

For the Record

Measuring Public Safety: Responsibly Interpreting Statistics on Violent Crime

Bruce Frederick, Senior Research Fellow, Vera Institute of Justice

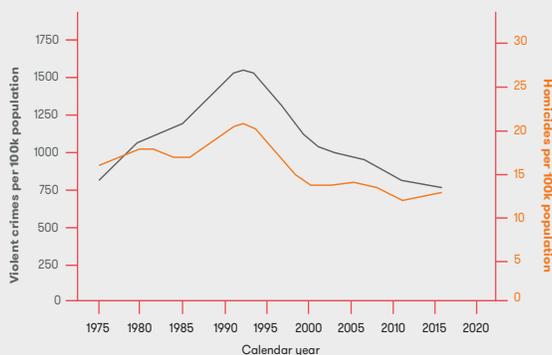
July 2017

Summary

After more than two decades of declining crime rates, violent crime in the United States is at historic lows. In the past few years, however, several cities have experienced atypical increases in murder rates. Recent media reports that garnered national attention have heralded these increases as the harbinger of a new crime wave. In fact, these cities represent the exception rather than the rule: this recent increase in crime rates has so far been connected to gun-related homicides concentrated in a few neighborhoods in a few major cities where violent crime rates were already persistently higher than national averages. These are not “nationwide” problems; they call for locally tailored crime prevention and law enforcement strategies. The bottom line? With a few exceptions that require targeted attention, violent crime rates are lower today than they have been at any point over the past four decades.

Figure 1

Trends in homicide and violent crime rates for 65 major police jurisdictions



The tendency to over-generalize from a brief time period in a few major jurisdictions can lead to premature conclusions that persist as unfounded assumptions driving national political discourse. That’s

what happened when news coverage in the spring and summer of 2015 transformed violent crime increases in a few cities into a sweeping national problem. Addressing violent crime is a key priority, but it requires long-term analysis and systemic solutions instead of reactionary policies and practices in response to short-run crime statistics. To do otherwise runs the risk of undoing the progress the United States has made in reducing crime in communities across the country.

This is an error that can be avoided with responsible analysis of data. This brief examines those erroneous conclusions about current crime trends in light of more recent evidence about crime rates and describes five key principles for construing crime data responsibly and in ways that guard against misinterpretation:

- › Average crime rates often obscure distinctions among crime types, jurisdictions, and neighborhoods that are critical to understanding the prevalence and causes of crime trends.
- › The importance of a short-term change should be evaluated in the context of long-term trends.
- › One or two annual increases are not sufficient to call a change a new trend: it is normal for crime rates to fluctuate from year to year.
- › Particular care is needed when interpreting change over time in places with low crime rates, where a few new crimes may be misinterpreted as an upward trend though overall crime numbers remain low.
- › Special attention is warranted when violent crime is persistently high or in places where short-term changes are statistically significant, large in absolute terms, and unusual in the context of historical trends and normal fluctuations.

About these briefs

Public policy—including decisions related to criminal justice and immigration—has far-reaching consequences, but too often is swayed by political rhetoric and unfounded assumptions. The Vera Institute of Justice has created a series of briefing papers to provide an accessible summary of the latest evidence concerning justice-related topics. By summarizing and synthesizing existing research, identifying landmark studies and key resources, and, in some cases, providing original analysis of data, these briefs offer a balanced and nuanced examination of some of the significant justice issues of our time.

Introduction

In the spring and summer of 2015, several major media outlets reported unexpected increases in homicides and other violent crimes in a handful of U.S. cities. Articles in *The Crime Report*, *Time*, *The New York Times*, *USA Today*, and elsewhere questioned whether the increases might represent the beginning of a new trend toward higher rates of violent crime—which soon became the default assumption.¹ In August 2015, the Major Cities Chiefs Association (MCCA) convened a summit to discuss the issue, after MCCA members “began to identify trends across the nation, requiring a unified and holistic response.”² But the original suggestions of a nationwide surge in violent crime were premature. Evidence concerning trends in violent crime rates is always evolving, as new information on crime rates is released. So far, though, no evidence suggests that recent increases in

homicide rates in a few major cities foreshadow a sustained trend in those cities or a broad-based national increase in violent crime.³

In fact, several sets of carefully analyzed data have shown that violent crime remains near its lowest point in decades and that fears of a new violent crime wave are unfounded. This brief combines evidence from previously published reports with new analyses conducted by the Vera Institute of Justice (Vera) to provide concrete illustrations of various potential pitfalls in evaluating the importance of short-term changes in crime rates. It also provides guidance on how to interpret crime data and use reported crime as an effective public policy tool and when to be legitimately concerned about increases in violent crime.

Updated analyses of crime trends: Definitions and methods

Vera conducted new trend analyses to provide concrete illustrations of several potential pitfalls when considering crime statistics. Building on a database developed by Gabriel Dance and Tom Meagher for The Marshall Project, Vera added preliminary full-year data for 2016 for 65 of the 68 jurisdictions they analyzed.

