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

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ABSTRACT

This paper examines the role played by the party affiliation of a mayor and property crime rates in America's 100 largest cities in 2019. The authors analyze the validity of claims made by former President Trump that Democratic cities have higher rates of property crime than Republican cities. Property crime rates (in general) and burglary, larceny, and motor vehicle theft rates (in particular) are compared in cities with a Democratic mayor to those with a Republican mayor. When all 100 largest cities are grouped together, there are significantly higher property crime rates in cities with Democratic mayors. But, when cities are arranged by size (top 20, 21 – 50, and 51 – 100), there is generally no evidence of a connection between mayoral political party and property crime rates in cities run by Democrats compared to cities run by Republicans.

Introduction

The law-and-order politics of Richard Nixon's era were recycled under the Donald Trump administration. These Nixon-era policies were popular with the 2016 Trump campaign and largely recycled under the Trump administration with popular support due to national perceptions of crime and its negative impacts on society [1]. The tough-on-crime narrative intensified considerably towards the end of Trump's presidency as a result of the civil unrest during the summer of 2020 sparked by the murder of George Floyd and led by the Black Lives Matter (BLM) movement. These narratives, amplified by media outlets, particularly emphasized property crimes, like looting and vandalism, occurring during BLM protests. Such narratives led 42 percent of respondents in one survey to believe that most people involved with BLM were "trying to incite violence or destroy property," despite 93 percent of BLM protests being entirely peaceful [2].

The law-and-order rhetoric emphasized the role of party affiliation in the crime rates and safety of America's cities. During a roundtable in Kenosha, Wisconsin, five days after a nearby shooting during a protest, Trump expressed his sentiments regarding the role party affiliation plays in the safety of America's largest cities. He claimed: "It's all Democrat, everything's Democrat. All of these problems are Democrat cities. We don't want to say it, but it is," referencing crime in major cities [3].

Ferreira and Gyourko [4] 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 property crimes (specifically, burglary and larceny) were not statistically different from zero. Dividing their sample by population size into "bigger" versus "smaller" cities did not change their finding of no partisan influence on property crime rates. The authors did not, however, indicate the size of each of their two smaller samples nor did they indicate the population size cutoff for each of the two samples.

Hopkins and Pettingill [5] examine the relationship between crime rates and an incumbent mayor's success in elections between 1990 and 2011 across 115 large cities, although the authors do not explain what they mean by

"large." Their work explores the relationship between mayoral success and such factors as crime rates, property values, and employment levels. They find that crime rates do not significantly influence election outcomes, but that economic factors like unemployment rates do. Moreover, they do not explicitly address the relationship between the mayor's political party and crime rates as this paper does.

In this paper, we will test the validity of the claim that the most dangerous cities with respect to crimes against property in America's largest 100 cities (with a population of at least 220,000) are "all" run by Democrats.

We compare the average property crime rates of the top 20, 21 – 50, 51 – 100 and top 100 most populous cities between those Democratic and Republican mayors in 2019, the most recent year for which complete Federal Bureau of Investigation (FBI) crime data are available. This comparison will enable us to determine whether there is evidence to support Trump's assertion that crime rates are higher in Democratic cities, which we define as cities with Democratic mayors. Thus we will test for an association between a certain city's mayoral political party and its rate of crimes against property.

The Data

Our ranking of the 100 most populous cities in the United States are from the U.S. Census Bureau's 2019 city population estimates based on births, deaths, migration, and geographic boundary changes since the 2010 census [6,7]. 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. 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. The two largest cities run by Republicans were San Diego, CA and Jacksonville, FL. Among the twenty most populated cities, seventy-five percent are located in either the West or South Census region; among the next thirty most populated cities, eighty percent are located in either the West or South; and in the next fifty most populated, the corresponding percentage is seventy-four percent.

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 total property crimes and specific crimes against property (burglary, larceny, and motor vehicle theft) 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) [8]. These data are published annually by the FBI to provide reliable crime statistics to law enforcement, chambers of commerce, legislators, criminal justice researchers, media sources, and anyone else interested in this information [9]. The categorization of specific offenses against property into burglary, larceny, and motor vehicle theft is a standardized practice in UCR reporting. While the UCR Program also includes data on arson as a fourth offense, we do not include arson in our study because it is excluded from the total property crime data and many city reports on arson were incomplete.

