

Do Crime Rates Spike After a Democrat is Elected President?

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ABSTRACT

The authors examine state-level violent and property crime rates (as well as rates for murder, rape, and burglary) across all 50 states (including the District of Columbia) and within the four Census regions one year before and after U.S. presidential elections in 2008, 2012, and 2016. Violent and property crime rates in all states decreased significantly after Barack Obama's (a Democrat's) election in 2008 and re-election in 2012. Murder rates decreased significantly after both election years and burglary rates decreased significantly after 2012. Property crime rates also decreased significantly the year after Donald J. Trump's (a Republican's) election in 2016. But, rape rates were significantly higher in all states and murder rates were significantly higher in the West.

Introduction

During the 2020 presidential campaign, then-President Donald J. Trump, along with several other prominent Republicans, warned that crime rates would spike if Joe Biden, and Democrats in general, were elected that November. At the Republican National Convention, then-Vice President Mike Pence proclaimed: "The hard truth is you will not be safe in Joe Biden's America" [1]. Since the election of Joe Biden, should Americans expect an increase in crime? Is there a link between Democratic leaders and increased crime?

In 2006, M. R. Hagerty [2] analyzed vote shares by state in U.S. presidential elections from 1972 to 1996. The author shows that changes in crime rates during the incumbent's term *before* an election influence vote shares, but no attention was accorded to how crime rates changed in the year *after* presidential elections.

In 2016, the Brennan Center for Justice weighed in on then-presidential candidate Donald Trump's statement that "[d]ecades of progress made in bringing down crime are now being reversed." The Brennan Center for Justice cited a recent in-house study by Grawert and Cullen of overall crime rates and murder in America's 30 largest cities from 2014 to 2015. The authors concluded that crime overall remained roughly the same as in 2014, decreasing by 0.1 percent across cities. Murder rates rose, but three cities (Baltimore, Chicago, and Washington, D.C.) accounted for more than half of the national increase in murders [3].

Previous research has primarily examined year-to-year changes in crime rates and has not focused on the years *before and after* presidential elections with an eye on which political party took control of the White House.

This paper will compare crime rates across all states and the four Census regions one year *before and after* each of the three presidential elections in 2008, 2012, and 2016.

The Data

Aggregated crime rates (per 100,000 people) against persons (also known as violent crimes) and property, as well as the specific rates defined for murders, rapes, and burglaries, reported by the Federal Bureau of Investigation (FBI)

were collected in the year before and the year after President Barack Obama's election in 2008, President Obama's re-election in 2012, and President Donald J. Trump's election in 2016 [4].

All states were divided into four Census regions: the Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont); the Midwest (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin); the South (Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, Washington D.C., West Virginia); and the West (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming).

The definition of rape was revised in 2013 when the legal standard that constitutes rape became more expansive to include a larger range of victims and situations [5]. Comparisons involving rape crime rates for the 2008 and 2012 elections use the FBI's "rape_legacy" rate (the old definition) while comparisons in the year before and after the election in 2016 use the FBI's "rape_revised" (the updated definition).

Methodology

To test whether or not crime rates changed from the year before to the year after the presidential elections in 2008, 2012, and 2016, we ran a series of paired *t*-tests involving all 50 states (including the District of Columbia) and the four Census regions. These *t*-tests compared (i) average violent crime rates (aggregated over all types of violent crimes including murder and negligent homicide, rape, robbery, and aggravated assault) and (ii) average property crime rates (aggregated over all types of property crimes including burglary, larceny, and motor vehicle theft). We then ran a series of paired *t*-tests on three specific types of crimes: (i) murder, (ii) rape, and (iii) burglary. Our null hypothesis is that the average crime rate in the year preceding the election is equal to the corresponding average crime rate in the year following the election. Under a two-tailed alternative, the two averages are not equal, although Republicans might argue that the average crime rate one year after the election would be higher if a Democrat is elected president and lower if a Republican is elected president.

The Results

Table 1. Average Violent and Property Crime Rates in the Years Before and After President Obama’s Election in 2008

	2007	2009	<i>p</i> -value on difference*
Violent crimes			
<i>All states</i> ^a	427.20	400.93	<.0001
<i>Regions</i>			
Northeast (<i>n</i> = 9)	272.70	277.32	.6250
Midwest (<i>n</i> = 12)	349.33	333.28	.0965
South (<i>n</i> = 17)	577.50	529.21	.0002
West (<i>n</i> = 13)	409.51	381.21	.0006
Property crimes			
<i>All states</i> ^a	3197.71	2976.04	<.0001
<i>Regions</i>			
Northeast (<i>n</i> = 9)	2290.06	2270.42	.6597
Midwest (<i>n</i> = 12)	2955.30	2710.54	.0003
South (<i>n</i> = 17)	3677.19	3497.97	.0001
West (<i>n</i> = 13)	3422.82	3027.09	<.0001

*The *p*-values are for a two-tailed paired *t*-test.

