Crime Rates and Voter Turnout

[redacted] and Danny Weiner

L32 Poli Sci 3403: Politics of Congressional Elections

13 December 2014

Crime Rates and Voter Turnout

Cameron Barnes and Danny Weiner
L32 Poli Sci 3403: Politics of Congressional Elections
13 December 2014

INTRODUCTION

The scope of this paper pertains to the impact of violent crime and property crime rates (or lack thereof) in congressional elections. This is modeled by a state-by-state analysis, examining several statistics made available by the FBI's Uniform Crime Reporting (UCR) system. In order to ensure that we have consistent definitions of violent crime and property crime across all 50 states, we used this database to enforce a standard. With that, the guiding principle -- the specific research question to be addressed -- boils down to: how do varying degrees of criminal activity impact turnout in general elections for the United States Senate? Preliminary statistics tell us that the 2014 midterm election saw the lowest turnout percentage in the modern political history of the United States:

> General election voter turnout for the 2014 midterms was the lowest it has been in any election cycle since World War II, according to early projections by the United States Election Project. Just 36.4 percent of the voting-eligible population cast ballots as of last Tuesday… participation has been dropping since the 1964 election, when voter turnout was at nearly 49 percent.[1]

We are looking to explore whether rising and falling crime rates align directly, indirectly, or not at all with turnout rates, as well as the implications therein. This is important, as registered voter turnout in the United States is an oft-discussed issue, consistently analyzed in roughly similar fashion. The goal here is to bring new insight to a standing issue, viewing it through a different lens to perhaps suggest alternative criteria. Understanding why the American populace does not exercise their right to be heard is crucial to interpreting broader trends in American politics. Videlicet, the importance of studying voter turnout lies with the importance of studying electoral

---

[1] DelReal, Jose. "National Roundup: Midterm Voter Turnout Lowest since World War II." The Washington Post, November 10, 2014, 1.

outcomes, as "the higher the turnout, the closer the election".[2]

When examining institutional factors, we must maintain an understanding of just what the two main categories of crime are:

TABLE 1 GOES HERE

Table 1 provides an outline of the facets that underpin each type of crime in question.

The 1990s saw a significant spike in crime rates, drawing equally significant media, personal, and political attention. We are curious to see whether this correlates positively with voter turnout, in the interest of promoting a "tough on crime" stance in the political sphere. Or perhaps it correlates negatively, with the fear of crime discouraging potential voters from heading to the polls. Or it could be the indicator of something completely different, a fundamental societal issue at hand. Maybe higher income correlates with higher levels of voting, and at the same time indicates a lower violent crime rate: "Better educated, wealthier, higher-status, and older people are clearly overrepresented in the electorate".[3]

THEORY

Studies have indicated that voter turnout is a highly variable entity, dependent on a myriad of arguably disparate factors. There have been several theories in place as to how turnout can be impacted. Scandal, weather, and seemingly irrelevant events can not only impact turnout but also the end results of the election. In some way, we can also take a look at how the geographic and political scale causes turnout numbers to plummet or skyrocket; as per conventional wisdom, presidential election years see, on average, a 12 percentage point boost,

---

2 Jacobson, Gary C. *The Politics of Congressional Elections*. 8th ed. Upper Saddle River: Pearson Education, 2013, 2009. Print. Pearson Classics in Political Science, 122.

3 Ibid. 124.

possibly due to greater party mobilization and media attention.[4] Standard inconveniences can also lead to a marked decrease: weather systems (rain, in particular, it would seem) may discourage potential voters, as might transportation costs, work schedules, sluggish same-day registration -- the list goes on. Not to mention some portion of the American citizenry may just choose to abstain rather than vote at all. With that, it is fair to posit that the concept of crime rates may also induce fluctuation in voter turnout.