The Marshall Project report grouped jurisdictions into four clusters based primarily on violent crime rates.^a Vera retained that grouping in its analyses:

- › Group A (high rates) includes 13 jurisdictions with an average of 1,272 violent crimes per 100,000 residents in 2014.^b
- › Group B (medium-to-high rates) includes 18 jurisdictions with an

average of 933 violent crimes per 100,000 residents in 2014.^c

- › Group C (medium-to-low rates) includes 29 jurisdictions with an average of 574 violent crimes per 100,000 residents in 2014.^d
- › Group D (low rates) includes five jurisdictions with an average of 155 violent crimes per 100,000 residents in 2014.^e

This data set was the source for all of the trend line graphs presented in this brief. The Marshall Project database includes trend data for overall violent crime, homicide, rape, robbery, and aggravated assault, but the associated article only discussed trends in overall violent crime.^f This brief discusses trends in overall violent crime, homicide, robbery, and aggravated assault.

^a Gabriel Dance and Tom Meagher, “Crime in Context,” The Marshall Project, August 18, 2016, <https://perma.cc/VU9K-TVJ5>

^b The group-level crime rates reported here differ slightly from those reported on the Marshall Project website. The rates reported on that website are based on 2015 data for 68 jurisdictions. The rates reported here are average violent crime rates for 65 of those 68 jurisdictions in 2014, which was the base year for Vera’s analyses of 2014–2016 changes in violent crime rates. Group A includes Atlanta; Baltimore; Chicago; Cleveland; Detroit; Kansas City, MO; Miami; Newark; Oakland; Orlando; St. Louis; Tampa; and Washington, DC.

^c Group B includes Boston; Buffalo; Charlotte-Mecklenburg, NC; Cincinnati; Dallas; Houston; Indianapolis; Los Angeles; Memphis; Miami-Dade; Milwaukee; Minneapolis; Nashville; New Orleans; New York City; Philadelphia; Portland; and Tulsa.

^d Group C includes Albuquerque; Arlington, VA; Aurora, CO; Austin; Baltimore County; Columbus; Denver; El Paso; Fort Worth; Fresno; Jacksonville; Las Vegas; Long Beach; Los Angeles County; Louisville; Mesa, AZ; Oklahoma City; Omaha; Phoenix; Pittsburgh; Raleigh; Sacramento; Salt Lake City; San Antonio; San Diego; San Francisco; San Jose; Seattle; and Tucson.

^e Group D includes Honolulu; Montgomery County, MD; Nassau County, NY; Suffolk County, NY; and Virginia Beach.

^f The Marshall Project made their full database for 1975–2015 available to the public for download at <https://perma.cc/VB4L-DTC3>. Vera obtained preliminary full-year data for 2016 from a published report from the Major Cities Chiefs Association (MCCA). Data for three of the jurisdictions covered in that report were omitted from the present analyses because of nontrivial discrepancies between the 2015 counts in the MCCA file and the 2015 counts in the Marshall file, for which Vera was unable to locate or produce plausible estimates.

Illustrations based on recent evidence

The recent spike in violent crime was concentrated mostly among homicides in a few major cities where violent crime rates were already persistently high.

Prior analyses of crime trends in major U.S. cities have found that the increases were concentrated in just a handful of the cities studied. An analysis of 25 of the nation's 30 largest cities found that three cities—Baltimore, Chicago, and Washington, DC—accounted for half of the aggregate increase in homicide counts from 2014 to 2015.⁴ The next year, Chicago alone accounted for over 40 percent of the increase in homicides in a study that included 21 of the 30 largest cities.⁵ And, in a broader study of 73 cities with populations over 250,000, just six cities—Chicago, Las Vegas, Louisville, Memphis, Phoenix, and San Antonio—accounted for 76 percent of the aggregate rise in homicide counts from 2015 to 2016.⁶ Though these analyses differ in their details, they suggest the same general conclusion—that a small number of jurisdictions accounts for a majority of the recent increases in homicides.

