DOES VOTING REALLY MATTER?
THE EFFECT OF VOTING TURNOUT RATES ON CRIME

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ABSTRACT

Criminologists emphasize the importance of strong social networks for controlling crime within communities. As citizens feel greater connection to society, they are less likely to commit crimes that affect other members of society and they feel greater responsibility for upholding common values. A common way to measure connection within society is by voting participation. This research explores the effect of voting turnout rates on crime rates, using a fixed effects model for 50 states over 10 election years. The fixed effects models of the effects of turnout rates on various victimization rates and offender rates for all of the years in the sample do not show statistically significant effects for the variable of interest. However, after segmenting the data into presidential versus non-presidential election years, there appears to be an effect of turnout rates in presidential election years on victimization and offender rates.
# Table of Contents

I. Introduction ......................................................................................................................... 1

II. Literature Review ............................................................................................................... 4

III. Data and Methods .............................................................................................................. 7

IV. Summary Statistics ............................................................................................................ 13

V. Results .................................................................................................................................. 16

VI. Discussion .......................................................................................................................... 21

VII. Policy Implications and Future Work .............................................................................. 24

VIII. Conclusion ....................................................................................................................... 26

IX. Bibliography ...................................................................................................................... 27
I. Introduction

For decades, criminologists have emphasized the importance of strong social networks for controlling crime within communities. They stress how a community organized around shared values has greater ability to exert control over its members. As citizens feel greater connection to society, they are less likely to commit crimes that affect other members of society and they feel greater responsibility for upholding common values.

Criminologists define this connection within and among citizens as “social capital.” Specifically, they often use levels of social capital to explain connections between citizens, and they measure levels of social capital by the amount of civic engagement within a community. Common measures of civic engagement include voting registration, voting rates, and political activism.

Criminologists discuss how low levels of social capital are correlated with crime levels in communities, but these theories emphasizing social capital are in addition to important theories about other community factors. Research has found that poverty, economic inequality, racial homogeneity, family structure, and mobility are all highly correlated with levels of crime (Sampson 2002, 2005; Putnam 1993; Messner et al. 2001). Social capital is just one component that has been found to explain crime levels in communities.

Robert J. Sampson, Robert Putnam, and other sociologists and criminologists have shown that “neighborhood effects” are essential to understanding crime rates and that lack of social control in a neighborhood hinders its ability to constrain delinquent behavior (Sampson et al. 2002).

Political scientists have long scrutinized societies with low levels of political involvement because of the negative effects on the overall political system; however, there are also important
repercussions of weak political ties in individual communities. Research suggests that societies with greater social capital are better able to exert control over their citizens.

Crime in the United States is a major problem, and we face a crisis in the prison system. The Bureau of Justice Statistics reports the U.S. prison population at roughly 2.3 million prisoners. It is especially important to study social capital now, given that policy makers need to find cost effective ways to address the high rates of crime and imprisonment in society. There are potential low-cost interventions in this area that could also achieve broader positive societal aims, like greater political involvement and less disenfranchisement of voters living in disadvantaged neighborhoods.

If voter turnout rates do have an impact on crime rates, there are important policy implications. Primarily, it would imply that it is important for states to consider voter registration eligibility, especially relating to felon voter rights. Large-scale felon disenfranchisement would have negative impacts on levels of social capital. It could also mean that there would be room for voter registration organizations to affect crime rates in areas of high crime. Additionally, supporting particular candidates from disadvantaged communities with high levels of crime could help these communities by increasing voter turnout.

The present study examines the link between voting rates and crime rates across the country over time. It uses panel data from presidential and Congressional election years across all 50 states in the United States (from 1980 to 1998). To control for potential confounding factors, the research model includes additional variables at the state level for unemployment rate and race because previous research has proven that these factors are associated with crime rates.

Looking at the overall sample, my results do not necessarily support previous research in the field. Without adding controls, the voter turnout variable shows significant results, but this
changes once controls are added to the model. Additionally, statistically significant results are found for the control variables in each model. Controlling for other factors that affect crime rates, I find no statistical effect of voting turnout rates on victimization and offender rates in the U.S. for the years in which elections occurred and data were available.

In contrast, once the data are segmented into presidential and non-presidential election years, there are statistically significant results on the turnout variable in types of elections. It appears that, once controlling for other variables in the model, higher voter turnout rates in a state are associated with lower levels of crime in that state. However, due to small sample size, it is difficult to draw definitive conclusions based on these findings.

