



# Topic Outline

- Our Project & Data Sources
- When?
- Where?
- What?

# Purpose of our Project

## **Awareness**

- Understanding patterns of crime in our nation's capital

## **Safety**

- To have second thought when visiting certain areas, or during times of the day to lower potential harm to oneself.

# Data Sources

- 2021 Crime Incident Data - [https://opendata.dc.gov/datasets/619c5bd17ca2411db0689bb0a211783c\\_3/explorer](https://opendata.dc.gov/datasets/619c5bd17ca2411db0689bb0a211783c_3/explorer)
- DC Wards - <https://opendata.dc.gov/datasets/wards-from-2022/explorer>
- 2020 Crime Incident Data - [https://opendata.dc.gov/datasets/f516e0dd7b614b088ad781b0c4002331\\_2/explorer](https://opendata.dc.gov/datasets/f516e0dd7b614b088ad781b0c4002331_2/explorer)

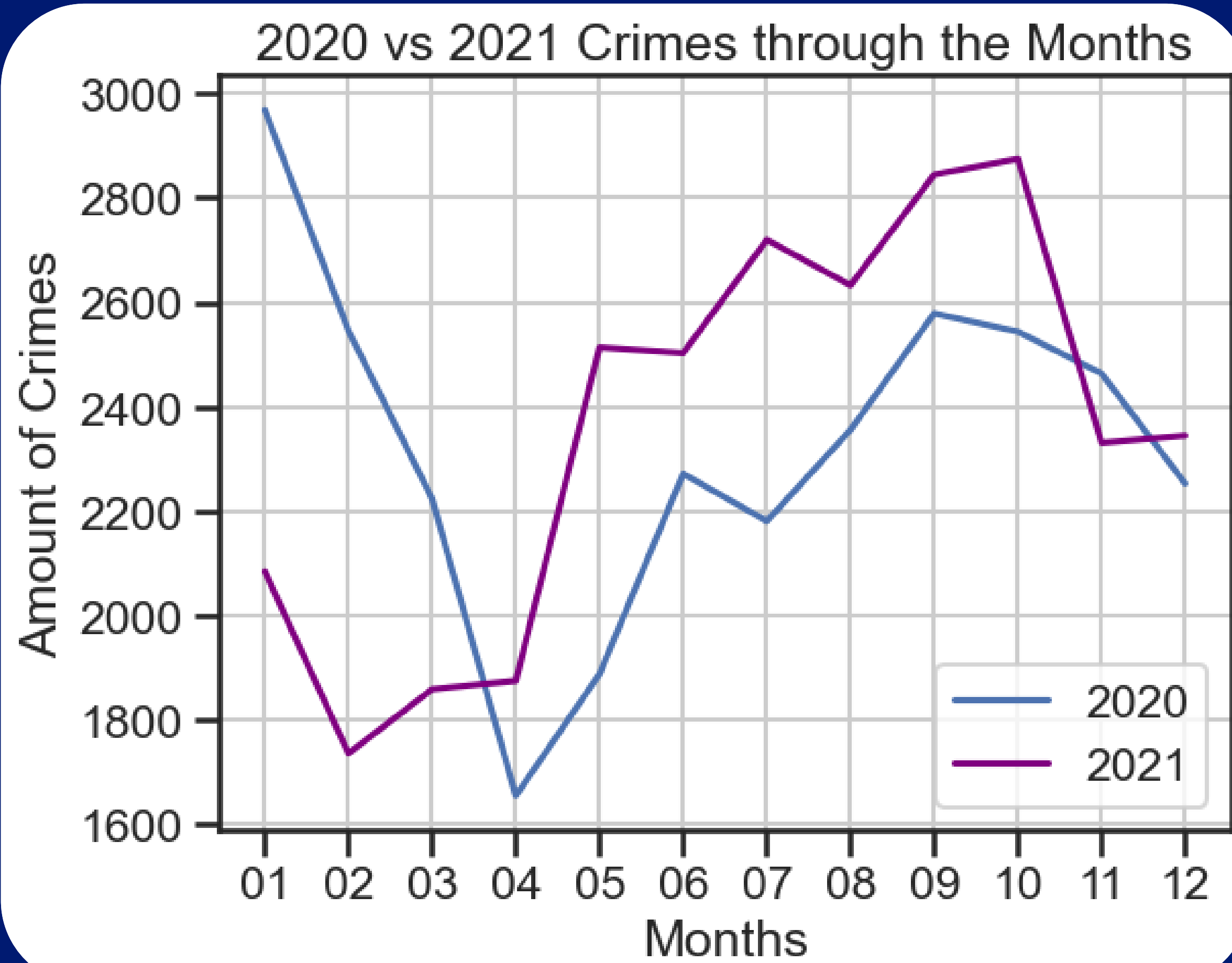


# When do crimes take place?

- We can see here that crimes throughout the Evening Shift are greater.
- The Midnight Shift being lowest for both years.
- 2021 Day Shift crimes having a larger total amount than 2020's Day Shift.

