

VIOLENT CRIME, MURDER RATES RECEDING SLOWLY ACROSS MAJOR RUST BELT AND OHIO CITIES

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Contact Information:

Richard Lee Rogers

Associate Professor

Dept. of Criminal Justice and Forensic Sciences

Youngstown State University

Contributing Faculty

Human and Social Services

Walden University

Email: rlrogers02@ysu.edu

Phone: 330-941-3543 (office)

Key Points

- Since 2011, the U.S. violent crime rate has moved up and down within a narrow range, a pattern not seen before in the tracking of violent crime rates. While the decline of the rate in 2018 is positive news, rates have still not broken out of the narrow range. It may be another year before anyone can state with certainty that the long-term decline in violent crime has resumed.
- The Rust Belt has an intriguing pattern. Not surprising, metropolitan cities over 100,000 people in the Rust Belt have much higher rates of violent crime and murder than comparably sized cities elsewhere in the U.S. However, Rust Belt metropolitan communities less than 50,000 people and micropolitan areas have *lower* crime rates than comparably sized cities elsewhere.
- While Youngstown currently has the highest murder rate of major Ohio cities, the story for Youngstown is still a good one with the murder rate 50% below its high in 1995. A more pressing concern may be the Ohio cities of Springfield, Toledo, Akron, and Dayton, which are at or near their all-time highs. The murder rate in Cleveland has dropped sharply over the past two years, and the city is now 36% below its 2016 peak.

Background

- This document provides estimates of rates for violent crime and murder for communities served by law enforcement agencies in Core-Based Statistical Areas (CBSAs). There is special emphasis on the Rust Belt with a comparison to the rest of the country by region and size/type of community as well as trends in Ohio and non-Rust-Belt portions of the Midwest.
- This summary looks at both long-term national trends from unadjusted numbers taken from the Uniform Crime Reports (UCR) and near-term changes in CBSAs since 2013 adjusted using a same-place methodology that removes “noise” caused by variations in the number of agencies reporting UCR numbers every year. In addition, this report uses a revised version of the UCR national numbers for trend tracking (see “Methodology” below).

National Benchmarks: UCR and CBSA Same-place Estimates

- According to the revised UCR numbers, the violent crime rate declined 3.8% nationally in 2018 and 2.2% in CBSAs, marking the second consecutive year in which violent crime declined after steep upticks in 2015 and 2016. While this development is clearly positive, it is

too early to interpret this change as a resumption of the long-term decline in crime beginning in 1992 for at least one more year because of the following:

1. Since 2011, the violent crime rate has oscillated within a narrow range between 380 and 400 crimes per 100,000 people per year. While there have been occasional blips in the violent crime rate since the start of the decline in 1992, the stagnancy present since 2011 has never been seen before. The 2018 violent crime rate did not break out of this range. Violent crime rates in 2013 and 2014 were both less than the 2018 rate (Figure 1).
2. Although the jump of the murder rate in 2015 and 2016 creates the appearance of a short-term bubble, the bubble is still present in that the rate has yet to fall to its 2014 level. The 2018 rate of 5 crimes per 100,000 people has not been seen since 2009 (Figure 1).
3. The National Crime Victimization Survey (NCVS) indicates a slight *increase* in violent crime for the third consecutive year in 2018. This near-term trend is obviously contrary to the numbers reported through the UCR (Figure 2).

Rust Belt Rates: CBSA Same-place Estimates

- The Rust Belt violent crime rate in 2018 was only slightly above the national average for all CBSAs. In 2013, the Rust Belt rate was 2.7% below the nation, but the region witnessed a steep rise starting in 2014, a year before the increase in violent crime on the national level. While the Rust Belt rate in 2018 was 6.1% higher than 2013, it has approached a level near the national average in part due to a 5.7% decline in 2018 (Table 1).
- The murder rate in Rust Belt communities rose by double digits in both 2015 and 2016. Even with a 9.4% decrease in 2018, the rate was 31% higher than the national average for all CBSAs (Table 2).
- There is considerable variation in crime rates in Rust Belt CBSAs based on the size of the population.
 1. While communities in Southern CBSAs generally have the highest rates of violent crime and murder across most population categories, Rust Belt communities have consistently had the highest rates among metropolitan communities with at least 100,000 population. In this community category, Rust Belt rates in 2018 were 40% above the national violent crime rate for comparably sized communities and 86% above the murder rate (Tables 1 and 2).
 2. In contrast to large cities, Rust Belt metropolitan places with less than 50,000 people and Rust Belt micropolitan areas have violent crime and murder rates below the national averages for comparably sized communities. Rust Belt metropolitan places between 50,000 and 100,000 people also had violent crime rates 5% below comparably sized communities. (Tables 1 and 2.)