In this paper, I will first explore the background of the effect of voting rates on crime rates and outline previous research on this issue. I will then discuss the data and methodology for my research and the reasoning behind this approach. My paper will then explain my findings and draw conclusions based on those findings. Finally, I will explore policy implications and suggest opportunities for future research in this area.
II. Literature Review

For decades, Putnam (1993) and others have advanced theories about the importance of social capital in communities. Much of the research in this area has originated with sociology, and there have been many challenges in measuring social capital (Sampson 2002, Sampson et al. 2002). However, there has been useful research in this field and many have found ways to test the effect of social capital in society.

Collective efficacy is another important concept that criminologists have pointed to in measuring social control and social cohesion. Sampson, Morenoff, and Gannon-Rowley (2002) researched community feelings of collective efficacy, defined as “the linkage of social control and cohesion,” and found a strong negative relationship with the rate of violence in a neighborhood. They claim, “Low participation in local voluntary associations is associated with an increased risk of interpersonal crime and public disorder.” However, as do many researchers in this field, they point to the methodological limitations to these types of studies, especially problems related to selection bias.

Other researchers have found that social capital has a significant effect on homicide rates. For example, Rosenfeld, Messner, and Baumer (2001) estimate the effect by constructing a measure of social capital that incorporates aggregate voting data, organizational membership rates, and a survey measuring social trust. Controlling for social variables that have an effect on crime rates, including economic conditions and the structure of communities, they found that low levels of social capital are associated with higher levels of homicide (Rosenfeld et al. 2001).

Another theory related to political participation points to the effects of political rewards for areas of high turnout. For example, Martin (2003) finds that members of Congress direct federal money to populations within their districts that have higher levels of voter turnout, and so
voting participation is associated with government largess. Martin’s study controls for many economic, demographic, and geographic variables, and he is thus able to isolate the effect of voter turnout.

Methodology is an important aspect of the previous research. Many researchers have used panel data, rather than aggregate cross-section data, when studying the effects of social and political capital on crime. Cornwell and Trumbull (1994), for example, use panel data to show that previous methods of understanding the economic model of crime overestimated the effect of law enforcement and that the labor market and criminal justice system also have important deterrence effects.

Others have argued for using different methodologies. Using pooled multivariate regressions, Coleman (2002) finds that perceived social norms for voting are associated with lower crime rates. His analysis from 1960, 1970, and 1980 indicates that there is a relationship between social conformity (measured by voter turnout) and crime rates. With the information available to Coleman, this type of analysis at the county level is possible; but it requires many control variables and survey responses regarding social conformity. Therefore, the main caveat with his method is that, in addition to requiring voting and crime information at the county level, it requires consistent ratings from survey respondents about their perceived level of conformity.

Research about voting participation in other countries has also looked at effects of social capital on crime. Sobalainen (2000), for example, predicts that economic inequality only affects the level of violence in a country with weak social institutions. His study tests the connection between the strength of the welfare state in poor countries, measured in terms of economic inequality, and homicide. He finds that, if a nation is able to provide some social safety net protection, a low level of economic development has less influence on homicide rates.
Other researchers have studied the relationship between individual civic engagement and perceived levels of trust in a community. Brehm and Rahn (1997), for example, analyze individual-level survey data to determine how civic engagement is affected by trust in the community and vice versa. They find that there is a stronger effect of participation on trust in a community than trust on participation. This study shows that there is evidence of individual-level effects, not just community-level effects.

Research about the methods used to measure voting is also valuable. Although many researchers have found trends toward lower turnout over the last half of the twentieth century, McDonald and Popkin (2001) found that much of the variation was due to the measure of voting and whether turnout percentages were based on voting age population or voting eligible population.

My research builds on the previous literature, using a fixed effects model to estimate the effect of voter turnout on crime rates in states. While others have different units of analysis, such as county- or community-level, this research uses state-level panel data in order to control for many factors that remain constant over time. Additionally, my control variables draw on what previous researchers have found to be important correlates of crime.
III. Data and Methods

Data

This research uses panel data on voting rates across states, crime rates in those states, and control variables. To determine levels of crime, the study uses the Uniform Crime Reports: Homicide Victimization and Offending Rate (UCR). The UCR reports the victimization rate for various types of crime incidents each year in each state. To determine voting rates, my analysis uses the U.S. Voter Turnout Rates from the United States Election Project, directed by Dr. Michael P. McDonald at George Mason University. These data were accessed through the project’s website. Additional control variables, i.e. unemployment rate and racial composition of states, were compiled from data from the Bureau of Labor Statistics and the Census Bureau.

