Analyzing National Violent Crime Rates and the Relationship to Violent Crime Reporting in Local News

Cayla Barry
supervised by Assistant Professor Ariel White of MIT’s political science department – sponsored by MSRP and MIT’s Office of the Dean of Graduate Education

Abstract
Local news reporting in the US tends to represent and report violent crime quite frequently. But how do these rates of reporting compare to national violent crime rates? This research seeks to measure violent crime rates in the US in 2014 by analyzing data from the FBI’s National Incident Based Reporting System, also referred to as NIBRS. This data from NIBRS was analyzed in R Studio to display the rates of violent crime in the US in 2014 from the 15 largest reporting cities. From there, we can suggest more critical representations of violent crime in local news media: representations that accurately depicts the crime rates that are happening and what those incidents are. In doing so, we hope that we can provide more precise insight into the types and scales of crimes that are occurring on a national basis.

Background
• Local news outlets tend to over represent violent crimes in reporting
• US violent crime rates have generally decreased since the late 1990s but local news reporting on crime has remained rather constant
  • Previous studies suggest that this over-reporting in local news could be a contributing factor in public anxieties surrounding crime (Eisen and Roeder, 2013)
• Local news reporting on violent crime also over represents people of color, especially African Americans, as more inclined to violent crime
  • This then pushes negative racial stereotypes that specifically portray African Americans to be more inclined to criminal activity than are white Americans (Gilliam et al., 1996).
  • Some studies have shown that media exposure to overrepresentation of blacks as criminals can affect implicit attitudes, or, automatic processes, that black individuals are violent (Dixon, 2008; Ardent and Northup, 2015).

Methods
• Obtained data from NIBRS, looking specifically at the incident report from 2014; the dataset was a 6.2GB fixed width file
• To read it into R Studio, it had to then be parsed using SAScii and then read using the read_fwf() function
• From the NBIS codebook, found variables for homicides, assaults, and burglaries
• Narrowed the data from 390 variables to display homicides, assaults, burglaries, and populations from each city and district
• Then took the 15 cities with the largest populations, and calculated the rate of homicides per 1,000 citizens

Results

![Graph showing Assaults and Burglaries by City, 2014](image)

![Graph showing Homicides by City, 2014](image)

![Graph showing Homicides per 1000 Citizens by City](image)

Conclusions and Future Research

• **Homicides**: average = 61.2 ; median = 28
• **Assaults**: average = 4,155.6 ; median = 3,766
• **Burglaries**: average = 4,968.3 ; median = 4,562
• **Homicides per 1000**: average = 10.3% ; median = 6.4%

Granted each city and state’s various differences in conditions such as economy and infrastructure, we can see that there is much variance between the rates of crime from city to city. Interestingly enough, two of the most frequent outliers were both in Michigan: Detroit and Oakland.

* Quartiles maybe box and whisker plot

MIT’s Assistant Professor of political science, Ariel White, will continue this research. The project plans to further investigate how the national rates of crime compare to crime reporting in local newspapers on a national scale.

Works Cited


