

# Mayoral Party Affiliation and Violent Crime Rates in America's Most Populated Cities

Arjan S. Kochar<sup>1</sup>, Fahmid Rashid<sup>1</sup>, Samuel P. Sullivan<sup>1</sup>, Sarrkos K. Thunyiswa<sup>1</sup> and Paul M. Sommers<sup>#</sup>

<sup>1</sup>Middlebury College, Middlebury, VT, USA

<sup>#</sup>Advisor

## ABSTRACT

The authors examine whether 2019 violent crime rates (in general) and murder, rape, robbery, and aggravated assault rates (in particular) are related to the party affiliation of a city's mayor. First, America's 100 largest cities are divided into three groups adjusting for the size of the city's population – top twenty, the next thirty most populated, and then the next fifty most populated. For the top 20 cities, there are surprisingly no discernable differences in average murder, rape, or aggravated assault rates in cities run by Democrats relative to those run by Republicans. In cities ranked 21 – 50 or 51 – 100, violent crime rates (with the exception of rape) are significantly higher in cities with Democratic mayors. The authors caution that association does not imply causation.

## Introduction

In 2016 then-President Donald J. Trump made “law and order” a central part of his campaign. He claimed in speeches and tweets that crime was concentrated in Democratic-run cities. And, he hoped that the three-word phrase would not only resonate with his base, but help him win re-election. On August 27, 2020, Trump tweeted:

The Ten Most Dangerous Cities in the U.S. are  
ALL run by Democrats, and this has gone on  
for DECADES! [1]

While most of the largest cities in the U.S. indeed are run by Democrats, we were curious to know whether they are also more violent than the smaller number of cities with about the same population run by Republicans.

Ferreira and Gyourko [2] studied the impact of mayoral elections on crime rates in over 400 U.S. cities (with a population of at least 25,000) between 1950 and 2000. Whether the mayor was a Democrat or a Republican, they found that differences in violent crimes (specifically murder and robbery) were not statistically different from zero. When the authors divided their sample by population size into “bigger” versus “smaller” cities, they again found no evidence that cities with a Democrat as mayor had higher crime rates.

Gates [3] observed that some of the fastest increases in murder rates between 2019 and 2020 were in Republican-run cities, notably Jacksonville, FL, Miami, FL, Fort Worth, TX, Tulsa, OK, Oklahoma City, OK, and Fort Worth, TX.

In this paper, we will investigate the relationship between a city's mayoral political affiliation and the violent crimes of murder, rape, robbery, and aggravated assault in America's largest 100 cities (with a population of at least 220,000).

## The Data

America’s 100 most populated cities based on 2019 U.S. Census estimates are divided into three groups: (i) the twenty most populated cities (run by 16 Democrats, 3 Republicans, and one Independent), (ii) the next thirty most populated (19 Democrats, 10 Republicans, and one nonpartisan); and (iii) the next fifty most populated (29 Democrats, 16 Republicans, three nonpartisan and two Independents). The three groups of cities are shown in Table 1 [4]. The six largest cities as of 2019 (New York, NY; Los Angeles, CA; Chicago, IL; Houston, TX; Phoenix, AZ; and Philadelphia, PA) were all run by Democrats.

**Table 1.** America’s 100 Most Populated Cities, 2019

### 20 most populated cities

1	New York, NY	8	San Diego, CA	15	Charlotte, NC
2	Los Angeles, CA	9	Dallas, TX	16	San Francisco, CA
3	Chicago, IL	10	San Jose, CA	17	Indianapolis, IN
4	Houston, TX	11	Austin, TX	18	Seattle, WA
5	Phoenix, AZ	12	Jacksonville, FL	19	Denver, CO
6	Philadelphia, PA	13	Fort Worth, TX	20	Washington, D.C.
7	San Antonio, TX	14	Columbus, OH		

### 21 – 50 most populated cities

21	Boston, MA	31	Milwaukee, WI	41	Raleigh, NC
22	El Paso, TX	32	Albuquerque, NM	42	Miami, FL
23	Nashville, TN	33	Tucson, AZ	43	Long Beach, CA
24	Detroit, MI	34	Fresno, CA	44	Virginia Beach, VA
25	Oklahoma City, OK	35	Mesa, AZ	45	Oakland, CA
26	Portland, OR	36	Sacramento, CA	46	Minneapolis, MN
27	Las Vegas, NV	37	Atlanta, GA	47	Tulsa, OK
28	Memphis, TN	38	Kansas City, MO	48	Tampa, FL
29	Louisville, KY	39	Colorado Springs, CO	49	Arlington, TX
30	Baltimore, MD	40	Omaha, NE	50	New Orleans, LA