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 property crime on all six but Winston-Salem, NC are collected from 2018, the latest available UCR data [10]. Data on property crime in Winston-Salem, NC are from 2014 UCR data, the latest available year for this aforementioned agency [11]. The crime rates are calculated as a number of offenses 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 [12], a nonprofit digital encyclopedia that provides information on politics in the United States.

Methodology

To test whether or not average property crime rates per 100,000 people (using the FBI's reported population data) 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 property crime rate was higher in cities with Democratic mayors. A total of sixteen t-tests were run, one for each type of property crime (including an aggregate measure of all property crimes) for each of the three groups of cities based on population size and for all 100 cities together. Cities run by Independents or nonpartisan mayors were excluded from our samples. Our chosen alpha (α) 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 crime rates are higher in cities with Democratic mayors.

The Results

Table 2. Average Property Crime Rates in America's 100 Most Populated Cities, by Party of Mayor, 2019

	Democratic mayor	Republican mayor	p-value on difference*
20 most populated cities[1]	n = 16	n = 3	
Property crimes	3522.59	2626.80	.074
Burglary	525.18	406.34	.194
Larceny	2554.20	1876.42	.099
Motor vehicle theft	443.20	344.03	.099
21 – 50 most populated cities[2]	n = 19	n = 10	
Property crimes	3967.87	3167.30	.070
Burglary	607.56	481.90	.140
Larceny	2702.44	2269.83	.127
Motor vehicle theft	642.65	415.57	**.020**
51 – 100 most populated cities[3]	n = 29	n = 16	
Property crimes	3390.98	2813.90	.075
Burglary	580.00	434.07	.066
Larceny	2421.90	2062.70	.107
Motor vehicle theft	389.08	317.13	.128

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

	Democratic mayor	Republican mayor	p-value on difference[*]
100 most populated cities	n = 64	n = 29	
Property crimes	3583.13	2916.41	**.009**
Burglary	573.95	447.70	**.024**
Larceny	2538.26	2114.85	**.019**
Motor vehicle theft	475.28	353.86	**.011**

[*]One-tailed p-value that under the alternative hypothesis the average crime rate is higher in cities with Democratic mayors.
[1]Excludes San Antonio, TX whose mayor is an Independent.
[2]Excludes Las Vegas, NV whose mayor is nonpartisan.
[3]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_mayors_of_the_100_largest_cities#Mayoral_partisanship:_2016-2021 ; "Table 8: Offenses Known to Law Enforcement, by State and City." Federal Bureau of Investigation (FBI), Uniform Crime Reporting, September 2020, https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019;
Table 8: Offenses Known to Law Enforcement, by State and City, 2018, September 2019, https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018;
Table 8: Offenses Known to Law Enforcement, by State and City, 2014, September 2015, https://ucr.fbi.gov/crime-in-the-u.s/2014/crime-in-the-u.s.-2014/resource-pages/about-cius.

Table 2 shows that for all four groupings (20 most populated cities; 21 – 50 most populated cities; 51 – 100 most populated cities; and 100 most populated cities), there are surprisingly *few* statistically significant differences. Among the 20 most populated cities (excluding the city of San Antonio, TX whose mayor is an Independent), property crime rates for burglary, larceny, *and* motor vehicle theft are no higher in Democratic cities than in cities run by Republicans. Among cities ranked in the next highest populated group (excluding the city of Las Vegas, NV whose mayor is nonpartisan as well as the cities of Boston, MA – missing data on property crimes and motor vehicle thefts – and Albuquerque, NM – missing data on property crimes and burglaries) only motor vehicle theft rates are statistically higher in cities Democrats control. Among cities ranked 51 through 100 (excluding the cities of Riverside, CA; Laredo, TX; Chandler, AZ; Reno, NV; and Fremont, CA, all with Independent or nonpartisan mayors), there are again no differences in average property crime rates.