Independent Variables

The mission of the United States Election Project is “to provide timely and accurate election statistics, electoral laws, research reports, and other useful information regarding the United States electoral system.”\(^1\) The United States Election Project gathered turnout data from various sources and used information from the Congressional Research Service, which “contracts Election Data Services to collect voting statistics from each state.”\(^2\) Much of the work of the United States Election Project, however, focuses on other variables in the dataset, the ‘voting age’ and ‘voting eligible’ populations.

\(^1\) Michael P. McDonald. United States Election Project Website.
**Dependent Variables**

The UCR provides cross-sectional time-series data on homicide victimization and offending counts for the 50 states for 1976-1999. The dataset pulls from the FBI’s Supplementary Homicide Reports, the U.S. Census, and the FBI’s annual “Crime in the United States” report to estimate victimization and offender rates by age, sex, and race per 100,000 residents of a state. The present analysis aggregates the data on all ages, sexes, and races for each state in each year in order to establish consistency with the voting turnout data. Congressional and presidential election years were kept in the UCR. The data were compiled by James Alan Fox of the Northeastern University College of Criminal Justice and were accessed using the Inter-university Consortium for Political and Social Research.

Fox expressed some concerns about the UCR data in general, especially relating to low sample sizes for particular groups in some states and imputation for reported offender characteristics. However, these concerns do not apply to the UCR-based dataset used in this study because the imputed information is not used for my models. I use aggregate state information, so sample sizes are not too small for individual groups.

Additional concerns relate to using reported crime data in general, as it may understate actual crime incidents. This type of data only captures crime incidents, which are reported to authorities, though there is an unknown number of crimes that go unreported that are not captured in the data. For example, areas with lower police presence may have fewer reported crime incidents although these areas may have a higher number of crimes. However, because this study uses a panel dataset, it assumes that crime reporting is consistent within a particular state over the years in the dataset, even if it does not necessarily capture all incidents of crime. The consistency of reporting is the important factor.
One important reason for using this dataset and for using the voting eligible population in my models is to control for other characteristics that cause changes in voting turnout rates. As Michael P. McDonald and Samuel L. Popkin explain in research about this issue, these data provide a “more accurate estimate of those eligible to vote…. using government statistical series to adjust for ineligible but included groups, such as non-citizens and felons, and eligible but excluded groups, such as overseas citizens.”

Control Variables

My control variables come from a variety of data sources. The population information by state is from the voting eligible population in the turnout dataset. Data for the state unemployment rate is from the Bureau of Labor Statistics Local Area Unemployment Statistics database, which is “a Federal-State cooperative effort in which monthly estimates of total employment and unemployment are prepared for approximately 7,300 areas.” I accessed the aggregated state data for relevant election years from the agency’s website. The definition of unemployment in this project comes from the Current Population Survey (CPS), “the official measure of the labor force for the nation.” The CPS defines a person as unemployed if “they do not have a job, have actively looked for work in the prior 4 weeks, and are currently available for work. Persons who were not working and were waiting to be recalled to a job from which they

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5 Ibid.
had been temporarily laid off are also included as unemployed. The unemployment rate represents the number unemployed as a percent of the labor force.”

Demographic data for each state are from the Census Bureau Population Estimates Program for election years 1980 to 1998, which includes ten years of data. The Population Estimates Program reports yearly total resident population estimates and demographic changes, including births, deaths, and migration each year by demographic characteristics, such as age and race, for the nation, states, and counties. I downloaded the data through the Census Bureau’s database, combined state data by years, and calculated the variable for demographics for each state in each election year from the totals.

**Model and Methods**

I merged all data by matching each state in each year. Voter turnout data was missing for Louisiana for 1982. Further examination revealed that there are 24 missing observations for crime rates (Table 1), though there was no apparent pattern to the missing data. The missing years and states seem to be random and spread out.

To test the relationship between voter turnout rates and crime rates in states, I estimated twelve models with crime rate as the dependent variable and voter turnout rate as the primary variable of interest, both with and without control variables. The crime rate variables include the following: overall victimization rate, gun victimization rate, handgun victimization rate, overall offender rate, gun offender rate, and handgun offender rate.