Additionally, we see crime rates as reflective of more than themselves. It is reasonable to expect that higher crime rates are likely to be seen in areas with higher populations, cities especially. Urban environments have higher population densities than rural ones, a finding supported by virtually every form of urban modeling. We may also expect to see more effective criminal activity reporting mechanisms in the former. Data collection from a highly centralized, collected population requires a less extensive dragnet to be cast, rather than having to account for a dispersed, perhaps inadequately connected community. Easier to manage and more rapid, it is also less likely to see instances go unreported, left out and falling through systematic cracks.

Accordingly, voters in areas of high population density can be expected to be more likely to vote because these voters experience increased benefits and decreased costs for voting. For reference, the calculus of voting is

$$\mu_0 = PB - C, \qquad (1)$$

where μ_0 is the value of voting, **P** standing for the probability of a favorable result, **B** standing for the benefits of a favorable result, and **C** standing for the cost of heading to the polls. For our interests, **P** is less likely to vary based on the urban/rural divide. In an urban environment, **C** is

[4] Ibid. 120.

likely to be a smaller value, with a larger density of polling locations and a generally more accessible Election Day experience. **B** is likely to be larger in an urban environment, as policies typically favor urban environments over rural ones due to that very same population density disparity. Politicians will push for policies that benefit a greater percentage of the electorate in the interest of retaining or gaining support on a grander scale: ”Thus, citizens have the votes that members of Congress need and members of Congress are willing to reward citizens for their votes”.[5] Thus, it is fair to expect to see higher voter turnout amongst eligible voters in higher crime areas, because areas that are likely to have better reporting mechanisms for criminal activity are also likely to have more civic resources, making voting easier for the populace.

LITERATURE REVIEW

Keeping in mind our interest of how crime rates impact voter turnout, we want to ground our discourse in past research to guide our analysis. Political scientists in the past have examined the impact of violence on voter turnout; others have studied a sidestream concern of our topic, examining felon disenfranchisement and its impact on voter turnout; and others still have studied the converse of our question, examining how voter turnout affects crime rates.

With a focus on more recent Mexican presidential contests as the core of their empirical data, Ley Gutierrez and Sandra Jessica draw several conclusions in their dissertation. Foremost: “Statistical evidence shows that violent criminal activity depresses electoral turnout. Voters living in violent contexts are less likely to participate in elections. Victims of crime are

[5] Martin, Paul S. "Voting's Rewards: Voter Turnout, Attentive Publics, and Congressional Allocation of Federal Money." *American Journal of Political Science*47, no. 1 (2003): 110-27. Accessed November 21, 2014. http://www.jstor.org/stable/3186096, 111.

significantly less likely to participate in elections".[6] This is in opposition to the correlative claim of our hypothesis, granted, but these results come from Mexican presidential races, not U.S. Senate races. With such dramatically altered circumstances, we expect to see discrepancy. That said, the suggested impact is logical and appears to fit our study as well; conventional wisdom dictates that voters faced with violence will factor that violence into their vote-casting, and the co-authors note that this tends to considerably hurt support for the incumbent party.[7]

Additionally, conference papers from two annual meetings of the American Society of Criminology (2006 and 2009) reach the same conclusion, that violence discourages voting. 2006: "Several studies at the national, state, and county levels of analysis have suggested that civic involvement, especially when operationalized as voter turnout, is inversely related to crime rates".[8] 2009: "...civic involvement should be inversely related to crime rates".[9] These two papers were published based on domestic elections, but gave no indication as to whether or not U.S. Senate races were of primary concern. While none of these three studies answer our question directly, their findings are all in agreement with one another, which we take to indicate a consistent trend. In doing so, we find evidence to suggest our hypothesis will prove incorrect, but cannot say for sure until evaluating our own data.

Virtually every one of the 50 states restricts the voting rights of felonious citizens. As

---

[6] Gutierrez, Ley, and Sandra Jessica. "Citizens in Fear: Political Participation and Voting Behavior in the Midst of Violence." Accessed December 1, 2014, 1.

[7] Ibid.

[8] Hannon, Lance. "Voter Turnout and Neighborhood Violent Crime Rates."*American Society of Criminology*, 2006, 1-2. Accessed December 1, 2014. SocINDEX with Full Text, 1-2.

