CHATTANOOGA CRIME OVER TIME: AN ANALYSIS OF POLICE INCIDENT OPEN DATA

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INTRODUCTION

The police and citizens may want to know where the most crime occurs, what time of day is crime or police incidents most likely to occur over time [1]. This information can help them understand the crime hotspots in the area. This research work presents a dashboard built upon open data to attempt to bring understanding and insights to the police and citizens about police incident from the city of Chattanooga from 2015 through 2022.

METHODOLOGY

The steps carried out in this research are as follows:
1) Acquired an open data set from Chattadata.org [2]
2) Used Tableau to map/plot data and specify filters
3) Combine charts/graphs to create dashboards
4) Created an interactive webpage at chapolice.nametable.net

RESULTS

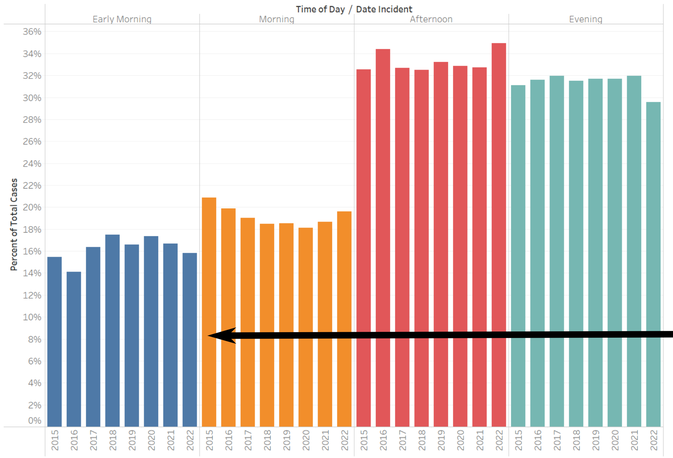
Overall, most incidents occur in the afternoon and evening with the fewest occuring in early morning. Interestingly, this trend does not apply to all types of incidents. For example, driving under the influence of drugs/alcohol occurs most in the early morning.

Filtered over all available data from 2015 onward, there seems to be places in which theft (motor vehicle theft, robbery, stolen property offenses, theft from buildings, theft from coin-operated machines, etc.) is more common than others. Downtown Chattanooga and around Hamilton Place mall were found to be hotspots of theft.

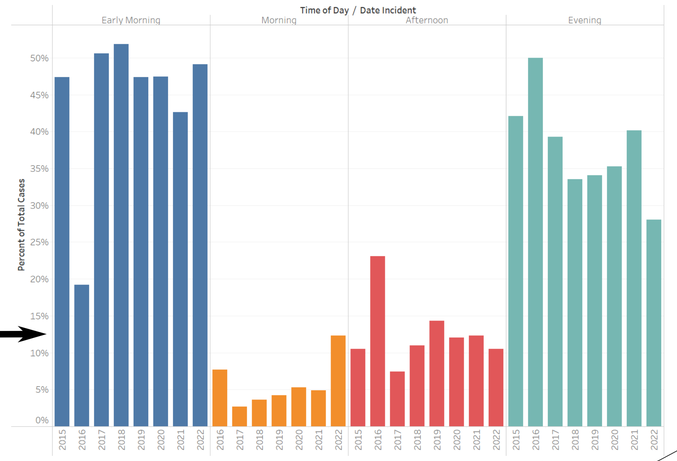
REFERENCES

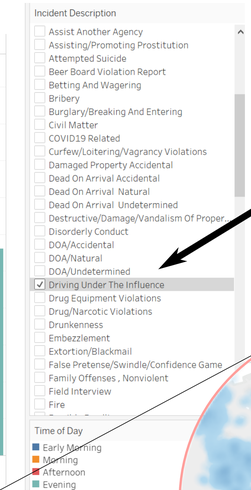
[1] Kovachev, S., Reichert, P., & Speck, H. (2008). Crimeblips. Proceedings of the 10th International Conference on Information Integration and Web-Based Applications & Services - IiWAS '08. https://doi.org/10.1145/1497308.1497446
[2] Police incident data: Chattanooga open data portal. ChattaData. (2022, February 21). Retrieved February 21, 2022, from https://www.chattadata.org/Public-Safety/Police-Incident-Data/jvkg-79ss

