January 2010

WASHINGTON'S OFFENDER ACCOUNTABILITY ACT:
FINAL REPORT ON RECIDIVISM OUTCOMES

In 1999, the Washington State Legislature passed the Offender Accountability Act (OAA), which affects how the state provides community supervision to adult felony offenders.[1] One purpose of the OAA is "to reduce the risk of reoffending by offenders in the community." The OAA directs the Department of Corrections (DOC) to:

- ✓ Classify felony offenders according to their risk for future offending as well as the amount of harm they have caused society in the past; and

- ✓ Deploy more staff and rehabilitative resources to higher-classified offenders. Because budgets are limited, this shift usually means that fewer resources will be spent on lower-classified offenders.

As part of the 1999 law, the Washington State Institute for Public Policy (Institute) was directed to determine whether the OAA results in lower recidivism rates. This report presents our final recidivism findings. As we note later in this report, however, because DOC has recently changed its classification system, we recommend a future outcome evaluation be undertaken to assess the impact of this administrative change on recidivism.

Suggested citation: E.K. Drake, S. Aos, & R. Barnoski (2010). *Washington's Offender Accountability Act: Final report on recidivism outcomes.* Olympia: Washington State Institute for Public Policy, Document No. 10-01-1201.

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[1] E2SSB 5421, Chapter 196, Laws of 1999.

Summary

The 1999 Offender Accountability Act (OAA) affects how the Department of Corrections (DOC) supervises adult felony offenders in the community. The OAA directs DOC to perform a formal assessment of each offender's risk for recidivism and then to allocate agency resources accordingly.

The law also requires the Washington State Institute for Public Policy to evaluate the OAA and to provide results by 2010. This report presents our findings on whether the OAA has had an effect on recidivism.

We begin by examining trends in recidivism for all offenders under the jurisdiction of DOC. We find that recidivism rates are higher today than 20 years ago. Since the OAA became fully effective in 2002, however, recidivism rates have either stabilized or decreased.

Question: Has the OAA had a *causal* influence on the recent improvements in recidivism?

To answer this question, we use Washington's extensive criminal history data and DOC's risk assessment scores to "simulate" the probability of recidivism for each offender during the OAA period. We then compare actual and simulated recidivism rates to test the OAA's causal influence.

Answer: Our research yields two key findings.

- ✓ The general rise in recidivism over the last 20 years is largely explained by the increased underlying risk of DOC's offender population. That is—on average—offenders today have a greater risk for recidivism than historically.

- ✓ Since the OAA was implemented, however, something favorable has happened to cause recidivism rates to be lower than expected. Unfortunately, our statistical analysis does not allow us to identify whether this beneficial change can be attributed specifically to the OAA or other policies, or other unknown factors that occurred during the same time period. Regardless, the good news from our evaluation is that, after at least a decade of increasing recidivism, Washington is now beginning to observe improvements in adult felony recidivism.

Background

Under Washington's sentencing laws, a person convicted in superior court receives a sentence. Some sentences result in confinement in prison, while less serious offenses result in county jail or community supervision. Washington's laws also indicate which offenders are supervised in the community as part of their sentence. The length of community supervision is dependent upon the offense of conviction. In addition to offenders sentenced to prison, DOC must also supervise felony offenders convicted in superior court and sentenced directly to community supervision.[2, 3]

Exhibit 1 shows the number of offenders in the pre-OAA and OAA time periods by the type of sentence they received (community or prison). The exhibit displays annual cohorts of offenders from the time they were first "at-risk" in the community. For prison offenders, the at-risk year is the date the offender was released from prison. For community offenders, the at-risk year is the date the offender was sentenced directly to community supervision. Descriptive statistics for the two groups are provided in Exhibit B of the Appendix.[4]

A "risk assessment" is used by DOC to determine the classification level for supervision in the community. Two classification systems have been employed by DOC since the implementation of the OAA. From 2001 to 2008, DOC used the "Risk Management Identification" (RMI) system to assess and assign offenders to four risk levels. The highest level of risk was the RMA category and the lowest level of risk was the RMD category. The Institute described the RMI system in detail in an earlier report.[5]