Other Regions: CBSA Same-place Estimates

- By region, CBSAs in the West had the highest annualized growth rate in violent crime since 2013 at 2.5% (Table 1.)
- Midwestern CBSAs outside the Rust Belt had the highest annualized growth rate in murder for any region since 2013 at 6.4% (Table 2.)

Ohio Cities: CBSA Same-place Estimates

- In 2018, Ohio CBSAs had a murder rate 55% higher than the national average. In spite of a 16.2% decline in the murder rate in 2018, Ohio CBSAs were still 20.7% higher than their 2013 rate (Table 2).
- While Youngstown had the highest murder rate of major Ohio cities at 36 homicides per 100,000 people in 2018, its current rate is half of its peak in 1995. Four Ohio cities stand out for being at or near their highest murder rates since 1985: Springfield (100.0%), Toledo (98.9%), Akron (90.3%), and Dayton (85.5%). Cleveland's murder rate has fallen 36% since its peak in 2016 (Figure 3).

Methodology

This analysis used crime data from the FBI's annual report, [Crime in the United States](#), to analyze aggregate trends for the nation and CBSAs.

The crime rate is defined as the number of crimes per 100,000 people. A per-capita estimate was preferred over raw numbers of crimes because of Ohio cities like Columbus and Youngstown, where long-term population changes affect the interpretation of trends.

Details of the definition of the Rust Belt with other information on the Rust Belt under "Social Trends" at the author's personal website, <https://www.statisticspenguin.com/rust-belt-tracker>.

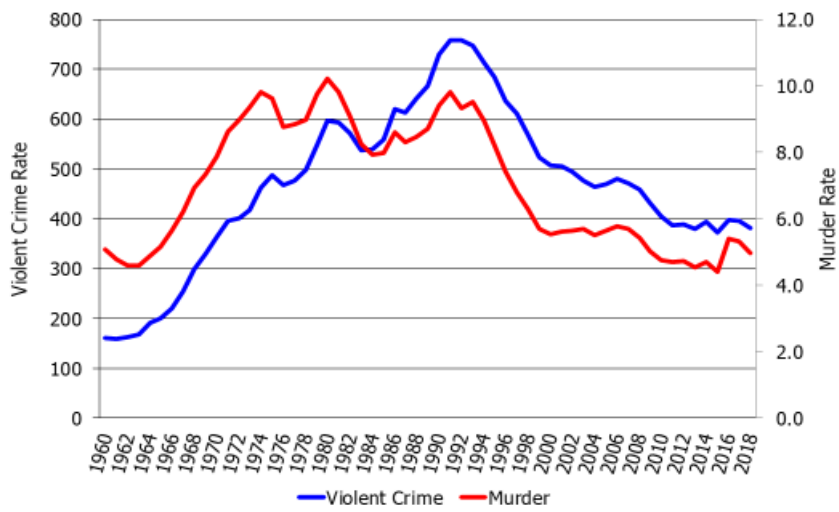
CBSA sample-place methodology: CBSAs are defined by the U.S. Office of Management and Budget and are used in reporting by the [U.S. Census Bureau](#). Police departments not included in a CBSA were excluded from this study. Agencies in Metropolitan Statistical Areas were subdivided by population size. Most (not all) Micropolitan Statistical Areas have populations less than 25,000.

In order to study near-term changes in crime rates, the analysis of CBSAs incorporated a same-place methodology. Same-place estimates offer an important glimpse at trends because the number of agencies reporting rates varied from one year to the next. The absence of a large city in a particular year can have a dramatic impact on change estimates in specific geographic areas.

A total of 5,830 local law enforcement agencies were used to establish same-place estimates for the years 2013 to 2018. Department crime information had to be present in every report year in the study. In a small number of cases, crime data for a single year was based on an average if the two surrounding years were present, and missing crime data from several large population centers was supplemented using local police department and city reports. The same-place methodology yields crime estimates slightly higher than unadjusted ones obtained from the UCR, though the directions of the trends track closely (Figures 4 and 5).

