



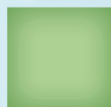
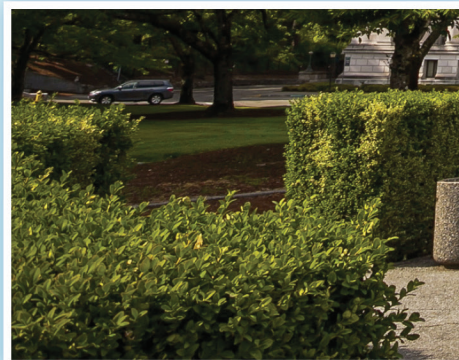
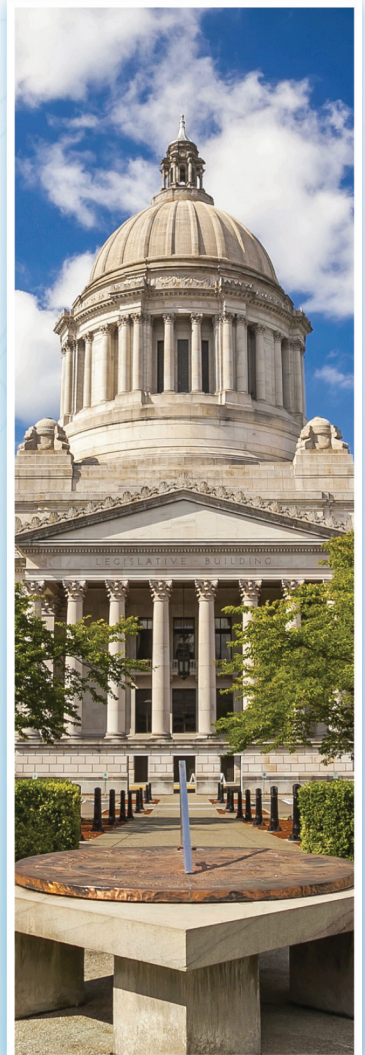
WASHINGTON STATE

Statistical Analysis Center

Informing a data-driven justice system

Breaches of Conduct Effects of Violations on Post-Release Outcomes

Matthew S. Landon, M.S.



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Disclaimer

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Breaches of Conduct

Effects of Violations on Post-Release Outcomes

Executive Summary

Study

As a continuation on the Washington Statistical Analysis Center's prior research, this study examines the effects of violations on post-release outcomes, and their relationship to other known variables. The goals of this study are twofold. First, it is important to determine which characteristics are more closely associated with the likelihood of obtaining a violation while in Department of Corrections (DOC) custody. Second, those who have violations will be compared against those without for differences in recidivism and economic outcomes. These analyses will not provide causal links, but instead will establish the included variables as indicators of likely post-release outcomes.

The study utilized data from DOC, the Education and Research Data Center and Unemployment Insurance database. DOC data served as the primary data source for offenders included in the study. Records prior to 2000 and offenders released later than 2010 were not considered in order to allow for a 5-year period post-release. Only adult offenders were included in the study. The Education and Research Data Center (ERDC) data added a few exploratory variables to the study for the purposes of including an educational background in some measures. Wage data provided hours and wages from 2000 through 2015 to allow for a 5-year post-release period mirrored in the DOC data.

Results and conclusions

Older offenders and female offenders were slightly less likely to have at least one violation, while non-whites and those with a prior GED were much more likely to have one. Apprenticeships and higher education degrees were not prevalent enough to create statistically significant effects. All post-release outcomes had statistically significant differences, with the greatest effect sizes found in recidivism. Those with violations during their time with DOC recidivated at a rate of 27.63 percent compared to 18.55 percent for non-violators. When recidivating, their average time between release and return was shorter by an average of 242.5 days. Employment and wage differences remained statistically significant but less pronounced between violators and non-violators, with violators earning an average \$13.43 per hour against non-violators' \$15.32.

