RESEARCH

Crime in 2018: Final Analysis

By Ames C. Grawert and Cameron Kimble* PUBLISHED JUNE 12, 2019

In this final analysis of crime rates in 2018, we estimate that rates of violent crime, murder, and overall crime declined in the 30 largest American cities, with significant declines in murder. The data in this report are collected directly from local police departments. The FBI's final 2018 data, covering the entire United States, will be released in September.

The data reported here refine an initial Brennan Center report released in September, Crime and Murder in 2018: A Preliminary Analysis, which concluded that "increases in the murder rate in 2015 and 2016 were temporary, rather than signaling a reversal in the long-term downward trend" in crime and violence.[1] A December update reached the same conclusion, showing rates of crime, violent crime, and homicide all declining.[2] These continuing declines indicate that, while increases in crime in 2015 and 2016 merit further study, they did not signal the start of a new "crime wave."

Updated Tables 1 and 2 support conclusions similar to the Brennan Center's September and December reports, and now include complete data through the end of the year:

- **Murder:** The 2018 murder rate in the 30 largest cities is estimated to have declined by 8.0 percent since 2017. This finding indicates that the major-city murder rate will approximate 2015 levels but remain above 2014's low point.

Modest declines in most cities explain this decrease. The murder rate in Chicago, which increased significantly in 2015 and 2016, declined by nearly 12 percent but remains roughly 40 percent above 2014 levels. Baltimore, another city that continues to struggle with violence, also saw its murder rate decline by 9.1 percent. While Las Vegas saw its murder rate decrease significantly, by more than 40 percent, part of this decline is attributable to the mass shooting at the Mandalay Bay Resort, which led to an unusually high homicide total in 2017.

Some cities saw their murder rates rise in 2018, such as Washington, DC (35.6 percent) and Philadelphia (8.5 percent). These increases suggest a need to better understand how and why murder is increasing in some cities. New York City's murder rate also increased, but by less than 1 percent, making it essentially the same as the 2017 rate.

- **Crime:** The overall crime rate in the 30 largest cities in 2018 is estimated to have declined slightly from the previous year, falling by 3.5 percent. If final FBI data track these findings, crime will have again reached a record low, driven by declining rates of property crime.[3]

- **Violent Crime:** The violent crime rate is also estimated to have declined, falling by 4.0 percent from 2017.

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Estimates of crime and violent crime are based on data from 25 of the nation's 30 largest cities; estimates of murder include data from 26 cities. The Brennan Center's previous report on crime in 2018 is available here, and a report studying crime trends from 1990 to 2016 is available here.

Table 1: Crime in the 30 Largest Cities (2017–18) (updated May 30, 2019)

City	2017 Crime Rate (per 100,000)	2018 Crime Rate (per 100,000)	Percent Change in Crime Rate	2017 Violent Crime Rate (per 100,000)	2018 Violent Crime Rate (per 100,000)	Percent Change in Violent Crime Rate
New York[4]	1,959.9	1,944.4	−0.8%	511.3	499.1	−2.4%
Los Angeles[5]	3,236.0	3,134.7	−3.1%	700.0	675.2	−3.5%
Chicago[6]	4,297.5	4,182.8	−2.7%	1,033.7	983.8	−4.8%
Houston[7]*	5,165.2	Unavailable	Unavailable	1,036.8	Unavailable	Unavailable
Philadelphia[8]	3,936.0	3,944.0	0.2%	872.6	826.7	−5.3%
Las Vegas[9]	3,482.6	3,312.8	−4.9%	539.3	502.3	−6.8%
Phoenix[10]	4,362.2	4,082.7	−6.4%	691.5	654.8	−5.3%
San Antonio[11]	5,468.8	4,493.8	−17.8%	624.0	534.6	−14.3%
San Diego[12]	2,170.3	2,229.2	2.7%	327.4	329.4	0.6%
Dallas[13]*	3,897.6	Unavailable	Unavailable	712.6	Unavailable	Unavailable
San Jose[14]	2,789.3	2,825.3	1.3%	348.6	365.7	4.9%
Austin[15]	3,518.6	3,692.4	4.9%	372.1	384.5	3.3%
Charlotte[16]	4,478.6	4,313.6	−3.7%	663.5	633.6	−4.5%
Jacksonville[17]	4,097.9	3,949.2	−3.6%	571.2	549.6	−3.8%
San Francisco[18]	6,841.4	6,246.5	−8.7%	673.4	651.4	−3.3%
Indianapolis[19]	5,669.1	5,139.9	−9.3%	1,257.3	1,139.3	−9.4%
Columbus[20]*	4,353.0	Unavailable	Unavailable	408.0	Unavailable	Unavailable
Fort Worth[21]*	3,805.4	Unavailable	Unavailable	509.9	Unavailable	Unavailable
El Paso[22]	2,143.9	1,809.7	−15.6%	325.0	310.8	−4.4%
Seattle[23]	5,854.5	5,828.2	−0.4%	595.8	630.2	5.8%
Denver[24]	4,243.7	4,260.0	0.4%	576.7	629.2	9.1%
Louisville[25]	4,743.7	4,545.4	−4.2%	621.5	573.6	−7.7%
Detroit[26]	6,493.4	6,091.4	−6.2%	1,952.8	1,858.7	−4.8%
Washington, DC[27]	5,041.1	5,024.3	−0.3%	884.9	801.4	−9.4%
Boston[28]	2,715.8	2,617.6	−3.6%	626.7	594.7	−5.1%
Nashville[29]	4,883.2	5,067.8	3.8%	1,065.3	1,050.1	−1.4%
Memphis[30]*	8,210.8	Unavailable	Unavailable	1,912.9	Unavailable	Unavailable
Oklahoma City[31]	4,466.7	4,769.8	6.8%	714.2	777.5	8.9%
Baltimore[32]	6,892.8	6,377.6	−7.5%	1,964.7	1,815.6	−7.6%
Portland[33]	6,125.3	6,211.3	1.4%	448.3	479.2	6.9%
AVERAGE			**−3.5%**			**−4.0%**

