Police Gun Dataset Analysis

2023-07-24

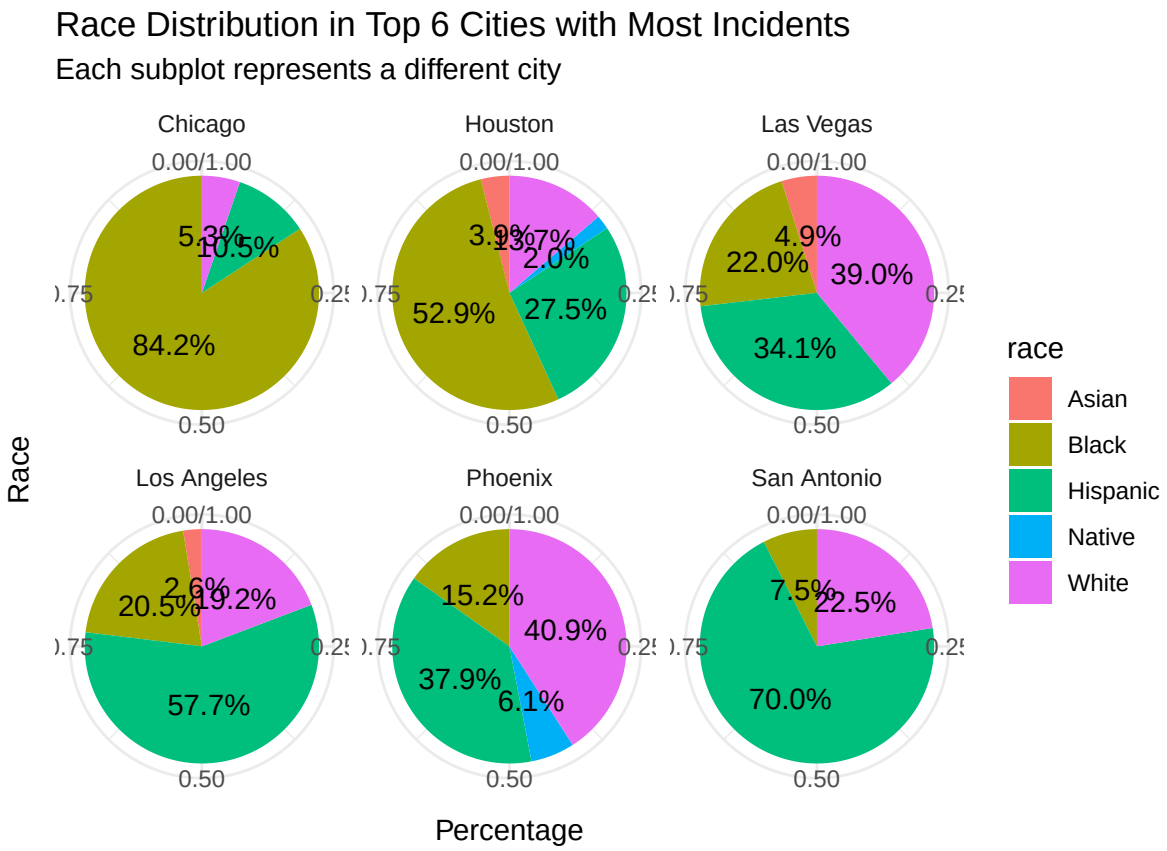
Introduction

This report contains a comprehensive exploratory data analysis of a police gun incident dataset. The primary focus is to analyze factors such as manner of death, armed status, age, gender, race, and geographic distribution.

Racial Distribution in Cities with Most Incidents

We first analyze the racial distribution of the incidents in the top 6 cities with the most incidents.

```
## Selecting by n
```