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The analysis uses a fixed effects model for 50 states for ten years, the even years from 1980 to 1998. The fixed effects model is used to control for unobserved characteristics of the states that do not change over time. The fixed effects model controls for aspects of a state that do not change over time and aspects of a particular year that affect all states.

I estimate the model in the following form:

\[ y_{st} = \text{TurnoutRate}_{st} \alpha + \text{Population}_{st} \beta_1 + \text{UnEmpRate}_{st} \beta_2 + \text{BlackShare}_{st} \beta_3 + \mu_s + \delta_t + \epsilon_{st} \]

In this model, \( y_{st} \) is the crime rate in state \( s \) in year \( t \), \( \text{TurnoutRate}_{st} \) is the variable of interest (voting turnout) in state \( s \) in year \( t \), \( \text{Population}_{st} \) is a control for population in state \( s \) in year \( t \), \( \text{UnEmpRate}_{st} \) is a control for unemployment rate in state \( s \) in year \( t \), \( \text{BlackShare}_{st} \) is a control for demographics of state \( s \) in year \( t \), \( \mu_s \) is the full set of state dummies, \( \delta_t \) is the full set of year dummies, and \( \epsilon_{st} \) is the error term in state \( s \) in year \( t \). Because my state fixed effects estimates use data from the same states over 10 years, I used clustered standard errors, with clustering at the state level.

Upon examining the data and analyzing summary statistics, it was clear that there was a difference in voter turnout between presidential and non-presidential election years. I decided to

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</tr>
</thead>
<tbody>
<tr>
<td>Delaware</td>
<td>X</td>
<td></td>
<td>X</td>
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<td>X</td>
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<td></td>
<td></td>
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<tr>
<td>Florida</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Illinois</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Kansas</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Kentucky</td>
<td>X</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Maine</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Montana</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Nebraska</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>3</td>
</tr>
<tr>
<td>Vermont</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Wisconsin</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*Any state not listed has data for each year

Table 1: Missing Observations

Number of Missing States | 0 | 2 | 1 | 1 | 3 | 2 | 1 | 5 | 4 | 5 | 24
also run models of the two segments of data. I split the data into presidential election years (1980, 1984, 1988, 1992, and 1996) and non-presidential election years (1982, 1986, 1990, 1994, and 1998) and estimated separate models for these segments. There are 241 observations in the sample in presidential election years and 234 observations in non-presidential election years.

Fixed effects models have certain limitations. First, any fixed characteristics of a state drop away. Second, there is still a need to control for other variables so as not to have omitted variable bias. Third, because data are pooled, there is less variation within years and within states, and therefore oftentimes larger standard errors. The analysis controls for other state conditions, such as racial composition in each year.

Some challenges are also associated with using state-level data. For one, it is difficult to use aggregate state level data to predict individual behavior, or even community-level outcomes. This is one of the major limitations of any effort to relate social and political measures to crime rates. Additionally, there is a question of external validity and the ability to apply results from any individual study to broader societal contexts.
IV. Summary Statistics

Summary statistics for the data are given in Table 2. The table includes the mean, minimum, and maximum values for each variable of interest, as well as the sample size. Turnout is reported in percentages, population is reported in hundreds of thousands of residents, unemployment rates are in percentages, and the black share is reported as a decimal. The data transformations were performed to make it easier to interpret coefficients in the regressions. The crime rates are reported based on 100,000 state residents per year, and there are 475 observations in the sample.

The mean turnout rate for states for the years in the sample is 49.2%, with a minimum of 20.2% and a maximum of 73.7%. In the sample, Mississippi has the lowest turnout rate, 20.2% in 1990, and Tennessee has the second lowest, 21.8% in 1990. Minnesota has the two highest years of turnout, with 73.7% in 1992 and 71.2% in 1980. There are 475 observations of state turnout rates in the sample.

The national average victimization rate is 6.9, with a minimum of 0.16 victims per 100,000 and a maximum of 20.6 victims per 100,000 in a state in a year. The mean number of gun victims is 4.3 per 100,000, and there is a mean of 3.2 handgun victims. The gun and handgun victimization variables have minimums of zero victims, and they have maximums of 16.4 victims and 14.2 victims respectively.