### 51 – 100 most populated cities

51	Wichita, KS	68	Lincoln, NE	85	Reno, NV
52	Bakersfield, CA	69	Anchorage, AK	86	Buffalo, NY
53	Cleveland, OH	70	Plano, TX	87	Gilbert, AZ
54	Aurora, CO	71	Orlando, FL	88	Glendale, AZ
55	Anaheim, CA	72	Irvine, CA	89	No. Las Vegas, NV
56	Honolulu, HI	73	Newark, NJ	90	Winston-Salem, NC
57	Santa Ana, CA	74	Durham, NC	91	Chesapeake, VA
58	Riverside, CA	75	Chula Vista, CA	92	Norfolk, VA
59	Corpus Christi, TX	76	Toledo, OH	93	Fremont, CA
60	Lexington, KY	77	Fort Wayne, IN	94	Garland, TX
61	Henderson, NV	78	St. Petersburg, FL	95	Irving, TX

62	Stockton, CA	79	Laredo, TX	96	Hialeah, FL
63	St. Paul, MN	80	Jersey City, NJ	97	Richmond, VA
64	Cincinnati, OH	81	Chandler, AZ	98	Boise, ID
65	St. Louis, MO	82	Madison, WI	99	Spokane, WA
66	Pittsburgh, PA	83	Lubbock, TX	100	Baton Rouge, LA
67	Greensboro, NC	84	Scottsdale, AZ		

Source: U.S. Census, <https://www.census.gov/data/tables/time-series/demo/popest/2010s-total-cities-and-towns.html#ds>

Our data on both violent crimes and specific crimes against persons (murder and negligent homicide, rape, robbery, and aggravated assault) in each of these 100 most populous cities comes from the 2019 Uniform Crime Reporting (UCR) Program conducted by the Federal Bureau of Investigation (FBI) [5].

The FBI UCR Program does not report crime statistics for cities that provide the FBI with incomplete data or noncompliant methodology during the twelve months of collected offense reports from agencies. Thus some law enforcement agencies for several cities in the top 100 most populous cities (indicated by the U.S. Census Bureau) were missing from the 2019 UCR data. These cities include: Atlanta, GA; Fresno, CA; Indianapolis, IN; Philadelphia, PA; Pittsburgh, PA; and Winston-Salem, NC. Data on violent crime on all six cities but Winston-Salem, NC are collected from 2018, the latest available UCR data [6]. Data on violent crime in Winston-Salem, NC are from 2014 UCR data, the latest available year for this aforementioned agency [7]. Violent crime rates are the number of offenses (murders and negligent homicides, rapes, and aggravated assaults) per 100,000 people using the FBI’s reported population data. Moreover, we use the geographic boundaries of law enforcement agencies rather than those of incorporated places as defined by the U.S. Census Bureau. The FBI’s population data are taken from the same year (2019, 2018, or 2014) as the crime data for each city to ensure an accurate crime rate calculation.

Data on the political party of the mayor for the 100 most populous cities in 2019 (or 2018 or 2014 for cities that did not report in 2019) are from Ballotpedia, a “nonprofit and non-partisan online political encyclopedia that covers America’s federal, state, and local politics, elections, and public policy” [8].

## Methodology

To test whether or not average violent crime rates were higher in cities run by Democrats, we used a series of one-tailed two-sample *t*-tests. Under the null hypothesis, the two average rates are the same; under the one-tailed alternative, the average violent crime rate was higher in cities run by Democrats. A total of twenty *t*-tests were run, one for each type of violent crime (including an aggregated measure of all violent crimes) for each of the three groups of cities based on population size and for all 100 cities taken together. Cities run by Independents or nonpartisan mayors were excluded from our samples. Our chosen alpha ( $\alpha$ ) level of significance is .05. That is, if the *p*-value is greater than  $\alpha = .05$ , we cannot reject the null hypothesis, while if it is less than .05, we must reject the null in favor of the alternative hypothesis that violent crime rates are higher in cities with a Democratic rather than a Republican mayor.