Percent of total cases (all incidents)



Percent of total cases (driving under the influence)



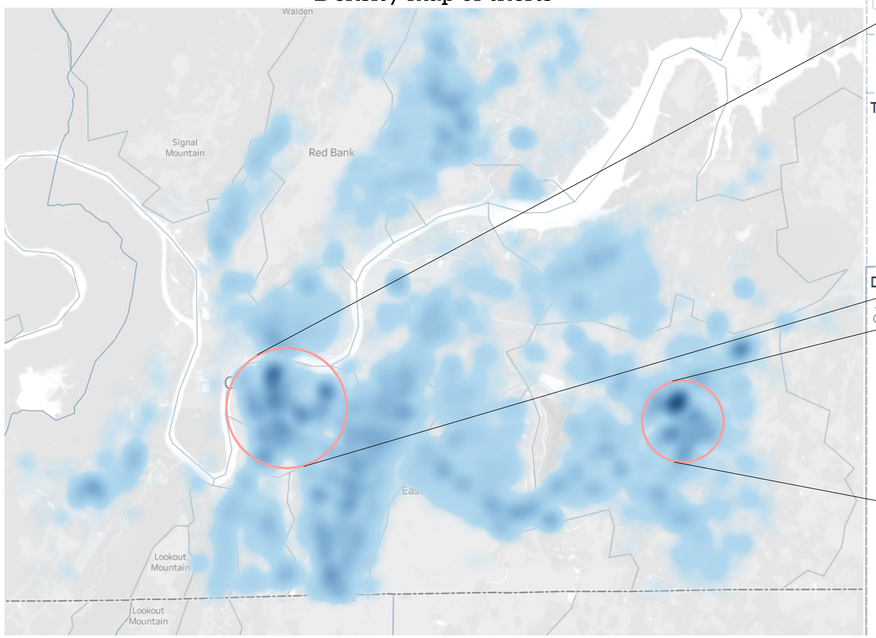


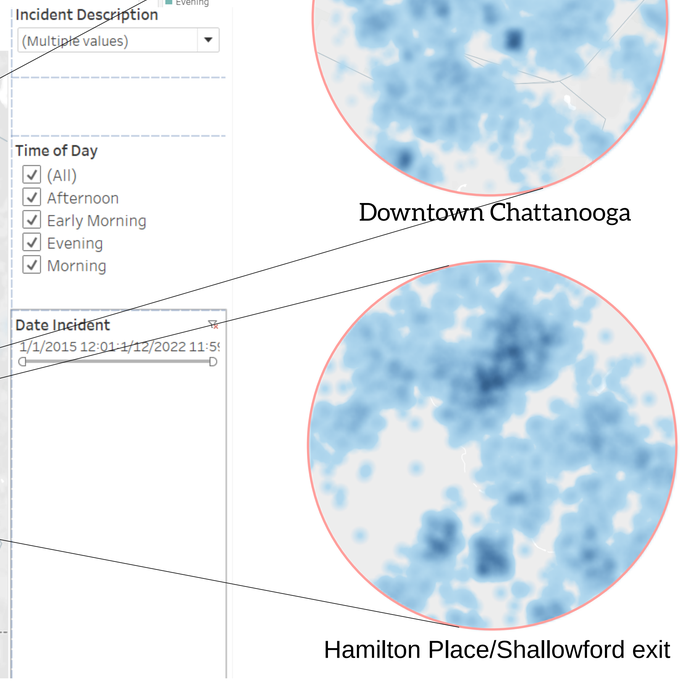
The Incident Description can be filtered to see prevalance of a certain type of incident at different times of day.

Time of Day Legend

Early Morning:	12AM - 6AM
Morning:	6AM - 12PM
Afternoon:	12PM - 6PM
Evening:	6PM - 12AM

Density map of thefts





Downtown Chattanooga

Hamilton Place/Shallowford exit