Source: Police department and city reports. See endnotes for specific sources. Cities ordered by 2015 population size, consistent with past Center reports. Percentage changes in rates are calculated from unrounded estimates. Data points for all offenses except homicide were standardized to match UCR reporting criteria. For more information, see the Methodology.

* For these cities, the authors were unable to find full-year data on crime and violent crime.

Table 2: Murder in the 30 Largest Cities (2017–18) (updated May 30, 2019)

City	2017 Total Murders	2018 Total Murders Est.	Percent Change in Murder Est.	2017 Murder Rate (per 100,000)	2018 Murder Rate Est. (per 100,000)	Percent Change in Murder Rate Est.
New York[34]	292	295	1.0%	3.4	3.4	0.5%
Los Angeles	281	258	−8.2%	7.0	6.4	−9.0%
Chicago	653	576	−11.8%	24.1	21.3	−11.6%
Houston	269	268	−0.4%	11.5	11.3	−2.1%
Philadelphia	316	344	8.9%	20.1	21.8	8.5%
Las Vegas†	205	121	−41.0%	12.6	7.3	−42.2%
Phoenix	157	137	−12.7%	9.5	8.1	−14.8%
San Antonio	124	107	−13.7%	8.2	6.9	−15.5%
San Diego	35	35	0.0%	2.5	2.4	−1.3%
Dallas*	167	Unavailable	Unavailable	12.5	Unavailable	Unavailable
San Jose	32	28	−12.5%	3.1	2.7	−13.3%
Austin	25	32	28.0%	2.6	3.2	24.9%
Charlotte	86	57	−33.7%	9.4	6.1	−35.1%
Jacksonville	109	106	−2.8%	12.2	11.7	−4.2%
San Francisco	56	46	−17.9%	6.4	5.2	−18.8%
Indianapolis	156	161	3.2%	17.9	18.4	2.7%
Columbus*	142	Unavailable	Unavailable	16.3	Unavailable	Unavailable
Fort Worth*	69	Unavailable	Unavailable	7.9	Unavailable	Unavailable
El Paso	19	23	21.1%	2.8	3.3	20.6%
Seattle	27	32	18.5%	3.7	4.3	15.3%
Denver	59	67	13.6%	8.3	9.3	11.3%
Louisville	109	80	−26.6%	15.9	11.7	−26.8%
Detroit	267	243	−9.0%	39.8	36.5	−8.4%
Washington, DC	116	160	37.9%	16.7	22.7	35.6%
Boston	57	70	22.8%	8.3	10.1	21.1%
Nashville	110	89	−19.1%	16.3	13.0	−20.2%
Memphis*	181	Unavailable	Unavailable	27.7	Unavailable	Unavailable
Oklahoma City	81	52	−35.8%	12.5	7.9	−36.8%
Baltimore	342	309	−9.6%	55.8	50.7	−9.1%
Portland	24	26	8.3%	3.7	4.2	12.4%
AVERAGE			**−7.1%**			**−8.0%**

Source: Police department and city reports. See endnotes for specific sources. Cities ordered by 2015 population size, consistent with past Center reports. Percentage changes in rates are calculated from unrounded estimates. Data points for all offenses except homicide were standardized to match UCR reporting criteria. For more information, see the Methodology.

