



SEX OFFENDER SENTENCING IN WASHINGTON STATE: PREDICTING THE INITIAL SENTENCING DECISION

The 2004 Legislature directed the Washington State Institute for Public Policy to analyze the impact and effectiveness of current sex offender sentencing policies.¹ Because the topic is extensive, we are publishing a series of reports.

The Sentencing Reform Act of 1981 (SRA) established a determinate sentencing system in Washington State.² As a result, an offender's sentence is primarily determined by the seriousness levels of the offenses for which the offender is being sentenced and the history of criminal convictions which is encapsulated in the offender score. The sentencing system includes two types of sentences: (1) jail and/or community supervision, and (2) prison. In addition, the Special Sex Offender Sentencing Alternative (SSOSA) may be used in lieu of a prison sentence.³

The previous report described how sex offenders sentenced to prison, jail/community supervision, and SSOSA differ. **This report addresses how accurately the type of sentence can be determined by combining the case attributes using multivariate analyses.**

The study sample for this report consists of cases sentenced in Washington State Superior Courts between 2000 and 2004 that resulted in a conviction for a sex offense, a failure to register as a sex offender, or a felony involving sexual motivation.

SUMMARY

This report addresses how accurately the type of sentence for sex offense cases can be determined by combining case attributes using multivariate analyses.

Findings

- **It is possible to accurately determine which sex offenders receive either a prison sentence or jail/community supervision based on the Sentencing Reform Act of 1981 offense seriousness level and offender score. This is to be expected, since the state's determinant sentencing system is based on these two factors.**
- **It is possible to accurately determine which sex offenders will *not* be granted a SSOSA.**
- **There is less certainty in determining who will receive a SSOSA based on data available in the administrative databases. This is not entirely surprising, since this decision involves a larger degree of discretion.**

The policy requiring that offenders pay their own SSOSA costs might be examined. A more cost-effective policy would have the state cover SSOSA costs for lower-risk sex offenders and avoid their prison costs.

Another possible policy option would include an empirical risk-for-reoffense assessment in the criteria for a SSOSA. The use of a risk-for-reoffending instrument and an explicit assessment tool for amenability to treatment may clarify who could receive a SSOSA without endangering the public.

¹ ESHB 2400, Chapter 176, Laws of 2004.

² The SRA contains the guidelines and procedures used by the courts to impose sentences for adult felonies; the SRA was implemented in 1984.

³ RCW 9.94A.670.

Exhibit 1 shows the number of felony sex offense cases sentenced during this five-year period and the percentage distribution of the type of sentence. Slightly over 50 percent of the 5,178 felony sex offense cases result in a prison sentence, and 21 percent are given a SSOSA.

Exhibit 1
Percentage Distribution of Sentence Type

Number of Sex Offenders	Total	Type of Sentence		
		Jail [‡]	SSOSA	Prison
5,178	27%	21%	52%	

[‡] Jail includes those sentenced to jail, those sentenced to community supervision, and those receiving both sentences.

In this report, we examine how accurately sex offender sentences can be explained using data elements available in the statewide criminal justice databases. These data elements include:

- Demographics
- Offenses in Current Sentence
- Prior Record of Convictions

Multivariate statistical analyses are employed to develop explanatory models that include the best non-redundant information that can account for the sentencing decision.⁴

COMPARING A PRISON SENTENCE TO A JAIL/COMMUNITY SUPERVISION SENTENCE

The first sentencing decision we examine is whether the sex offender is sentenced to prison or to jail/community supervision. This analysis excludes offenders sentenced to SSOSA.

Since the SRA uses offense seriousness and offender score for this decision, the degree to which these two characteristics can predict imprisonment is assessed. The results show that these two sentencing factors very accurately account for the imprisonment sentence.⁵

Exhibit 2 plots the percentage of sex offenders sentenced to prison for each probability of going to prison from the logistic model. For probabilities below .40, the percentage sentenced to prison remains low. There is a rapid increase in the percentage imprisoned for probabilities above .40. For probabilities above .60, the percentage sentenced to prison is high.

