

Title: An Analysis of Houston Police Department Officer-Involved Shootings

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Abstract:

Officer-Involved Shootings (OIS) continue to be a prevalent issue, the potential involvement of racial discrimination sparking protests across the US. In an effort to increase transparency, the Texas State Legislature passed Art. 2.139 of the Texas Code of Criminal Procedure on September 1st, 2015, which (among other things) requires law enforcement agencies to report details of all officer-involved shootings. Since then, officer-involved shootings per year in Houston have greatly decreased.

A previous study by researchers at Northwestern University analyzed trends in the Houston OIS dataset from 2005 to 2013. In contrast, our work analyzes many of the same metrics in the OIS dataset but from after the passage of the law in 2015, while comparing these metrics with the previous study.

In addition, this work generates new insights and explores machine learning models for predicting different attributes of OIS, such as a suspect's injury. The results in this report align closely with the trends found in the previous study, except for certain differences regarding the percentage of male officers and officer ages. Notable trends in the data include a disproportionate number of black suspects compared to suspects of other races. Using a Decision Tree Classifier, we are able to predict suspect injury with 91.67% accuracy, based on other attributes of the OIS. The results from this work provide a greater understanding of the factors contributing to Houston officer-involved shootings, and they may be useful for the Houston Police Department when deciding future policies.