Rochester Homicide Statistics for 2017

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**Introduction**

This is a report, updated annually, of the number of homicides that occurred in the year 2017. Because the FBI’s Uniform Crime Report and other official sources are not updated for more than six months into the following year, these reports are based on information provided by multiple news outlets and police department data releases. From these, homicide rates per 100,000 people were calculated to account for differences in population size. Bear in mind this data may not match precisely later official reports.¹

In this paper we examine homicide fluctuations in Rochester over the last ten years. We also describe the differences in homicides from 2016 to 2017 for the selected 24 US cities. The homicide levels of US and Canadian cities are also compared.²

There are a variety of reasons for making the comparisons in this paper. They illustrate change and stability over time. Cross-city comparisons raise issues of similarity and differences that may help understand violence levels across the communities. That is one reason for the selected comparisons. The Rochester Police Department is also taking a different approach to comparisons. The Department is developing a list of cities where social conditions show similarities to those in Rochester. The Department also makes crime data available to the public on the Rochester Police Department’s open data portal (http://data-rpdny.opendata.arcgis.com/).

**Results**

In 2017 Rochester had 29 homicides, 14 fewer than the previous year for a decline of 33% from 2017. This is a significant reduction in homicide and has implications for how Rochester compares with other cities. Rochester had the highest percentage decrease in
homicide rate of all 24 cities examined in this report, and was in the middle in regard to its rank when compared to the other selected cities, improving its rank from last year by two. Two years ago, Rochester was among the seven highest in the list of the same cities.

The reduction in homicides is an encouraging sign but fluctuations are common, especially with small time periods of comparison. The chart below illustrates the changes in the number of homicides in Rochester from 2007-2017.

**Figure 1.**

<table>
<thead>
<tr>
<th>Year</th>
<th># of Homicides</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>50</td>
</tr>
<tr>
<td>2008</td>
<td>42</td>
</tr>
<tr>
<td>2009</td>
<td>28</td>
</tr>
<tr>
<td>2010</td>
<td>41</td>
</tr>
<tr>
<td>2011</td>
<td>31</td>
</tr>
<tr>
<td>2012</td>
<td>36</td>
</tr>
<tr>
<td>2013</td>
<td>42</td>
</tr>
<tr>
<td>2014</td>
<td>27</td>
</tr>
<tr>
<td>2015</td>
<td>33</td>
</tr>
<tr>
<td>2016</td>
<td>43</td>
</tr>
<tr>
<td>2017</td>
<td>29</td>
</tr>
</tbody>
</table>

**Comparing US Cities**

Table 1 reports homicide levels and percent change from the previous year for a select sample of cities. The cities that had the largest increases from 2016-2017 were Albany, NY and Hartford, CT. However, these cities started with low homicide numbers (Albany had 2 in 2016 and Hartford had 14 in 2016). Rochester on the other hand had one of the largest decreases for the year, even though the number of homicides had increased in the previous three years.
Of course, cities with the highest number of homicides do not necessarily have the highest homicide rates. This is due to differences in the populations across cities. For example, New York City had the second highest total number of homicides reported here (290), but also had the lowest reported rate (3.4 per 100,000). This is because the City of New York has over 8.5 million people. It is also important to recognize that in the early 1990s New York City had more than 2000 murders a year. Hartford, CT, on the other hand, had a total of 29 homicides in 2017 and a rate of 23.5 per 100,000. This suggests that although Hartford had 10 times fewer homicides than New York City, the general risk for all Hartford residents is much higher. This example shows that comparing just the number of homicides between cities, especially those with such massive population differences can be misleading. Using rates as opposed to raw numbers provides more accurate comparisons of cities with different populations.

In this sample, rate was an especially important tool as it provided a useful depiction of the differences and trends between diverse cities. The two cities with the highest rate were St. Louis, MO (for the second year in a row) and New Orleans, LA whose rate was less than one point more than the third place city, Detroit, MI. Historically though, these three cities have had extremely high rates of homicide, especially in the last three years. The cities with the two lowest rates were New York City and Seattle, WA.

Albany, along with Hartford, CT had the two biggest percentage increases in homicide rates for the year. However, both cities had low homicide numbers and rates in 2016, which makes any additional homicides affect their percentage differences more severely for these cities than others with higher homicide statistics. Both Albany and Hartford showed some of the largest percentage decreases from 2015 to 2016, yet from 2016 to 2017 showed pronounced increases.
Conversely, the two cities with the biggest percentage decrease in homicide rate were Rochester and Atlanta, GA closely followed by Syracuse and Newark, NJ. Over the past two years these two upstate New York cities, Rochester and Syracuse, have had similar homicide percentage differences. From 2016-2017 both cities had within three percent decreases from each other. However, from 2015-2016 both had significant increases of around thirty percent, which is the opposite situation of Albany and Hartford over the last three years.