Exhibit 1
Pre-OAA and OAA Study Cohorts by Sentence Type and At-Risk Date

Cohort	Fiscal Year At-Risk	Sentence Type		
		Community	Prison	Total
Pre-OAA	1991	9,714	1,663	11,377
	1992	13,888	2,457	16,345
	1993	14,709	2,809	17,518
	1994	14,487	3,077	17,564
	1995	15,628	3,164	18,792
	1996	16,686	3,333	20,019
	1997	16,221	3,664	19,885
	1998	17,981	3,688	21,669
	1999	17,589	4,149	21,738
	2000	18,860	4,512	23,372
	2001	19,007	4,650	23,657
	Total	**174,770**	**37,166**	**211,936**
OAA	2002	20,363	4,905	25,268
	2003	20,433	5,175	25,608
	2004	15,329	5,862	21,191
	2005	6,325	3,294	9,619
	Total	**62,450**	**19,236**	**81,686**

In August 2008, DOC implemented a new "Risk Level Classification" (RLC) system (see Exhibit A of the Appendix). The findings we describe in this report assess the impact of the previous RMI classification system. It is too early to conduct an outcome evaluation of DOC's new classification system and its impacts on recidivism.[6] We recommend that a future outcome evaluation be undertaken to assess the impact of DOC's new classification system on recidivism.

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[2] RCW 9.94A.701 & 702

[3] RCW 9.94A.501

[4] While there are many statistically significant differences between the pre-OAA and OAA groups, many are not considered of "practical significance" due to the large sample sizes. See S. Ziliak & D. McCloskey (2004). Size matters: The standard error of regression in the American Economic Review. *The Journal of Socio-Economics, 33*, 527–546. In all analyses in this study, we controlled for these differences using multivariate regression.

[5] S. Aos & R. Barnoski (2005). *Washington's Offender Accountability Act: A first look at outcomes.* Olympia: Washington State Institute for Public Policy, Document No. 05-07-1202.

[6] The RLC system was not implemented by DOC until 2008 and, therefore, the new system has not yet been evaluated for recidivism outcomes. However, since the static risk assessment is based on criminal history and demographics, we have the ability to calculate an offender's risk scores at any point in time using the Institute's criminal history database, which were used in the analysis of this report.

In addition to the modifications to DOC's classification system, the legislature has also enacted several changes to Washington's criminal justice statutes since passage of the OAA. These new laws affect who is sentenced to community supervision and the duration of the sentence.[7] The legislature also increased funding for evidence-based programs designed to reduce recidivism. **Exhibit 2** highlights these major changes along with trends in the community supervision population.

The primary question addressed in this report is whether the OAA has had an effect on recidivism rates. In a typical program evaluation, one group receives a specific treatment while a comparison group does not. The OAA, however, was geared toward an entire system and, as shown on Exhibit 2, other changes were taking place at the same time. Statistically, this makes it difficult to evaluate the unique effect of the OAA.[8]

In the next section, we describe the empirical approach we developed to address as many of these issues as possible.