* For these cities, the authors were unable to find full-year data on homicides.

† Las Vegas's 2017 homicide count includes deaths due to the October 1, 2017, mass shooting outside the Mandalay Bay Resort and Casino.

Methodology

This report analyzes crime in the 30 largest American cities, based on population totals reported by the FBI's Uniform Crime Reporting program (UCR). It is part of a series of crime reports published each year by the Brennan Center for Justice at NYU School of Law. These reports are meant to provide near real-time data on crime trends in a sample of major American cities, as well as to provide some insight into national crime trends. Any reference to the "crime rate," "violent crime rate," or "murder rate" in this report refers to the average rate in the 30 largest cities — rather than national rates — and only includes cities for which data were available.

Sources for Crime Data

Annual data on crime through 2017 come from the Federal Bureau of Investigation's Uniform Crime Reports (UCR).[35] Final UCR data for 2018 have not yet been released. To build 2018 estimates, the authors collected crime data directly from police departments in the 30 largest American cities.

Some cities did not respond to the authors' data requests in time for publication. Complete data on crime were obtained for 25 cities; for murder, data were obtained from 26 cities.

For rate calculations, the authors projected city population assuming the average rate of population change for the past three years remained constant through 2018.

Offense Definitions

Offense data were categorized according to UCR definitions. Violent crime includes murder, robbery, and aggravated assault. Property crime includes burglary, larceny-theft, and motor vehicle theft. Murder includes murder and non-negligent manslaughter. Overall crime includes all the above. Rape was excluded from this analysis because its UCR definition has changed over time, creating inaccuracies when data over time are compared. While most city crime reports use UCR definitions of offenses, some variation between cities may exist based on state or local laws.

Notably, crime rates and murder rates often move in different directions in the same city. This is because the "crime rate" is the sum of six different offenses relative to population. Since property crimes are much more common than murders, a surge up or down in property crime can make the crime rate move in a different direction than the murder rate.

2018 Projections and 2017 Comparisons

Crime data from 2018 were drawn directly from city sources — in many cases CompStat reports. Some difficulties arose when comparing city data to final, standardized UCR data. CompStat data, for example, are reported using local definitions of crimes, which may vary between cities, whereas crime data in UCR reports are standardized between cities. There may also be differences in geographic coverage, with CompStat figures reporting crime rates according to one definition of the city limits, while the UCR looks at the county level, or vice versa. To ensure an accurate comparison, the authors accounted for historic variations between UCR and CompStat data in the following manner.

Using an equation similar to the one used in our preliminary and updated reports, the authors assumed that the ratio of final, UCR-reported offenses to CompStat offenses would not vary year-to-year.

$$UCR_{2018(est.)} / CompStat_{2018} = UCR_{2017} / CompStat_{2017}$$

This ratio allowed the authors to "solve" for an estimate of final, UCR-reported offenses based on CompStat figures from both years and UCR data from 2017.

$$UCR_{2018(est.)} = CompStat_{2018} \times \left(UCR_{2017} / CompStat_{2017} \right)$$

Applying this formula to an example, assume that Chicago reported 200 aggravated assaults to the FBI in 2017, but the 2017 UCR showed that Chicago experienced only 100 aggravated assaults that year. These data points would suggest that only 100 of the 200 incidents reported by Chicago police to the FBI met the agency's definition of "aggravated assault." Therefore, in 2018, if Chicago's publicly available data showed 150 aggravated assaults, this report's methodology would apply the same ratio and assume that only 75 of them would meet the FBI definition of the crime. Thus, the report would estimate a decline in aggravated assaults from 100 in 2017 to 75 in 2018.

This method significantly reduces the risk posed by different city and state definitions of FBI index crimes, and allows easier inter-year comparison of data points. The method is, of course, vulnerable to the possibility that city reporting practices will change between years. The authors controlled for this risk by carefully reviewing each city's data reports.