Without fully accounting for moderating variables or the use of a matching method, the differences in average outcomes between violators and non-violators are primarily useful as a predictive measure. Due to the lack of causality, these findings do not back any suggestion to increase or decrease violations. Instead, they recommend increased caution upon reentry for any individual with violations during their time in DOC custody, as inclusion as a violator is associated with increased odds of recidivism and decreased average employment and wages. In combination with the SAC's prior studies, these findings aid in rounding out a full picture of the elements present in DOC custody and their association with post-release outcomes for offender.

Breaches of Conduct

Effects of Violations on Post-Release Outcomes

Introduction

Background

For the prior two years, the Statistical Analysis Center has completed studies aimed at detailing the outcomes for property offenders leaving Department of Corrections (DOC) custody. In the first of these two reports, a number of variables predicted improved legal and economic outcomes, including gender, age and aspects of an offender's time under DOC supervision. Variables such as the length of time spent in custody or the amount of that time spent in the field had some of the most visible connections to economic outcomes and recidivism. While time spent in the field was associated with reduced returns to DOC and increased wages following release, these earlier studies did not consider the influence of violations during time in the field.

Violations, or breaches of conduct during an inmate's time in DOC custody, generally result in a revocation of privileges and potentially a return to a prison facility from field supervision. Beyond moving an offender to a different physical location, they may also interrupt rehabilitative programming or other stabilizing factors during an offender's time in the field. Violations may also serve as an indicator of an individual's general likelihood to have improved outcomes upon release, both in terms of recidivism and employment. Just as earlier studies have established probabilities for post-release outcomes based on aspects of prison time, it may be possible to establish predictive values around the presence or absence of violations during time spent in DOC custody.

Present study

This study is the third in a series first started in response to the Council of State Government's work to identify specific criminal justice issues in the state of Washington. In response, the SAC has sought to create baselines of post-release outcomes and measure the associations with other variables for use as a comparison following future research or policy changes.

As a continuation on the SAC's prior research, this study examines the effects of violations on post-release outcomes, and their relationship to other known variables. The goals of this study are twofold. First, it is important to determine which characteristics are more closely associated with the likelihood of obtaining a violation while in DOC custody. Second, those who have violations will be compared against those without for differences in recidivism and economic outcomes. These analyses will not provide causal links, but instead will establish the included variables as indicators of likely post-release outcomes.

Methodology

Data

This study focused on the traits and outcomes of offenders leaving DOC custody, and utilized data from DOC, the state's Education Research and Data Center (ERDC), and Unemployment Insurance (UI) database. DOC data served as the primary data source for offenders included in

the study. Records prior to 2000 and offenders released later than 2010 were not considered in order to allow for a 5-year period post-release. Only adult offenders were included in the study.

Records from the ERDC and UI wage data were linked to DOC data through a pre-existing identification process. The ERDC data added a few exploratory variables to the study for the purposes of including an educational background in some measures. Wage data provided hours and wages from 2000 through 2015 to allow for a 5-year post-release period mirrored in the DOC data. No decisions on inclusion or exclusion from this study were based on the ERDC or UI data.

Variables

Demographic variables in this study include the race, gender and age identified for each offender. For the purposes of this study, race was coded into white and non-white to allow for higher statistical power. The offender's age at release was used rather than their age at entry in order to control against the length of their sentence. Offenses were coded by relative seriousness, with only the top offense listed in each case. For example, an individual with both property and murder offenses would be listed under murder, while property and unknown would be listed as property. Violations were also drawn from DOC data, and while many offenders had multiple violations (n=27,222) the variable was coded for the presence or absence of these instances with no weight given to the frequency.

Recidivism was defined as a return to DOC custody within five years. All offenders in the study period were released by the end of 2010 at the latest, but new entries into DOC custody were tracked until the end of 2015. While some offenders in the sample did return to DOC custody multiple times throughout the study period (n=15,596), the variable for recidivism was coded based on the first instance. The amount of time prior to recidivism was calculated as the number of days between an offender's release in the study period and their first reappearance in the DOC database for a new offense.