The mean overall offender rate is 7.6, with a minimum of 0.16 offenders per 100,000 and a maximum of 27.7 offenders per 100,000 in a state in a year. The mean number of gun offenders is 4.7 per 100,000, and there is a mean number of handgun offenders of 3.5 per 100,000. The gun and handgun offender variables have minimums of zero and maximums of 17.5 offenders and 14.8 offenders respectively. As far as minimum and maximum victimization
rates, North Dakota and South Dakota have victimization rates less than one in multiple years, and Nevada has the maximum victimization rate of 20.6 in a single year (1980).

Table 2 also shows the variation between presidential and non-presidential election years. There are 241 observations in the sample in presidential election years and 234 observations in non-presidential election years. As would be expected, the turnout rate in presidential election years is higher than in the other years. The mean turnout rate in presidential election years is 56.2 percent, compared to 42 percent in non-presidential election years. Additionally, the minimum turnout for presidential elections is almost 20 percentage points higher than the minimum in other election years, and the maximum turnout rate is over 10 percentage points higher in presidential election years. Summary statistics for the control variables in the sample do not significantly differ in presidential versus non-presidential election years. There is not much variation in the crime rates for presidential versus non-presidential years.
<table>
<thead>
<tr>
<th>Variable</th>
<th>All Years</th>
<th>Presidential Election Years</th>
<th>Non-Presidential Election Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Turnout</td>
<td>49.211</td>
<td>56.210</td>
<td>42.003</td>
</tr>
<tr>
<td>Population (in 100,000s)</td>
<td>49.846</td>
<td>48.709</td>
<td>51.017</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>6.302</td>
<td>6.294</td>
<td>6.310</td>
</tr>
<tr>
<td>Black Share</td>
<td>0.098</td>
<td>0.097</td>
<td>0.099</td>
</tr>
<tr>
<td>N</td>
<td>475</td>
<td>241</td>
<td>234</td>
</tr>
</tbody>
</table>

### B. Crime Rates (per 100,000)

<table>
<thead>
<tr>
<th>Variable</th>
<th>All Years</th>
<th>Presidential Election Years</th>
<th>Non-Presidential Election Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Victimization Rate</td>
<td>6.862</td>
<td>6.866</td>
<td>6.858</td>
</tr>
<tr>
<td>Gun Victimization Rate</td>
<td>4.268</td>
<td>4.254</td>
<td>4.282</td>
</tr>
<tr>
<td>Handgun Victimization Rate</td>
<td>3.189</td>
<td>3.144</td>
<td>3.235</td>
</tr>
<tr>
<td>Overall Offender Rate</td>
<td>7.576</td>
<td>7.591</td>
<td>7.561</td>
</tr>
<tr>
<td>Gun Offender Rate</td>
<td>4.733</td>
<td>4.741</td>
<td>4.726</td>
</tr>
<tr>
<td>Handgun Offender Rate</td>
<td>3.546</td>
<td>3.511</td>
<td>3.582</td>
</tr>
<tr>
<td>N</td>
<td>475</td>
<td>241</td>
<td>234</td>
</tr>
</tbody>
</table>

Notes: Table shows means of variables and sample size for the variables of interest from the Uniform Crime Reports: Homicide Victimization and Offending Rate panel and the U.S. Voter Turnout Rates from the United States Election Project from Dr. Michael P. McDonald.
V. Results

After estimating fixed effects models of the effects of turnout rates on various victimization rates and offender rates for all of the years in the sample, the results do not show statistically significant effects for the variable of interest. However, after segmenting the data into presidential versus non-presidential election years, there appears to be an effect of turnout rates in presidential election years on victimization and offender rates.

Table 3 summarizes the results for the first set of models. These models include all election years and test the impact of turnout rates on a number of available crime variables. The first section of Table 3 (Section A) displays the coefficients and their statistical significance using victimization rates as the dependent variable of interest. The table shows the estimated effects of turnout on overall victimization rates, gun victimization rate, and handgun victimization rate. The second section (Section B) shows the estimated effects of turnout on overall offender rates, gun offender rates, and handgun offender rates.

