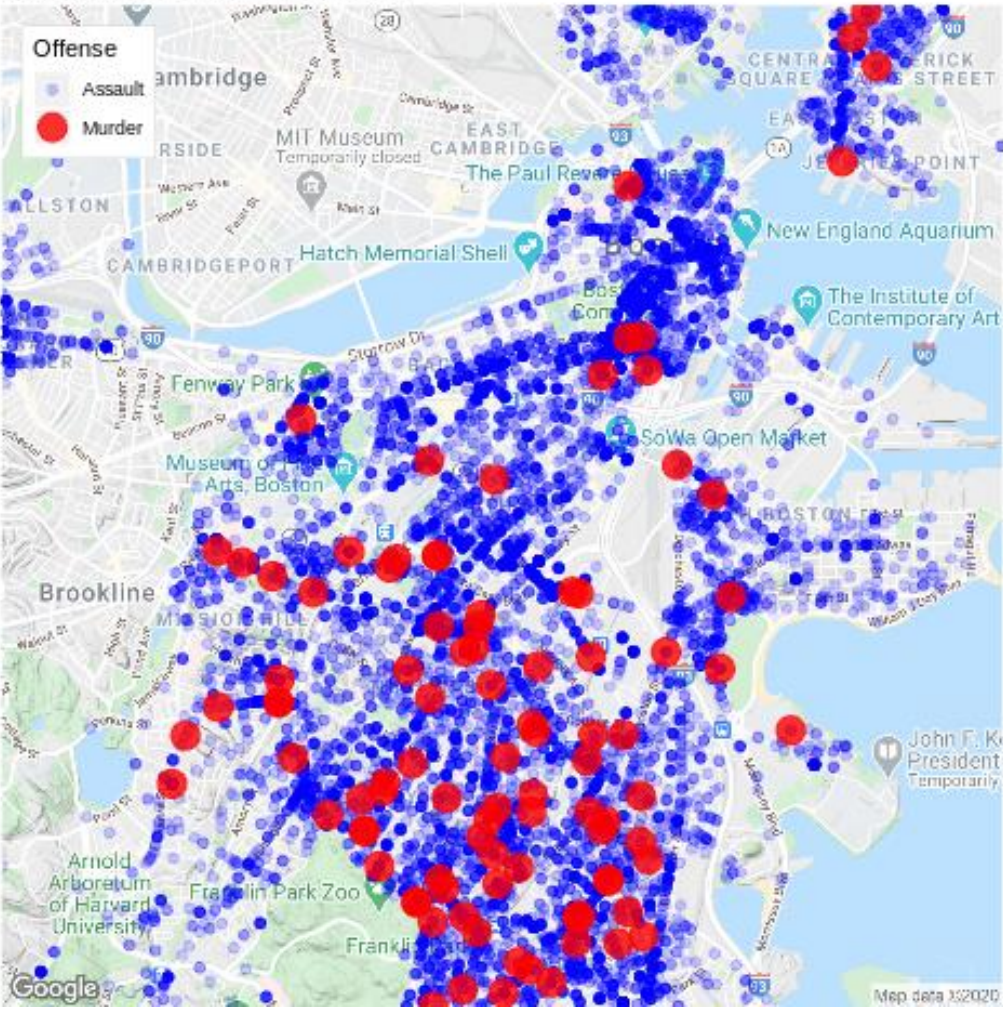