Note that this standardization formula was not applied to murders — which are reported here verbatim from local sources — for two reasons. First, because of the nature of the offense, local definitions of murder are unlikely to vary significantly between cities, reducing the need for standardization. Second, while end-of-year, city-reported murder totals have diverged slightly from final UCR data in the past, the authors were reluctant to significantly alter final, city-reported murder totals, as the variations do not appear to be consistent.

Endnotes

1   Ames Grawert & James Cullen, *Crime in 2017: A Preliminary Analysis*, Brennan Center for Justice, 2017, https://www.brennan-center.org/publication/crime-2017-preliminary-analysis.

2   Ames Grawert & James Cullen, *Crime in 2017: Updated Analysis*, Brennan Center for Justice, 2017, https://www.brennancenter.org/analysis/crime-2017-updated-analysis.

3   For analysis, see Brennan Center for Justice, *Preliminary Analysis of 2015 FBI Uniform Crime Report,* September 26, 2016, https://www.brennancenter.org/analysis/preliminary-analysis-2015-fbi-uniform-crime-report. For original source material, see United States Department of Justice, Federal Bureau of Investigation, "Crime in the U.S. 2015," 2016, https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/.

4   "Seven Major Felony Offenses," New York City Police Department, last accessed May 10, 2019, https://www1.nyc.gov/assets/nypd/downloads/pdf/analysis_and_planning/historical-crime-data/seven-major-felony-offenses-2000-2018.pdf.

5   "CompStat, Citywide Profile," Los Angeles Police Department, last accessed May 30, 2019, http://bit.ly/2VZvF5z. These figures may represent a very slight underestimate. While fact-checking this report, the authors could not square data released by the city through its open data portal with previous official figures. Therefore, the authors turned to the last available CompStat report for the previous year, released on December 29, 2018. Though this figure excludes the final days of the year, the report's methodology means that the figures should still approximate final data.

6   "Crimes – 2001 to Present," Chicago Police Department, last accessed May 14, 2019, https://data.cityofchicago.org/Public-Safety/Crimes-2001-to-present/ijzp-q8t2.

7   "Police Department: Crime Statistics," Houston Police Department, last accessed May 17, 2019, https://www.houstontx.gov/police/cs/crime-stats-archives.htm (from the landing page, download an Excel sheet for each month in 2017 and 2018 and filter by offenses). Houston recently completed its transition to a NIBRS-based crime reporting system; out of an excess of caution and to ensure proper year-to-year comparisons, the authors used only murder data from Houston. Future reports will include full crime data from Houston.

8   "Major Crimes — Citywide — as Reported to P.P.D. for 2018," Philadelphia Police Department, last accessed May 10, 2019, https://drive.google.com/drive/folders/1vb9uu5K6priz-oBhfVQN-hi_M8PJEOmQP (from the folder, select "CITYWIDE YEAR END 2018.pdf").

9   "2018 Annual Report," Las Vegas Metropolitan Police Department, 22, https://www.lvmpd.com/en-us/Documents/2018_Annual_Report.pdf.

10   "Uniform Crime Reporting (UCR) Annual Comparison," Phoenix Police Department, last accessed May 10, 2019, https://www.phoenix.gov/policesite/Documents/UCR_2010-2018.pdf.

11   "Uniform Crime Reports," San Antonio Police Department, last accessed May 10, 2019, https://www.sanantonio.gov/SAPD/Uniform-Crime-Reports (from the tabs select "2017" and "2018").

12   "ARJIS Crime Statistics," Automated Regional Justice Information System, last accessed May 10, 2019, http://crimestats.arjis.org/default.aspx (from the drop-down boxes, select "Jan / 2017"

for "Begin Date," "Dec / 2017" for "End Date," and "San Diego" for "Agency"; then repeat for 2018).

13   The authors were not able to obtain complete, reliable data from this city. In some cases data were missing because the department was in the process of transitioning to a modernized crime data reporting system, a positive development for the field at large.

14   "Official Annual Crime Statistics: UCR Part 1 Crimes — Update," San Jose Police Department, last accessed May 10, 2019, https://www.sjpd.org/crimestats/annual_crimestats.html.

15   "Chief's Monthly Report, Citywide," Austin Police Department, last accessed May 14, 2019, http://www.austintexas.gov/page/chiefs-monthly-reports (select "Chief's Monthly Report, December 2018" for year-end data).

16   "Crime Statistics: Crime Statistical Summary for the End of Year 2018," Charlotte-Mecklenburg Police Department, last updated January 2, 2019, last accessed March 27, 2019, https://charlottenc.gov/cmpd/safety/pages/crimestats.aspx.

