SPVASI and SORS were created for specific uses within the State of Colorado. It is not necessarily appropriate for use in New York, but is included here to demonstrate the utility of stakeholders collaborating to develop instrument(s) that are tailored to the needs, policies and procedures of their state.

**VASOR (Vermont Assessment of Sexual Offense Recidivism)**

The VASOR was developed by the Vermont Department of Corrections in 1994 to assist probation and parole officers with placement decisions. The validity of the VASOR has been established through a series of studies, but it has yet to be tested with large and diverse populations outside of Vermont. Nevertheless, this instrument shows promise for several reasons. The level of information required to score the instrument gives probation officers a very broad view of their case and fosters the collaborative approach to sex offender management.

**VASOR Items:** Prior sex and adult, violent, and weapons convictions; violations of probation or court orders; use of force and level of harm; relationship to victims; male victims/history of exhibitionism; deviant sexual fixation; alcohol, drug use; change of address; status of and amenability to treatment; sexual intrusiveness of current offense; victim age and status.

A complimentary instrument has also been developed by the Vermont Department of Corrections, the Treatment Progress Scale (TPS), which will be discussed in a subsequent bulletin. The TPS is a dynamic assessment scale for sex offenders that can be used with either the VASOR or the Static-99 and has shown good predictive ability for sexual offending in a community corrections sample.

### **Discussion and Comparison of Instruments**

Each of the instruments discussed here has reached an acceptable level of validity. However, for the instruments to be useful, we must understand how they predict recidivism among a population of sex offenders on probation in New York.

While they all predict sexual recidivism, varying amounts of information are needed. For example, the RRASOR can be coded from four static factors usually available from a criminal history file. In contrast, the VASOR requires more information that must be obtained through multiple methods, including file and record reviews, interviews with the offender and victim, and collateral resources.

Which of these instruments are appropriate for use depends on the goals of the assessor and level of information available. Quick decisions where public safety is not imperative can be made with relatively little static information. Situations where public safety is imperative requires more accurate assessment, which in turn requires more information. The tradeoff in the loss of information by selecting an instrument requiring fewer items should not be underestimated.

### **Summary**

Two items illustrate the importance of assessment in sex offender management. The first is a quote from prominent researchers in the field. The second is another quote and a figure illustrating the role of assessment throughout the criminal justice system and process:

“Despite the demand for accurate decisions about sex offenders, the judges, attorneys, examiners, and clinicians who are required to implement “special” sex offenders laws have had to rely on extant assumptions of dangerousness and reoffense risk that are often ill-informed or erroneous. Inaccurate decisions lead to suboptimal dispositions and increase the likelihood of further victims and additional expense. Indeed, all facets of the social and political response to sexual violence, from the enactment of more effective legislation to enhancing the efficacy of discretionary decisions, rely upon an informed, empirically sound understanding of the offense risks posed by different groups of sex offenders.” (Prentky, Lee, Knight and Cerce, 1997, p. 655).

Dr. Andrew J. Harris makes several relevant observations in a 2006 article published in Federal Probation titled *Risk Assessment and Sex Offender Community Supervision: A Context-Specific Framework*:

“Ultimately, the relative superiority of one method [actuarial v. clinical] over another is highly dependent on the questions we are asking. If our primary concern deals with the aggregated long-term risk posed by a group of individuals, actuarial instruments almost certainly provide the most valid means of assessing such risk. If we are concerned with setting forth the relative probability that a particular individual will re-offend at some undetermined point in the future, actuarial instruments provide a moderate degree of accuracy, albeit one prone to errors.

Yet as soon as we turn to different types of questions, the relative utility of currently available actuarial instruments dissipates considerably. Under what circumstances would this person be most likely to reoffend? What is the probable timeframe of reoffense? How has this person’s risk been mitigated by our interventions? What is the probable impact of treatment and supervision?” (p. 36).

**Figure Two: Overview of Assessment from Federal Probation, September 2006**

<b>Service Domains</b>	<b>Policy &amp; Management</b> <ul style="list-style-type: none"> <li>• Strategy</li> <li>• Resource Allocation</li> <li>• Quality Management</li> </ul> <b>Baseline Case Planning</b> <ul style="list-style-type: none"> <li>• Classification</li> <li>• Special Conditions</li> <li>• Terms of Supervision</li> </ul>	<b>Ongoing Case Management</b> <ul style="list-style-type: none"> <li>• Sex Offender Treatment</li> <li>• Housing &amp; Employment</li> <li>• Ancillary Services</li> <li>• Case Plan Adjustments</li> </ul>	<b>Acute Interventions</b> <ul style="list-style-type: none"> <li>• Enhanced Supervision &amp; Surveillance</li> <li>• Crisis Intervention</li> <li>• Police Action</li> </ul>
<b>Primary Orientation</b>	Nomothetic		Idiographic
<b>Risk Emphasis</b>	Prediction of General Risk		Measurement of Specific Risk
<b>Applicable Risk Factors</b>	Static	Stable	Acute
<b>Primary Methods</b>	Actuarial	Practitioner	Judgment
<b>Frequency of Assessment</b>	Once at Baseline	Periodic	Ongoing

Source: *Federal Probation*, September 2006 ([http://www.uscourts.gov/fedprob/September\\_2006/framework\\_figure1.html](http://www.uscourts.gov/fedprob/September_2006/framework_figure1.html))  
 Reproduced with permission.