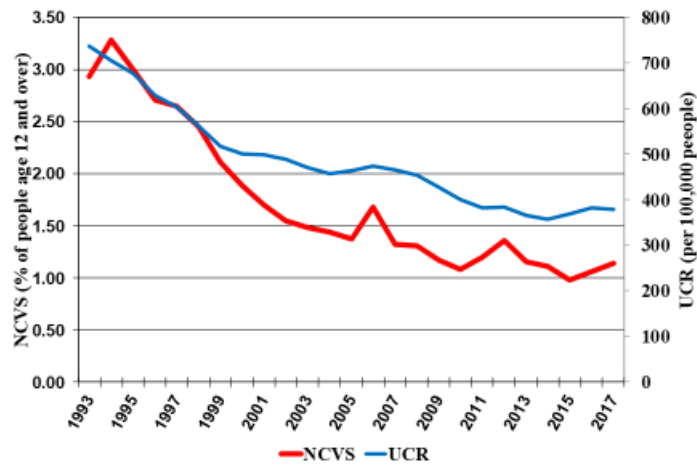
Impact of changes to the definition of rape: Because some departments have not yet started to submit numbers using the revised definition of rape introduced in 2013, public UCR reports about national crime trends still incorporate legacy numbers for rape. By contrast, this study incorporates the revised numbers whenever possible. The differences in these definitions of rape result in small differences in the violent crime rate and could lead to minor differences in the interpretation of near-term trends and the size of the narrow range. In 2018, the public UCR trend line is currently near its low point while the timeline used by this researcher is slightly higher. Nonetheless, under either scenario, the 2014 violent crime rate is still lower than the 2018 rate (Figure 6). The change in the definition of rape does not affect the murder rate.

Figure 1.
Violent Crime and Murder Rates, 1960-2018



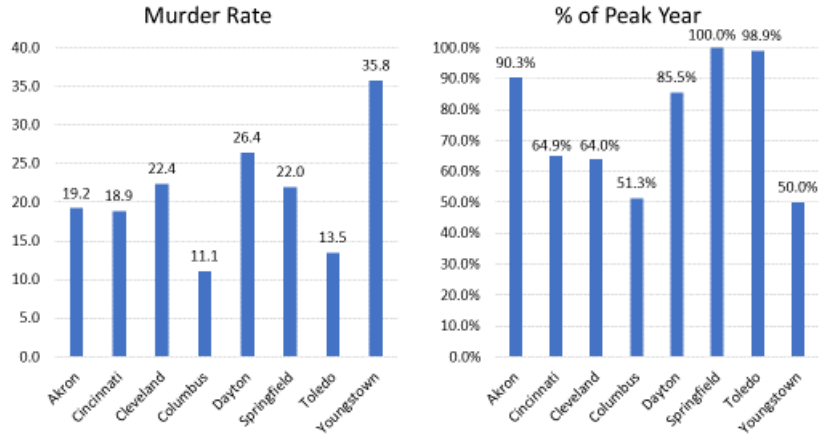
Sources: These timelines are the nationally reported UCR numbers and do not include same-place methodology adjustments. 1960-2012: Federal Bureau of Investigation, *UCR Data Tool*; 2013-2018: Federal Bureau of Investigation, *Crime in the United States*. Numbers since 2013 used the revised definition of rape.

Figure 2.
NCVS-UCR Comparison on Violent Crime, 1993-2018



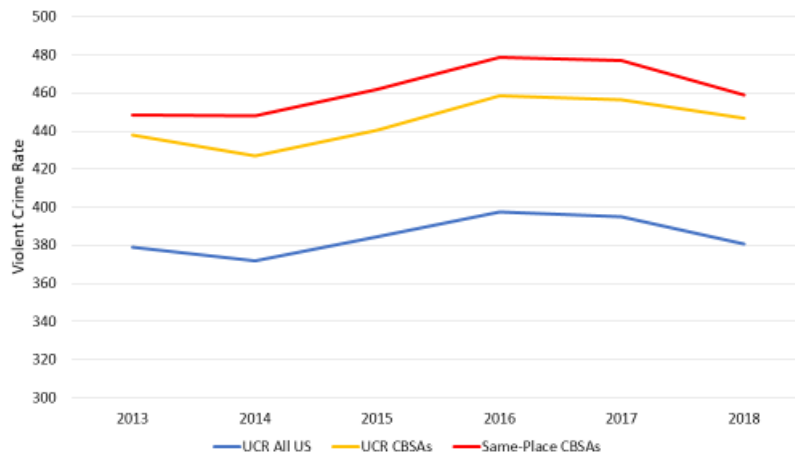
Source: Bureau of Justice Statistics, *Criminal Victimization, 2018*; UCR violent crime rates from Figure 1 with murder excluded.

