

Police Data Challenge

The background is a solid teal color. It features several faint, semi-transparent geometric shapes: a large pie chart in the upper right, several smaller pie charts of varying sizes scattered around, and a bar chart in the bottom right corner with four bars of increasing height.

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Datasets Used

Baltimore for Calls Service: emergency and non-emergency calls to law enforcement in Baltimore (Eastern Region) from 2015-2017

Baltimore Police Department Stations: location of 9 police district stations and 1 headquarter station

Baltimore Police Department Victims: information on victim crimes in Baltimore

Baltimore Police Department Arrests: top arrest charges of those processed at Baltimore's Central Booking & Intake Facility (NO JUVENILES, 18+)

Baltimore Police Department Gun Offenders Registry: gun offenders registered with the Baltimore Police Department



Data Preprocessing

- Cleaned the datasets
 - Datetime, location, relevant variables
- Summary of datasets
 - Counts, exploratory data analysis, visualizations

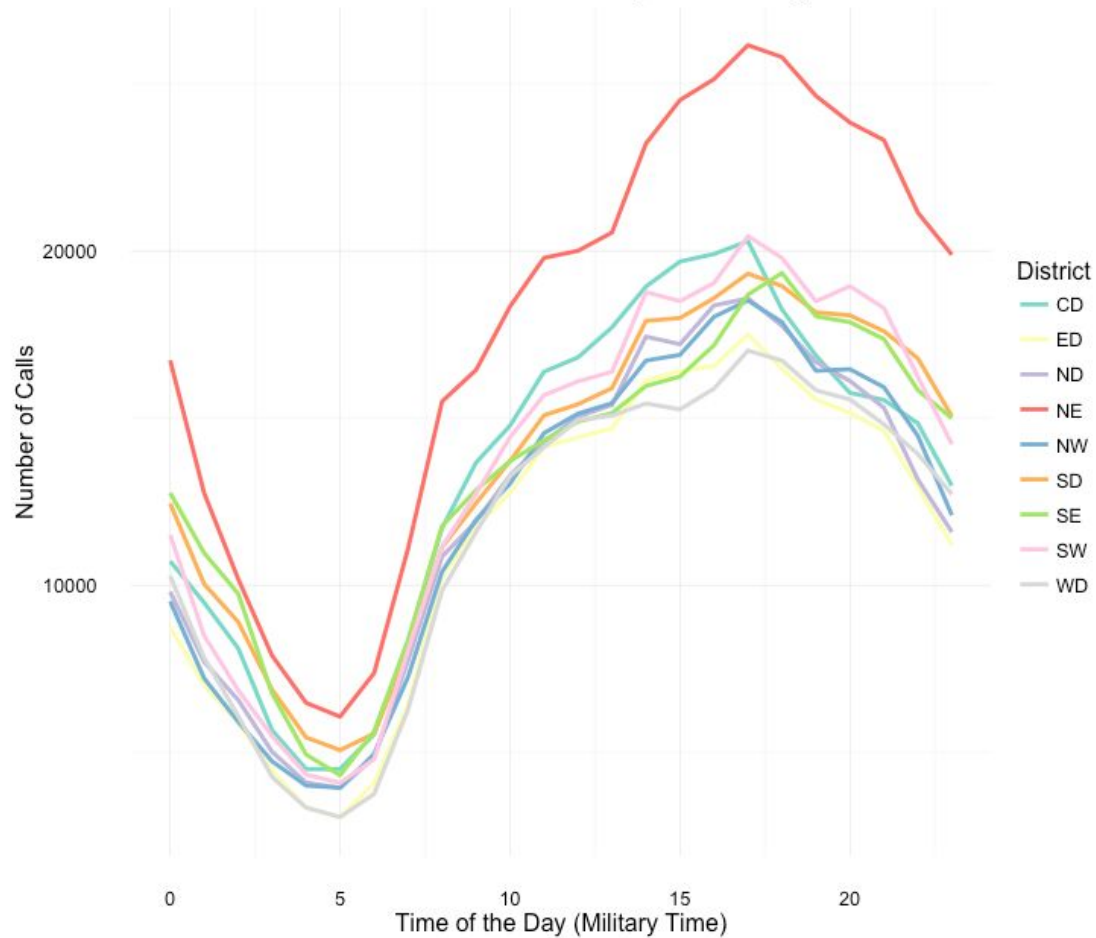


Visualizations

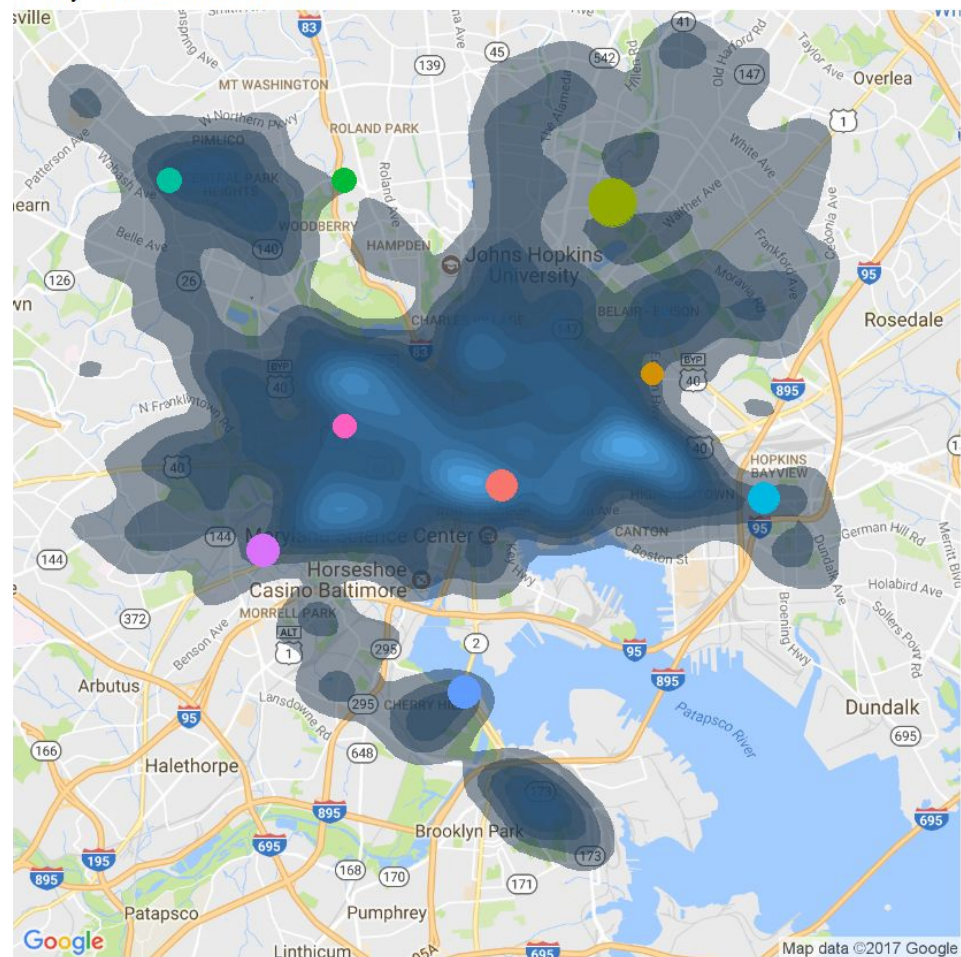
FOCUS ON...

- Times when most calls were received
- Regions with high density of victim crimes

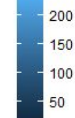
Number of Calls to Baltimore Police Throughout the Day For Each District



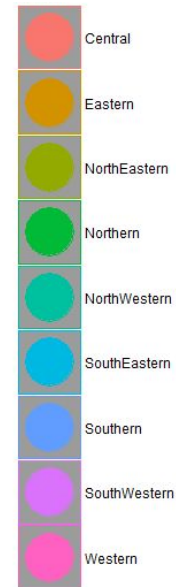
Density of Crime and Police Stations



Frequency of Crime



Police Station



District	# of Calls
Northeast	426857
South	324564
Southwest	322828
Central	320968
Southeast	317723
North	292746
Northwest	291492
West	276957
East	273589



Summary of Approaches

- Assign officers more efficiently according to location, day/time of day, season/temperature, and location of headquarters
- Prepare officers in accordance to their assignment areas and needs
- Increase communication between police stations