Wages were calculated by averaging an offender's earnings across all jobs and all hours post-release. This operates as a simplified measure for assessing the overall level of income an offender might expect post-release, while sacrificing some accuracy on wage increases over time and information on the number of hours and jobs worked. The variable for employment was included as a binary measure of whether or not an offender had wages in the UI database for their post-release period. Due to the use of this specific data source, this study would not capture wages for any offenders who are self-employed or who are making money without an employer. For that reason it is likely that the employment rate in this study is underreported.

Sample

Table 1 shows the demographic characteristics and offense categories for the offenders included in the study. As is common throughout the criminal justice literature, non-whites and males have higher representation in DOC custody than they do in the statewide population. Similarly, the sample is tipped towards younger offenders. Property crimes are the most common offense recorded in the sample, followed by drug crimes and assaults. Over a quarter of crimes are classified as "other" or "unknown," while murder, manslaughter, robbery and sex crimes have much lower numbers. This balance is a combination of the relative rarity of more serious felonies as compared to other offenses, as well as the reduced likelihood that offenders convicted of these violent offenses would have been released prior to the cutoff of the sampling frame.

Table 1: Demographic Variables of Offenders

Variable	Frequency	Percent
Race		
White	237,396	77.88%
Non-white	67,417	22.12%
Gender		
Female	63,386	20.80%
Male	241,427	79.20%
Age at Release		
18-25	56,137	18.42%
25-35	99,214	32.56%
35-45	82,670	27.13%
45-55	49,966	16.40%
55+	16,724	5.49%
Offense Type		
Assault	49,367	16.20%
Drug	63,851	20.95%
Manslaughter	1,715	0.56%
Murder	2,736	0.90%
Other	44,897	14.73%
Property	74,602	24.47%
Robbery	12,081	3.96%
Sex	18,470	6.06%
Unknown	37,094	12.17%
Violation		
Non-Violator	256,644	84.20%
Violator	48,169	15.80%

Variables pertaining to education and post-release outcomes are detailed in Table 2. Variables from the ERDC had exceptionally low prevalence in the dataset, with less than 3 percent of the sample having obtained a GED and even fewer holding an apprenticeship or obtaining a higher education degree. These data do not account for high school diplomas, which may significantly increase the apparent rates of education.

The recidivism rate displayed in Table 2 is just under 20 percent, a total that may appear notably low in comparison to other studies. This is a reflection of recidivism being defined by a return to DOC custody, which is a more restrictive definition than re-arrest or reconviction. Just over 50 percent of the offenders in the sample had some amount of employment after the study period, with an average hourly wage of just over \$15. The standard deviation for both the wage variable and the amount of days prior to recidivism indicate distributions that are skewed to the right, meaning that many offenders are near or below these averages while others raise the average with higher wages or much longer periods of time between offenses.

Table 2: Education and Outcome Variables

Variable	Frequency	Percent	Average	Standard Deviation
Pre-Entry				
Prior Apprenticeship	322	0.11%	-	-
Prior GED	8,172	2.68%	-	-
Prior Higher Ed	1,424	0.47%	-	-
Post-Release				
Recidivism	60,920	19.99%	-	-
Time to Recidivism (Days)	-	-	1,009.24	977
Employment	159,753	52.41%	-	-
Wage per Hour	-	-	\$15.03	\$9.59

Results

Understanding the role of violations as an influence on offender outcomes also requires an exploration of what groups are likely to be violators to begin with. Table 3 shows the results of a multiple logistic regression, with demographic and educational variables tested for their probability of belonging to a violator. Older offenders and female offenders are shown to be slightly less likely to have at least one violation, while non-whites and those with a prior GED are much more likely to have one. While the association between an education variable and worse outcomes in custody may seem surprising, it is likely that those with GEDs did not obtain a high school diploma by graduation. The marked increase in the probability of violations among non-whites is not as easy to explain and is notable for its effect size.