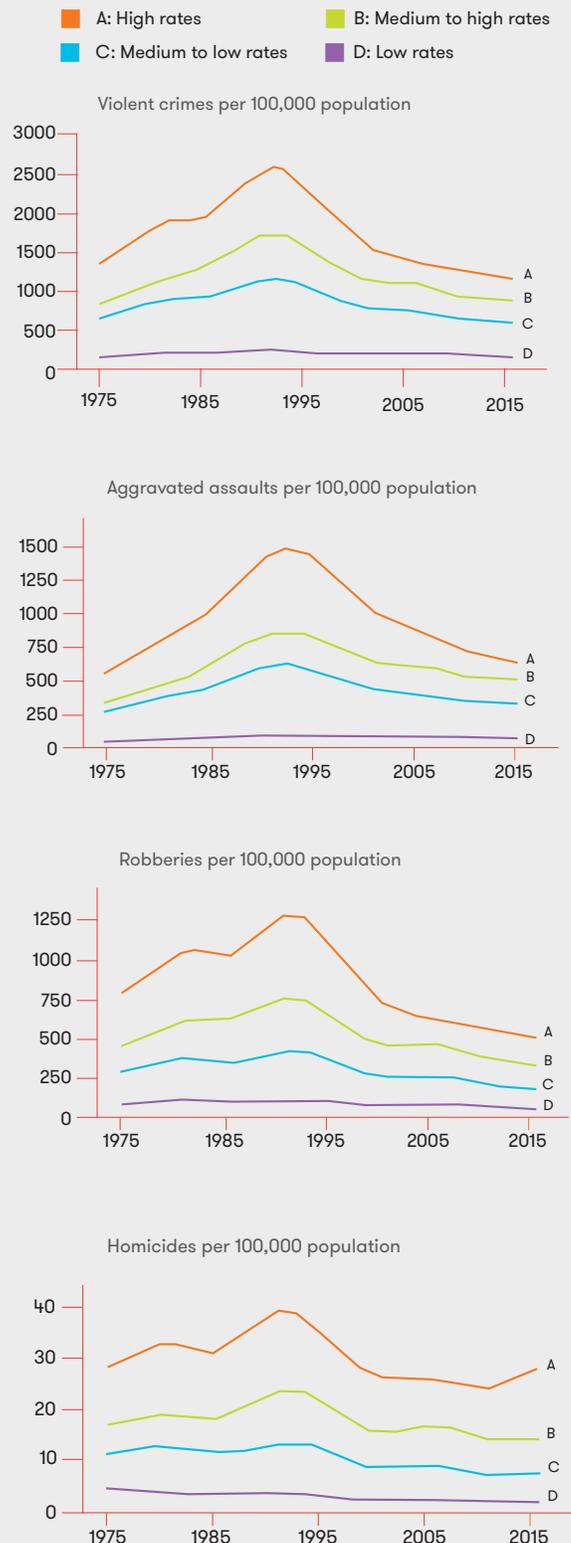
In Vera's analyses of 65 jurisdictions with populations of 250,000 or greater, its researchers examined trends in violent crime rates from 1975 through 2016 for homicide, robberies, aggravated assaults, and total violent crime. Adopting the grouping developed by Dance and Meagher for The Marshall Project (see "Updated analyses of crime trends: Definitions and methods" on page 2), Vera analyzed each crime type for four different groups of jurisdictions—those with low, medium-to-low, medium-to-high, and high crime rates. (See Figure 2.)⁷

Across the four crime types and four groups of jurisdictions included in Vera's analysis, the only notable increase in the group-average rates between 2014 and 2016 was for homicides that occurred in the group of jurisdictions that already had the highest pre-existing violent crime rates. Even the average increase for homicides in the high-rate group was only about a 7 percent increase above a previous 40-year low in 2014—and, even with the increase, the rate did not reach the level of the prior low in 1975.

The average rates for robbery, aggravated assault, and overall violent crime all declined between 2014 and 2016 in

Figure 2

Trends in average violent crime rates for 65 major police jurisdictions 1975-2016



all four groups.

These trends in group averages necessarily mask differences in historical trends and recent changes among individual jurisdictions within each group. Analysis of each group included some jurisdictions that experienced increases and some that experienced decreases. For example, homicide rates increased in most (11 out of 13) of the jurisdictions included in the high-rate group. However, increases were smaller and less prevalent in the 15 other combinations of group and crime type described in Figure 2.

All crime is local

Not only have the recent increases in homicide rates been largely concentrated in a handful of major cities, but homicides have also been concentrated primarily in a relatively small number of locations within those cities.⁸ In Chicago, for example, a fifth of the homicides in 2015 occurred in just two of the city's 25 police districts.⁹ One nationwide study of the concentration of gun violence identified small neighborhood areas (census tracts with two or more homicides in 2015) that contained only 1.5 percent of the nation's population but accounted for more than a quarter of the gun homicides.¹⁰ The authors mapped gun homicide incidents in 2015 in six large cities: Baltimore, Chicago, New Orleans, New York City, Oakland, and St. Louis. In all six of those cities, gun homicides were concentrated in economically disadvantaged census tracts.¹¹ Other studies of what has been called "the law of crime concentration" have found that the "micro-places" where crime is concentrated (blocks or street segments) are fairly consistent across time.¹²

Measuring change

Recent media reports highlighting increases in crime rates tell us little about the nuances behind such changes. This is because different measures of change convey different information about the magnitude of change. *Percentage increase* is relative: It compares the magnitude of an increase to the magnitude of some reference point. As the examples to follow and in Table 1 illustrate, sometimes it is more meaningful to focus on the absolute magnitude of the increase itself, typically measured either as the *absolute increase in count* or the *absolute increase in rate* (adjusted for population).

