

# Three Strikes and You're Out: An Investigation of False Positive Rates Using a Canadian Sample

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**CALIFORNIA'S VERSION OF** the "Three Strikes and You're Out" legislation has been controversial since it became law in April of 1994. Under current California law, offenders who have committed two prior violent or serious offenses ("strikes") are given mandatory 25 year sentences, without the possibility of parole, on their third strike. In California, the third strike does not have to be a serious or violent offense for the Three Strikes law to apply; it may be one of approximately 500 felony offenses. On the second strike, a judge in California must double the length of the sentence that would normally be imposed (State of California, 1994). Most other American states have their own versions of the Three Strikes law, generally more conservative than that of California. California has by far the largest number of inmates incarcerated under any form of Three Strikes legislation.

## Introduction

One rationale used to justify this law is that the long-term incarceration of habitually violent offenders will significantly reduce the overall level of violence in society (American Society of Criminology, 1995). California lawmakers have decided that the commission of a third strike is sufficient indication of an habitual violent offender who will continue to re-offend violently. Therefore, it is believed that these offenders require lengthy, preven-

tative incarceration to protect the public. As yet, no study has demonstrated that the Three Strikes law has reduced violence.

False positive errors under the Three Strikes law refer to offenders who were incarcerated after a third strike but, had they not been incarcerated, would not have gone on to commit any more strikes. Incarcerating these offenders does not benefit public safety, but carries a great financial and human cost. Therefore we must estimate the number of false positive errors created by this legislation.

As all offenders in California who commit three strikes are incarcerated for a minimum of 25 years, and as most other American states utilize some form of Three Strikes legislation, it is impossible to use a current American offender population to estimate the rate of unnecessary incarceration created by the Three Strikes law. In addition, there are a number of advantages in using an existing Canadian sample of offenders to estimate the false positive rate over a similar California sample.

All criminal code offenses committed in Canada are reported and entered into a central database maintained by the Royal Canadian Mounted Police (RCMP, a federal police force) after verification of the identity of the offender by fingerprinting. Thus, we can obtain a complete criminal history of our

Canadian sample whereas with a California sample, out of state convictions are more difficult to obtain and verify other than charges and convictions for federal offenses. Given the importance of obtaining accurate long-term recidivism data for the three strikes study, there are distinct advantages to using an analogous Canadian sample to evaluate the research question we posed. Therefore, the present study used two samples of Canadian federal male offenders to estimate the false positive rate of California's Three Strikes law. The most conservative assumptions—that is, assumptions that were least likely to overestimate the false positive rate of the Three Strikes law in California—were used in the design of this study.

## Methodology

### *Participants*

The first sample consisted of 73 offenders taken from a random sample of offenders from the Canadian federal male offender population ( $N = 555$ ), based on the criteria outlined in the procedure section below. The mean age at first violent or serious conviction was 20.5 years ( $SD = 2.6$ ), mean age at data collection date was 44.2 years ( $SD = 3.6$ ), and the mean follow-up time was 23.8 years ( $SD = 3.9$ ). A second sample was used for cross-validation. This second sample ( $n = 84$ ) was selected using the same sample selection

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criteria from a random sample of male offenders in the Prairie Region of Canada ( $N = 274$ ). The mean age of the second sample at first violent or serious conviction was 19.4 years ( $SD = 2.5$ ), mean age at data collection was 46.4 years ( $SD = 5.0$ ), and the mean follow-up time was 27.0 years ( $SD = 5.4$ ).

Ideally, American offenders would be used in this study. However, the Canadian federal and American state offender populations are quite similar. Approximately 94 percent of American state offenders are male, as are 97.5 percent of Canadian Federal offenders (Bureau of Justice Statistics, 1989; Solicitor General Canada, 1996). In both the American state and Canadian federal correctional systems, the highest proportion of offenders fall within the 18-24 age cohort at release from custody (Bureau of Justice Statistics, 1989; Statistics Canada, 1996).