Although all cities experience some fluctuation in murder rates, cities with large populations the mathematics of using rates tends to show more steady trends than those with smaller populations. Colorado Springs, for example, has consistently been within the top five cities with the lowest homicide rates over the last three years. Despite it having had both increases and decreases to its homicide rate, its rank has remained relatively the same.
Table 1. United States City Homicide Number, Rate, and Percent Difference of Each for 2016-2017

<table>
<thead>
<tr>
<th>City</th>
<th>2016 Homicides</th>
<th>2016 Homicide Rate</th>
<th>2017 Homicides</th>
<th>2017 Homicide Rate</th>
<th>2016-2017 % Change for #s</th>
<th>2016-2017 Change in Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York City, NY</td>
<td>335</td>
<td>3.9</td>
<td>290</td>
<td>3.4</td>
<td>-13%</td>
<td>-13%</td>
</tr>
<tr>
<td>Seattle, WA</td>
<td>19</td>
<td>2.7</td>
<td>27</td>
<td>3.8</td>
<td>42%</td>
<td>41%</td>
</tr>
<tr>
<td>Los Angeles, CA</td>
<td>293</td>
<td>7.3</td>
<td>282</td>
<td>7.1</td>
<td>-6%</td>
<td>-3%</td>
</tr>
<tr>
<td>Albany, NY</td>
<td>2</td>
<td>98,106</td>
<td>8</td>
<td>8.2</td>
<td>300%</td>
<td>302%</td>
</tr>
<tr>
<td>Colorado Springs, CO</td>
<td>24</td>
<td>5.2</td>
<td>38</td>
<td>8.2</td>
<td>58%</td>
<td>58%</td>
</tr>
<tr>
<td>Denver, CO</td>
<td>57</td>
<td>8.2</td>
<td>58</td>
<td>8.4</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Boston, MA</td>
<td>49</td>
<td>7.3</td>
<td>56</td>
<td>8.3</td>
<td>14%</td>
<td>15%</td>
</tr>
<tr>
<td>Anchorage, AK</td>
<td>28</td>
<td>9.4</td>
<td>35</td>
<td>11.7</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Dallas, TX</td>
<td>171</td>
<td>13</td>
<td>166</td>
<td>12.6</td>
<td>-3%</td>
<td>-3%</td>
</tr>
<tr>
<td>Rochester, NY</td>
<td>43</td>
<td>20.5</td>
<td>29</td>
<td>13.9</td>
<td>-33%</td>
<td>-32%</td>
</tr>
<tr>
<td>Syracuse, NY</td>
<td>30</td>
<td>20.8</td>
<td>21</td>
<td>14.6</td>
<td>-30%</td>
<td>-30%</td>
</tr>
<tr>
<td>Buffalo, NY</td>
<td>44</td>
<td>17.1</td>
<td>38</td>
<td>14.8</td>
<td>-14%</td>
<td>-14%</td>
</tr>
<tr>
<td>Atlanta, GA</td>
<td>111</td>
<td>23.5</td>
<td>75</td>
<td>15.9</td>
<td>-32%</td>
<td>-32%</td>
</tr>
<tr>
<td>Washington, DC</td>
<td>138</td>
<td>20.3</td>
<td>115</td>
<td>16.9</td>
<td>-17%</td>
<td>-17%</td>
</tr>
<tr>
<td>Oakland, CA</td>
<td>85</td>
<td>20</td>
<td>77</td>
<td>18.3</td>
<td>-9%</td>
<td>-8%</td>
</tr>
<tr>
<td>Pittsburgh, PA</td>
<td>57</td>
<td>18.9</td>
<td>57</td>
<td>18.8</td>
<td>0%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Hartford, CT</td>
<td>14</td>
<td>11.3</td>
<td>29</td>
<td>23.5</td>
<td>107%</td>
<td>108%</td>
</tr>
<tr>
<td>Chicago, IL</td>
<td>765</td>
<td>28.1</td>
<td>664</td>
<td>24.6</td>
<td>-13%</td>
<td>-13%</td>
</tr>
<tr>
<td>Newark, NJ</td>
<td>100</td>
<td>35.5</td>
<td>70</td>
<td>24.8</td>
<td>-30%</td>
<td>-30%</td>
</tr>
<tr>
<td>Richmond, VA</td>
<td>61</td>
<td>27.7</td>
<td>67</td>
<td>30</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>Cleveland, OH</td>
<td>135</td>
<td>35</td>
<td>120</td>
<td>33.7</td>
<td>-4%</td>
<td>-4%</td>
</tr>
<tr>
<td>Detroit, MI</td>
<td>303</td>
<td>45.3</td>
<td>267</td>
<td>39.7</td>
<td>-12%</td>
<td>-12%</td>
</tr>
<tr>
<td>New Orleans, LA</td>
<td>174</td>
<td>43.8</td>
<td>157</td>
<td>40.1</td>
<td>-10%</td>
<td>-9%</td>
</tr>
<tr>
<td>St. Louis, MO</td>
<td>188</td>
<td>59.8</td>
<td>205</td>
<td>65.8</td>
<td>9%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Comparing US Cities with Canadian Cities

In 2016 (the most recent year available), the United States had a national homicide rate of 5.4 for all reporting agencies, whereas Canada reported a rate of only 1.7 nationally (Federal Bureau of Investigation, 2017 & Government of Canada Statistics, 2017). Canada’s homicide rate being lower than the United States’ is a trend that continues when we consider comparisons down by city and city population.