Reports that focus on identifying cities with the greatest influence on national average statistics may rely on the *absolute increase in counts* (which emphasizes the influence of

Table 1

Top 15 among 65 major jurisdictions as ranked by three different measures of change from 2014 to 2016

By % increase in raw homicide count		
Jurisdiction	2014 count	% change in 2016
1-Orlando	15	466%
2-Aurora, CO	9	144%
3-Cleveland	63	110%
4-Louisville	56	109%
5-Albuquerque	30	103%
6-Salt Lake City	7	100%
7-Nassau Co., NY	6	100%
8-Nashville	42	98%
9-Denver	31	87%
10-Arlington, TX	13	85%
11-Chicago	415	83%
12-Milwaukee	86	65%
13-Wichita	21	62%
14-Kansas City, MO	79	61%
15-Tulsa	46	52%
By absolute value of increase in count		
Jurisdiction	2014 count	Absolute increase
1-Chicago	415	345
2-Baltimore	211	107
3-Orlando	15	70
4-Cleveland	63	69
5-Louisville	56	61
6-Houston	242	60
7-Milwaukee	86	56
8-Dallas	116	56
9-Memphis	139	51
10-Kansas City, MO	79	48
11-San Antonio	103	46
12-Las Vegas	122	44
13-Nashville	42	41
14-Los Angeles	260	34
15-Phoenix	114	32
By absolute value of increase in rate per 100,000 population		
Jurisdiction	2014 count	Absolute increase
1-Orlando	15	25.9 / 100k
2-Cleveland	63	17.8 / 100k
3-Baltimore	211	17.3 / 100k
4-Chicago	415	12.6 / 100k
5-Kansas City, MO	79	10.0 / 100k
6-St. Louis	159	9.4 / 100k
7-Milwaukee	86	9.3 / 100k
8-Louisville	56	8.9 / 100k
9-Memphis	139	7.7 / 100k
10-Nashville	42	6.1 / 100k
11-Tulsa	46	5.9 / 100k
12-Albuquerque	30	5.5 / 100k
13-New Orleans	164	5.2 / 100k
14-Washington, DC	105	4.1 / 100k
15-Dallas	116	3.8 / 100k

Jurisdictions that appear in all 3 lists are displayed in orange. Those that appear in 2 lists are displayed in blue. Those that appear in only 1 list are displayed in gray.

cities like Chicago and Baltimore that have large numbers of violent crimes), whereas other analyses that focus on identifying cities with the sharpest increases may rely on *percentage increase in counts or rates*. Table 1 illustrates how much difference the choice of measure can make in ranking jurisdictions by the size of an increase.

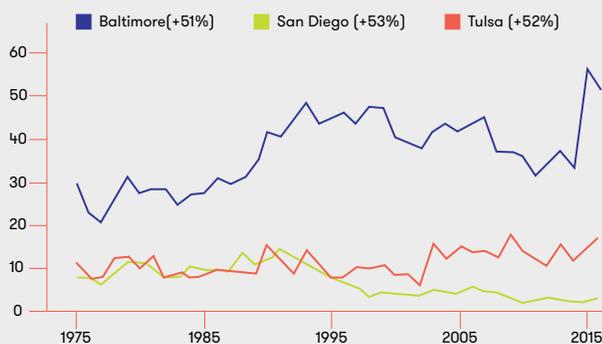
For example: Baltimore ranks second with respect to absolute increase in the raw homicide count. It ranks third with respect to the absolute increase in rate per 100,000 people. However, it does not appear at all among the top 15 cities with respect to percentage change in the raw homicide count.

Of the 26 jurisdictions ranked in the top 15 for one or more of these measures, only seven appear on all three lists, and only another five appear on two of the lists. More than half (14) are ranked among the top 15 for only one of the three measures.

Percentage changes in homicide rates can be especially volatile, because they are frequently based on small numbers of incidents. For example, Salt Lake City experienced a 14 percent increase in homicides from 2014 to 2015, followed by a 75 percent increase from 2015 to 2016, for a net increase of 100 percent—resulting from seven homicides in 2014, eight in 2015, and 14 in 2016. Likewise, Baltimore, San Diego, and Tulsa each experienced a net increase in the homicide rate of slightly greater than 50 percent from 2014 to 2016. However, as shown in Figure 3, the actual importance of a 50 percent increase depends on what it is being compared to: what statisticians call the base rate.

For San Diego, a 50 percent increase in the homicide rate represented an increase of about one homicide per 100,000 residents, and the resulting rate was both extremely low

Figure 3
Homicide rate per 100K for three cities with 50% increase from 2014 to 2016



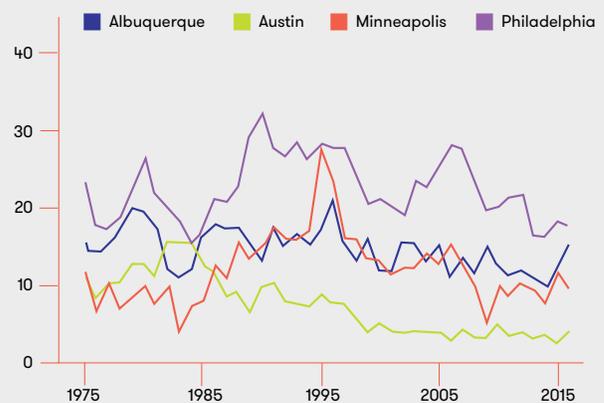
in absolute terms and near the 40-year low for the city. For Tulsa, a 50 percent increase on a slightly higher base represented an increase of about five homicides per 100,000 residents, but was still within the normal range of annual fluctuation for Tulsa, where the average rate has been fairly constant for the past 40 years. For Baltimore, however, the 50 percent increase represented an increase of over one hundred in the raw homicide count, an increase of about 18 homicides per 100,000 residents—well outside the typical range of fluctuation for Baltimore—and a resulting homicide rate that was 6 percent above the previous high in 1993.