Table 3 shows that across the various measures of crime rates within states, there are not statistically significant results in the overall sample of 50 states over 10 years once population, unemployment rate, and percent black are added to the model. Though without controls in the model there is a statistically significant relationship between turnout and crime rates, this suggests that there is omitted variable bias and that more controls need to be added to the model to account for changes within states over years.
### Table 3: Effects of Voter Turnout Rates on Crime Rates within States

**A. Victimization Rates (per 100,000)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Rate</th>
<th>Gun Rate</th>
<th>Handgun Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without Controls</td>
<td>With Controls</td>
<td>Without Controls</td>
</tr>
<tr>
<td>Percent Turnout</td>
<td>-0.0456** [0.023]</td>
<td>-0.0308 [0.023]</td>
<td>-0.0329* [0.017]</td>
</tr>
<tr>
<td>Population (100,000s)</td>
<td>-0.0427* [0.026]</td>
<td>-0.0126 [0.022]</td>
<td></td>
</tr>
<tr>
<td>Unemp Rate</td>
<td>-0.1774** [0.075]</td>
<td>-0.1098** [0.056]</td>
<td></td>
</tr>
</tbody>
</table>

N = 475

**B. Offender Rates (per 100,000)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Rate</th>
<th>Gun Rate</th>
<th>Handgun Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Without Controls</td>
<td>With Controls</td>
<td>Without Controls</td>
</tr>
<tr>
<td>Percent Turnout</td>
<td>-0.0537** [0.025]</td>
<td>-0.0389 [0.025]</td>
<td>-0.0351* [0.019]</td>
</tr>
<tr>
<td>Population (100,000s)</td>
<td>-0.0477** [0.024]</td>
<td>-0.0144 [0.019]</td>
<td>-0.0144 [0.019]</td>
</tr>
<tr>
<td>Unemp Rate</td>
<td>-0.1717** [0.078]</td>
<td>-0.1128* [0.060]</td>
<td>-0.0913** [0.044]</td>
</tr>
<tr>
<td>Black Share</td>
<td>21.7960 [35.418]</td>
<td>44.6824* [23.514]</td>
<td>42.7597* [22.869]</td>
</tr>
</tbody>
</table>

N = 475

Notes: Each column corresponds to a separate fixed effects estimate of the equation listed in the data section. The coefficient for the percent of voter turnout is listed in each row. Columns (1) through (6) estimate the model for victimization rates. Columns (7) through (12) estimate the model for offender rates. Each model is shown with and without control variables. All models include dummy variables for states and years. Asterisks depict statistically significant effects (** p<0.01, * p<0.05, * p<0.1).
Table 4: Effects of Voter Turnout Rates on Crime Rates (Presidential v. Non Presidential years)

### A. Victimization Rates (per 100,000)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Rate Without Controls (1)</th>
<th>Overall Rate With Controls (2)</th>
<th>Presidential Election Years Without Controls (3)</th>
<th>Presidential Election Years With Controls (4)</th>
<th>Non-Presidential Election Years Without Controls (5)</th>
<th>Non-Presidential Election Years With Controls (6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Turnout</td>
<td>-0.0456** [0.023]</td>
<td>-0.0308 [0.023]</td>
<td>-0.1367** [0.054]</td>
<td>-0.1026* [0.061]</td>
<td>-0.0426 [0.034]</td>
<td>-0.0242 [0.035]</td>
</tr>
<tr>
<td>Population (100,000s)</td>
<td>-0.0427* [0.026]</td>
<td>-0.0404 [0.026]</td>
<td>-0.1295 [0.075]</td>
<td>-0.2080** [0.099]</td>
<td>-0.0405 [0.031]</td>
<td></td>
</tr>
<tr>
<td>Unemp Rate</td>
<td>-0.1774** [0.075]</td>
<td></td>
<td>-0.1295 [0.102]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| N                 | 475                                | 241                            | 234                                              |                                               |                                                     |                                                  |

### B. Offender Rates (per 100,000)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Overall Rate Without Controls (7)</th>
<th>Overall Rate With Controls (8)</th>
<th>Presidential Election Years Without Controls (9)</th>
<th>Presidential Election Years With Controls (10)</th>
<th>Non-Presidential Election Years Without Controls (11)</th>
<th>Non-Presidential Election Years With Controls (12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Turnout</td>
<td>-0.0537** [0.025]</td>
<td>-0.0389 [0.025]</td>
<td>-0.1722** [0.074]</td>
<td>-0.1375* [0.082]</td>
<td>-0.0420 [0.035]</td>
<td>-0.0231 [0.035]</td>
</tr>
<tr>
<td>Population (100,000s)</td>
<td>-0.0477** [0.024]</td>
<td>-0.0498** [0.023]</td>
<td>-0.1090 [0.120]</td>
<td>-0.2160** [0.100]</td>
<td>-0.0392 [0.031]</td>
<td></td>
</tr>
<tr>
<td>Unemp Rate</td>
<td>-0.1717** [0.078]</td>
<td></td>
<td>-0.1090 [0.120]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| N                 | 475                                | 241                            | 234                                              |                                               |                                                     |                                                  |