Exhibit 2
Community Supervision Caseloads in Washington State:
Major Historical Legislation and Policy Changes, 1999 to 2009
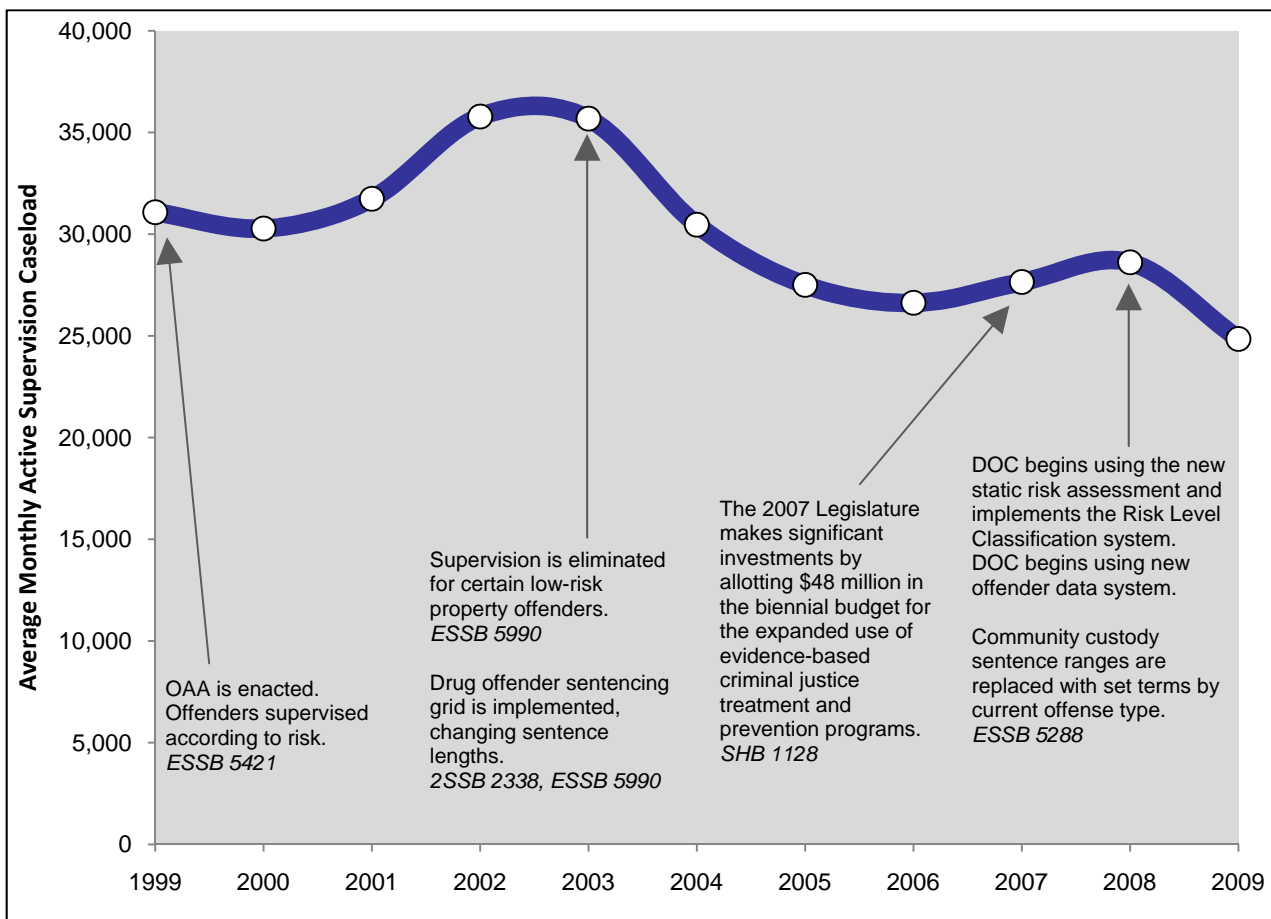
Community supervision population source: Caseload Forecast Council
WSIPP, 2010

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[7] In 2008, the Legislature passed SHB 2719 (Chapter 231), which reorganized community supervision statutes because duplication over the years had made the statutes difficult to understand. Additionally, the bill also applied OAA retroactively for offenders committing crimes prior to implementation of the OAA on July 1, 2000.

[8] In our multivariate analysis, we include linear time trends which indicate, after controlling for all other factors in our models, a significant downward shift in recidivism rates over time, especially among offenders sentenced to prison (see Exhibit C of the Appendix). Although we control for these unexplained time trends in recidivism in our multivariate findings, their existence complicates clear causal interpretation from longitudinal research designs.

Long-Term Trends in Recidivism

We begin by examining trends in long-term recidivism for all offenders under the jurisdiction of DOC. We calculated recidivism rates for yearly "cohorts" of offenders from 1991 through 2005. A cohort includes all offenders in a given year who were either released from prison or sentenced directly to community supervision. 2005 is the latest year for which a cohort's 36-month recidivism can be calculated.