Fluctuation is normal

As with any phenomenon, fluctuation over time is normal. So it is with crime rates: they tend to vary within normal ranges from year to year. Figure 4 illustrates some fairly typical year-to-year fluctuations in the context of long-term trends in four cities.

In each case, the pattern of changes from 2014 to 2016 has

Figure 4
Year-to-year fluctuation in homicide rates per 100k in four cities with different historical patterns



occurred before, sometimes in the context of a generally increasing trend, sometimes in the context of a generally decreasing trend, and sometimes during periods of relatively little net change. As can be seen from this figure, it is impossible to predict the future crime rate based on the 2014 to 2016 patterns of change.

2015 reaction revisited

The early media reports that highlighted unanticipated increases in crime rates in certain jurisdictions failed to take proper account of the context of longer-term trends, normal year-to-year fluctuations, and the base rates from which percentage change statistics were calculated. These failures have exaggerated how important the observed increases are. For example, as *The Guardian* reported:

“In October 2006, the Police Executive Research Forum released a report warning the country about ‘a gathering storm of violent crime that threatens to erode the considerable crime reductions of the past’ [and noting that] ‘the percentage of violent crime in America had the largest single-year increase in 14 years.’ The next year, murders resumed a downward trend.”¹³

Among 10 cities highlighted by the *New York Times* for large increases in homicide counts in the first half of 2015, only four experienced continued increases in 2016.¹⁴ (See Figure 5.)

Only three of the cities highlighted in the *Times* article—Baltimore, St. Louis, and Chicago—are among those identified as places experiencing increases in homicide rates that were both large in absolute terms and unusual in the context of historical trends (see Figure 6). The remaining seven ended 2016 at levels that were within their typical ranges of

year-to-year fluctuations and at or near their 40-year lows. A particularly striking example is Washington, DC, where a 44 percent increase from a low base count in 2014 was similar in absolute magnitude to previous increases that had occurred in the midst of a steady decline. The District ended 2016 at a rate (20 per 100,000 residents) that was slightly below the level in 1976 (27 per 100,000), less than a quarter of the peak rate in 1991 (81 per 100,000), and only slightly higher than a new 40-year low in 2012 (14 per 100,000).

When does an increase in violent crime represent a meaningful change?

A few jurisdictions—representing 2.8 percent of the total U.S. population—have recently experienced large increases in homicide rates that were clearly unusual in the context of historical trends and normal fluctuations. Figure 6 highlights seven examples from among the 65 major jurisdictions analyzed by Vera. Baltimore and St. Louis, in particular, experienced sharp increases starting from levels that were already high relative to other cities. In St. Louis, the homicide rate per 100,000 residents spiked from 38 in 2013 to more than 60 in 2016. In Baltimore, the rate spiked from 34 in 2014 to a new 40-year high of 55 in 2015, before declining slightly to 51 in 2016. The highly publicized spike in Chicago was more moderate in terms of rate per 100,000

Figure 5

Long term trends and annual fluctuations in homicide rates in 10 cities highlighted in mid-year reports

