

Truth-in-Sentencing Laws and Crime Rates in the U.S. States

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Executive Summary. *Tough-on-crime laws remain controversial in the United States. Proponents suggest these laws reduce crime and improve public safety, while critics not only doubt the crime-reducing efficacy of such policies but also point to the extraordinarily high rates of incarceration these policies have produced in the United States. For these critics, incarceration harms millions of citizens—breaking up families, denying prisoners of basic liberties, and undermining ex-prisoners' employment prospects—while failing to make the country any safer. This paper examines the potential benefits of one particular type of tough-on-crime law—Truth-in-Sentencing (TIS) laws. TIS laws require offenders to serve a certain portion of their sentences before being eligible for parole or other forms of release. These laws were adopted by dozens of states throughout the 1990s. By comparing states that did and did not institute TIS laws, this paper seeks to assess the effects of such laws on various crime rates. Though TIS laws vary across states, the states selected for this analysis require offenders serve at least 85% of their sentences. The analysis finds that TIS laws have no effect on murder rates, violent crime rates, or property crime rates.*

Introduction

Violent crime rates have declined significantly across all U.S. states since the early 1990s, yet social scientists and policy analysts have failed to reach a consensus on the causes of this decline. Understanding the causal mechanisms underlying the crime decline is crucial. Maintaining these relatively low rates of crime or further reducing crime requires understanding the causes of the crime decline. Isolating the causes of the crime decline could also help identify what policies and laws fail to reduce crime. If such laws impose social or economic costs without delivering the benefits of crime reduction, this knowledge could inform public policy debates about both crime reduction and criminal justice reform.

Public policy debates about criminal justice reform are especially salient in the United States because of its extraordinarily high rates of incarceration. With an incarceration rate of about 700 per 100,000 citizens, the U.S. is an outlier among Western, developed nations, accounting for around 25% of the world's prisoners with only 5% of the world's general population (International Centre for Prison Studies 2015). Furthermore, the country's high rate of incarceration is explained not by higher rates of crime but by more punitive public policies. Over the last two decades, both the likelihood that an arrestee would be imprisoned and the length of time served for prison admissions increased while crime rates fell (Loury 2008). Highly punitive policies, rather than high rates of crime, explain high rates of incarceration in the United States. Whether punitive policies also caused the crime decline of the past two decades is the question this paper seeks to examine.

Evaluating the crime-reducing effects of TIS laws is important because these laws may increase the prison populations in states where they are enacted (Turner, et al. 1999; Stemen and Rengifo 2011). The negative consequences of imprisonment on inmates and their families have been amply documented. Incarceration disrupts family life (Western 2006). It impedes labor market participation and reduces earnings after release (Pager 2001; Western 2006). It also bars many ex-prisoners from voting (Manza and Uggen 2008). TIS laws may therefore impose serious social and economic costs on citizens, so it is important to assess what benefits they may bring.

On the other hand, some research suggests TIS laws do not increase state prison populations (Grimes and Rogers 1999). Still, the crime-

reducing effects of TIS laws should be examined. Even if they do not increase the prison population, their efficacy must be understood in order to continue to keep crime rates low or reduce them further. If TIS laws fail to reduce crime, policymakers ought to explore alternative means of crime control.

Literature Review

The literature on sentencing policy in general finds little to no effect of increasing the severity of sentencing on crime levels. Reviewing dozens of studies, Doob and Webster (2003) conclude that sentencing severity has no impact on crime levels. Comparing imprisonment with probation, Spohn and Holleran (2002) find that imprisonment fails to reduce recidivism rates and may increase recidivism. In a review of the research on imprisonment, Wright (2010) finds that the severity of punishment exerts no effect on the likelihood of committing a crime, though the certainty of punishment does reduce crime.

The literature on TIS laws in particular is small and the results mixed. Turner, et al. (1999) find that TIS laws fail to reduce crime, but they use a simple regression model that compares the crime rates of TIS states with those of non-TIS states. This design suffers from an endogeneity problem: states with higher initial crime rates may institute TIS laws in an effort to reduce crime, while states with low rates of crime may not. This endogeneity makes it difficult to assess the causal effect of TIS laws using a simple regression model. Shepherd (2002), in contrast, finds that TIS laws reduce rates of violent crime, but this analysis has two shortcomings. First, the violent crime rates of states with and without TIS laws are compared, but these crime rates are taken from a single point in time even though TIS laws were instituted at different times in different states. Second, the study fails to consider variations in TIS laws and the presence of other tough-on-crime laws that may have been instituted around the same time as TIS legislation. The literature on TIS laws thus provides little evidence that the laws either succeed or fail in reducing crime.

Findings

Data

The independent variable in this analysis is a dummy variable indicating whether a state had a TIS law enacted during a particular year. These data were taken from Sabol, et al.'s (2002) report on TIS legislation. The dependent variables are the

	<u>Treatment Group</u>	<u>Control Group</u>
Cases (Year Passed)	Iowa (1996) Arizona (1994) Maine (1995) Minnesota (1993) Mississippi (1995)	Alabama Hawaii Rhode Island West Virginia Wyoming
Violent Crime Rate*	344.98 (169.67)	371.94 (202.01)
Murder Rate*	5.18 (3.82)	5.76 (2.78)
Property Crime Rate*	4,381.37 (1,341.86)	4,187.85 (1,185.14)
Unemployment Rate†	5.78 (1.57)	6.4 (2.52)

Table 1. Descriptive Statistics and Case Selection, 1988-1992.