Figure Two introduces several concepts relevant to discussion on assessment. Aside from the broad array of service domains that can benefit from assessment, the orientation of the assessment, emphasis on type of risk and applicable risk factors, assessment methods and frequency are also important considerations.

Primary orientation refers to the scope of factors considered. The nomothetic tends to focus on abstract, general or universal statements of law (e.g. general risk of recidivism relative to a non-recidivist). As such, prediction of risk based on universal laws requires actuarial instruments based on static (unchangeable) factors.

At the other end of the spectrum lies an idiographic orientation, or one that deals with unique, individual risk measured by two types of dynamic factors. Stable risk factors are those that are amenable to change only over a long period of time. Acute risk factors are those associated with immediate risk of recidivism. Both require the judgment of practitioners, probation officers, clinicians, or their

collaboration. These types of assessments are the heart of case management and supervision work, and as such are considered to be periodic or ongoing, depending on the issue.

Although the clinical-actuarial debate rages, Dr. Harris points out that "...the majority of sex offender management practice calls for operating on a "middle ground" that draws from both approaches...the clinical-actuarial continuum is only one dimension within a broader practical framework that integrates a range of related constructs." (2006, p. 7)

He makes the case that actuarial assessment is more appropriate for determining sentencing recommendations, orders and conditions, and classification (baseline case planning). Clinical assessment and professional judgment are more appropriate for supervision (ongoing case management) and acute interventions when other risk factors are present, such as a failed polygraph examination or being caught with pornography.

In conclusion, there are several actuarial assessment instruments available to probation practitioners,

specific to sex offenders, that appear to be relatively simple to use. The next step is to determine the most appropriate instruments and decision points at which to use them, and the implications of each. Key considerations include:

- For what purpose will the assessment be used (e.g. sentencing recommendations, SOR registration level, supervision levels or plans?) and is it consistent with the rationale for the development of the instrument?
- Will all of the necessary information be available to accurately score the instrument?
- Is training available or can it be developed?
- How will coding reliability (i.e. quality assurance) be accomplished?
- What policies are necessary to guide officers in the use of these instruments?

### **Recommendations**

The instruments outlined in this bulletin have individual strengths and weaknesses, and potential issues with scoring and access to information. It is critical that the rates of sexual reoffending for the New York probation population be determined and that they correspond with each risk level for these instruments to be useful to probation officers in the field. Considering the various research methodologies used in validating each instrument, it is unclear whether the recidivism rates indicated by the research can be transferred to a population of sex offenders in the community. Only the RRASOR/ Static-99 has been sufficiently cross-validated with a number of samples to cautiously use the rates of reoffending presented with the instrument. The other instruments show a great deal of promise.

Considering the vast array of decisions that may be made using risk assessment instruments, such as pre-trial release, sentencing recommendations that may include incarceration, and levels of supervision and treatment, careful considerations must be given to the context in which the assessments are used.

With the implementation of any assessment instrument, training is required. Modules should include the theoretical foundations and predictors of sex offending, typologies of offenders, issues with recidivism rates, and effective use and communication of the results. Officers should be required to demonstrate competency by accurately scoring a number of instruments prior to use in the field.

This bulletin was researched and written by Jami Krueger, Community Correction Representative II. Comments and clarifications may be directed to [jami.krueger@dpc.state.ny.us](mailto:jami.krueger@dpc.state.ny.us).

The author would like to thank Dr. David Thornton of the Sand Ridge Secure Treatment Center; Mauston, WI; Robert McGrath, Vermont Department of Corrections; and Dr. Andrew J. Harris, University of Massachusetts at Lowell, and Dr. Raymond Knight, Brandeis University for their sharing of data, instruments, publications and/or time to discuss the issue of assessment.

### **References Cited**

- American Psychiatric Association. (2002). Diagnostic and Statistical Manual of Mental Disorders, IV-Text Revision. Author.
- Austin, Peyton and Johnson. (2003). Reliability and Validity Study of the Static-99/RRASOR Sex Offender Risk Assessment Instruments. Washington, DC: Institute on Crime, Justice and Corrections at the George Washington University.
- Barbaree, Langton and Peacock. (2006). The Factor Structure of Static Actuarial Items: Its Relation to Prediction. Sexual Abuse: A Journal of Research and Treatment. 18(2), 207-226.
- Barbaree, Seto, Langton and Peacock. (2001). Evaluating the Predictive Accuracy of Six Risk Assessment Instruments. Criminal Justice and Behavior. (28)4 490-521.
- Barnoski. (2006). Sex Offender Sentencing in Washington State: Failure to Register as a Sex offender-Revised. 06-01-1203A. Olympia: Washington State Institute for Public Policy.