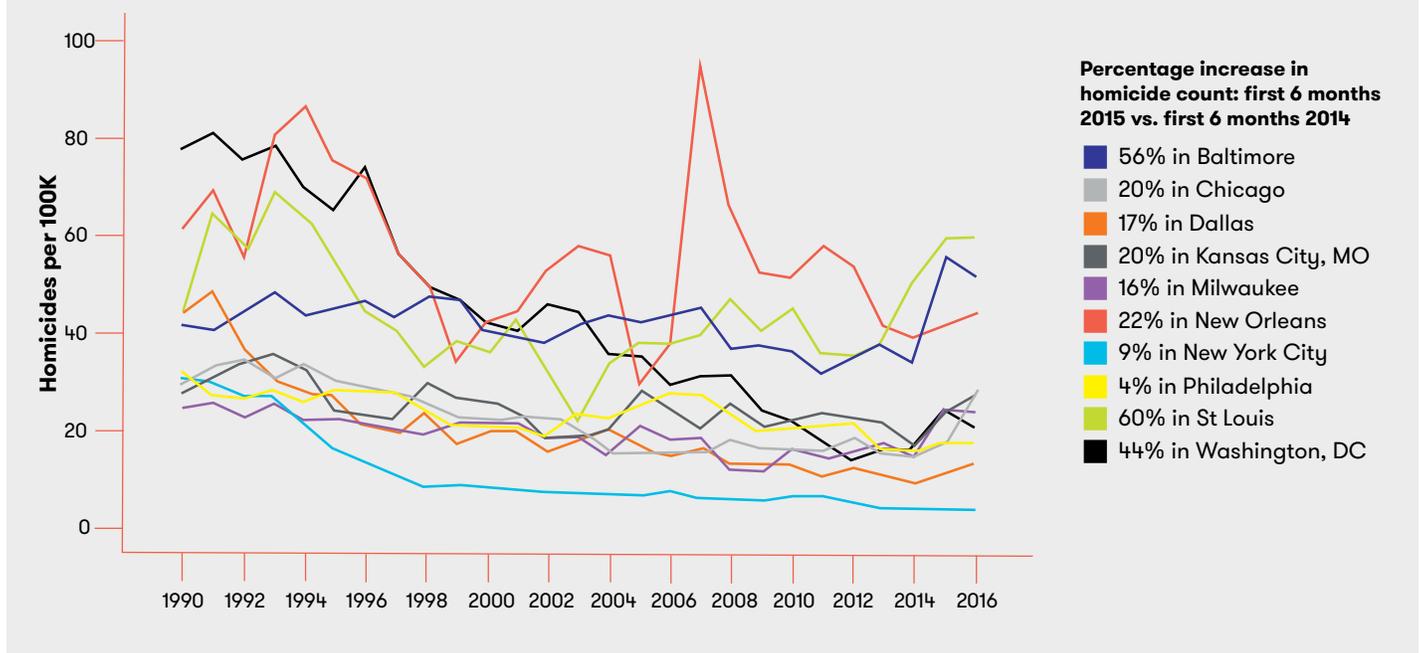
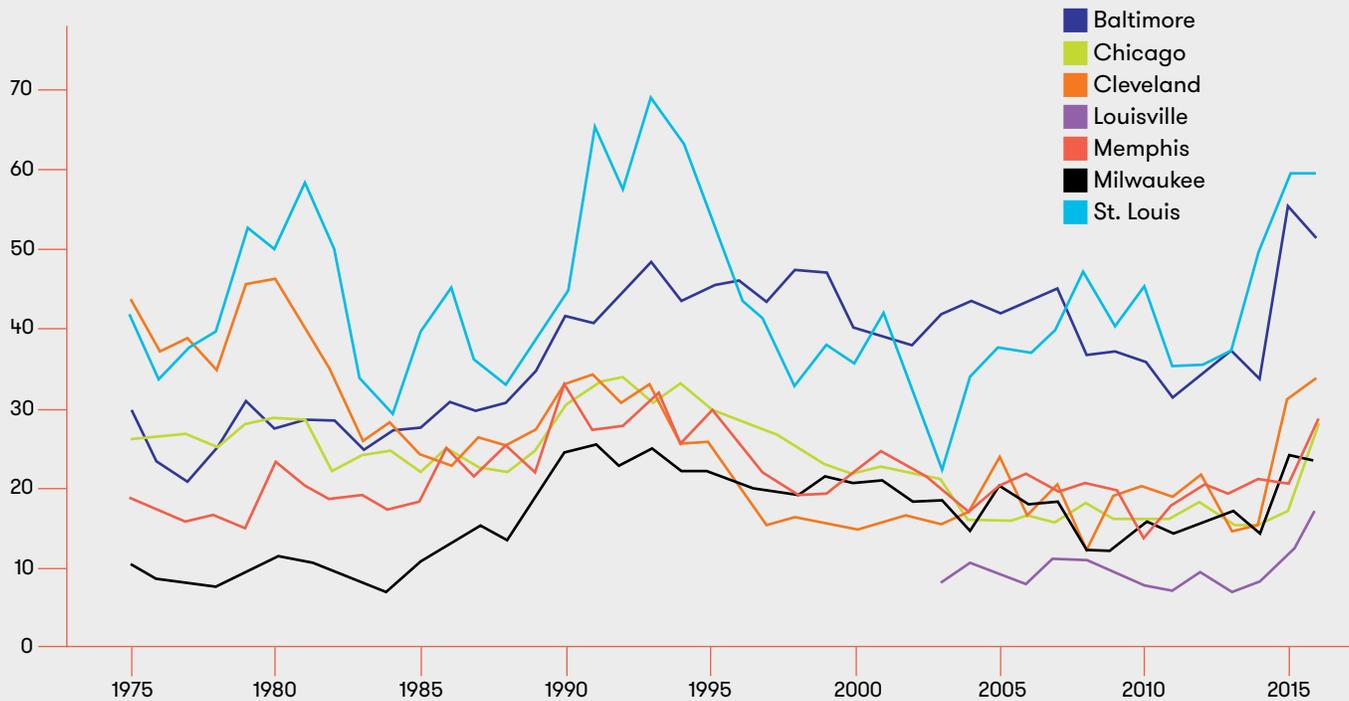


Figure 6

An illustrative selection of cities with recent increases in homicides per 100K that were large in absolute terms and unusual in the context of historical trends



residents, but extremely large in terms of absolute numbers of homicides.

Jurisdictions experiencing short-term increases in crime rates that are statistically significant, large in absolute terms, and unusual in the context of historical trends and normal

fluctuations warrant special consideration. This is true regardless of whether such an increase turns out to be the beginning of a sustained upward trend or just a temporary spike.