Source: Sabol, et al. (2002) for TIS passage data.

Standard deviations presented in parentheses. *Crimes committed per 100,000 people. †Percentage of those who are in the labor market and do not have a job.

murder rates, violent crime rates, and property crime rates for each state. The murder rate includes murder and non-negligent manslaughter; the violent crime rate includes murder and non-negligent manslaughter, rape, robbery, and aggravated assault; and the property crime rate includes burglary, larceny-theft, motor vehicle theft, and arson. Data were taken from the FBI's Uniform Crime Report. A control variable was used for a state's unemployment rate for a given year. Unemployment data were retrieved from the Bureau of Labor Statistics. A set of dummy variables indicating a particular year for each year in the time series was used.

Methods

The analysis uses a difference-in-differences in design to compare the average change over time in crime rates among TIS states with the average change over time in crime rates among non-TIS states. The states selected for the control group did not enact TIS laws or any similar tough-on-crime laws (e.g., parole restrictions) during the time series. The states selected for the treatment group enacted TIS laws. States in the control and treatment groups are listed in Table 1. Before statistical analyses were run, the groups were checked for balance in terms of crime and unemployment rates. Several states were dropped from the dataset in order to give the control and treatment group similar initial levels of crime and unemployment. Balancing the groups allows the

analysis to better capture the potential causal effects of TIS laws on crime because it makes the pre-treatment groups as similar as possible. This balance is shown in the bottom half of Table 1.

Some of the states that enacted TIS laws also enacted parole restrictions, but analyses showed that parole restrictions also had no effect on crime rates. Some state TIS laws applied only to violent crimes, whereas others applied to both violent and property crimes. Analyses showed that separating these two groups of TIS states did not affect the results of the main analyses. Further analyses were conducted using an interaction term for each state that enacted TIS laws. The term interacted each state with the years during which TIS laws were in effect.

Results

Consistent with the broader literature on sentencing and crime, we find that TIS laws fail to reduce rates of violent crime and property crime. We report two analyses. They appear in Table 2. The first analysis (first three columns of Table 2) compares the average change over time in violent crime rates, property crime rates, and murder rates between TIS and non-TIS states, controlling for changes in the unemployment rate. The second analysis shown in the final three columns of Table 2 repeats the first and adds a set of time dummies as controls (i.e., a dummy variable for each year in the time series). The only difference in results between these two models is that TIS laws

	Violent Crime Rate	Murder Rate	Property Crime Rate	Violent Crime Rate	Murder Rate	Property Crime Rate
TIS Enactment	-4.699 (17.58)	-.092 (.392)	-364.285 (144.677)	33.891 (42.460)	.927 (.506)	.658 (207.988)
Unemployment Rate	7.96 (11.99)	.269 (.177)	43.393 (25.603)	-10.399 (12.319)	-.014 (.158)	-98.006 (54.385)
Constant	303.85 (68.76)	3.62 (1.04)	3903.608 (124.736)	389.012 (66.652)	5.102 (.902)	4728.316 (325.834)
Year Fixed-Effects	No	No	No	Yes	Yes	Yes
Observations	160	160	160	160	160	160
Groups	10	10	10	10	10	10
R-squared						
<i>within</i>	.030	.085	.126	.326	.428	.535
<i>between</i>	.013	.277	.045	.003	.000	.098
<i>overall</i>	.014	.172	.002	.026	.046	.115

Table 3. Fixed-effects Robust Regression Results of Violent Crime Rates, Murder Rates, and Property Crime Rates on TIS Enactment and Unemployment.

Note: Robust standard errors reported in parentheses.

appeared to reduce property crime rates in the first model but not the second.

The first and second analyses both show that TIS laws failed to reduce murder rates and violent crime rates. The results on property crimes are less straightforward. The first analysis showed that TIS law enactment was negatively and significantly associated with property crime rates. Additional analyses showed that this negative association was even stronger in states where TIS laws did not apply to property offenses. However, including a set of year dummies eliminated the effect of TIS on property crime. That is, the effect of TIS on property crimes reported in the final column of Table 2 is statistically insignificant and close to zero.

Recommendations

The findings of this analysis cast serious doubt on the suggestion that TIS laws reduce crime levels.

While it would be imprudent to conclude from this analysis that harsher sentencing in general fails to reduce crime, these findings are consistent with a broader literature that suggests harsher sentencing has failed to reduce crime in the United States. The author of this study recommends that states repeal TIS laws or enact legislation reducing the length of sentences for violent crimes and property crimes. These longer sentences do not make the state safer. Instead, they needlessly keep offenders in prison, contributing to a bloated prison population. Given the numerous social and economic costs associated with larger prison populations, states should consider repealing TIS laws.

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