Figure 3.
Murder Rates and % of Peak Year for Select Ohio Cities



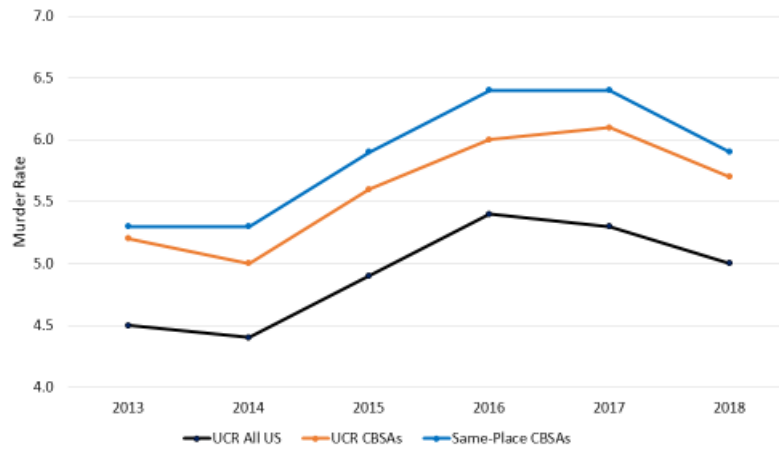
Notes: The peak year for each city was determined using a timeline since 1985 constructed from the UCR data tool and the FBI report, *Crime in the United States*. By city, peak years for the murder rate since 1985 were as follows: Akron (2017), Cincinnati (2006), Cleveland (2016), Dayton (1994), Springfield (2018), Toledo (2012), and Youngstown (1995).

Figure 4.
Comparison of Violent Crime Rate Estimates



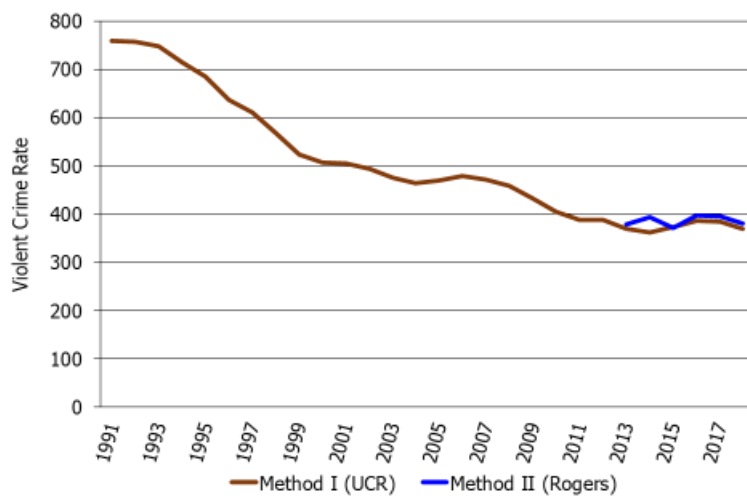
UCR All US are the national numbers reported in the FBI's *Crime in the United States*. UCR CBSAs and Same-Place CBSAs are run through the same program in order to compare results with and without the same-place methodology. The results show that the same-place methodology generates slightly higher estimates.

Figure 5.
Comparison of Murder Rate Estimates



UCR All US are the national numbers reported in the FBI's *Crime in the United States*. UCR CBSAs and Same-Place CBSAs are run through the same program in order to compare results with and without the same-place methodology. The results show that the same-place methodology generates slightly higher estimates.

Figure 6.
Comparison of Timelines for Violent Crime Rates, 1991-2018



Notes: Method I is the timeline for violent crime rate as reported in the FBI's *Crime in the United States*. Method II is the timeline used by the researcher. The latter timeline includes the revised definition of rape implemented in 2013.