More graphs of trends in violent crime

Several organizations have analyzed trends in violent crime, and their slightly differing methodologies result in some variance in lists of cities that warrant special attention. No matter the methods, the outcome is essentially the same: the list is short and in no case do the analyses suggest there is a new national crime wave. See below:

- › A report from the [Brennan Center for Justice](#) analyzes trends in violent crime from 1990 through 2016 for the 30 largest U.S. cities. An appendix displays trends in overall crime rate, violent crime rate, and homicide rate for each of the cities.
- › A website maintained by [The Economist](#) provides trends in murder rates per 100,000 from 1980 through 2016 for the 50 cities with the most murders. The cities are grouped into four categories: low and stable (13 cities); low and ris-

ing (15 cities); high and stable (nine cities); and high and rising (13 cities). Users can view the average trend for the 50-city aggregate, the average trend for any of the four groups, or the trend for any of the specific cities.

- › A website maintained by [The Marshall Project](#) presents detailed analyses and discussion of long-term trends in total violent crime rates from 1975 through 2015 for 68 police jurisdictions serving populations of 250,000 or greater. In addition, an interactive graphic display enables users to examine the trend up through 2015 for any user-selected starting year (1975-2014); any of five crime types (homicide, rape, robbery, aggravated assault, or total violent crime); measure (raw count or rate per 100,000 population); and jurisdiction (any one of the 68 police jurisdictions).

Conclusion

Overgeneralization from partial-year data on homicides in a small sample of major U.S. cities led to premature conclusions being drawn about a nationwide reversal of the general decline in violent crime. Today, with the benefit of hindsight and more robust statistical analysis, it is clear that the media reports were unfounded. Vera's analysis shows that the United States is in a national period of low crime rates. This is not a cause for complacency; some of our communities are experiencing significant increases in violent crime. However, it is important to note that these crimes are extremely localized—specific to particular times and places and crime types. This extremely localized concentration of violent crime raises the possibility of locally unique causes and a need for

locally tailored remedies. Accurately interpreting the crime rate statistics gives policymakers the information they need to allocate resources in targeted ways to identifiable problems in those communities affected.

There is considerable disagreement among criminologists as to what factors have contributed most to the dramatic decline in crime rates over the past quarter century but, in most localities, reforms in criminal justice policy and practice have been accompanied by positive results. Absent any evidence of a new “crime wave” trend, making aggressive changes in crime control strategies—or reverting back to failed “tough on crime” policies—risks undoing those results.

Resources

Bialik, Carl. “Scare Headlines Exaggerated the U.S. Crime Wave.” *FiveThirtyEight*, September 11, 2015.

<https://perma.cc/6TA4-E26F>.

Dance, Gabriel and Tom Meagher. “Crime in Context.” *The Marshall Project*, August 18, 2016. <https://perma.cc/VU9K-TVJ5>.

Friedman, Matthew, Ames C. Grawert, and James Cullen. *Crime Trends: 1990-2016*. New York: Brennan Center for Justice, 2017. <https://perma.cc/9ZMG-R3XA>.

Gramlich, John. “Voter’s perceptions of crime continue to conflict with reality.” *Pew Research Center*, November 16, 2016.

<https://perma.cc/BWF5-TJ8R>.

Kapustin, Max, Jens Ludwig, Marc Punkay, Kimberley Smith, Lauren Speigel, and David Welgus. *Gun Violence in Chicago*, 2016. Chicago: University of Chicago Crime Lab, January 2017.

“Murder rates in 50 American cities.” *The Economist*, February 7, 2017.

<http://www.economist.com/blogs/graphicdetail/2017/02/daily-chart-3>.

Park, Haeyoun and Josh Katz. “Murder Rates Rose in a Quarter of the Nation’s 100 Largest Cities.” *New York Times*, September 9, 2016. https://www.nytimes.com/interactive/2016/09/08/us/us-murder-rates.html?_r=0.

“Uniform Crime Reporting Statistics.” U.S. Department of Justice, Federal Bureau of Investigation.

<https://www.ucrdatatool.gov/>.

Weisburd, David. “The Law of Crime Concentration and the Criminology of Place.” *Criminology* 53, no. 2 (2015), 133-157.

Williams, Timothy. “Whether Crime is Up or Down Depends on the Data Being Used.” *New York Times*, September 27, 2016.

<https://www.nytimes.com/2016/09/28/us/murder-rate-cities.html>.