[9] Vigilione, Jill. "Political Participation, Poverty, and Neighborhood Crime Rates." *American Society of Criminology*, 2009, 1. Accessed December 1, 2014. SocINDEX with Full Text, 1.

prison populations rise, the size of the ineligible group grows alongside it. Racial imbalances in incarceration thus shape the racial composition of said group. Accordingly, one would expect to see voter turnout on the whole impacted, with voter turnout among minority races especially so. Christopher Uggen and Jeff Manza explain so in their co-authored article: "A number of studies have suggested that disenfranchisement is likely to have impacted both electoral turnout and, in a handful of cases, even electoral outcomes".[10] It goes without saying that exploring this topic fully is outside of the scope of this paper. We look only at voter turnout percentages amongst the population of eligible voters, and thus are not considering factors shaping the size of the overall populace. Even if we were, it would not necessarily affect our results. In 2004, scholar Thomas J. Miles uncovered data revealing that: "disenfranchisement has no discernible effect on state-level rates of voter turnout. The absence of an effect is consistent with the view that on average felons belong to demographic groups that, although eligible to vote, infrequently exercise that right".[11]

Finally, there are also publications regarding the effect voting has on criminal activity. Interesting explorations of the converse effect of what we are studying, they also suggest the potential for recursion, highlighting another layer of the relationship at hand. In other words -- those of Uggen and Manza -- "reintegration as a voting member of one's community would appear to be a logical analog to work and family reintegration", the latter two being the most common recidivism deterrents.[12] Obviously instances of reintegration as a voting member of

---

[10] Uggen, Christopher, and Jeff Manza. "Voting and Subsequent Crime and Arrest: Evidence from a Community Sample." 36 Colum. Hum. Rts. L. Rev. 193 (2004-2005), 235.

[11] Miles, Thomas J. "Felon Disenfranchisement and Voter Turnout." 33 J. Legal Stud. 85 (2004), 85.

[12] Uggen, Christopher, and Jeff Manza. "Voting and Subsequent Crime and Arrest: Evidence from a Community Sample.", 194.

one's community are predicated on state-specific felon disenfranchisement laws, as some states permanently bar all felons from ever voting again. In states where reintegration is possible, the co-authors found evidence of bivariate correlation: "Those who vote are less likely to be arrested and incarcerated, and less likely to report committing a range of property and violent offenses".[13] The other facet of this converse exploration lies in the implications. A proven relationship, wherein voter turnout impacted crime rates, would have 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.[14]

We can clearly see that scholarly work related to our overarching question -- how do varying degrees of criminal activity impact turnout in general elections for the United States Senate? -- explores tangential questions and concerns, but each of those tangents has implications for our model as well. Gutierrez and Jessica, Hannon, and Viglione all separately found that violence discourages political participation. While the three studies were not about our exact question, the shared result suggests that the core relationship will remain, albeit to varying degrees, irrespective of scale or nation. Uggen and Manza found that felon disenfranchisement *may* impact both turnout and electoral outcomes themselves; however, Miles found that the racial imbalance in the United States penal system means that the majority of the disenfranchised felon population belong to minority ethnic groups who infrequently exercise their voting right, on the

---

[13] Uggen, Christopher, and Jeff Manza. "Voting and Subsequent Crime and Arrest: Evidence from a Community Sample.", 208.

[14] Santangelo, Theresa. "Does Voting Really Matter? The Effect Of Voting Turnout Rates On Crime." 2011. Accessed December 2, 2014, 2.

whole. Thus, felon disenfranchisement should not play a significant role in our data collection and findings. Uggen and Manza again, as well as Santangelo, found that voting may have an impact on crime rates, based on the idea that voting is a form of engagement with society and that engagement tends to discourage violent behavior. Santangelo proffered several policy implications, indirectly affirming the value of a close examination of the relationship between voter turnout and crime rates.

