

SEX OFFENDER SENTENCING IN WASHINGTON STATE: DOES THE PRISON TREATMENT PROGRAM REDUCE RECIDIVISM?

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

The Washington State Department of Corrections (DOC) has operated a prison-based Sex Offender Treatment Program (SOTP) at the Twin Rivers Corrections Center since 1988. The program has undergone a series of changes since its inception. Since 1996, the program has used a combination of treatment techniques including group therapy, psycho-educational classes, behavioral treatment, and family involvement. The length of treatment has decreased from two years in 1996 to approximately one year currently. Since 2000, sex offenders assessed as having a high likelihood to reoffend, based on their criminal history, are prioritized for program entry.²

Offenders selected for the treatment program must meet the following five requirements:

- Sex offense conviction
- Voluntary participation
- Admission of guilt
- One year minimum remaining in prison
- Medium or lower custody classification

This report estimates whether SOTP reduces recidivism by comparing the recidivism rates of sex offenders who were willing but did not participate in SOTP with those who did participate in the program.

A previous Institute report determined there are significant differences between sex offenders who participate in the SOTP and sex offenders not willing

SUMMARY

The Washington State Department of Corrections (DOC) has operated a prison-based Sex Offender Treatment Program (SOTP) at the Twin Rivers Corrections Center since 1988. SOTP uses a combination of treatment techniques including group therapy, psycho-educational classes, behavioral treatment, and family involvement.

The purpose of this study is to estimate whether SOTP reduces recidivism by comparing the recidivism rates of sex offenders willing but not participating in SOTP with those who did participate. The study sample consists of sex offenders released between January 1996 and December 1999 after serving at least one year in prison.

Two methods of analysis are employed: logistic regression for the entire study sample and logistic regression for a risk-factor matched sample. Both methods find the following:

- No statistically significant differences are found between the two study groups for felony and non-sexual violent felony recidivism.
- The SOTP group has a statistically significant higher felony sex recidivism rate than the comparison group. However, the difference in the felony sex recidivism rates between the groups is small—less than two percentage points.

This study finds that SOTP does not reduce the recidivism rates of participants.

to participate.³ Because of these differences, the comparison group for this study includes only those sex offenders who indicated they were willing to participate in the program.

¹ ESHB 2400, Chapter 176, Laws of 2004.

² The SOTP uses three risk for sexual reoffense assessments: MnSOST-R, RRASOR, and Static 99.

³ R. Barnoski (2006). *Sex Offender Sentencing In Washington State: Who Participates in the Prison Treatment Program?* Olympia: Washington State Institute for Public Policy, Document No. 06-06-1204.

Study Groups. SOTP staff indicated that the program changed significantly in 1996, and any evaluation should include only sex offenders who have participated since that year. In addition, measuring sex offender recidivism rates requires a five-year follow-up period for reoffending and an additional one-year period for the adjudication of offenses.⁴

Thus, this outcome study examines sex offenders willing to participate in the STOP who were released between January 1996 and December 1999 after serving at least one year in prison. This group meets the required six-year period to adequately measure recidivism.⁵

Exhibit 1 displays the number of sex offenders in the two study groups and their characteristics: those participating in SOTP and those willing but not participating. The SOTP group has 655 sex offenders; 983 are in the comparison group.

The analyses reveal the following differences between the study groups:

- The SOTP group includes slightly more repeat sex offenders.
- SOTP participants have a higher percentage of sex offenders with a prior conviction for a child sex offense.
- SOTP participants spent a slightly longer time in prison.

Based on these differences, one might expect that the SOTP participants would be at a higher risk for committing another felony than the comparison group.

However, when actuarial risk scores are applied for these two groups, a different picture emerges.⁶ The risk scores are calculated using an actuarially based static risk assessment tool being developed by the Institute for DOC.⁷ The SOTP group exhibits a slightly lower, yet statistically significant, risk for reoffending.