17   "2018 Year-End Summary Report," Jacksonville Sheriff's Office, last accessed May 14, 2019, http://transparency.jaxsheriff.org/Content/Files/2018%20YearEnd%20SummaryReport%20FINAL.pdf.

18   "COMPSTAT Citywide Profile: 01-Dec-2018 to 31-Dec-2018," San Francisco Police Department, last accessed March 29, 2019, on file with the authors.

19   The authors last accessed 2018 Indianapolis crime data on March 27, 2019, through an open data portal on the city's website, but at the time of publication data after 2015 had been removed from http://data.indy.gov/. Data for 2018 remain on file with the authors.

20   The authors were not able to obtain complete, reliable data from this city. In some cases data were missing because the department was in the process of transitioning to a modernized crime data reporting system, a positive development for the field at large.

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22   Email from Martin Rodriguez, Police Records Specialist, El Paso Police Department, to author (March 27, 2019, 12:32 EST).

23   "Crime Dashboard," Seattle Police Department, last accessed March 29, 2019, https://www.seattle.gov/police/information-and-data/crime-dashboard (from the drop-down boxes, select "2018" for "Year," and from "Crime Count by Month," select January through December; then repeat for 2017).

24   "Part 1 Crime in the City and County of Denver by Month Based on UCR Standards," Denver Police Department, last accessed May 14, 2019, https://www.denvergov.org/content/dam/denvergov/Portals/720/documents/statistics/2018/UCR_Citywide_Reported_Offenses_2018.pdf.

25 "LMPD UCR Report, January–February 2019," Louisville Police Department, last accessed March 29, 2019, http://www.louisville-police.org/ArchiveCenter/ViewFile/Item/85.

26 "DPD: All Crime Incidents, December 6, 2016 – Present," City of Detroit, last accessed May 9, 2019, https://data.detroitmi.gov/Public-Safety/DPD-All-Crime-Incidents-December-6-2016-Present/6gdg-y3kf/data.

27 "2019 Year-to-Date Crime Comparison," Metropolitan Police Department, DC.gov, last accessed March 29, 2019, https://mpdc.dc.gov/node/197622.

28 "Crime Incident Reports (August 2015 – To Date) (Source: New System)," Analyze Boston, last accessed May 7, 2019, https://data.boston.gov/dataset/crime-incident-reports-august-2015-to-date-source-new-system.

29 "Percent of Change in Annual UCR Offenses," Metropolitan Nashville Police Department, last accessed May 7, 2019, https://www.nashville.gov/Portals/0/SiteContent/Police/docs/Stats/UCR2017-2018Totals.pdf.

30 The authors were not able to obtain complete, reliable data from this city. In some cases data were missing because the department was in the process of transitioning to a modernized crime data reporting system, a positive development for the field at large.

31 "Crime Stats, Information & Mapping," Oklahoma City Police Department, March 27, 2019, https://www.okc.gov/departments/police/crime-prevention-data/crime-stats (from the landing page, scroll down, download each month's individual report, and sum across reports; while OKC.gov appears to retain only the last 12 months of reports, all PDFs are on file with the authors).

32 "Crime Stats," Baltimore Police Department, last accessed May 9, 2019, https://www.baltimorepolice.org/crime-stats/open-data.

33 "Monthly Neighborhood Offense Statistics," Strategic Services Division, Portland Police Bureau, last updated April 12, 2019, last accessed May 9, 2019, https://www.portlandoregon.gov/police/71978.

34 Unless otherwise indicated, data citations for each city in Table 2 are identical to Table 1.

35 United States Department of Justice, Federal Bureau of Investigation, "2017 Crime in the United States," 2018, https://ucr.fbi.gov/crime-in-the-u.s/2017/crime-in-the-u.s.-2017.

ABOUT THE AUTHOR

▶ **Ames C. Grawert** is Senior Counsel and the John L. Neu Justice Counsel in the Brennan Center's Justice Program. He leads the program's law and economics research team. Previously, he was an assistant district attorney in the Appeals Bureau of the Nassau County District Attorney's Office, and an associate at Mayer Brown LLP. He holds a J.D. from New York University School of Law, and a B.A. from Rice University.

▶ **Cameron Kimble** is a Research and Program Associate in the Brennan Center's Justice Program. As a member of the program's law and economics research team, he performs statistical, economic, and policy research and analysis on mass incarceration and related issues, in conjunction with the Justice Program's staff economist and Economic Advisory Board. He holds a B.A. in economics from Miami University.

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