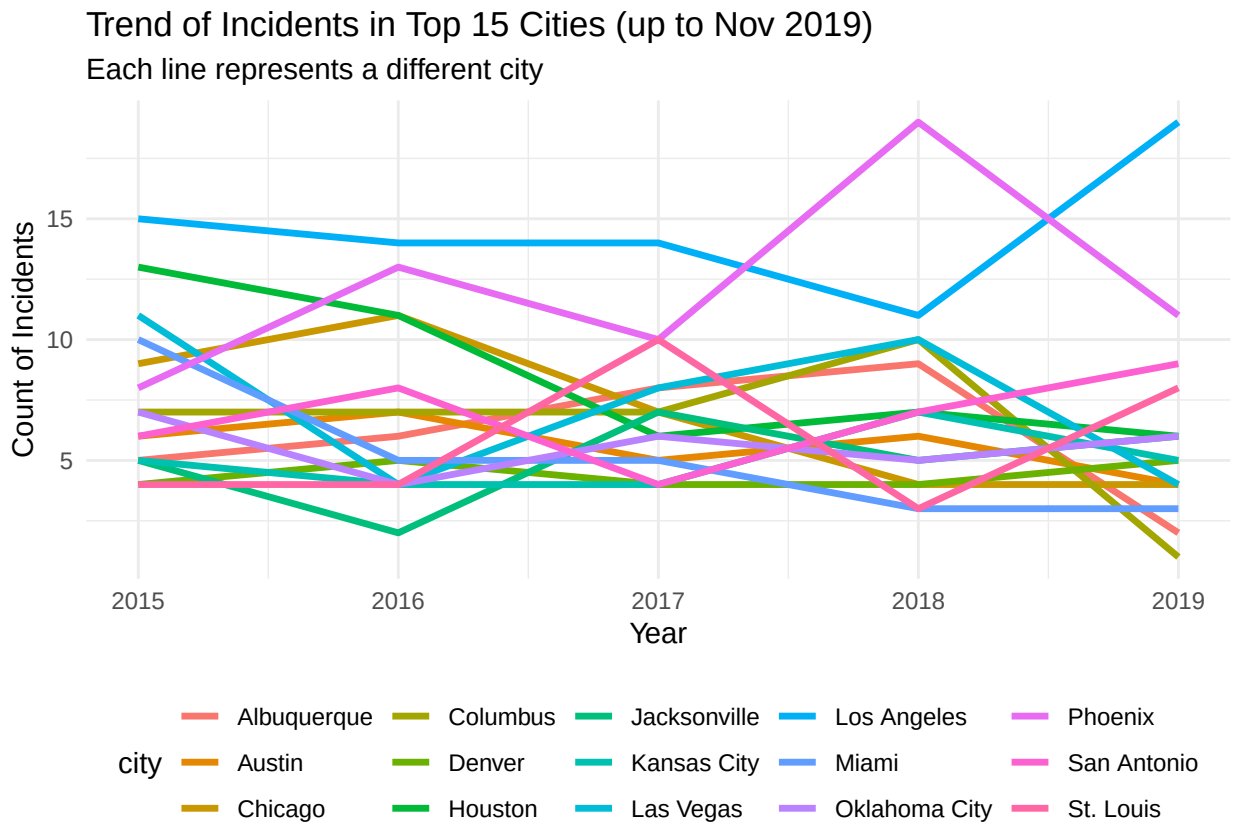
The pie charts above provide an overview of the racial distribution of police shooting incidents in the six cities with the most recorded incidents. The racial distribution of incidents in these cities can inform strategies for addressing disparities in police encounters.

Trends in Incidents in Top 15 Cities

Next, we analyze the trend of incidents in the top 15 cities from 2015 to November 2019.

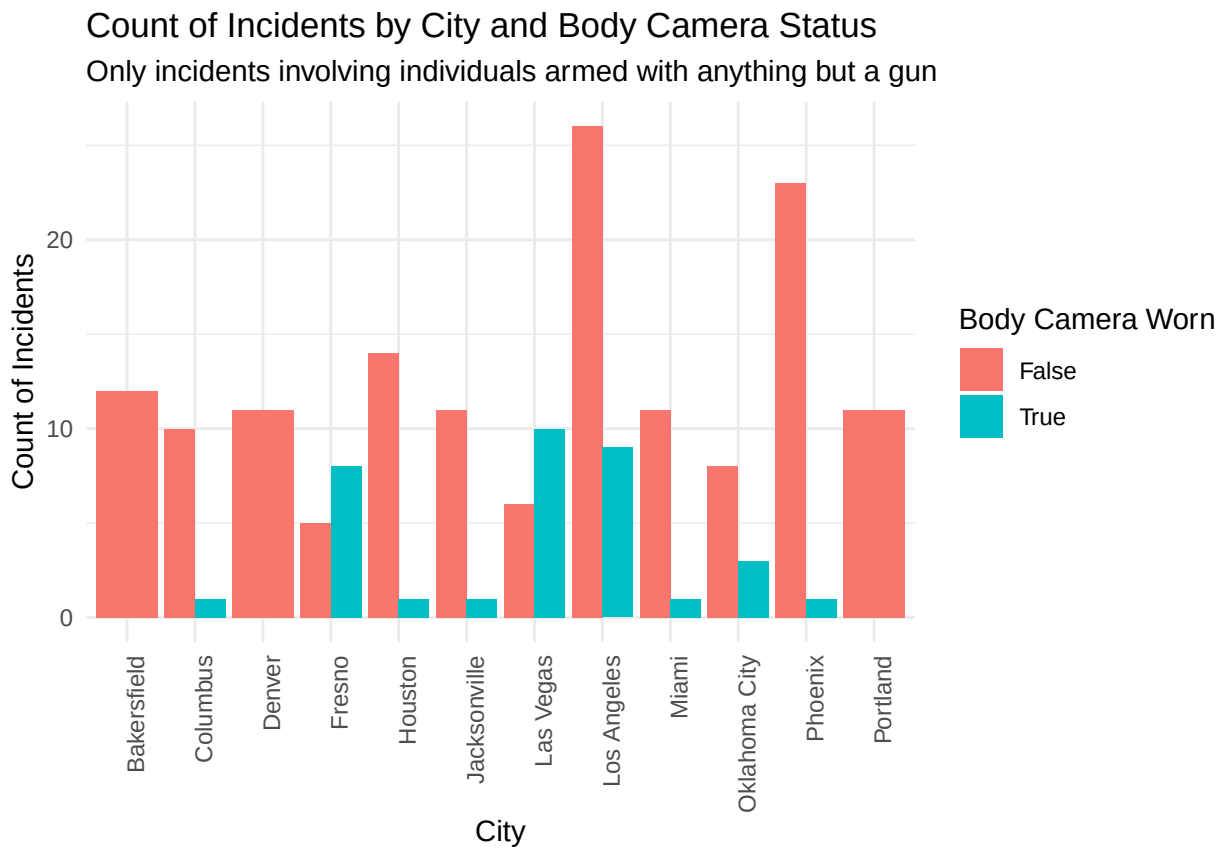
```
## Selecting by n
```

```
## Warning: Using ‘size‘ aesthetic for lines was deprecated in ggplot2 3.4.0.
## i Please use ‘linewidth‘ instead.
## This warning is displayed once every 8 hours.
## Call ‘lifecycle::last_lifecycle_warnings()‘ to see where this warning was
## generated.
```