Endnotes

- 1 See, e.g. Tanya Basu, “Homicides are Spiking This Year after Falling for Decades,” *Time*, August 4, 2015, <https://perma.cc/6FW4-5GNJ>; Mariano Castillo, “Is a new crime wave on the horizon?” *CNN*, June 4, 2015, <https://perma.cc/TQ2G-NTMG>; Monica Davey and Mitch Smith, “Murder Rates Rising Sharply in Many U.S. Cities,” *New York Times*, August 31, 2015, https://www.nytimes.com/2015/09/01/us/murder-rates-rising-sharply-in-many-us-cities.html?_r=0; Gary Gately, “Why is Violent Crime Surging in Many Cities?” *The Crime Report*, July 13, 2015, <https://perma.cc/QCG8-AP9G>; Ashley Gold, “Why has the murder rate in some US cities suddenly spiked?” *BBC News*, June 5, 2015, <https://perma.cc/Y4RE-YJC7>; Martin Kaste, “Nationwide Crime Spike Has Law Enforcement Retooling Its Approach,” *NPR*, July 1, 2015, <http://www.npr.org/2015/07/01/418555852/nationwide-crime-spike-has-law-enforcement-retooling-their-approach>; and Aamer Madhani, “Several big U.S. cities see homicide rates surge,” *USA Today*, July 9, 2015, <https://perma.cc/X6BC-FAYL>. For debate over the most plausible explanations for this supposed nationwide surge in violent crime, see Matthew Friedman, Ames C. Grawert, and James Cullen, *Crime Trends: 1990-2016* (New York: Brennan Center for Justice, 2017), <https://perma.cc/9ZMG-R3XA>; Stephen L. Morgan and Joel A. Pally, *Ferguson, Gray, and Davis: An Analysis of Recorded Crime Incidents and Arrests in Baltimore City, March 2010 through December 2015* (Baltimore, MD: Johns Hopkins University, 2016), <https://perma.cc/FEL2-YGHP>; Haeyoun Park and Josh Katz, “Murder Rates Rose in a Quarter of the Nation’s 100 Largest Cities,” *New York Times*, September 9, 2016, https://www.nytimes.com/interactive/2016/09/08/us/us-murder-rates.html?_r=0; and Richard Rosenfeld, *Documenting and Explaining the 2015 Homicide Rise: Research Directions* (Washington, DC: National Institute of Justice, 2016), <https://perma.cc/ZX34-UVLW>.
- 2 Major Cities Chiefs Association (MCCA), *National Summit on Violence in America: Findings and Recommendations* (Washington, DC: MCCA, 2015), 1, <https://perma.cc/AJ7H-Q5TE>.
- 3 Matthew Friedman, Ames C. Grawert, and James Cullen, *Crime Trends: 1990-2016* (2017).
- 4 Ames Grawert and James Cullen, *Crime in 2015: A Final Analysis* (New York: Brennan Center for Justice, 2016), <https://perma.cc/948F-PLTY>.
- 5 Matthew Friedman, Ames Grawert, and James Cullen, *Crime in 2016: Updated Analysis* (New York: Brennan Center for Justice, 2016) <https://perma.cc/QE9A-HQHL>.
- 6 Jeff Asher, “U.S. Cities Experienced Another Big Rise in Murder in 2016,” *FiveThirtyEight*, January 9, 2017, <https://perma.cc/M44Z-EAHD>.
- 7 Rape was omitted from analyses due to uncertainty concerning which jurisdictions were reporting using the expanded UCR definition and which were still using the legacy definition—and in which years—especially for the 2016 preliminary data collected by MCCA.
- 8 Aliza Aufrichtig, Lois Beckett, Jan Diehm, and Jamiles Lartey, “Want to fix gun violence in America? Go local,” *The Guardian*, <https://perma.cc/U5DW-APNT>.
- 9 Haeyoun Park and Josh Katz, “Murder Rates Rose in a Quarter of the Nation’s 100 Largest Cities,” (2016).
- 10 Aufrichtig et al., “Want to fix gun violence in America?” (2017).
- 11 *Ibid.*
- 12 See David Weisburd, “The Law of Crime Concentration and the Criminology of Place,” *Criminology* 53, no. 2 (2015), 133-157; and David Weisburd, Shawn Bushway, Cynthia Lum, and Sue-Ming Yang, “Trajectories of Crime at Places: A longitudinal study of street segments in the city of Seattle,” *Criminology* 42, no. 2 (2004), 283-322.
- 13 Lois Beckett, Aliza Aufrichtig, and Kenan Davis, “Murders up 10.8% in biggest percentage increase since 1971, FBI data shows,” *The Guardian*, September 26, 2016, <https://perma.cc/L4JU-XLHH>.
- 14 The 10 cities examined are the ones that were highlighted in a 2015 *New York Times* article. See Monica Davey and Mitch Smith, “Murder Rates Rising Sharply in Many U.S. Cities” (2015).

About Citations

As researchers and readers alike rely more and more on public knowledge made available through the Internet, “link rot” has become a widely-acknowledged problem with creating useful and sustainable citations. To address this issue, the Vera Institute of Justice is experimenting with the use of Perma.cc (<https://perma.cc/>), a service that helps scholars, journals, and courts create permanent links to the online sources cited in their work.

Credits

© Vera Institute of Justice 2017. All rights reserved. An electronic version of this report is posted on Vera’s website at www.vera.org/for-the-record-measuring-public-safety.

The Vera Institute of Justice is a justice reform change agent. Vera produces ideas, analysis, and research that inspire change in the systems people rely upon for safety and justice, and works in close partnership with government and civic leaders to implement it. Vera is currently pursuing core priorities of ending the misuse of jails, transforming conditions of confinement, and ensuring that justice systems more effectively serve America’s increasingly diverse communities. For more information, visit www.vera.org.

For more information about this brief or Vera’s Evidence Brief series, contact Jim Parsons, vice president and research director, at jparsons@vera.org.

Suggested Citation

Bruce Frederick. *Measuring Public Safety: Responsibly Interpreting Statistics on Violent Crime*. New York: Vera Institute of Justice, 2017.