^aIncluding the District of Columbia.

Sources: U.S. Department of Justice, Federal Bureau of Investigation, Table 4, Crime in the United States by Region, Geographic Division, and State, 2006-2007, <https://ucr.fbi.gov/crime-in-the-u.s/2007>;

Table 4, Crime in the United States by Region, Geographic Division, and State, 2008-2009, <https://ucr.fbi.gov/crime-in-the-u.s/2009>.

Table 1 shows the results of the paired *t*-tests before and after President Barack Obama’s (a Democrat’s) election in 2008. Both violent and property crime rates for all 50 states changed significantly in 2009 compared to 2007. In both cases, average crime rates significantly *decreased* ($p < .0001$). Among the Census regions, the decrease was significant for both violent and property crimes in the South and the West (but only for property crimes in the Midwest). There was no discernable change for states in the Northeast.

**Table 2. Average Violent and Property Crime Rates
in the Years Before and After
President Obama's Re-Election in 2012**

	2011	2013	<i>p</i> -value on difference [*]
<i>Violent crimes</i>			
<i>All states</i> ^a	369.40	356.64	.0023
<i>Regions</i>			
Northeast (<i>n</i> = 9)	272.96	260.13	.0198
Midwest (<i>n</i> = 12)	315.26	311.65	.6750
South (<i>n</i> = 17)	471.43	447.38	.0132
West (<i>n</i> = 13)	352.72	346.32	.3100
<i>Property crimes</i>			
<i>All states</i> ^a	2883.40	2739.94	<.0001
<i>Regions</i>			
Northeast (<i>n</i> = 9)	2280.74	2104.04	.0001
Midwest (<i>n</i> = 12)	2668.83	2491.86	.0054
South (<i>n</i> = 17)	3375.10	3132.21	<.0001
West (<i>n</i> = 13)	2855.71	2896.22	.4319

^{*}The *p*-values are for a two-tailed paired *t*-test.

^aIncluding the District of Columbia.

Sources: U.S. Department of Justice, Federal Bureau of Investigation, Table 4, Crime in the United States by Region, Geographic Division, and State, 2010-2011, <https://ucr.fbi.gov/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/tables/table-4>; Table 4, Crime in the United States by Region, Geographic Division, and State, 2012-2013, https://ucr.fbi.gov/crime-in-the-u.s/2013/crime-in-the-u.s.-2013/tables/4tabledatadeoverviewpdf/table_4_crime_in_the_united_states_by_region_geographic_division_and_state_2012-2013.xls.

Table 2 shows that in the year following President Obama's re-election in 2012, crime rates for all 50 states (both violent and property) fell significantly (compared to the year before his re-election). Among the Census regions, the decrease was significant for both crimes against persons and property in the South and Northeast (but only for property crimes in the Midwest).

**Table 3. Average Violent and Property Crime Rates
in the Years Before and After
President Trump's Election in 2016**

	2015	2017	<i>p</i> -value on difference [*]
<i>Violent crimes</i>			
<i>All states</i> ^a	379.86	389.43	.2310
<i>Regions</i>			
Northeast (<i>n</i> = 9)	249.94	244.72	.5336
Midwest (<i>n</i> = 12)	341.49	366.75	.0007
South (<i>n</i> = 17)	466.16	461.57	.7985
West (<i>n</i> = 13)	392.35	416.20	.2256
<i>Property crimes</i>			
<i>All states</i> ^a	2514.33	2414.63	.0014
<i>Regions</i>			
Northeast (<i>n</i> = 9)	1713.98	1555.91	.0071
Midwest (<i>n</i> = 12)	2264.68	2229.61	.2440
South (<i>n</i> = 17)	2864.47	2726.52	.0002
West (<i>n</i> = 13)	2840.99	2772.05	.5136

^{*}The *p*-values are for a two-tailed paired *t*-test.

^aIncluding the District of Columbia.

Sources: U.S. Department of Justice, Federal Bureau of Investigation, Table 4, Crime in the United States by Region, Geographic Division, and State, 2014-2015, <https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-4>; Table 4, Crime in the United States by Region, Geographic Division, and State, 2016-2017, <https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/tables/table-4>.

Table 3 shows that in the year following President Trump's (a Republican's) election in 2016, property crime rates fell across all 50 states (including the District of Columbia), with notable decreases in the Northeast and South. Surprisingly, average violent crime rates not only edged higher (albeit not discernably), but they actually increased significantly in the Midwest.