The charts below show homicide rates for select US cities and Canadian cities. The only U.S. city that came close to having a lower rate than any Canadian city within its population bracket was Seattle, WA, with a rate of 3.8 compared to the 3.6 rate of Winnipeg, MB.
(shown in Figure 4). The two reported Canadian cities with the highest homicide rates in 2017 were Abbotsford, BC at 6.6 in Figure 2 and Edmonton, AB at 6.3 in Figure 4. This is particularly low compared to the rates in US cities. The city with the highest homicide number change between the two years in Canada was Toronto, ON with a decrease of 14%, going from 71 to 61 homicides in 2017.

**Figure 2.**

![Rate of Homicides in US and Canadian Cities with Populations Below 200,000](chart1)

**Figure 3.**

![Rate of Homicides in US and Canadian Cities with Populations Between 200,000-300,000](chart2)
Discussion

The objectives of this paper are to describe the homicide rates of the selected sample of cities and their yearly homicide changes. It is encouraging to see that fourteen of the twenty-four selected US cities reported fewer homicides in 2017 than in 2016. In addition, nine showed increases, and one had no difference. Rochester in particular had the most
significant decrease for both homicide number and rate of all 24 US cities. In comparison
with Canada, the US cities overall had distinctly higher homicide numbers and rates than
Canadian cities.

A full explanation of the factors that account for yearly changes in homicide is
beyond the scope of this paper. However, some plausible explanations include fluctuations
related to gun-related crime and overall violent crime. Homicide by firearm is the most
frequent type of homicide across the country (CDC,
https://www.cdc.gov/nchs/fastats/homicide.htm) and so if overall gun-related crime
decreases then this may also lower the number of homicides.

Violent crime is another potential factor that has always been associated with
homicide in that the first may very well lead to the later. And according to Attorney General
Jeff Sessions,

"We’ve seen a deadly increase in violent crime,” and that “murder is up by more than 20%”,
but so far the data are not confirming this. Even in this sample, the total number of
homicides for all 24 US cities combined decreased 10% from 2016 to 2017, and the rate also
decreased by 5%. Although this paper cannot directly confirm or deny Sessions’ claim that
violent crime is on the rise, it can confirm that the 24 diverse US cities examined in this
study spread do not show a collective increase.

But both violent and gun-related crime have other variables and factors that can
affect their numbers, as well as those for homicide. Some examples are the growing
technical innovations in the medical profession. Differences in the number of violent
incidents that result in homicide may decrease because of improved medical interventions or
strategies. But again, this paper in particular cannot answer any of these questions. This
paper describes the nature of homicide in a sample of American and Canadian cities.
Studying any potential connection between homicides and gun-related or violent crime may be the next step towards providing potential explanations for why these homicide fluctuations occur.

**Conclusion**

The implications for this paper are important, but narrow. This paper depicts the differences in the last year, which can aid evaluations of interventions or strategies employed during this time period by agencies such as police departments and grass roots organizations. This paper also examines the comparison between major US and Canadian cities, which shows that US cities have much higher homicide numbers and rates -- a trend also seen in previous CPSI homicide reports.

Studying levels and fluctuations of homicides in particular locations over time provides agencies with significant information that can point to any number of trends occurring. A problem with studying the one-year fluctuations as mentioned before is that they could be misleading, which is why it is also important to consider the possibility that single-year trends may not provide all of the information needed to make strong conclusions. It is also important to consider that there may be outside factors, other differences between these cities not considered in this paper that may be affecting the seen differences. These could be differences in gun laws or access to health care. There is also the possibility that while these differences exist, they may not be affecting the number of homicides. These are all very interesting lines of questioning that can be considered to investigate in the future, along with the other ideas and concepts brought up throughout this paper, as well as in others in the same or similar topics.
Sources


*Phone Interview


1 CPSI has conducted this same study for the last few years. To determine the accuracy of CPSI’s previous annual homicide papers, researchers calculated the difference between the paper’s reported homicide numbers and rates against the UCR numbers and rates for that year, and then averaged the differences in percentages for each together. The most recent paper before this examined 2016 data and only found an average difference of +1.2% for the number of homicides, and +1.7% for the rate of homicides. A similar finding occurred with the 2015 paper, with an average difference of -3.5% for the number of homicides, and -4.6% for the rate of homicides. These calculations show that past papers have been relatively accurate.

2 Definitions and inclusionary criteria for homicides counts can differ based on the source and state. This is the advantage of using the UCR, as the procedures were created to provide consistent recording and reporting. But, a limitation of the UCR is that final reports are not released until later in the year, which is why this working paper series was created. Although past papers have been shown to be accurate, consider also that the data reported here have not been yet been compared to the Uniform Crime Reports. Another limitation is that while this paper highlights the changes between 2016 and 2017, the impact of fluctuations varies from year-to-year. This paper does not go in-depth as the data does not allow for this. The previously cited ‘Examining Fluctuations’ working paper delves into this issue.