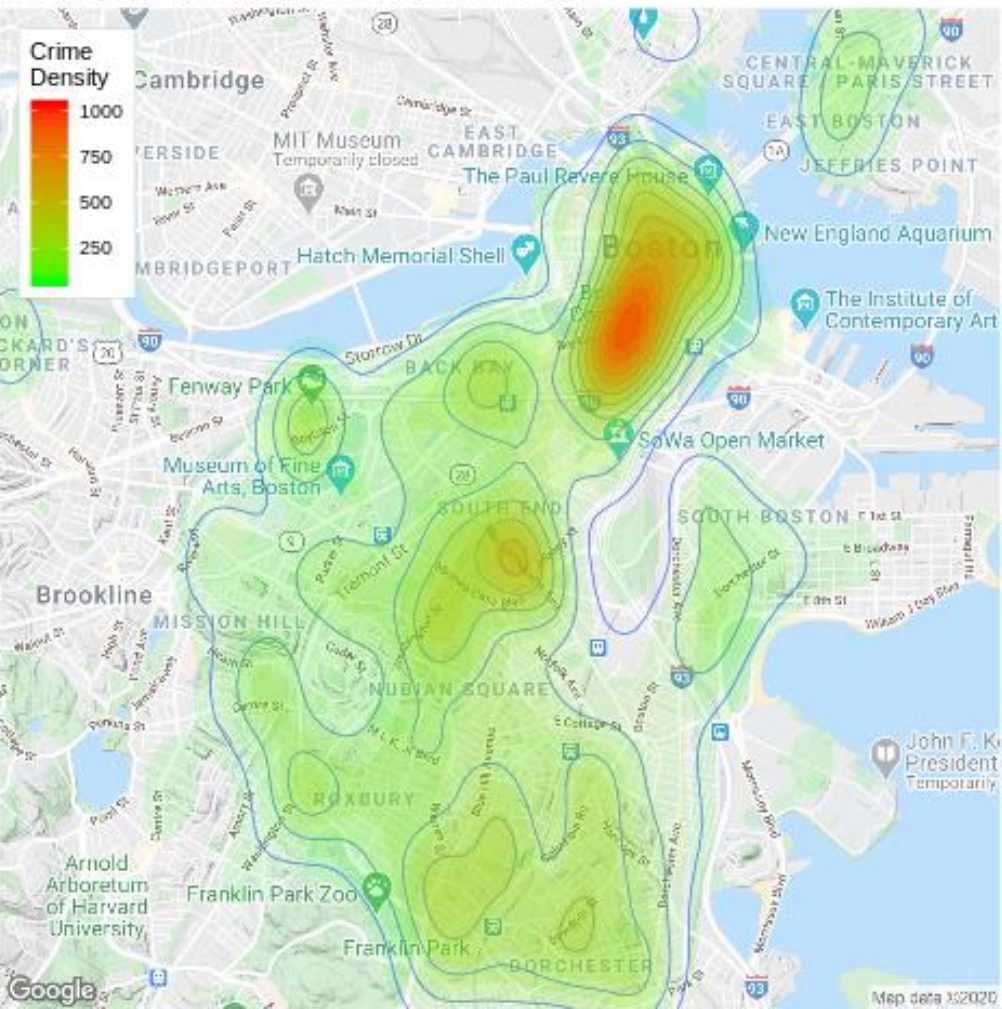