Given that there are few studies in the context of the United States, and Senate races in particular, we believe that our research is a step in the right direction, filling a gap that needs to be served. Thus, our study fits in with extant scholarly discussion by addressing the overarching topic -- being the relationship between crime rates and voter turnout -- with a different frame.

DATA AND METHODS

For this experiment, we are using violent and property crime rates as our stimuli of interest. This information is broken down into state-level data by year (for our purposes, from 1980-2012). We found this data on the Uniform Crime Reporting (UCR) database affiliated with the FBI, which amalgamates crime reports from all 50 states and then assigns standardized designations for violent and property crimes, among others. Meanwhile, the dependent variable that we are examining is the turnout rate in U.S. Senate elections from 1980-2012. To collect this data, we used the United States Elections Project to collect data on turnout rates of the voting eligible population (VEP) in every even-numbered year. In order to further filter this data, so that we only used years with Senate elections, we used state public records and sites such as Ballotpedia to determine if there was an election held in that cycle. This created a database of

572 Senate elections with corresponding violent crime and property crime rates.

We plan on using violent crime and property crime rates to determine if changes in crime impact voter turnout, controlling for election year and state effects. We hypothesize that higher-crime areas (in terms of both violent crime and property crime) will have higher voter turnout because of better institutional control. This would mean better reporting mechanisms likely correlate to higher instances of voter turnout because states with better reporting are also more likely to have higher information voters and more precincts per capita. We plan on measuring this data by using a differences-in-differences analysis to hold constant all differences across states that remain constant over time. To show a more simplistic model of how crime relates to turnout, we will also provide a regression that only compares crime and turnout, as well as a regression that compares crime and turnout over time. After conducting these analyses, we will also pull out and examine states on an individual level, investigating differences over time. This will also enable us to compare the states with the highest and lowest rates of criminal activity to determine if there are any qualitative phenomena we could use to explain differences in voter turnout that cannot be explained solely by crime within the states of interest. In order to test this, we will be using the null hypothesis that there is **no relationship between crime rates and voter turnout at the α=.05 level.**

RESULTS

TABLE 2 GOES HERE

Table 2 provides a summary of how crime affects state-level voter turnout controlling for year and state-level differences.

TABLE 3 GOES HERE

Table 3 provides a equations for the effects of property crime and violent crime on turnout for all models (1-6).

In our first model (columns 1 and 4), we compared overall crime rates to overall turnout rates without accounting for any confounding variables. For both property crime and violent crime, we see the general pattern that higher rates of crime result in lower rates of voter turnout. The effect of property crime on turnout is illustrated by Equation 1 in Table 3. In this equation, the xp coefficient of -0.09 denotes that an increase of 11 property crimes per 1000 people is associated with a 1.00% decrease in turnout. Similarly, the effect of violent crime on turnout is illustrated by Equation 4. This coefficient of -1.16 implies that for each incremental increase in violent crime rates, we could expect 1.16% lower voter turnout. Both of these numbers are statistically significant at the $\alpha=0.05$ level. Additionally, both of these coefficients are considerable in size. In this context, it makes sense for violent crime to have a much larger effect on turnout than property crime because violence is much rarer than property crime and has a much larger effect on a community. Colloquially speaking, a murder is more likely to keep people locked tight in their homes than a couple of tagged mailboxes. Also of note in this case are the constants of 54.12 and 55.87 for property crime and violent crime equations, respectively. This means that, in a state with no crime (i.e., zero criminal activity), we could expect voter turnout in Senate elections to be around 55 percent.