Table 3: Logistic Regression for Violations

Parameter	Degrees of Freedom	Estimate	Standard Error	Wald Chi Square	Pr > ChiSq
Intercept	1	-1.5328	0.0183	7042.9612	<.0001
Age at Release	1	-0.00622	0.00047	174.8662	<.0001
Female	1	-0.0929	0.0125	55.0937	<.0001
Non-white	1	0.3102	0.0114	741.1388	<.0001
Prior Apprenticeship	1	0.2153	0.1437	2.245	0.134
Prior GED	1	0.825	0.0251	1079.2105	<.0001
Prior Higher Ed	1	-0.036	0.0719	0.2508	0.6165

Table 4 shows the differences in post-release outcome averages obtained through independent t-tests between violators and non-violators. All post-release outcomes had statistically significant differences, with the greatest effect sizes found in recidivism. Those with violations during their

time with DOC recidivated at a rate of 27.63 percent compared to 18.55 percent for non-violators. When recidivating, their average time between release and return was shorter by an average of 242.5 days. While these effects cannot be interpreted as causal, the only major confounding factor identified by the regression in Table 3 was the overrepresentation of non-whites. While prior studies have identified worse post-release outcomes for non-whites, it is likely that some portion of these differences can be explained by inclusion in the violator group.

Employment and wage differences remained statistically significant but less pronounced between violators and non-violators, with violators earning an average \$13.43 per hour against non-violators' \$15.32. While all offenders may face more difficulty in obtaining employment, violations during their sentence are unlikely to create as much of an impediment as the presence of a felony. Accounting for the greater inclusion of younger offenders, males and non-whites among violators, it is possible that employment and wage effects could be explained away. For that reason, these effects should not be interpreted as causal but rather as confirmation that the presence of violations may serve as an indicator of the decreased probability of positive post-release outcomes.

Table 4: Outcome Variables for Violators

Variable	Difference in Means	t value	Pr > t
Recidivism	+9.07%	45.85	<.0001
Time to Recidivism	-242.5 Days	25.40	<.0001
Employment	-1.22%	4.91	<.0001
Wage per Hour	-\$1.89	28.59	<.0001

Discussion

Limitations

It is important to emphasize that this study cannot provide any causal inference between violations and post-release outcomes, and none of the findings should be interpreted as such. Without fully accounting for moderating variables or the use of a matching method, the differences in average outcomes between violators and non-violators are primarily useful as a predictive measure.

This study also may underestimate the employment rate and, by some measures, the recidivism rate. Because the data sources for this study only provided recidivism as a return to DOC and did not track self-employment, it is possible that both outcome measures are notably higher. Whether this would increase the differences between violators and non-violators or if it would simply increase the magnitude of the rates is unknown.

Conclusions

As a continuation of the SAC's work in defining the variables around post-release outcomes, this study provides a clear entry on the association of violations with demographics, recidivism and employment. The regression connecting demographic variables to the probability of being a violator provides some surprising findings and non-findings. While age and gender are often a major determining factor for other criminal justice variables, they appear to have a very weak association with the probability of obtaining a violation. Conversely, race appears to have a

moderately strong effect size, suggesting that non-whites are significantly more likely to be counted among the violators in this study. Where violations may appear close to equally distributed among age and gender, the same clearly cannot be said for race.

The findings tying violators to worsened post-release outcomes are also notable. Increased recidivism rates and decreased employment held consistent for violators, although it is possible some amount of these effects could be explained by untested moderating variables. Due to the lack of causality, these findings do not back any suggestion to increase or decrease violations. Instead, they recommend increased caution upon reentry for any individual with violations during their time in DOC custody, as inclusion as a violator is associated with increased odds of recidivism and decreased average employment and wages. In combination with the SAC's prior studies, these findings aid in rounding out a full picture of the elements present in DOC custody and their association with post-release outcomes for offenders.