Murder and Assault Occurrences



Assaults and Murders in Boston 6/15/15-9/3/18

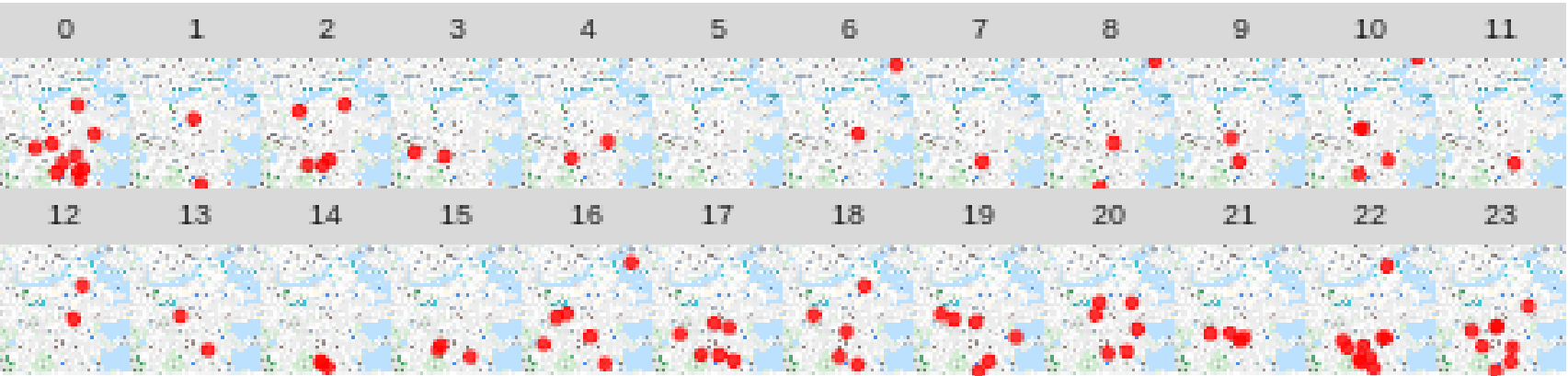


Being attacked and killed is something that nobody wants to happen to them. I found a dataset on Kaggle.com that contained all crimes in Boston, MA that police responded to and the date, time, and location at which the crimes took place. Using this dataset, I made visualizations with the purpose of helping the public make smart decisions that will minimize their potential to become victims.

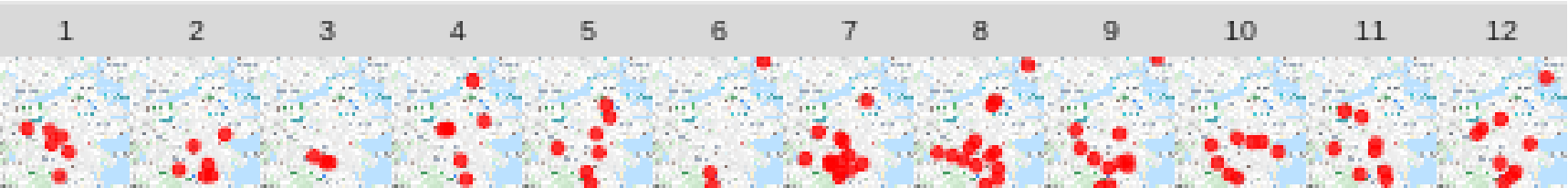
Left: This map shows all assaults and murders committed in Boston between June 15, 2015 and September 3, 2018. The assaults are shown using small, more transparent, blue points. Since there are so few murders compared to the assaults, the murders need to stand out on the map. The murders are displayed using larger, more opaque, red points. This visualization shows that assaults happen throughout most of the city and that they are far more common than murders.

Right: This is a density plot, which shows what areas the most crimes are being committed in. Clearly, the most attacks occur downtown, which makes sense given that there is a higher concentration of people there than anywhere else. There are also hot spots in South End, Roxbury, and Dorchester, which are known to be dangerous neighborhoods.

Murders by Time of Day



Murders by Month



Since assaults occur nearly everywhere, it is difficult to gain additional insight from more maps. Due to this, the next two maps exclude assaults and only include murders to make it easier to see patterns.

Top: This is a matrix of maps identical to the ones shown above but subdivided by time of day. Each map represents one hour of the day. For example, the map labeled with a 0 contains all murders committed between midnight and 1:00 AM. It is easy to see that far more murders are committed at night than during the day. It appears the morning is the safest time of day. Additionally, almost all murders are committed in southern Boston. Murders committed downtown are rare.

Bottom: Building on the previous visualization, this one shows the locations of all murders committed by month. There is less of a profound pattern than in the time of day visualization, but it appears that more murders are committed in the second half of the year than the first, so maybe consider planning a visit to Boston in March.

Conclusion: These visualizations make it clear that you are very unlikely to die in Boston, especially if you avoid the Southern half of the city at night and during the second half of the year. It is less clear how to avoid being assaulted.