## The Results

America’s 100 largest cities are presented in four groupings (20 most populated cities; top 21 – 50 most populated cities; top 51 – 100 most populated cities; and 100 most populated cities). For all three groups arranged by population size, there are more cities with Democratic mayors than with Republican mayors. Surprisingly, among the 20 most populated cities, only the average robbery rate is significantly higher in cities with a Democratic mayor. Among cities in the next two highest populated groups, murder, robbery, and aggravated assault rates are statistically higher in cities

Democrats control. And, when all 100 of America’s largest cities are grouped together, all violent crime rates (with the exception of rape) are significantly higher in cities with Democratic mayors.

**Table 2. Average Violent Crime Rates in America’s 100 Most Populated Cities, by Party of Mayor, 2019**

	<b>Democratic mayor</b>	<b>Republican mayor</b>	<b>p-value on difference*</b>
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<b>20 most populated cities<sup>1</sup></b>	<i>n</i> = 16	<i>n</i> = 3	
Violent crimes	757.79	484.54	<b>.038</b>
Murder	10.63	8.40	.303
Rape	59.94	50.40	.214
Robbery	245.88	113.96	<b>.013</b>
Aggravated assault	441.35	311.77	.102
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<b>21 – 50 most populated cities<sup>2</sup></b>	<i>n</i> = 19	<i>n</i> = 10	
Violent crimes	1018.23	542.49	<b>.006</b>
Murder	17.58	6.83	<b>.015</b>
Rape	71.40	57.87	.185
Robbery	282.83	112.42	<b>.004</b>
Aggravated assault	646.43	365.37	<b>.017</b>
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<b>51 – 100 most populated cities<sup>3</sup></b>	<i>n</i> = 29	<i>n</i> = 16	
Violent crimes	734.23	395.13	<b>.003</b>
Murder	12.94	3.99	<b>.004</b>
Rape	60.40	50.58	.189
Robbery	196.10	100.77	<b>.002</b>
Aggravated assault	464.79	239.79	<b>.004</b>

**Table 2. Average Violent Crime Rates in America’s 100 Most Populated Cities, by Party of Mayor, 2019 (Continued)**

	Democratic mayor	Republican mayor	<i>p</i> -value on difference*
<i>100 most populated cities</i>	<i>n</i> = 64	<i>n</i> = 29	
Violent crimes	824.43	455.19	<.001
Murder	13.74	5.43	<.001
Rape	63.55	53.07	.082
Robbery	234.29	106.15	<.001
Aggravated assault	512.85	290.54	<.001

\*One-tailed *p*-value that under the alternative hypothesis the average crime rate is higher in cities with Democratic mayors.

<sup>1</sup>Excludes San Antonio, TX whose mayor is an Independent.

<sup>2</sup>Excludes Las Vegas, NV whose mayor is nonpartisan.

<sup>3</sup>Excludes mayors from Riverside, CA (Independent), Laredo, TX (Independent), Chandler, AZ (nonpartisan), Reno, NV (nonpartisan), and Fremont, CA (nonpartisan).

Sources:

[https://ballotpedia.org/Party\\_affiliation\\_of\\_the\\_100\\_largest\\_cities#Mavoral\\_partisanship:2016-2021](https://ballotpedia.org/Party_affiliation_of_the_100_largest_cities#Mavoral_partisanship:2016-2021) ; “Table 8: Offenses Known to Law Enforcement, by State and City.” Federal Bureau of Investigation (FBI),

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## Concluding Remarks

Any snapshot comparison of violent crime rates across cities glosses over the *causes* of violent crime. Six of the twenty most populated cities (five in Texas and one in Arizona), for example, are located in states with arguably the most lenient gun laws. Other factors known to have an impact on violent crime rates (like population density and demographic homogeneity, economic anxiety arising from poverty and unemployment, and the efficacy of law enforcement agencies) will help us understand, with more nuance, the relationship between a city’s mayoral political affiliation and its violent crime rate.

Future research could examine the degree of income and political heterogeneity within cities to help explain differences in violent crime rates. Finally, our study of 2019 crime rates pre-dates the hardships of the coronavirus pandemic. The restrictions that were put in place during the pandemic were, for many people, detrimental to food and housing security. These in turn will likely contribute to more violence in America’s largest cities, many of which might still be led by Democratic mayors.

## References

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8. ballotpedia.org, [https://ballotpedia.org/Party\\_affiliation\\_of\\_the\\_mayors\\_of\\_the\\_100\\_largest\\_cities](https://ballotpedia.org/Party_affiliation_of_the_mayors_of_the_100_largest_cities).