When all 100 of America's largest cities are grouped together, property crime rates are ostensibly significantly higher in cities run by Democrats. But, these results underscore the importance of adjusting for the size of the city's population. That is, *within* each of the three groupings by population, there are *no* apparent differences.

Concluding Remarks

The claim that property crime rates are significantly higher, on average, in cities run by Democrats than in cities of comparable size run by Republicans is not supported by our findings. Our snapshot comparison of America's 100 largest cities in 2019 (arranged in three different groups by population size) shows no statistically discernible differences in average burglary, larceny, motor vehicle theft, or an aggregate measure of property crime rates. Democrat-

run cities have not experienced significantly more property crime than Republican-run cities of comparable size. Thus, we find no empirical support for the claim that Democrat-run cities are more lawless or less orderly than Republican-run cities of comparable size.

Future research should try to control for the effect of incumbency, the margin of the elected mayor's victory, how well households are educated in these cities, how much they earn, the distribution of income among households, regional differences, and the percentage of minority households. Unlike the snapshot of crime in America's largest cities at a single point in time presented here, additional research over longer periods of time could help us better understand the relationship between crime rates and whether the mayor is a Democrat or a Republican.

References

1.   J. Zeitz. "How Trump is Recycling Nixon's 'Law and Order' Playbook." *POLITICO Magazine,* 18 July 2016. https://www.politico.com/magazine/story/2016/07/donald-trump-law-and-order-richard-nixon-crime-race-214066/.

2.   Armed Conflict Location & Event Data Project (ACLED). September 2020. Demonstrations & Political Violence in America: New Data for Summer 2020. *ACLED.* https://acleddata.com/2020/09/03/demonstrations-political-violence-in-america-new-data-for-summer-2020/.

3.   "Rev Transcription Editor." September 1, 2020. "Donald Trump & Bill Barr Visit to Kenosha, WI" (Transcript) *Rev.* https://www.rev.com/blog/transcripts/donald-trump-visit-to-kenosha-wi-transcript-september-1.

4.   F. Ferreira and J. Gyourko, "Do Political Parties Matter? Evidence from U.S. Cities." *The Quarterly Journal of Economics*, Vol. 124, No. 1 (Feb. 2009), pp. 399-422.

5.   D.J. Hopkins and L.M. Pettingill, "Economic Voting in Big-City U.S. Mayoral Elections," SSRN- Elsevier, February 20, 2015. https://dx.doi.org/10.2139/ssrn.2567294.

6.   U.S. Census Bureau, 2019a. City and Town Population Totals: 2010-2019. https://www.census.gov/data/tables/time-series/demo/popest/2010s-total-cities-and-towns.html#ds.

7.   U.S. Census Bureau, 2019b. Methodology for the Subcounty Total Resident Population Estimates: April 1, 2010 to July 1, 2019. https://www2.census.gov/programs-surveys/popest/technical-documentation/methodology/2010-2019/2019-su-meth.pdf.

8.   U.S. Department of Justice, Federal Bureau of Investigation, Uniform Crime Reporting, September 2020, Table 8: Offenses Known to Law Enforcement, by State and City, 2019, https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019.

9.   U.S. Department of Justice, Federal Bureau of Investigation, May 2017. Uniform Crime Reporting Statistics: Their Proper Use. https://ucr.fbi.gov/ucr-statistics-their-proper-use.

10.   U.S. Department of Justice, Federal Bureau of Investigation, Uniform Crime Reporting, September 2019, Table 8: Offenses Known to Law Enforcement, by State and City, 2018 https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018.

11.   U.S. Department of Justice, Federal Bureau of Investigation, Uniform Crime Reporting,

September 2015, Table 8: Offenses Known to Law Enforcement, by State by City, 2014, https://ucr.fbi.gov/crime-in-the-u.s/2014/crime-in-the-u.s.-2014/resource-pages/about-cius.

12.   Ballotpedia. "Party Affiliation of the mayors of the 100 largest cities."
        https://ballotpedia.org/Party_affiliation_of_the_mayors_of_the_100_largest_cities