Notes: Each column corresponds to a separate fixed effects estimate of the equation listed in the data section. The coefficient for the percent of voter turnout is listed in each row. Columns (1) through (6) estimate the model for victimization rates comparing presidential and non-presidential election years. Columns (7) through (12) estimate the model for offender rates comparing presidential and non-presidential election years. Each model is shown with and without control variables. All models include dummy variables for states and years. Asterisks depict statistically significant effects (** p<0.01, * p<0.05, * p<0.1).
Table 3 shows that there are significant results for some of the controls, however. The control for population shows a significant effect in the overall models. An increase of 100,000 residents of a state would be associated with a reduction of 0.0427 victims per 100,000 residents (statistically significant at the p < 0.10 level). To reduce the victimization rate by one victim per 100,000, population would need to increase by 2,341,920. This is an unexpected result, given widespread assumptions about more densely populated areas. Nevertheless, many of the characteristics that would lead to higher crime rates are captured in the unemployment and race controls.

In addition, the unemployment variable is statistically significant in every model. However, the negative coefficient on the variable is counterintuitive. One would assume that as unemployment increases, crime rates would also increase. The demographic variable (percent black) is significant when looking only at gun crime indicators. African-American populations are concentrated in areas of higher gun crime, and previous literature points to this relationship.

As Table 4 shows, these results change when the data are segmented into presidential versus non-presidential election years. Presidential election years include the five years 1980, 1984, 1988, 1992, and 1996; non-presidential election years include the other years in the sample (1982, 1986, 1990, 1994, and 1998). The table shows that, in presidential election years, a one-percentage point increase in voter turnout is associated with a reduction of 1.026 victims per 1,000,000 residents and a reduction of 1.375 offenders per 1,000,000 residents. With a mean victimization rate of 68.66 victims per 1,000,000 residents, this analysis suggests that there is some substantive effect of voter turnout on crime rates. By way of comparison, from 2004 to 2008, the national turnout increased by 1.6 percentage points, a large increase in voter turnout.
That would be associated with a 1.64 victim decrease in victimization rate per 1,000,000 residents, or a reduction of 0.239% for the mean victimization rate in the sample.

The negative sign of the coefficients on the variable for turnout is what would be expected based on previous studies. However, the effect is likely understated because of omitted variable bias. More controls would limit the omitted variable bias that now shows in the results.

However, there are limitations to using this model for a relatively small sample size. The sample size in the segmented models is small for a fixed effects model. The overall sample has 475 observations, but the segmented samples have only 241 and 234 observations for the presidential and non-presidential election years.
VI. Discussion

This section discusses the issue of omitted variable bias and also speculates on reasons for the difference in results between presidential election years and other years.

There may be omitted variable bias affecting the model. First, there are characteristics of elections that are not captured in my dataset. For instance, although I segmented the data by presidential versus non-presidential election years, it is not possible to indicate how competitive elections in a non-presidential election year may have been or how much political organizing a particular candidate might have done. This type of omitted variable would cause a positive bias on the coefficient of interest if the candidate reached out to communities with increased crime.

Other potential omitted variables would be any number of crime intervention variables. There could be efforts by state governments to reduce crime rates that would not be captured in the controls included in my analysis. However, crime prevention is not usually managed at the state level, and efforts within particular cities or other jurisdictions might not have a noticeable impact on state crime rates. This factor would be more important in a model that was not using state-level fixed effects.

There is also potential for omitted variable bias due to state policies that might have an indirect impact on crime rates and that would not be captured in the control variables or in the state or year dummies in the models. For example, state policies for education, sentencing, or social safety net policies might influence crime rates independently of the other controls in the model.

Changes in state sentencing guidelines would have an impact on crime rates as well. For example, if a state implemented very strict sentencing guidelines, such as “three strikes and you’re out,” where someone convicted of a third crime receives mandatory sentencing, it is
possible that potential criminals would be detained and unable to commit more crimes. The 1980s and 1990s were especially active times for these types of changes in state drug policy, and it is possible that states that implemented policies such as these would have seen an impact on crime rates.

Education may also be a factor. For instance, state level education policies might influence crime rates apart from the other controls in the models. If a state increased education funding during the time period studied, thereby possibly increasing educational attainment, there may be a reduction in crime apart from the impact of voting participation or control variables.

