



Officer Workload and Officer-Involved Shootings of Unarmed Decedents From 2016-2017



Dara Zwemer, Dr. John Pennington
Middle Tennessee State University

Introduction

From 2016 to 2017, U.S. police officers fatally shot 146 unarmed persons. Decedent demographics (e.g., race) that researchers often focus on poorly predict future shootings (Klahm & Tillyer, 2010). Higher officer workloads are associated with negative work and community attitudes (Brooks et al., 1994). However, few studies have analyzed whether officer workload is related to lethal shootings

Aim 1: Create a total crime and violent crime officer workload measure for each municipality and state in which unarmed citizens were fatally shot by police from 2016 to 2017.

Aim 2: Determine whether each officer workload measure predicts state and municipality-level lethal officer-involved shootings of unarmed individuals (LOIS-Us).

Hypothesis #1: U.S. states with *more* LOIS-Us (e.g., CA) will have *higher* violent and total officer workloads than states with fewer LOIS-Us (e.g., NY). Higher workloads may fatigue officers, increasing the lethality of their response to resistance.

Hypothesis #2: Total and violent officer workload will be higher in municipalities where LOIS-Us occurred compared to those municipalities' state-level measures. This test better controls for state-to-state differences in population, culture, laws, etc.

Method

Eligible **LOIS-Us** were identified using *The Washington Post* and *The Guardian* databases.

➤ State and municipality **workload indices** were calculated by dividing the *number of officers* per 1,000 citizens employed in a state/municipality by that area's *violent crime rate* (i.e., the combined number of homicides, aggravated assaults, and robberies committed per 1,000 citizens) and *total crime rate* (i.e., violent crimes plus larceny, burglary, theft, and arson per 1,000 citizens), respectively.

- The FBI's Uniform Crime Reporting (UCR) database contained state populations, crime rates, and the number of officers working in each municipality and state.
- Municipality populations were obtained from the U.S. Census Bureau.

Analyses

1. To test hypothesis #1, the correlation between the number of LOIS-Us in each state and both violent and total workload values for each state were calculated.
2. To test hypothesis #2, two paired samples *t*-tests were conducted; number of LOIS-Us was the dependent variable, and municipality vs. state officer workload was the grouping variable. Total and violent crime analyses were conducted separately.

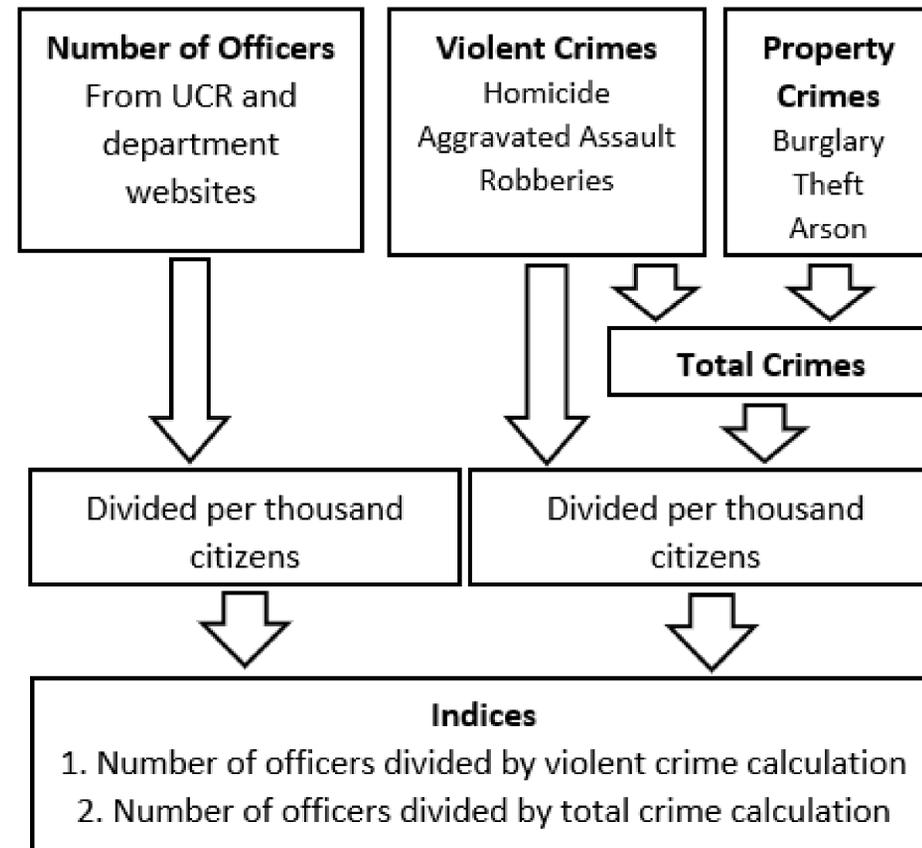


Table 1. Overall Municipality Descriptives

Statistic	Total Crime Rate	Violent Crime Rate	Number of Officers Per Municipality	Number of Officers per 1,000 Citizens*	Municipality Population
Mean	39.36	5.18	1066.84	1.07	405672.23
Median	38.34	4.48	121.00	0.12	77160.00
Maximum	118.08	19.55	12383.00	12.38	3990456.00
Minimum	1.5	0.13	3.00	< 0.1	1378.00

*Positively skewed

Results

Hypothesis #1: Unexpectedly, state-level total crime officer workload values were unrelated to LOIS-Us, and state-level violent crime officer workload values were negatively correlated with LOIS-Us, $r(48) = .28, p < .05$.

Hypothesis #2: Municipalities with LOIS-Us had significantly lower total crime ($M = 0.08, SD = 0.04$) and violent crime ($M = 0.11, SD = 0.13$) workload values than the state in which the municipalities were located.



Figure 1. Albuquerque, New Mexico, where 3 LOIS-Us occurred in 2017.

Discussion

These results may stem from officers in locations with lower workloads having less experience than officers in locations with higher workloads. For example, these officers may have less expertise in handling threatening situations. In addition, more officers may respond to a single crime in municipalities with lower violent workload values.

A strength of the present study is ease of replication (using more recent data from UCR reports) However, this study's findings could be stronger if a centralized source of police data existed.

- The U.S. currently has a fragmented system of reporting violent crimes and the number of police in an area; though UCR data includes a number of important statistics, some law enforcement agencies fail to provide data to the FBI (Banks et al., 2016).
- Census data is also limited, particularly for small towns.

Future research should expand present analyses beyond 2017 to determine whether these findings are corroborated in later years, and it should explore whether these indices could alert municipalities at risk for LOIS-Us to alter their officers' workloads or training requirements.

Acknowledgements

This project was partially supported by an Undergraduate Research Experience and Creative Activity (URECA) grant through the Office of Research and Sponsored Programs at Middle Tennessee State University.