Unfortunately, the models in cases 1 and 4 do not account for several important confounding variables that materially decrease their usefulness. In models 2 and 5 on Table 2, we compensate for variables that change on a yearly basis. This compensates for changes to both turnout and crime rates. For turnout, we are able to control for presidential versus midterm election years, as we can expect that presidential elections will see greater higher turnout than midterm cycles. Additionally, we can control for a systemic increase in crime throughout the

1990s, across all states. By implementing these controls, we are able to determine with greater accuracy the effect of crime rates on turnout. In Equations 2 and 5 on Table 3, we again illustrate the effects of property crime and violent crime on turnout rates. For property crime, we observe an xp coefficient of -0.14. This implies that an increase of 7 property crimes per 1000 people is associated with a 1.00 percentage point decrease in voter turnout, a more drastic relationship than we saw in Equation 1. Conversely, Equation 5 shows an xv coefficient of -1.06, meaning that an incremental increase of 1 violent crime per 1000 people leads to a decrease in voter turnout by 1.06%. Both of these numbers are still statistically and substantively significant, especially considering the wide variation in crime rates throughout the country. Some states, such as North Dakota, have violent crime rates of 0.513 and property crime rates of 25.54. Meanwhile, New York has at times experienced crime rates of 11.2 and property crime rates of 58.82 per 1000 people. Variations this extreme mean that we can expect a large difference in turnout between the two states. It is also important to note the constants in both of these models. For Equations 2 and 5, the constants for property crime and violent crime are 66.83 and 64.80. It is interesting to note the drastic increase in constants from Equation 1 to 2 and from 4 to 5. In practical terms, it means that we can expect, in a base case, for turnout to be 10 percent higher by controlling for year by year effects. We believe that in this circumstance, it essentially nullifies the effect of the 1990s crime wave on our data, instead allowing us to analyze the data without this confounding variable artificially driving down turnout rates.

Finally, we need to apply another constraint that accounts for state-level fixed effects. For example, some states have consistently more competitive elections than others and education

levels vary greatly amongst states. We understand both of these to have impacts on turnout, and applying a differences-in-differences analysis to the data collected in order to account for these variances. Equations 3 and 6 in Table 3 show these for both property crime and violent crime. These equations are distinctly different than the others. In Equation 3, the xp coefficient is 0.00 and is not statistically significant, meaning that we cannot extrapolate any relationship between property crime and voter turnout in Senate elections given the current data set. Furthermore, Equation 6 now has an xv coefficient of 0.23. Although this is not statistically significant, its interesting that the coefficient for xv switched from positive to negative and experienced an overall absolute change of 1.29. In the context of this paper, the coefficient swing tells us that violent crime is highly variable with state level effects, along with property crime. In turn, this explains that eligible voter turnout is explained in large part by state level effects, such as number of poll stations per capita or the competitiveness of election (more on these in the conclusion).

In summary, this means that we do not have sufficient evidence to reject the null hypothesis at the $\alpha=.05$ level. Our results are neither statistically nor substantively significant, as there is not any predictive power with any of our formulas. We cannot use either property crime or violent crime to predict voter turnout in Senate elections on a state level.

DISCUSSION AND CONCLUSION

In our analysis, we are unable to find any statistically significant linear relationship between crime rates and voter turnout within our data. Bluntly speaking, this is outstanding news. It is reassuring to know that an increase in crime does not scare people to the point that it

influences voter turnout, or that crime is so bad that it drives people to the polls in some sort of effort to curb crime with tough on crime laws (or some other measure).

Instead, we believe that variances in voter turnout are caused by a litany of state-level effects. One such effect is the changing levels of electoral competition within states over time. For example, we can expect for a state with a candidate running unopposed or with a 20+ point lead in the polls to have a lower turnout than a fiercely competitive election where "every vote matters". If a state oscillates between these two types of electoral competition, then we can expect to see this contribute to changes in voter turnout, explaining some of the variance that we see in the model. Another contributing factor could be the different policies for running elections. In certain states, it may be more costly or hard to for citizens to exercise their right to vote. Additionally, state-level policy might change how incentivized citizens will be to turnout. Pursuant to the calculus of voting covered in page 3, if state policy is very far away from what the voter wants, the voter has more to gain if policy is changed with a new elected official.