**Table 4. Average Murder, Rape, and Burglary Crime Rates
in the Years Before and After
President Obama's Election in 2008**

	2007	2009	<i>p</i> -value on difference [*]
Murder			
<i>All states</i> ^a	5.33	4.66	.0006
<i>Regions</i>			
Northeast (<i>n</i> = 9)	2.97	2.81	.4577
Midwest (<i>n</i> = 12)	3.97	3.63	.0682
South (<i>n</i> = 17)	8.38	7.21	.0148
West (<i>n</i> = 13)	4.25	3.58	.0849
Rape			
<i>All states</i> ^a	32.45	31.94	.3141
<i>Regions</i>			
Northeast (<i>n</i> = 9)	22.01	22.71	.3556
Midwest (<i>n</i> = 12)	33.84	33.85	.9960
South (<i>n</i> = 17)	32.36	30.73	.0288
West (<i>n</i> = 13)	38.52	38.14	.6595
Burglary			
<i>All states</i> ^a	681.31	677.40	.5759
<i>Regions</i>			
Northeast (<i>n</i> = 9)	453.86	457.98	.6822
Midwest (<i>n</i> = 12)	598.80	591.63	.5007
South (<i>n</i> = 17)	876.64	893.36	.1257
West (<i>n</i> = 13)	659.51	626.05	.0969

^{*}The *p*-values are for a two-tailed paired *t*-test.

^aIncluding the District of Columbia.

Sources: U.S. Department of Justice, Federal Bureau of Investigation, Table 4, Crime in the United States by Region, Geographic Division, and State, 2006-2007, <https://ucr.fbi.gov/crime-in-the-u.s/2007>; Table 4, Crime in the United States by Region, Geographic Division, and State, 2008-2009, <https://ucr.fbi.gov/crime-in-the-u.s/2009>.

Table 5. Average Murder, Rape, and Burglary Crime Rates in the Years Before and After President Obama's Re-Election in 2012

	2011	2013	<i>p</i> -value on difference*
Murder			
<i>All states</i> ^a	4.47	4.26	.0276
<i>Regions</i>			
Northeast (<i>n</i> = 9)	2.84	2.77	.7855
Midwest (<i>n</i> = 12)	3.82	3.77	.7560
South (<i>n</i> = 17)	6.46	6.08	.0191
West (<i>n</i> = 13)	3.58	3.39	.2941
Rape			
<i>All states</i> ^a	30.26	29.31	.3492
<i>Regions</i>			
Northeast (<i>n</i> = 9)	22.83	22.12	.5950
Midwest (<i>n</i> = 12)	33.99	29.65	.0275
South (<i>n</i> = 17)	28.34	27.41	.4985
West (<i>n</i> = 13)	34.48	36.47	.5068
Burglary			
<i>All states</i> ^a	673.06	592.82	<.0001
<i>Regions</i>			
Northeast (<i>n</i> = 9)	504.89	426.48	<.0001
Midwest (<i>n</i> = 12)	598.14	528.80	.0102
South (<i>n</i> = 17)	872.19	733.78	<.0001
West (<i>n</i> = 13)	598.25	582.75	.4413

*The *p*-values are for a two-tailed paired *t*-test.

^aIncluding the District of Columbia.

Sources: U.S. Department of Justice, Federal Bureau of Investigation, Table 4, Crime in the United States by Region, Geographic Division, and State, 2010-2011, <https://ucr.fbi.gov/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/tables/table-4>; Table 4, Crime in the United States by Region, Geographic Division, and State, 2012-2013, [https://ucr.fbi.gov/crime-in-the-u.s/2013/crime-in-the-u.s.-2013/tables/4tabledatadecoverviewwpdf/table 4 crime in the united states by region geographic division and state 2012-2013.xls](https://ucr.fbi.gov/crime-in-the-u.s/2013/crime-in-the-u.s.-2013/tables/4tabledatadecoverviewwpdf/table%204%20crime%20in%20the%20u.s.%20by%20region%20geographic%20division%20and%20state%202012-2013.xls)

When we examined three specific types of crime (two violent and one property), in the years before and after President Obama's election in 2008, Tables 4 and 5 show significant decreases in murder (across all 50 states, especially in the South) and significant decreases in rape in the South. In the years before and after his re-election in 2012, we observe significant decreases in murder in all states (especially in the South) and burglary (in all regions but the West). We note that Republican presidential candidate Mitt Romney won six of thirteen states in the West that year.