Recidivism is defined as any felony offense committed by an offender within 36-months of being at-risk in the community which results in a Washington State conviction.[9, 10]
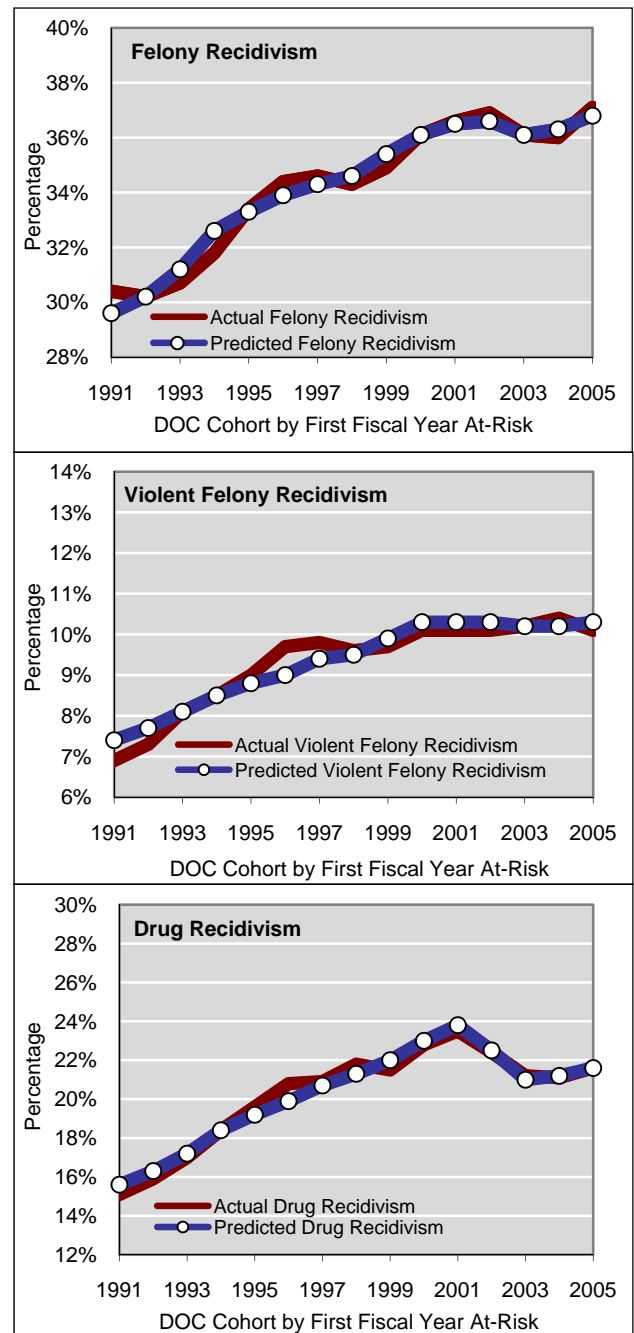
Three types of recidivism are analyzed:

- Any felony conviction,
- Violent felony convictions only, and
- Any drug conviction.[11]

Exhibit 3 displays the long-term recidivism rates for the three types of recidivism for the 1991 to 2005 cohorts. Two lines are shown on each chart: actual recidivism and "predicted" recidivism.[12]

Actual Recidivism Rates. The solid lines on Exhibit 3 display actual 36-month recidivism rates for each cohort from 1991 to 2005. All three measures of recidivism have shown increases in the last 15 years. For example, the 1991 cohort of offenders had about a 30 percent felony recidivism rate after 36-months in the community. The 2005 cohort, on the other hand, had a 37 percent recidivism rate. Similar upward trends are observed for violent and drug recidivism.

Predicted Recidivism Rates. We also plot three other lines on Exhibit 3. These lines show predicted recidivism rates. During the course of the Institute's annual OAA analyses, we

Exhibit 3
36-Month Actual and <u>Predicted</u> Recidivism (N=293,622)

WSIPP, 2010

developed a risk assessment tool, which uses extensive adult and juvenile criminal history data to predict each offender's probability of recidivism. The result was the *static* risk assessment implemented by DOC in 2008.[13]

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[9] R. Barnoski (1997). *Standards for improving research effectiveness in adult and juvenile justice.* Olympia: Washington State Institute for Public Policy, Document No. 97-12-1201, pg. 2.
[10] This analysis uses the Institute's criminal history database, which was developed to conduct criminal justice research for the Washington State legislature. The database is a synthesis of criminal charge information using data from the Administrative Office of the Courts and DOC.
[11] Drug recidivism includes any felony or misdemeanor drug offense in the follow-up period, regardless of whether or not the offender had another more serious offense, such as a violent felony.
[12] Predicted recidivism rates are calculated using the coefficients from our logistic regression analyses with each type of recidivism as a dependent variable. Full regression results are shown in Exhibit D of the Appendix.

[13] R. Barnoski & E.K. Drake (2007). *Washington's Offender Accountability Act: Department of Corrections' static risk instrument.* Olympia: Washington State Institute for Public Policy, Document No. 07-03-1201. Risk factors that cannot decrease, such as criminal history, are termed *static*.