Exhibit 2
Percentage of Sex Offenders Sentenced to Prison by Logistic Regression Probability Model

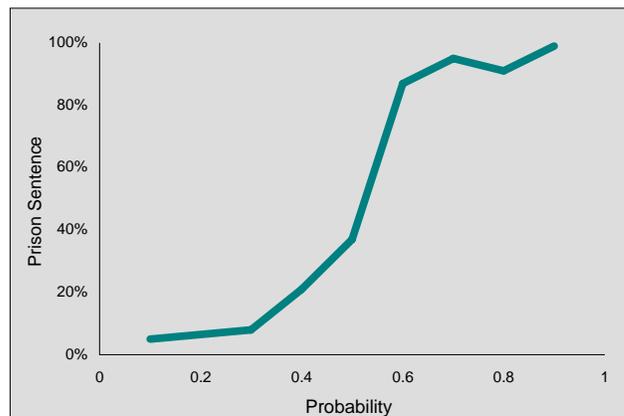


Exhibit 3 shows that only 6 percent of offenders with a probability below .40 are imprisoned; these offenders account for 37 percent of the sample. In contrast, 94 percent of those with a probability above .59 are sentenced to prison, and they represent 56 percent of sentences. Only 7 percent of the cases are in the transitional .40 to .59 range, yet 72 percent of these cases are also sentenced to prison. That is, sex offenders are either imprisoned or not imprisoned, based on offense seriousness and offender score, so much so that other factors are irrelevant to this decision.

Exhibit 3
Percentage of Sex Offenders Sentenced to Prison by Logistic Regression Probability Model

Probabilities	Prison Sentence	Percent of Sample
0.00 – 0.39	6%	37%
0.40 – 0.59	72%	7%
0.60 – 1.00	94%	56%
Total	66%	100%

⁴ Logistic regression.

⁵ The area under the receiver operator characteristic (AUC), the best measure of association for this type of data, is .978, which is very close to 100 percent accuracy.

COMPARING SSOSA TO A PRISON SENTENCE

The SSOSA decision involves statutory eligibility criteria, an assessment of the offender’s amenability to treatment, the offender’s ability to pay for the diagnostic and treatment costs, and judicial discretion.

An offender meeting the following conditions is eligible for a SSOSA:

- Convicted of a sex offense other than Rape 1 or Rape 2;
- No prior convictions for felony sex offenses in this or any other state; and
- Standard sentence range for the offense includes the possibility of confinement for less than 11 years.

Exhibit 4 displays the results of the logistic regression in which the three statutory criteria, in addition to offense seriousness and offender score, are used to account for a SSOSA rather than a prison sentence.⁶ The AUC is .803, which indicates these five characteristics strongly differentiate between offenders with a SSOSA and offenders with a prison sentence.⁷ Cases that possess the three statutory criteria tend not to receive a SSOSA. This is in accordance with the SRA eligibility criteria. Cases with higher offense seriousness levels tend to receive a SSOSA.

Exhibit 4
Logistic Regression Results Using Statutory Criteria for SSOSA vs. Prison Sentence

Case Characteristic	Standardized Parameter Estimate
SRA Offense Seriousness Level	+0.43***
SRA Offender Score	-0.08**
Current Sentence Includes Rape 1 or 2	-0.47***
Prior Felony Sex Conviction	-0.38***
Maximum Sentence 11 Years or More	-0.82***
AUC	0.803

** Statistical significance $p = < .01$

*** Statistical significance $p = < .001$

When additional factors are added to the logistic regression model, the ability to account for the SSOSA decision improves—the AUC increases to .846.

⁶ The study sample includes sex offenders sentenced to either prison or SSOSA from 2000 to 2004.

⁷ The AUC varies between .500 and 1.00. AUCs in the .600s indicate weak differentiation, those in the .700s moderate, and those above .800 strong differentiation. The plus (+) indicates that cases with that attribute tend to be a SSOSA while a minus (-) indicates they tend not to be.

Exhibit 5 lists the variables that account for the SSOSA decision in decreasing order of influence as indicated by the standardized parameter estimates. The three exclusionary statutory criteria and SRA seriousness level are the most influential characteristics.