Table 6. Average Murder, Rape, and Burglary Crime Rates in the Years Before and After President Trump's Election in 2016

	2015	2017	<i>p</i> -value on difference*
Murder			
<i>All states</i> ^a	4.95	5.24	.1634
<i>Regions</i>			
Northeast (<i>n</i> = 9)	2.73	2.70	.8608
Midwest (<i>n</i> = 12)	4.41	4.65	.5075
South (<i>n</i> = 17)	7.42	7.59	.7482
West (<i>n</i> = 13)	3.76	4.47	.0135
Rape			
<i>All states</i> ^a	43.29	46.09	.0013
<i>Regions</i>			
Northeast (<i>n</i> = 9)	31.07	33.17	.1894
Midwest (<i>n</i> = 12)	45.00	50.53	.0012
South (<i>n</i> = 17)	40.82	42.19	.2382
West (<i>n</i> = 13)	53.40	56.05	.2875
Burglary			
<i>All states</i> ^a	487.94	437.25	<.0001
<i>Regions</i>			
Northeast (<i>n</i> = 9)	305.43	247.89	.0001
Midwest (<i>n</i> = 12)	434.52	398.32	.0015
South (<i>n</i> = 17)	604.76	533.66	<.0001
West (<i>n</i> = 13)	510.85	478.21	.0502

*The *p*-values are for a two-tailed paired *t*-test.

^aIncluding the District of Columbia.

Sources: U.S. Department of Justice, Federal Bureau of Investigation, Table 4, Crime in the United States by Region, Geographic Division, and State, 2014-2015, <https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-4>; Table 4, Crime in the United States by Region, Geographic Division, and State, 2016-2017, <https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/tables/table-4>.

Table 6 shows that in the years before and after President Trump's election in 2016, we observe significant decreases in burglary across all states (in all regions but the West), but *increases* in rape across all 50 states (especially in the Midwest) and significant *increases* in murder in the West.

Concluding Remarks

Neither violent nor property crime rates increased the year after Barack Obama (a Democrat) was elected and re-elected; in many cases, the crime rate decreases were statistically significant. By contrast, although property crimes in general (burglary, in particular) decreased after Donald Trump (a Republican) was elected in 2016, violent crime rates edged higher, rape *increased* across all states (notably in the Midwest) and so too did murder in the West.

The “hard truth” might be that people will be safer in Joe Biden’s America than if Donald Trump had been re-elected.

Future research could examine the before-and-after crime rates in Joe Biden’s America as well as before-and-after comparisons of presidents who preceded Barack Obama. An analysis of the Biden years, however, would be complicated by the impact of the COVID-19 pandemic on crime (2019, largely pre-pandemic with the first case not reported in the U.S. until January 2020, and 2021, in the midst of the pandemic). The COVID-19 pandemic has impacted crime in ways that have had nothing to do with the party affiliation of the sitting U.S. president.

References

1. B. Naylor, “Fact Check: Trump’s and Biden’s Records on Criminal Justice,” National Public Radio, August 30, 2020, <https://www.npr.org/2020/08/30/907026973/fact-check-trump-and-bidens-records-on-criminal-justice>.
2. M. R. Hagerty, “Quality of Life from the Voting Booth: The Effect of Crime Rates and Income on Recent U.S. Presidential Elections.” *Social Indicators Research*, Vol. 77, No. 2 (Jun., 2006), pp. 197-210.
3. A. Grawert and J. Cullen, “Crime in 2015: A Final Analysis.” Brennan Center for Justice https://www.brennancenter.org/sites/default/files/analysis/Crime_in_2015_A_Final_Analysis.pdf.
4. U.S. Department of Justice, Federal Bureau of Investigation, Table 4, Crime in the United States by Region, Geographic Division, and State, 2006-2007, <https://ucr.fbi.gov/crime-in-the-u.s/2007>; Table 4, Crime in the United States by Region, Geographic Division, and State, 2008-2009, <https://ucr.fbi.gov/crime-in-the-u.s/2009>; Table 4, Crime in the United States by Region, Geographic Division, and State, 2010-2011, <https://ucr.fbi.gov/crime-in-the-u.s/2011/crime-in-the-u.s.-2011/tables/table-4>;
4. Crime in the United States by Region, Geographic Division, and State, 2012-2013, https://ucr.fbi.gov/crime-in-the-u.s/2013/crime-in-the-u.s.-2013/tables/4tabledatadeoverviewpdf/table_4_crime_in_the_united_states_by_region_geographic_division_and_state_2012-2013.xls; Table 4, Crime in the United States by Region, Geographic Division, and State, 2014-2015, <https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-4>; and Table 4, Crime in the United States by Region, Geographic Division, and State, 2016-2017, <https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017/topic-pages/tables/table-4>.
5. S. B. Carbon, “An Updated Definition of Rape.” U.S. Department of Justice, 6 January 2012, <https://www.justice.gov/archives/opa/blog/updated-definition-rape>.