Using the information from the static risk assessment, we calculated predicted 36-month recidivism rates for each cohort of offenders. As seen on Exhibit 3, the static risk assessment predicts actual statewide recidivism quite accurately.[14] A key finding from this analysis emerges:

> *The general rise in recidivism over the last 20 years is largely explained by the increasing underlying risk of the offender population. That is, on average, offenders sentenced to DOC today have a greater risk for recidivism than historically.*
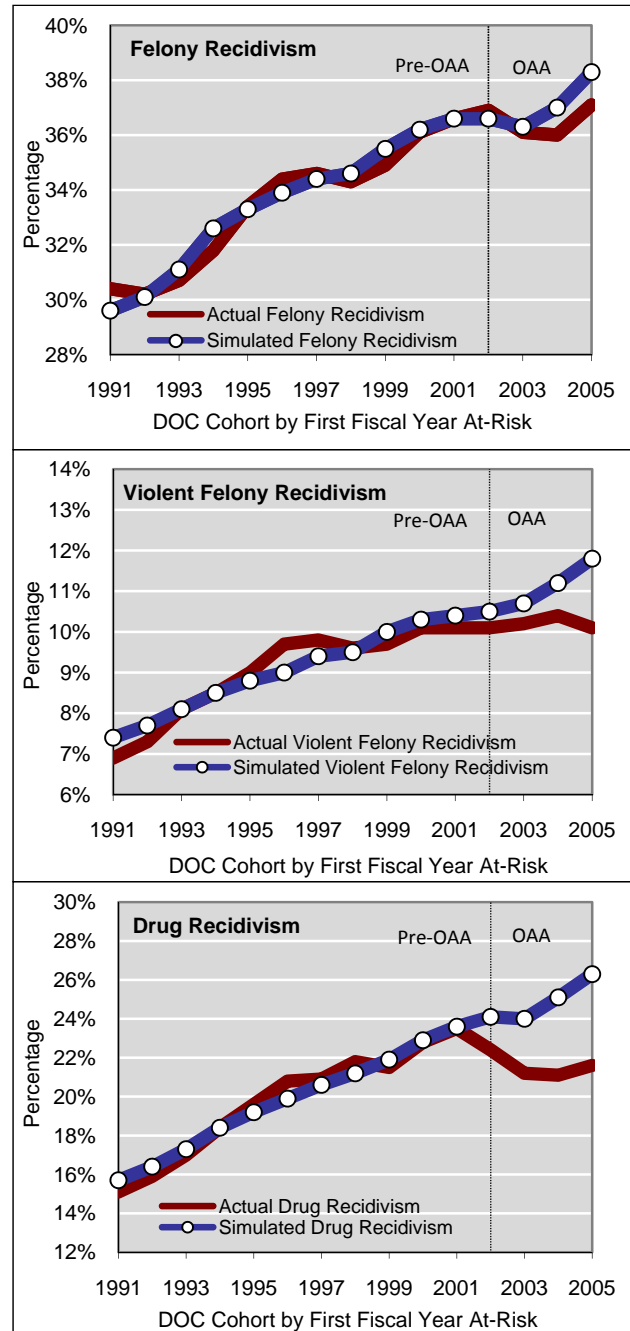
Did the OAA Affect Recidivism?

The best way to answer this central question would be to conduct a true experiment comparing the recidivism outcomes of two groups of offenders: those randomly assigned to supervision under the OAA and those not supervised under the OAA. Since the OAA was simultaneously implemented statewide, however, random assignment was not possible.

Fortunately, however, we were able to use the predictive power of the static risk assessment to perform a reasonably rigorous statistical evaluation of the OAA. We used the tool to "simulate" what would have happened to recidivism rates in Washington had there not been policy or other changes during the 2002–2005 OAA time period.

The results of our analysis are plotted on **Exhibit 4,** where we show actual and simulated recidivism rates as well as vertical lines to denote the implementation date of the OAA. The Exhibit reveals the central finding from our study:

> *Actual recidivism rates are lower today than they would have been without the policy (and other) changes since 2002. The effects are statistically significant. For example, the actual 36-month violent felony recidivism rate for the 2005 cohort was 10 percent, while we estimate it would have otherwise been 12 percent—a 17 percent improvement.*

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[14] It is important not to confuse statewide (aggregate-level) accuracy and individual-level accuracy. The assessment's ability to accurately predict an individual's probability of recidivism is much less precise than the aggregate picture shown on Exhibit 3. See Barnoski & Drake, 2007.

