New Analysis Shows that Increases in Self-Initiated Police Activity Reduce Homicides

By Josh Crawford and Dr. Corrie Block

In 2015, the last year of available data, 21% of the United States population 16 or older had contact with law enforcement – about 53.5 million people. About 10.8% of the U.S. population had contact with law enforcement that was initiated by at least one law enforcement officer. These officer-initiated contacts are often referred to self-initiated police activity (SIPA). SIPA essentially includes all contact between the public and law enforcement that is not a direct response to a call for service. This broad term encompasses motor vehicle and street stops as well as checks on businesses and abandoned properties and many things commonly referred to as “community policing.”

Dr. William H. Sousa, a professor in the Department of Criminal Justice and Director of the Center for Crime and Justice Policy at the University of Nevada, Las Vegas, explains, “[a] significant body of research over the past 40 years has demonstrated that reactive policing is mostly ineffective at preventing crime and violence. Research is equally clear that police can be successful at crime management when they use the proactive tactics associated with community policing to reduce crime and make citizens feel safer.”

In fact, a 2017 review of existing literature by the National Academies of Science, Engendering, and Medicine found that “[a] number of strategies used by the police to proactively prevent crimes have proved to be successful at crime reduction.”

The most comprehensive study of the impact of SIPA on firearms violence was conducted with the St. Louis Metropolitan Police Department. The experiment found that hot spots that received self-initiated enforcement saw less illegal firearm activity. Neighborhoods in the treatment area experienced a reduction in total firearm violence by 20 percent relative to the control areas. Firearm assaults in the treated neighborhoods decreased by about 55 percent relative to the control areas.

More recently, National Bureau of Economic Research working paper by Tanaya Devi and Dr. Roland Fryer, Jr. of Harvard University has found similar results. Their paper, which examines the impact of “pattern-or-practice” investigations on crime and policing, found a strong relationship between St. Louis neighborhoods that experienced decreases in SIPA and increases in homicides. In more concrete terms, a “decline of 1000 self-initiated activit[ies] increases homicides by 1.55.”
We have examined the potential impact of SIPA on homicides in Louisville twice before. The current situation in Louisville, however, requires more rigorous review. To accomplish this, we examined data on SIPA and homicides in Louisville between 2018 and 2019.

In general, months with percentage increases in SIPA over the same month of the previous year are also months with year-over-year decreases in homicides. The reverse holds true as well – months with year-over-year decreases in SIPA are generally also months with year-over-year increases in homicides.

This analysis raised the following questions: What type of relationship does SIPA have with homicides? Do SIPA predict the number of homicides?
According to our regression analyses of these questions, SIPA and homicides seem to be correlated and have a strong statistically significant inverse relationship. Homicides appear to decrease when SIPA increases. A full breakdown of our statistical analyses is available here.

For 2018 and 2019, we seem to be able to predict the number of homicides with the number of SIPA. In Louisville, Kentucky, we could see 1.16 fewer homicides a month for every 1,000 additional instances of SIPA. Significantly, 44% of the decreases in homicides can be explained with SIPAs. This is notably similar to the findings of the Devi-Fryer working paper.

The potential effect of self-initiated policing on homicides is particularly notable now – as Louisville continues to grapple with year after year of steep homicides. This year, for only the sixth time since 1960, Louisville has eclipsed 100 homicides – despite it only being August. The “sharp increase” in homicides that has taken place in 2020 has left city officials without answers about how the city got here and what to do from here. The key may be fostering a departmental environment and implementing policies that encourage self-initiated police activity.
Report: The Relationship between Louisville Metro Police Department Self-Initiated Police Activities and Homicides for 2018 and 2019

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Pegasus Institute

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RELATIONSHIP LMPD SIPA HOMICIDES 2018 & 2019

Structured Abstract

Research Questions
For Louisville Metro Police Department in Louisville, Kentucky, United States of America:

Are SIPA and homicides correlated?
Do SIPA predict the number of homicides?

Methods
A dataset was created of monthly self-initiated police activities and homicides for 2018 and 2019 in Louisville, Kentucky. Descriptive Statistics, a correlation and regression were run.

Results
There was a negative correlation between homicides (M = 7 SD = 3) and SIPA (M = 10, 387 SD = 1625) during 2018 and 2019 in Louisville, Kentucky, r = -.67, p = ≤.001.

SIAP for 2018 and 2019 does predict change (decrease) in homicides for 2018 and 2019, R² = .44, p ≤ .001.
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LMPD stands for Louisville Metro Police Department
SIAP stands for self-initiated police activities

Decimal Places & Rounding
The system for rounding decimal point numbers is based on my working understanding of what a homicide is and is not. A homicide is when a human being dies. It is not a homicide if a human being does not die. Logically it seems to follow that we cannot have half of a homicide or any other homicide that is a portion of a whole number. It doesn’t make sense to me to provide an analysis about homicides which includes an assertion that there were 137.7 homicides. The statistical findings have been rounded up for numbers with decimal place values at .5 or higher; the statistical findings have been rounded down for numbers with decimal places at .4 or lower. So, this study presents numbers that have been rounded to the nearest whole number.

Results
Descriptive Statistics

Table 1

Descriptive Statistics for Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Minimum</th>
<th>Median</th>
<th>Maximum</th>
<th>Mode</th>
<th>N for Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIPA 2018</td>
<td>12</td>
<td>11,111</td>
<td>918</td>
<td>9718</td>
<td>11039</td>
<td>13254</td>
<td>*</td>
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<tr>
<td>SIPA 2019</td>
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<td>9,664</td>
<td>1,881</td>
<td>5956</td>
<td>9985</td>
<td>12742</td>
<td>*</td>
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<tr>
<td>SIPA percent change</td>
<td>12</td>
<td>-.12</td>
<td>.22</td>
<td>-.4700</td>
<td>-.070</td>
<td>.2900</td>
<td>-.07</td>
<td>2</td>
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<tr>
<td>Homicides 2018</td>
<td>12</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>7</td>
<td>10</td>
<td>7</td>
<td>3</td>
</tr>
</tbody>
</table>
RELATIONSHIP LMPD SIPA HOMICIDES 2018 & 2019

Correlation

There was a negative correlation between homicides (M = 7 SD = 3) and SIPA (M = 10,387 SD = 1625) during 2018 and 2019 in Louisville, Kentucky, \( r = -0.67, p < .001 \). SIPA and homicides seem to be correlated and have a strong statistically significant inverse relationship.

Regression
SIAP for 2018 and 2019 does predict change (decrease) in homicides for 2018 and 2019, $R^2 = .44$, $p < .001$. In Louisville, Kentucky, homicides appear to decrease when SIPA increases. For 2018 and 2019, we seem to be able to estimate the number of homicides from the number of SIPA. We could see 1.16 fewer homicides a month for every 1,000 SIPA. Significantly, 44% of the decreases in homicides can be explained with SIPAs. Therefore, for 2018 and 2019 combined SIAP do predict change (decrease) in homicides.