Tableau Application Dashboard

Boston crime Analysis

Rebecca Leu

**Business Questions being answered by the dashboard:**

* *How can we staff differently per district to adjust to crime levels in each district?*
* *How many officers should I staff during this time of year, this week, or during what parts of the day for my district?*

**Breakdown of the dashboard layout**

The first graph to look at when determining staffing needs would be the month because it is the largest subset of data in the dashboard. I chose a line graph because it is easiest to read when determining the rise and fall of crimes throughout the year. The person scheduling would first look at this month graph and see how the crime is expected to rise or fall in accordance to the months scheduling needs before. Continuing as you would normally read a book from left to right, the next line down is a heatmap showing the crime counts for the days of the week. This graph is effective for this data because you can instantly understand which days are busier for that district based off the darkness of the day. Lastly is the graph showing the rise and fall of crimes per hour. Another line graph was used here to best understand how crime increases and decreases throughout the day. From this graph it is easy to decipher the lull in crimes during the early hours of the morning and the steep increase once the sun rises in the morning. The colors used are all grouped in the same area on the color wheel, so they all blend nicely but do not distract too much from the data being presented. I kept the lighter colors on top and the darker colors on bottom to again appease to the natural blend.

**How the dashboard could be utilized**

Currently, it could be that each district is split to cover an equal amount of city ground but does not account for higher crime rates in different parts of the city. The manager in charge of staffing for the entire city could break down the crime levels per district to be able to staff different amounts of officers per district. The city could even investigate splitting officers between different districts to account for rises and falls of crime rates throughout the day, month, or hour. For instance, district A1 has the highest amounts of crimes on Thursdays, Fridays, and Saturdays while district A7 sees the most crimes on Fridays and Mondays. Officers from A7 could be used more on Saturdays in the A1 district, and A1 could repay them by supplying additional staff on Mondays.

The dashboard could also be used to schedule officers per district. With this dashboard it would be easy for the scheduler to adjust officer needs according to the month prior while also taking into account the unique needs of their district by day and hour. The person in charge of making the schedule for the officers could look at the dashboard each week and make adjustments according to the change in needs throughout the year as well as fine tuning the needs for each day and hour.

Additionally, this dashboard would be useful to the average individual contributor for they themselves to prepare for busier or lighter times of day. The officer could plan meetings and other scheduled items at different days of the week, times of year, or time of day to best plan during a slower period.