General and violent recidivism rates are comparable for both populations. Approximately 47 percent of all American state offenders and 49 percent of Canadian federal offenders are convicted for new offenses within three years of release (Bureau of Justice Statistics, 1989; Canadian Centre for Justice Statistics, 1992). In terms of violent recidivism, 30.4 percent of American offenders incarcerated in state penitentiaries for violent offenses are re-arrested on violent charges within three years of release (Bureau of Justice Statistics, 1989). Similarly, approximately 20 percent of Canadian Federal violent offenders are re-convicted of a new violent offense within three years of release (Motiuk & Belcourt, 1997). Given that re-arrest rates are higher than re-conviction rates, the American and Canadian violent recidivism rates are quite similar. Overall, we would argue that

Canadian federal offenders provide an adequate comparison group with which to estimate the false positive rate under the Three Strikes law in California.

## Procedure

The criminal records used to follow up the offenders were obtained from an official database of criminal code convictions maintained by the RCMP. This information is verified by fingerprinting, and includes all criminal code convictions accrued by an offender under the Canadian Criminal Code anywhere in Canada.

Canadian Criminal Code offenses that would be considered serious or violent under existing California laws were coded as "true strikes," using Section 667.5. (c) of the California Penal Code (State of California, 1994) as a guide. As there are no direct Canadian equivalents for all section 667.5.(c) strikes, judgments had to be made regarding the set of Canadian Criminal Code offenses that mapped onto section 667.5.(c) (see Appendix for the coding system used in this study). The third strike, as previously mentioned, could be one of approximately 500 felonies, a much larger set of offenses than that found in Section 667.5.(c). To reduce the error involved in judging what constituted one of these 500 felonies, and to err on the conservative side, only violent felonies found in Section 667.5.(c) (i.e., strikes) were categorized as Third Strike offenses.

After Canadian offenses were coded into true strikes and "non-strikes," offenders who had been convicted of at least one true strike were identified. Only offenders who had committed their first strike-equivalent offense at

or before the age of 25 were selected, as previous research indicates that the majority of chronic offenders have committed their first offense early in their criminal career (Andrews & Bonta, 1998). Finally, only offenders with a minimum of 15 years of follow-up time were included in the sample.

Very conservative criteria were utilized in this study to code offenses as strikes or non-strikes. This was done to ensure that offenders who were included in the calculation of false positive rates committed offenses that clearly would be included under the California Penal Code Section 667.5.(c). Our selection criteria, therefore, underestimated the false positive rates.

## Results

The results of applying the criteria outlined in California's Three Strikes legislation to offenders in both samples who were convicted of three or more strikes are presented in Table 1.

In the first sample, of the 50 offenders who committed three or more true strikes, 15 did not commit any further violent offenses after release from incarceration. A Three Strikes policy would have a false positive rate of 30 percent with this sample.

Of the 45 offenders who committed three or more true strikes in the second sample, 14 did not commit any further violent offenses after release. A Three Strikes policy would have a false positive rate of 31 percent with this sample. As the estimates from the 2 samples did not differ statistically, a combined Clopper-Pearson .95 probability confidence interval (Clopper & Pearson, 1934) was calculated to range from 21.5 percent – 40.8 percent.

**TABLE 1**

| Exact Number of Strikes Committed During Follow-up Period | Sample 1<br>( $N_1 = 73$ ) |         | Sample 2<br>( $N_2 = 84$ ) |         | Percent of offenders who committed 3 or more strikes and would receive a life sentence under Three Strikes legislation |                 |
|---|----------------------------|---------|----------------------------|---------|--|-----------------|
|   | $n$                        | % $N_1$ | $n$                        | % $N_1$ | Sample 1   | Sample 2        |
| 3 strikes   | 15                         | 21      | 14                         | 17      | 30 <sup>a</sup>  | 31 <sup>a</sup> |
| 4 strikes   | 10                         | 14      | 7                          | 8       | 20   | 16              |
| 5 strikes   | 14                         | 19      | 8                          | 10      | 28   | 18              |
| 6 or more strikes   | 11                         | 15      | 16                         | 19      | 22   | 35              |
| Total   | 50                         | 69      | 45                         | 54      | 100  | 100             |