## NYS DPCA Research Bulletin: Sex Offender Assessment

Bartosh, Garby, Lewis, Gray. (2003). Differences in the Predictive Validity of Actuarial Risk Assessments in Relation to Sex Offender Type. International Journal of Offender Therapy and Comparative Criminology. 47(4), 422-438.

Colorado Sex Offender Management Board. (2003). Handbook: Sexually Violent Predator Assessment Screening Instrument for Felons: Background and Instruction. Colorado: Author.

English, Jones, Patrick and Pasini-Hill. (2003). Sexual Offender Containment: Use of the Polygraph. Annals of the New York Academy of Sciences. 989, 411-427.

English, Retzlaff and Kleinsasser. (2002). The Colorado Sex Offender Risk Scale. Journal of Child Sexual Abuse. 11(2), 77-96.

Epperson, Haul, Hout, Goldman and Alexander. (2003). Minnesota Sex Offender Screening Tool-Revised (MnSOST-R) Technical Paper: Development, Validation, and Recommended Risk Level Cut Scores. Unpublished Manuscript.

Gendreau, Little, and Goggin. (1996). A Meta-Analysis of the Predictors of Adult Offender Recidivism: What Works! Criminology. 34(4), 575-607.

Hanley and McNeil. (1982). The Meaning and use of the Area under a Receiver Operating Characteristic (ROC) Curve. Radiology. 143, 29-36.

Hanson and Bussière. (1998). Predicting Relapse: A Meta-Analysis of Sexual Offender Recidivism Studies. Journal of Consulting and Clinical Psychology. 66(2) 349-362.

Hanson and Morton-Bourgon. (2004). Predictors of Sexual Recidivism: An Updated Meta-Analysis. Public Works and Government Services Canada.

Hanson and Thornton (1999). Static 99: Improving Actuarial Risk Assessments for Sex Offenders. Department of the Solicitor General of Canada.

Harris. (2006). Risk Assessment and Sex Offender Community Supervision: A Context-Specific Framework. Federal Probation. 70(2).  
[www.uscourts.gov/fedprob/September\\_2006/framework.html](http://www.uscourts.gov/fedprob/September_2006/framework.html)

Harris, Phenix, Hanson and Thornton. (2003). STATIC-99 Coding Rules Revised - 2003. Solicitor General of Canada.

Knight and Thornton (2007). Evaluating and Improving Risk Assessment Schemes for Sexual Recidivism: A Long-Term Follow-Up of Convicted Sex Offenders. U.S. Department of Justice (unpublished; award no. 2003-WG-BX-1002).

Kropp. (2002). A Prevention-Based Paradigm for Violence Risk Assessment: Clinical and Research Applications. Criminal Justice and Behavior. 29(5), 617-658.

Kruttschnitt, Uggen and Shelton. (2000). Predictors of Desistance Among Sex Offenders: The Interaction of Formal and Informal Social Controls. Justice Quarterly. 17(1), 61-87.

Langan, Schmitt, and Durose. (2003). Recidivism of Sex Offenders Released from Prison in 1994. U.S. Department of Justice NCJ 198281.

Langton, Barbaree, Seto, Peacock, Harkins and Hansen. (2007). Actuarial Assessment of Risk for Reoffense Among Adult Sex Offenders: Evaluating the Predictive Accuracy of the Static-2002 and Five Other Instruments. Criminal Justice and Behavior. 34(1), 37-59.

McGrath and Hoke. (2001). Vermont Assessment of Sex Offender Risk Manual, Research Edition 2001. Vermont: Author.

Meloy. (2005) The Sex Offender Next Door: An Analysis of Recidivism, Risk Factors, and Deterrence of Sex Offenders on Probation. Criminal Justice Policy Review. 16(2) 211-236.

Prentky, Lee, Knight, and Cerce. (1997). Recidivism Rates Among Child Molesters and Rapists: A Methodological Analysis. Law and Human Behavior. 21(6), 635-659.

Swets. (1986). Form of Empirical ROCs in Discrimination and Diagnostic Tasks: Implications for Theory and Measurement Performance. Psychological Bulletin. 99(2), 181-198.

Thornton, Mann, Webster, Blud, Travers, Friendship and Erikson. (2003). Distinguishing and Combining Risks for Sexual and Violent Recidivism. Annals of the New York Academy of Sciences. 989, 225-235.