Exhibit 1
Characteristics of Sex Offenders in Study Groups Released From Prison Between 1996 and 1999

Sex Offender Characteristic	Study Groups		Difference
	SOTP	Comparison	
Number of Offenders	655	983	n/a
Average Felony Risk Score	43.5	44.8	-1.3*
Average Violent Felony Risk Score	25.6	26.2	-0.6*
Percentage With Two or More Felony Sex Sentences	14.2%	12.9%	1.3%*
Percentage With Prior Child Sex Conviction	63.8%	50.3%	13.5%*
Average Years in Prison	4.3	3.9	0.4*
Average Age at Release	38.6	39.3	-0.7 ^{ns}
Race/Ethnicity:			
European-American	89.2%	78.8%	10.4%*
African-American	7.9%	13.8%	-5.9%*
Native-American	2.1%	3.4%	-1.3% ^{ns}
Asian-American	0.8%	3.1%	-2.3%*
Hispanic Origin	5.0%	13.1%	-8.1%*

* Statistically significant at the .05 probability level

^{ns} Not a statistically significant difference

n/a: not applicable

Exhibit 2 displays the five-year recidivism data for the study groups. Of the 655 offenders in the SOTP group, 82 recidivated with a felony, 27 with a violent felony other than sex, and 12 with a felony sex offense. These figures represent recidivism rates of 12.5, 4.1, and 1.8 percent respectively. The recidivism rates of the SOTP group are within three percentage points of the rates for those in the comparison group.

⁴ R. Barnoski (2005). *Sex Offender Sentencing in Washington State: Measuring Recidivism*. Olympia: Washington State Institute for Public Policy, Document No. 05-08-1202.

⁵ A 1994 study by the Institute examined sex offenders who completed the program in 1993 and compared them to a similar group who were released during the same time period who did not participate in the program. The follow-up period was three years. The study examined rearrest rates and found that program participants had slightly lower rates for sex crimes (11 percent compared to 12 percent), violent crimes (1 percent compared to 3 percent), and non-violent crimes (5 percent compared to 6 percent). None of the differences were statistically significant, meaning they could have occurred by chance. See L. Song and R. Lieb (1994). *Preliminary Recidivism Rates: The Twin Rivers Sex Offender Treatment Program (Revised)*. Olympia: Washington State Institute for Public Policy, Document No. 04-06-1102.

⁶ The comparison group includes all incarcerated sex offenders who indicated a willingness to participate but did not (willing, applied, declined, and rejected).

⁷ There is no static risk score for felony sexual reoffending because criminal history alone does not adequately predict sexual reoffending. The Institute's criminal history database is used to calculate these scores.

Exhibit 2
Comparison of Study Groups’
Actual Five-Year Recidivism

	Study Groups		
	SOTP	Comparison	Difference
Number of Offenders	655	983	1,638
Number Recidivating Within Five Years			
Felony	82	151	n/a
Violent Felony (Not Sex)	27	50	n/a
Felony Sex	12	6	n/a
Percentage Recidivating Within Five Years			
Felony	12.5%	15.4%	-2.8%
Violent Felony (Not Sex)	4.1%	5.1%	-1.0%
Felony Sex	1.8%	0.6%	+1.2%

n/a: not applicable

Adjusted Recidivism Rates by Key Factors

While it is straightforward to compute the recidivism rates of SOTP participants, the difficult task is estimating what the recidivism rates would have been if, keeping everything else the same, these sex offenders had not participated in the program. The ideal method is to randomly assign a group of sex offenders to either SOTP or a no-treatment comparison group. Under this optimal research design, one can be quite certain that any observed differences in recidivism rates between the treatment and comparison groups is due solely to the effect of the treatment.

However, a random assignment design cannot be used since the task is to retrospectively evaluate SOTP. Therefore, two alternative approaches are used to evaluate the impact of SOTP on recidivism:

- Standard logistic regression, and
- Risk-factor matching in combination with logistic regression.

The SOTP evaluation is a challenge because of the self-selection process for participation in this program. Factors we cannot measure in this study may influence an offender’s decision to participate in the SOTP. As a result, SOTP participants may have recidivism rates different than the comparison group not necessarily due to the effects of the treatment, but due to the factors that resulted in the offender deciding to enter the program.

Method 1: Standard Logistic Regression. This approach uses logistic regression to estimate whether SOTP participation affects recidivism by statistically controlling for systematic differences in offender characteristics between the two study groups. These characteristics include age, gender, ethnicity, prior criminal convictions, and the defendant’s current charges.

Method 2: Risk-Factor Matching. In a second approach, we create a comparison group of sex offenders who did not participate in SOTP but have characteristics matched to the participants. A comparison group is chosen by finding individual sex offenders with risk factors that match specific SOTP participant risk factors. The result is a one-to-one match between a SOTP participant and a non-participant where both offenders have the same risk factors.