## Discussion

The current findings indicate that almost one third of the studied offenders who would be targeted by California's Three Strikes law do not go on to commit future violent offenses. The incarceration of these offenders would not have an impact on reducing violent crime rates. These findings suggest that California's Three Strikes and You're Out law has a dangerous potential to over-incarcerate. This is especially distressing considering that the estimated false positive rates in this study are likely to underestimate the actual false positive rate.

There are several aspects of the structure and application of this policy that would suggest that the true false positive rate of Three Strikes is higher than our estimate. Most obvious is the over-inclusiveness in defining the third strike under California's Three Strikes law, whereby, if an offender has committed two crimes considered serious or violent, the commission of a large number of possible subsequent felonies can be considered a third strike. Also, the inclusion of offenses such as robbery and burglary as strikable offenses may overestimate many offenders' potential for violence.

We have taken great care to ensure that the Canadian samples are reasonable replicas of American state offender samples. The age ranges and general and violent offending patterns are quite similar between the American state offender population and the Canadian

samples. There is no direct one-to-one relationship between the California Three Strikes criteria and the Canadian criminal code offenses. However, by using very conservative criteria to designate what constitutes a strikable offense, especially in the case of the third strike, we have erred on the conservative side and, if anything, underestimated the false positive rate.

Over-incarcerating offenders does not serve the interests of justice or the interests of the taxpayer. Unnecessary and excessive incarceration violates the civil liberties of these offenders and requires that the public sacrifice valuable tax dollars to maintain an expensive correctional and justice system, with no benefit to public safety. A more effective and ethical approach to addressing the problem of violent crime would require a more comprehensive examination of an offender's risk for violence than is provided by the Three Strikes law. As effective correctional treatment has been associated with decreases in violent recidivism (Andrews et al., 1990), allocating funds toward developing and delivering effective correctional treatment programs should provide a more cost effective and humane method of reducing violent crime.

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## Appendix A

California's Three Strikes (From California Penal Code—see References above):

1. Murder or voluntary manslaughter.

1. Mayhem

2. Rape as defined in paragraph (2) of subdivision (a) of Section 261\*.

\*Where it is accomplished against a person's will by means of force, violence, duress, menace, or fear of immediate and unlawful bodily injury on the person or another.

4. Sodomy by force, violence, duress, menace, or fear of immediate and unlawful bodily injury on the victim or another person.

5. Oral copulation by force, violence, duress, menace, or fear of immediate and unlawful bodily injury on the victim or another person.

6. Lewd acts on a child under the age of 14 as defined in Section 288\*.

\*Any sexual act attempted or committed with a child under the age of 14.

7. Any felony punishable by death or imprisonment in the state prison for life.

8. Any felony in which the defendant inflicts great bodily injury on any per-

### Possible Canadian Equivalents:

First degree murder; Second degree murder; Manslaughter

Aggravated assault; Cause bodily harm with intent; Conspiracy to commit assault causing bodily harm

Aggravated sexual assault; Attempted rape; Attempted sexual assault; Party to offense of sexual assault; Rape; Sexual assault; Sexual assault causing bodily harm; Sexual assault with a weapon;

Anal intercourse; Buggery or bestiality;

3. Sexual Interference

Attempted sexual intercourse with a female under 14 yr.; Intercourse with a female under 14 yr.; with a female under 14 yr.