Eleven of the 15 non-statutory characteristics that significantly distinguish cases with a SSOSA from those sentenced to prison are also exclusionary. That is, cases with these characteristics tend to not receive a SSOSA. Only cases in which the current sentence includes a sex offense with a child victim, a higher SRA offense seriousness level, and a current sentence that includes voyeurism indicate a higher chance of a SSOSA.

Exhibit 5
Logistic Regression Results Using Additional Case Characteristics for SSOSA vs. Prison Sentence

Case Characteristic	Standardized Parameter Estimate
Maximum Sentence Exceeds 11 Years [‡]	-0.84***
Prior Felony Sex Conviction [‡]	-0.32***
SRA Seriousness Level	+0.31***
Current Sentence Includes Rape 1 or 2 [‡]	-0.29***
Hispanic	-0.23***
Prior Sentence Includes a Violent (non-sex) Felony	-0.22***
Current Sentence Includes a Violent (non-sex) Felony	-0.22***
Current Sentence Includes a Sex Offense Involving an Adult	-0.20*
Juvenile Felony Sex Convictions	-0.20*
Current Sentence Includes a Sex Offense Involving a Child	+0.20***
Prior Commitment to JRA	-0.13**
Current Sentence for a Felony Offense With Sexual Motivation	+0.11*
Current Sentence Includes Felony Drug	-0.11*
Current Sentence Includes Felony Property	-0.11**
Juvenile Felony Convictions	-0.10**
Current Sentence Includes Voyeurism	+0.10***
African American	-0.10**
SRA Offender Score	-0.01
AUC	.846

[‡] Exclusionary statutory criteria.

Statistical significance * $p = < .05$; ** $p = < .01$; *** $p = < .001$.

These results show that sex offenders with violent prior records, Hispanic offenders, and African American offenders are less likely to receive a SSOSA. Those convicted of a child sex offense, voyeurism, and cases involving a higher SRA offense seriousness level are more likely to receive a SSOSA.

Exhibits 6 and 7 illustrate the predictive power of the statistical models of SSOSA participation.

Exhibit 6 plots the percentage of sex offenders given a SSOSA for each probability of a SSOSA from the two logistic models. For both models, there is a steady increase in the percentage given a SSOSA for all probabilities. That is, the transition from a low probability of receiving a SSOSA to a high probability is gradual.

Exhibit 6
Percentage Sentenced to a SSOSA From Two Logistic Regression Probability Models

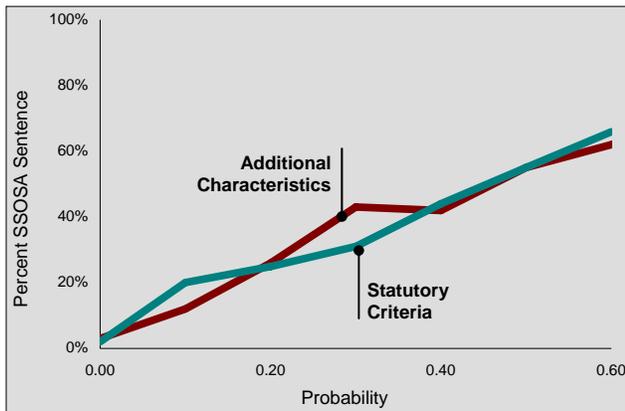


Exhibit 7 summarizes the results for the model including case characteristics in addition to the statutory criteria. Six percent of sex offenders with a probability less than .30 are sentenced to a SSOSA; these offenders account for 54 percent of the sample. Those with a probability greater than or equal to .40 represent 36 percent of the sample; 56 percent of these offenders are sentenced to SSOSA. Finally, 10 percent of the sample has probabilities between .30 and .39; 43 percent of these offenders are given a SSOSA.

The model identifies, with high certainty, offenders not likely to be sentenced to a SSOSA. However, it fails to predict those who are sentenced to a SSOSA with the same level of accuracy. That is, additional factors are needed to account for offenders given a SSOSA.

Exhibit 7
Percentage Sentenced to a SSOSA by Logistic Regression Probability Model

Probabilities	SSOSA	Percent of Sample
0.00 to .29	6%	54%
0.30 to .39	43%	10%
0.40 to .80	56%	36%
Total	28%	100%

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