Exhibit 4
36-Month Actual and <u>Simulated</u> Recidivism
(N=293,622)

WSIPP, 2010

Because of the multiple law and policy changes since 2002, as well as other factors, it is difficult to isolate the unique contribution of the OAA. Regardless, the good news from our evaluation is that, after at least a decade of increasing recidivism, Washington is now beginning to experience improvements in adult felony recidivism rates.

In any statistical analysis there is, of course, uncertainty. This uncertainty applies particularly to evaluations of criminal justice programs designed to change supervision levels, such as the OAA. Because some offenders are supervised more intensely, there may be an increased probability of detecting new crime. Likewise, there may be a decreased probability that new crimes will be detected when offenders are supervised less. This phenomenon is often called a *surveillance effect*.

Unfortunately, when evaluating a program such as the OAA, it is not possible to measure the surveillance effect. For example, a lower recidivism rate could either be measuring that a program "works"—that is, that it causes less crime—or that the reduced level of surveillance did not observe crimes that were otherwise occurring. The first effect would lead to a conclusion that the supervision program works; the second would lead to the conclusion that the program does not work to bring offenders to justice.

To explore this, we analyzed the actual and simulated recidivism rates of OAA offenders by their RMI classification levels. The results are shown in Exhibit E of the Appendix. The results are ambiguous: that is, the findings could be used to provide support for or against a surveillance effect. Because of these mixed results, we are unable to conclude that the favorable statewide effect we observe on recidivism in Washington since 2002 is due to the unique effect of the OAA. It could be the result of other factors, possibly including the OAA, that are causing better-than-expected recidivism rates since 2002.[15]

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[15] See for example: E.K. Drake, R. Barnoski, and S. Aos (2009). *Increased earned release from prison: Impacts of a 2003 law on recidivism and crime costs, revised.* Olympia: Washington State Institute for Public Policy, Document No. 09-04-1201.

Appendix

DOC's New Risk Level Classification (RLC) System to Implement the Principles of the OAA

Since implementation of the OAA in 1999, DOC has undertaken many changes that affect how the OAA is delivered today.

In 2003, the Institute analyzed the validity of the Level of Service Inventory-Revised (LSI-R) as part of its annual report on the OAA.[a] The LSI-R was the original assessment tool used by DOC to implement key parts of the OAA. The Institute determined that the predictive accuracy of the LSI-R could be strengthened by including more "static risk" information about an offender's prior record of convictions. Subsequently, DOC asked the Institute to develop a new risk assessment, the "static risk assessment," which is based on adult and juvenile criminal history and offender demographics. DOC made this decision because the Institute found that the static risk assessment has the following advantages:[b]

- Increased predictive accuracy;

- Prediction of three types of high-risk offenders—drug, property, and violent;

- Increased objectivity;

- Decreased time to complete the assessment; and

- Accurate recording of criminal history for use with other DOC reporting requirements.

DOC began using the static risk assessment in August 2008, and it has been incorporated into the "Risk Level Classification" in lieu of the LSI-R and harm done criteria in the RMI. In addition to the static risk assessment, a separate offender needs assessment was developed by DOC with the assistance of the Institute to capture dynamic factors.

DOC's new Risk Level Classifications now include the following categories:

- High violent

- High non-violent

- Moderate

- Low

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[a] R. Barnoski & S. Aos (2003). *Washington's Offender Accountability Act: An analysis of the Department of Corrections' risk assessment.* Olympia: Washington State Institute for Public Policy, Document No. 03-12-1202.
[b] R. Barnoski & E. K. Drake (2007). *Washington's Offender Accountability Act: Department of Corrections' static risk instrument.* Olympia: Washington State Institute for Public Policy, Document No. 07-03-1201.