Conspiracy to commit murder

Attempt to choke or strangle; Assault, Assault causing bodily harm; Assault a peace officer; Assault with a weapon; Assault with intent to commit an

### California's Three Strikes:

son other than an accomplice which has been charged and proved as provided in Section 12022.7<sup>1</sup> or 12022.9<sup>2</sup> on or after July 1, 1977, or as specified prior to July 1, 1977, in Section 213, 164, and 461, or any felony in which the defendant uses a firearm which has been charged and proved as provided in Section 12022.5<sup>3</sup> or 12022.55<sup>4</sup>.

<sup>1</sup> Additional sentences would be implemented if great bodily harm resulted from the commission or attempted commission of a felony, provided that the great bodily harm is not an element of the offense.

<sup>2</sup> Additional sentences would be implemented for infliction of injury causing the termination of a pregnancy or discharge of firearm causing paralysis or paraparesis.

<sup>3</sup> Additional sentences would be implemented for the use of a firearm, assault weapon, or machine gun.

<sup>4</sup> Additional sentences would be implemented for discharging a firearm from a motor vehicle.

9. Any robbery perpetrated in an inhabited dwelling house, vessel, as defined in Section 21 of the Harbors and Navigation Code, which is inhabited and designated for habitation, an inhabited floating home as defined in subdivision (d) of Section 18075.55 of the Health and Safety Code, an inhabited trailer coach, as defined in the Vehicle Code, or in the inhabited portion of any other building, wherein it is charged and proved that the defendant personally used a deadly or dangerous weapon, as provided in subdivision (b) of Section 12022\*, in the commission of a robbery.

\*Any person who uses a deadly or dangerous weapon in the commission or attempted commission of a felony would receive additional punishment, unless use of a deadly or dangerous weapon is an element of the offense.

10. Arson in violation of subdivision (a) of Section 451\*.

\*Arson that causes great bodily injury.

11. The offense defined in subdivision (a) of Section 289\* where the act is accomplished against the victim's will by force, violence, duress, menace, or fear of immediate and unlawful bodily injury on the victim or another person.

\*Anal or genital penetration by a foreign or unknown object for sexual purpose.

12. Attempted murder.

13. A violation of Section 12308\*.

\*Explosion of a destructive device with the intent to commit murder.

14. Kidnapping in violation of subdivision (b) of Section 207\*.

\*Kidnapping of a child under the age of 14 for the purpose of committing a sexual act.

15. Kidnapping in violation of subdivision (b) of Section 208\*.

\*Kidnapping of a child under the age of 14 without the intent to commit a sexual act, and excluding biological parents.

16. Continuous sexual abuse of a child in violation of Section 288.5\*.

\*The engagement of three or more acts of substantial sexual conduct with a child under the age of 14.

17. Carjacking, as defined in subdivision (a) of Section 215<sup>1</sup>, if it is charged and proved that the defendant personally used a dangerous or deadly weapon as provided in subdivision (b) of Section 12022<sup>2</sup> in the commission of the carjacking.

<sup>1</sup> The act of taking possession of a motor vehicle from another person who is immediately present, through the use of force or fear.

<sup>2</sup> Any person who uses a deadly or dangerous weapon in the commission or attempted commission of a felony would receive additional punishment, unless use of a deadly or dangerous weapon is an element of the offense.

### Possible Canadian Equivalents:

indictable offense; Assault with intent to wound; Choking; Common assault; Conspiracy to commit assault; Dangerous use of a firearm while committing an indictable offense; Discharge firearm with intent; Overcoming resistance; Prison breach with violence; Use of firearm during commission of an offense; Wounding with intent

Attempted robbery; Attempted robbery with violence; Conspiracy to commit robbery; Party to offense of armed robbery; Robbery; Robbery while armed; Robbery with threats of violence; Robbery with violence; Theft with violence

Arson; Conspiracy to commit arson

Indecent assault on a female; Indecent assault on a male

Attempted murder

Criminal negligence causing death

Forcible confinement

Conspiracy to commit kidnapping; Kidnapping

Attempted incest; Incest; Sexual contact with a child

Attempted armed robbery; Armed robbery