Group 14 Visualization Design

Crimes by Different Districts Map:

Generally, the most important thing to know about a crime is where you are in relation to it. This visualization is designed to show where crimes are committed on a district-by-district basis intuitively. Another important thing to know, although probably not as critical for a concerned citizen, is the number of crimes that occur in each district. Thus, the tooltip and selection utility for this visualization allows the user to identify the number of crimes that occurred in each district. This is at the start of the website as it is a very broad graph, and each graph shown later will get more and more specific.

Crime by Street Bar Plot:

When moving through a city, knowing which streets are safe and which streets are not is key to avoiding any crime. This visualization helps with determining outlier streets that may be unsafe, as well as allowing an analyst to highlight specific streets or crimes that need to be addressed in policy or via targeted policing.

Crime Over Time Line Plot:

Crime statistics, just like population or voter registration rolls, change year over year. Visualizing the overall crime data for Boston monthly allows a data analyst or policy maker to determine if a new policy is positively affecting the community. For example, a visualization of crime before and after the implementation of broken-windows policing could allow a politician to determine if the crime-fighting tactic is useful. Additionally, crime specific filtering allows tailored policy-making for each subset of crime, as well as indicating general crime trends like increased poverty leading to larger robbery reports or increased organized crime being potentially correlated with homicides or drug offenses.

Crime by Weekday Bar Plot:

Weekday visualization allows analysts and citizens alike to observe trends and commonalities across different crimes over the week. This graph ensures that there are only 7 major bars to keep track of and allows a visualist to identify both the most common crimes on each weekday but also the total number of crimes on each weekday, useful for adaptive police-work or for ensuring transit or group plans are as safe as possible.

Crime Comparison Across District Scatter Plot:

Scatterplots are useful to display correlations between various continuous variables. Thus, the utility of the scatterplot for comparing correlations between various crimes is self-evident. A scatterplot of crime vs. crime data allows an analyst to see overall trends around crimes for the sake of determining if a policy reducing robberies might increase drug offenses or vice versa, as well as determining if there are outlier districts that have specifically higher or lower rates of individual crimes, opening avenues for investigation. The ability to filter by district (through the legend) also allows users to highlight certain districts.

Link to Website: <https://joshkung25.github.io/ds4200_14/index.html>