Characteristics of Pre-OAA Versus OAA Study Groups

	Prison				Community			
	Pre-OAA	OAA	p value	Percentage Difference	Pre-OAA	OAA	p value	Percentage Difference
Number in Study Group	37,166	19,23			174,768	62,450		
Means								
Age at-risk	32	34	0.000	5%	30	32	0.000	5%
Felony risk probability [a]	0.419	0.510	0.000	18%	0.309	0.339	0.000	9%
Non-drug risk probability [a]	0.281	0.338	0.000	17%	0.201	0.211	0.000	5%
Violent risk probability [a]	0.116	0.154	0.000	25%	0.079	0.091	0.000	12%
Percentages								
Male	88.1%	86.4%	0.000	-2%	78.3%	76.7%	0.000	-2%
Black	26.1%	21.4%	0.000	-22%	16.2%	14.4%	0.000	-12%
White	67.6%	71.8%	0.000	6%	77.0%	78.4%	0.000	2%
Asian	1.4%	1.7%	0.020	15%	2.4%	2.9%	0.000	19%
Native	4.0%	4.3%	0.034	9%	3.0%	3.1%	0.153	4%
Hispanic	7.5%	6.6%	0.000	-13%	8.1%	7.0%	0.000	-16%

[a] The three risk scores in the equations above are calculated using DOC's static risk assessment. For more information, see: R. Barnoski & E. Drake (2007). *Washington's Offender Accountability Act: Department of Corrections' static risk instrument.* Olympia: Washington State Institute for Public Policy, Document No. 07-03-1201. We adjusted the risk scores to reflect new weights that do not include the violations component of the static risk assessment. This was done because we observed that recorded violations fell significantly after the OAA went into effect, which is probably not due to a sudden change in offender behavior, but due to DOC data entry and practice.

Exhibit C
Year Coefficients From Felony Recidivism Logistic Regression Model
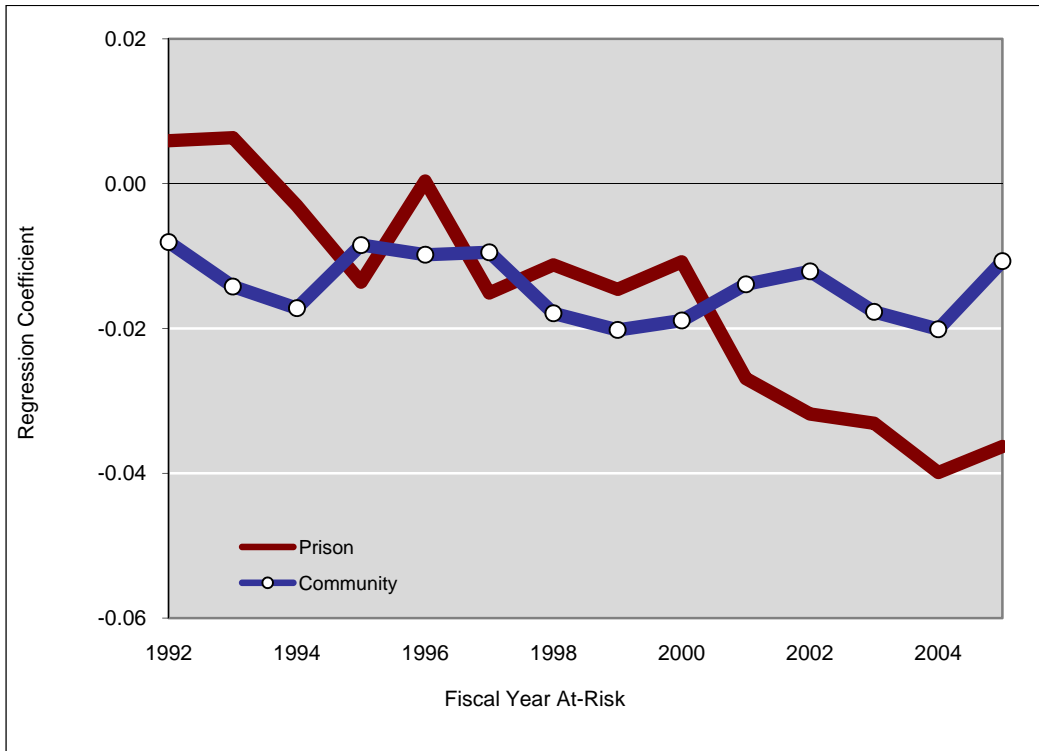
WSIPP, 2010

Exhibit D
Logistic Regression Results Used to Calculate Predicted and Simulated Recidivism Estimates