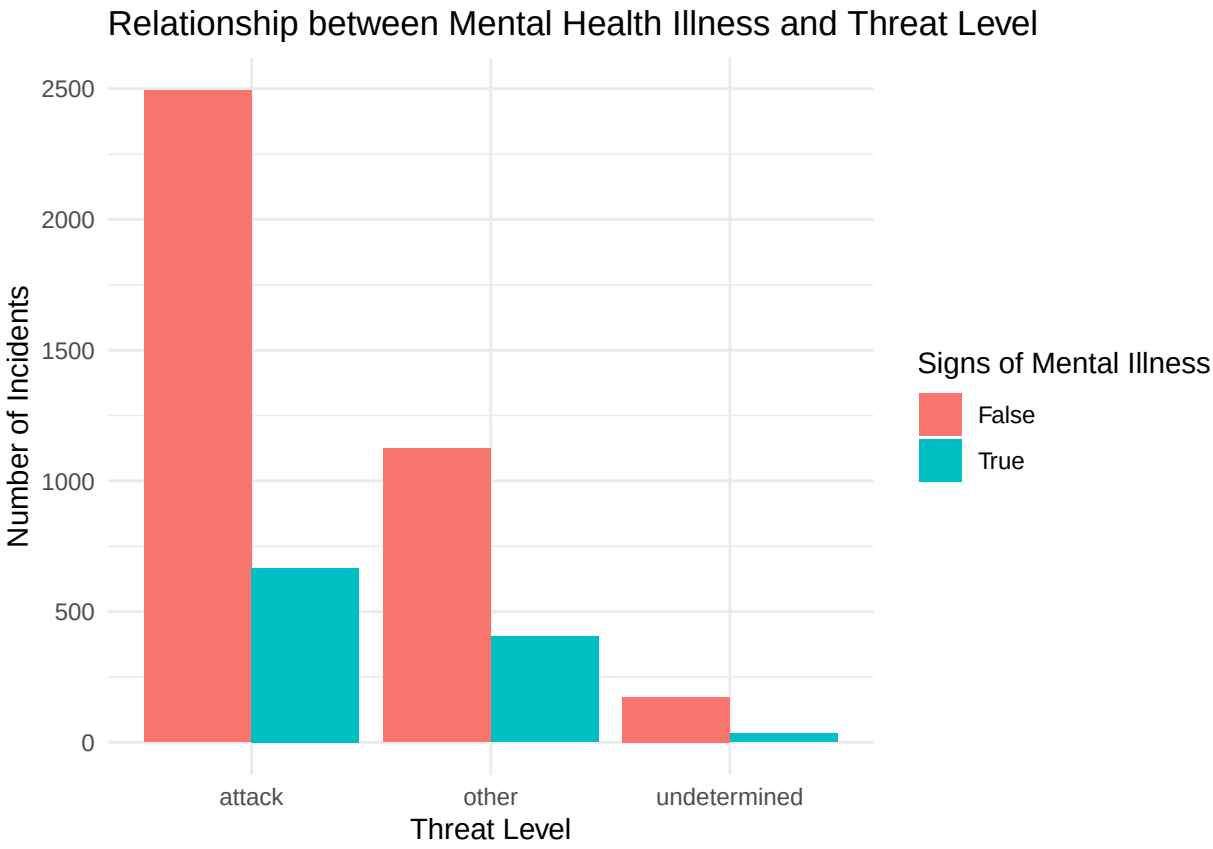


Body Camera Analysis in Selected Cities

We are visualizing the use of body cameras during incidents involving individuals armed with anything but a gun. The dataset was filtered to focus on cities with more than ten such incidents up until November 30, 2019. The graph below depicts the number of incidents involving body camera usage, segregated by city.



Relationship Between Mental Health Illness and Threat Level


Relationship between Mental Health Illness and Threat Level
Number of Incidents
2500
2000
1500
1000
500
0
attack
other
undetermined
Threat Level
Signs of Mental Illness
False
True