A state might also have changed policies related to social safety net programs. The time period examined in this study marked vast changes in welfare policy within states. If particular states drastically changed their welfare policy in one year, it would have had an impact on poorer communities that have higher crime rates.

There are a few possible reasons why there are differences between the presidential and non-presidential election years. For example, it is likely the characteristics of voters are different for the two separate categories. Participation for presidential election years is higher overall, and it may be that people who vote in presidential election years but not in non-presidential election years are those who are not connected very well to the community already. If these marginal voters are ones for whom voting reduces crime rates, then this could explain why there are effects in presidential election years but not in other years. Wolfinger, Rosenstone, and McIntosh studied the difference between these two types of voters and found that “the most prominent characteristic of a midterm election is its lower turnout” and that “education,
occupation, and income are equally strong predictors of turnout as in presidential contests.\footnote{8}

However, they did not find large differences between demographics, other than age in presidential and non-presidential voters.

If the results shown in the presidential election year data are valid, they would support findings of previous research on the association between voting participation and crime rates and they would have important policy implications.

First, if voting participation is linked directly to crime rates, states should consider voting eligibility when formulating election laws. Policies that lead to felon voter disenfranchisement could have negative societal impacts, and lawmakers might consider alternatives that give felons the ability gain social capital. Especially when considering the high rate of crime among people who committed crimes in the past, it is essential for lawmakers to consider how low-cost ways to reintegrate felons may further benefit society.

Many states have laws that exclude large portions of the population from voting. For example, in 2000 over seven percent of the state of Florida was disenfranchised because Florida permanently excludes felons from voting.\(^9\) However, granting voting rights to this population is politically charged and would likely have political implications. Uggen and Manza (2002) found that if Florida had granted felons voting rights in the 2000 election, the Democratic vote would have increased enough for candidate Al Gore to win the state of Florida in the presidential election and therefore win the presidency.\(^10\)

Second, there may be more proactive ways for nonprofit organizations to address this issue. Organizations that register voters might do well to focus on high crime areas in order to achieve broader goals of building social capital in certain communities.

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10 Ibid.
Third, political organizations or political parties might consider the benefits of campaigns that increase turnout in areas with traditionally low levels of social capital. This could mean supporting African-American or Latino candidates in low-turnout areas with high concentration of these demographic groups.

However, the results in this research are not strong enough in either direction to point to definitive policy actions, but rather they point to a need for further research in this area. A major opportunity for future research in this area is related to the last point above. Researchers could study the effects of a natural experiment like the one we saw in the 2008 election, with vast increases in voters from urban areas, which have trends of higher crime. Further, a pertinent study could include this voting behavior using data from 2000-2010 and the same models used in the present study.

Other research might also employ different units of measure, such as county or community-level data to see whether variation on a smaller scale may affect results. Studies of voter turnout and crime rates at the county or community level might show different results from those found in my research. There would need to be more controls in models with smaller units of measure, and there would be more challenges in gathering this type of data because surveys are difficult and expensive to administer.

Lastly, because the present research uses aggregate data to make assumptions about individual behavior, it would be valuable to study individual surveys of voting participation and likelihood to commit crimes. Previous research in this field has used data such as this, but it would be useful to see how recent elections might have affected the results.
VIII. Conclusion

My research did not find a correlation between crime rates and voter turnout across states over time. While previous research indicates there is a relationship and that increased social capital within disadvantaged neighborhoods will lead to decreased crime levels, I found that there does not appear to be a discernable effect of voting turnout rates on crime rates over the entire sample. There were statistically significant results when the data was segmented into presidential versus non-presidential election years, but these models were based on smaller sample sizes and have associated limitations.

At the aggregate state level, there does not appear to be enough variation in turnout each year to have a noticeable impact on crime rates. In previous research, it is possible that at the community level, there was enough year-to-year variation in turnout rates to have an impact on other community-level factors, such as crime rates. However, at the state level over time the variation may not be large enough to show an impact. There might also be value in estimating models that capture lagged effects of increasing political involvement.

More years of data and more information about states would likely improve the results for the models in this research. Because this research only observed the effects for 50 states over 20 years, it might not have captured important changes in particular years. It would be interesting to study the impact of the 2008 election, where turnout increased dramatically in areas of higher crime. There will likely be a breadth of research on the impact of increased voter turnout among African-Americans during the 2008 election, and it will be valuable to understand the broader impact of these increases.
IX. Bibliography