Exhibit 3 presents the results of Method 1, the standard logistic regression analyses. The exhibit displays adjusted recidivism rates. These represent the recidivism rates assuming all the offenders have the same risk factors. The statistical adjustments reduce the differences in recidivism rates between the two groups.

There are no statistically significant differences between the two study groups for felony and non-sexual violent felony recidivism. The SOTP group has a higher felony sex recidivism rate that is statistically significant, although the difference is only 0.8 percentage points.

Exhibit 3
Standard Logistic Regression:
Adjusted Five-Year Recidivism Rates

Type of Recidivism	SOTP	Comparison	Difference
Number of Offenders	655	983	1,638
Felony	9.2%	10.4%	-1.2% ^{ns}
Violent Felony (Not Sex)	3.7%	3.8%	-0.1% ^{ns}
Felony Sex	1.3%	0.5%	+0.8%*

* Statistically significant at the .05 probability level

^{ns} Not a statistically significant difference

Exhibit 4 displays the actual five-year recidivism data for the two risk-factor matched groups. Of the 655 SOTP participants, 432 sex offenders were matched with those who indicated a willingness to participate but did not (66 percent). The matching by risk factors means there are no differences between the groups on these variables.

Of the 432 offenders in the SOTP group, 46 recidivated with a felony, 17 with a violent felony other than sex, and 8 with a felony sex offense. These numbers result in recidivism rates of 10.6, 3.9 and 1.9 percent respectively. The +1.6 percent difference in felony sex rates between the SOTP and comparison groups is statistically significant.

Exhibit 4
Risk-Factor Matched Sample
Actual Five-Year Recidivism

	Study Groups		
	SOTP	Comparison	Difference
Number of Offenders	432	432	
Number Recidivating Within Five Years			
Felony	46	49	-3
Violent Felony (Not Sex)	17	14	+3
Felony Sex	8	1	+7
Percentage Recidivating Within Five Years			
Felony	10.6%	11.3%	-0.7% ^{ns}
Violent Felony (Not Sex)	3.9%	3.2%	+0.7% ^{ns}
Felony Sex	1.9%	0.2%	+1.6%*

* Statistically significant at the .05 probability level

^{ns} Not a statistically significant difference

Exhibit 5 displays the adjusted five-year recidivism rates for the risk-factor matched cases using logistic regression as in the standard regression method. Because only one sex offender in the comparison group recidivated with a felony sex offense, it is not possible to calculate an adjusted

felony sex recidivism rate.⁸ As a result, felony sex offenses are included in the violent felony rate.

There are no statistically significant differences between the two study groups for felony and violent felony recidivism.

Exhibit 5
Logistic Regression Results
Adjusted Five-Year Recidivism Rates

Type of Recidivism	SOTP	Comparison	Difference
Felony	6.2%	6.7%	-0.4% ^{ns}
Violent Felony	4.4%	2.6%	+1.8% ^{ns}
Felony Sex	n/a	n/a	n/a

^{ns} Not a statistically significant difference

n/a: A recidivism rate cannot be estimated because only one sex offender in the comparison group recidivated with a felony sex offense.

Findings

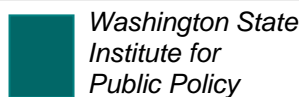
The purpose of this study is to estimate whether SOTP reduces recidivism by comparing the recidivism rates of sex offenders willing but not participating in SOTP with those who participated. Two methods of analysis are employed: logistic regression for the entire study sample and logistic regression for a risk-factor matched sample. Both methods find the following:

- There are no statistically significant differences between the two study groups for felony and non-sexual violent felony recidivism.
- The SOTP group has a higher felony sex recidivism rate than the comparison group that is statistically significant. However the difference in the felony sex recidivism rates between the groups is small—less than two percentage points.

⁸ Five comparison group sex offenders who recidivated with a felony sex offense were not matched to the SOTP group.

For further information, contact Robert Barnoski at (360) 586-2744 or barney@wsipp.wa.gov

Document No. 06-06-1205



The Washington State Legislature created the Washington State Institute for Public Policy in 1983. A Board of Directors—representing the legislature, the governor, and public universities—governs the Institute and guides the development of all activities. The Institute's mission is to carry out practical research, at legislative direction, on issues of importance to Washington State.