Variable	Felony Recidivism		Violent Felony Recidivism		Drug Recidivism	
	Coefficient	p value	Coefficient	p value	Coefficient	p value
Intercept	-1.752	0.0001	-3.2031	0.0001	-2.2516	0.0001
OAA–period linear time trend	-0.0119	0.0295	-0.0373	0.0001	-0.0855	0.0001
Age at-risk	-0.0137	0.0001	-0.0275	0.0001	-0.0147	0.0001
Male	0.0946	0.0001	0.9159	0.0001	0.0622	0.0001
Black	0.4313	0.0001	0.6012	0.0001	0.3738	0.0001
Asian	-0.1876	0.0001	0.0476	0.2867	-0.3552	0.0001
Native American	0.2612	0.0001	0.4566	0.0001	0.0602	0.0284
Hispanic	0.0623	0.0001	0.1121	0.0001	0.1155	0.0001
Felony risk probability [a]	4.3077	0.0001	0.3456	0.0001	6.0818	0.0001
Violent risk probability [a]	-0.2337	0.0008	3.789	0.0001	-0.8938	0.0001
Non-drug risk probability [a]	-0.4202	0.0001	0.4353	0.0001	-4.4345	0.0001
Linear time trend	-0.00656	0.0001	0.0156	0.0001	0.0177	0.0001
Prison sentence	-0.0063	0.5726	0.0239	0.1446	-0.0874	0.0001
AUC	0.735		0.733		0.722	
Number	293,608		293,608		293,608	

[a] The three risk scores in the equations above are calculated using DOC's static risk assessment. For more information, see: R. Barnoski & E. Drake (2007). *Washington's Offender Accountability Act: Department of Corrections' static risk instrument.* Olympia: Washington State Institute for Public Policy, Document No. 07-03-1201. For purposes of this analysis, we adjusted the risk scores to reflect new weights that do not include the violations component of the static risk assessment. This was done because we observed that recorded violations fell significantly after the OAA went into effect, which is probably not due to a sudden change in offender behavior; rather, due to DOC data entry and practice. We also tested other models, including a quadratic OAA linear time trend, and the results were virtually identical.

Exhibit E
36-Month Actual Recidivism Rates of OAA Offenders Compared With Simulated Recidivism By DOC's Previous Risk Management Identification (RMI) and Sentence Type (Prison or Community)
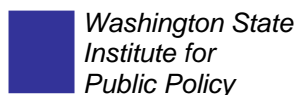
	Felony Recidivism				Violent Felony Recidivism				Drug Recidivism			
	Prison		Community		Prison		Community		Prison		Community	
	Simulated	Actual	Simulated	Actual	Simulated	Actual	Simulated	Actual	Simulated	Actual	Simulated	Actual
Total	48%	45%	33%	34%	15%	13%	10%	9%	30%	25%	23%	21%
RMA	46%	48%	37%	42%	20%	20%	14%	20%	25%	21%	23%	19%
RMB	52%	52%	39%	45%	16%	14%	12%	14%	32%	31%	27%	27%
RMC	49%	43%	37%	41%	12%	9%	9%	9%	33%	26%	26%	27%
RMD	42%	34%	28%	23%	11%	7%	8%	5%	29%	24%	20%	16%

The Institute's OAA reports are available at: http://www.wsipp.wa.gov.

- E.K. Drake & R. Barnoski (2009) *New risk instrument for offenders improves classification decisions.* Olympia: Washington State Institute for Public Policy, Document No. 09-03-1201.

- R. Barnoski & E.K. Drake (2007). *Washington's Offender Accountability Act: Department of Corrections' static risk instrument.* Olympia: Washington State Institute for Public Policy, Document No. 07-03-1201.

- S. Aos, M. Miller & E.K. Drake (2006). *Evidence-based public policy options to reduce future prison construction, criminal justice costs, and crime rates.* Olympia: Washington State Institute for Public Policy, Document No. 06-10-1201.

- S. Aos (2005). *Washington's Offender Accountability Act: A first look at outcomes.* Olympia: Washington State Institute for Public Policy, Document No. 05-07-1202.

- R. Barnoski & S. Aos (2003). *Washington's Offender Accountability Act: An analysis of the Department of Corrections' risk assessment.* Olympia: Washington State Institute for Public Policy, Document No. 03-12-1202.

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