Finally, we believe that crime rates could impact voters' trust in government, thus producing two viable electoral scenarios. In one instance, we envision that a considerable portion of any given populace is likely to come out and vote against the establishment, as one is wont to do when faced with a dissatisfactory state of affairs. Thus, higher levels of turnout may be anticipated, with a direct correlation to the minority party over the one currently in power. On the other hand, it is perhaps just as reasonable to expect an equally-sized portion of any given populace to refrain from exercising their right to vote; disillusionment in regards to the ability of government to respond to criminal activity could lead to a belief that voting is unlikely to bring any notable benefit and, as such, is simply not worth the cost. Although we are not sure which is

the a more likely outcome, we would be interested in seeing how this trust plays into future models and research.

Our findings did not let us make any conclusive research of how crime rates impact turnout throughout the United States. However, in the course of our experiment, we were able to understand just how substantively significant state-level effects are on voter turnout. Reflecting on the experiment, this makes sense because of the wide variation in how states operate. Laws, population levels, education all vary within states. It appears as though the 50 states operate more independently than we otherwise thought.

Bibliography

DelReal, Jose. "National Roundup: Midterm Voter Turnout Lowest since World War II." The Washington Post, November 10, 2014.

Gutierrez, Ley, and Sandra Jessica. "Citizens in Fear: Political Participation and Voting Behavior in the Midst of Violence." Accessed December 1, 2014.

Hannon, Lance. "Voter Turnout and Neighborhood Violent Crime Rates."*American Society of Criminology*, 2006, 1-2. Accessed December 1, 2014. SocINDEX with Full Text.

Jacobson, Gary C. "Congressional Voters." In *The Politics of Congressional Elections*, 122-124. 8th ed. Boston: Pearson, 2013.

Martin, Paul S. "Voting's Rewards: Voter Turnout, Attentive Publics, and Congressional Allocation of Federal Money." *American Journal of Political Science*47, no. 1 (2003): 110-27. Accessed November 21, 2014. http://www.jstor.org/stable/3186096.

Miles, Thomas J. “Felon Disenfranchisement and Voter Turnout.” 33 J. Legal Stud. 85 (2004).

Santangelo, Theresa. "Does Voting Really Matter? The Effect Of Voting Turnout Rates On Crime." 2011. Accessed December 2, 2014. https://repository.library.georgetown.edu/bitstream/handle/10822/553901/santangeloTheresa.pdf?sequ..

Uggen, Christopher, and Jeff Manza. “Voting and Subsequent Crime and Arrest: Evidence from a Community Sample.” 36 Colum. Hum. Rts. L. Rev. 193 (2004-2005)

Vigilione, Jill. "Political Participation, Poverty, and Neighborhood Crime Rates." *American Society of Criminology*, 2009, 1. Accessed December 1, 2014. SocINDEX with Full Text.

TABLE 1

Violent Crime	Property Crime
Murder/Manslaughter	Burglary
Forcible Rape	Larceny
Robbery	Motor Theft
Aggravated Assault	

Credit to FBI Uniform Crime Reporting Database

TABLE 2

	(1)	(2)	(3)	(4)	(5)	(6)
Property crime (per 1000 people)	**-0.09* (0.04)**	**-0.14* (0.03)**	**0.00 (0.04)**			
Violent crime (per 1000 people)				**-1.16* (0.20)**	**-1.06* (0.13)**	**0.23 (0.20)**
Constant	**54.12* (1.58)**	**66.83* (2.01)**	**56.01* (2.37)**	**55.87* (0.98)**	**64.80* (1.33)**	**54.89* (1.82)**
N	**572**	**572**	**572**	**572**	**572**	**572**
Year fixed effects	**No**	**Yes**	**Yes**	**No**	**Yes**	**Yes**
State fixed effects	**No**	**No**	**Yes**	**No**	**No**	**Yes**

Credit to the United States Elections Project and FBI UCR

TABLE 3

Case #	Equation
1*	**y=-.09xp+54.12**
2*	**y=-.14xp+66.83**
3	**y=0.00xp+56.01**
4*	**y=-1.16xv+55.87**
5*	**y=-1.06xv+64.80**
6	**y=.23xv+54.89**

y=voter turnout; xp=property crime per 1000 people; xv=violent crime per 1000 people

Credit to the United States Elections Project and FBI UCR