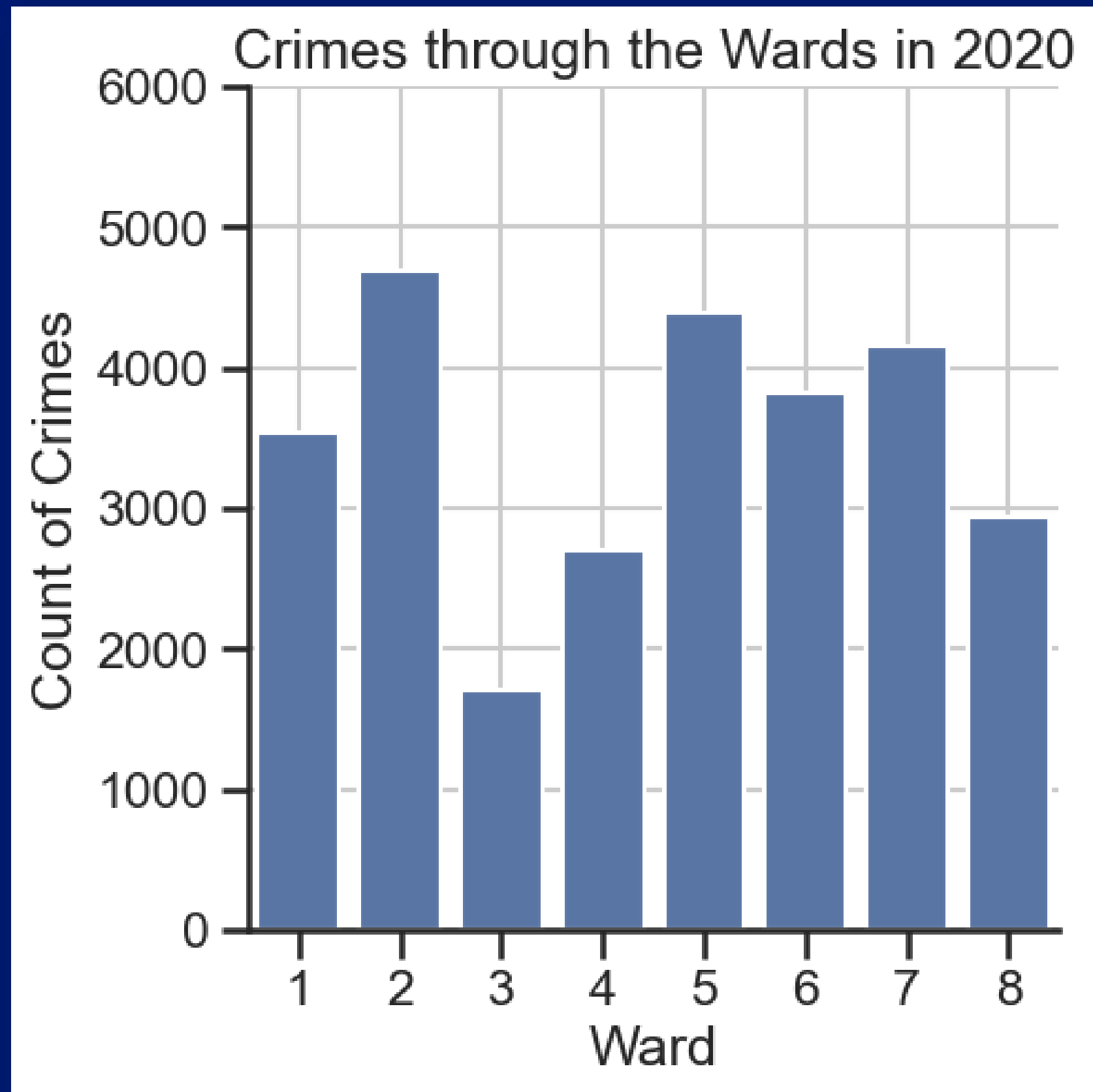


# Crime Throughout the Months of 2020 and 2021

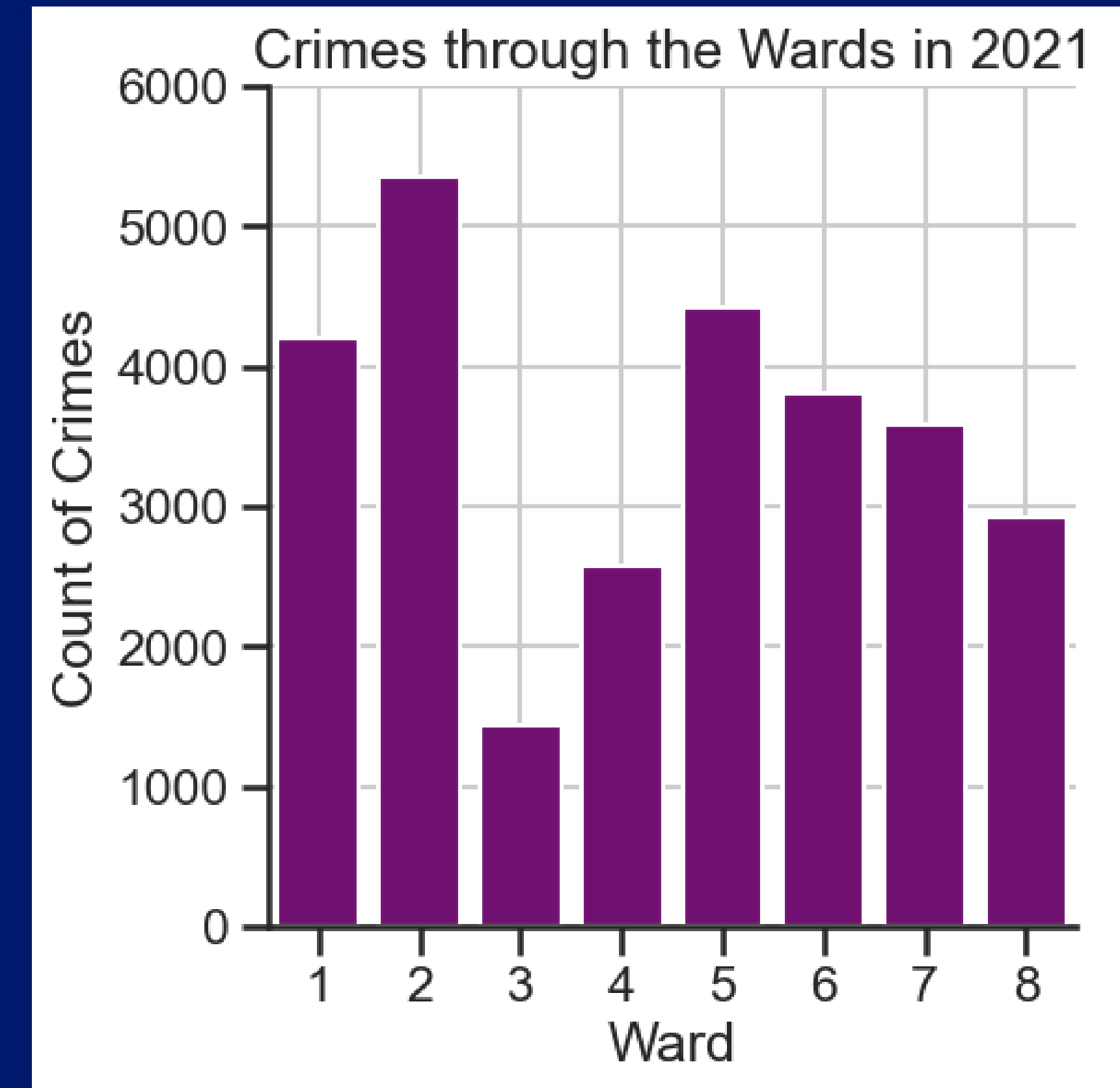


- 2020 had a massive spike at the beginning of the year in January, almost 3,000 reported crimes.
- Throughout the years the crime rates fluctuate while remaining at a higher value till the end of the year.
- April being the lowest in crimes for 2020, while February is lowest for 2021.
- You can dictate that it is safe to witness the Cherry Blossoms blooming when visiting in April.

# Ward Crimes Throughout the Years



- Crimes within some Wards have simmered when comparing both years.
- 2021 having Ward 1 & 2 surpassing 2020 while the rest are equal or lower than the previous year's amount.



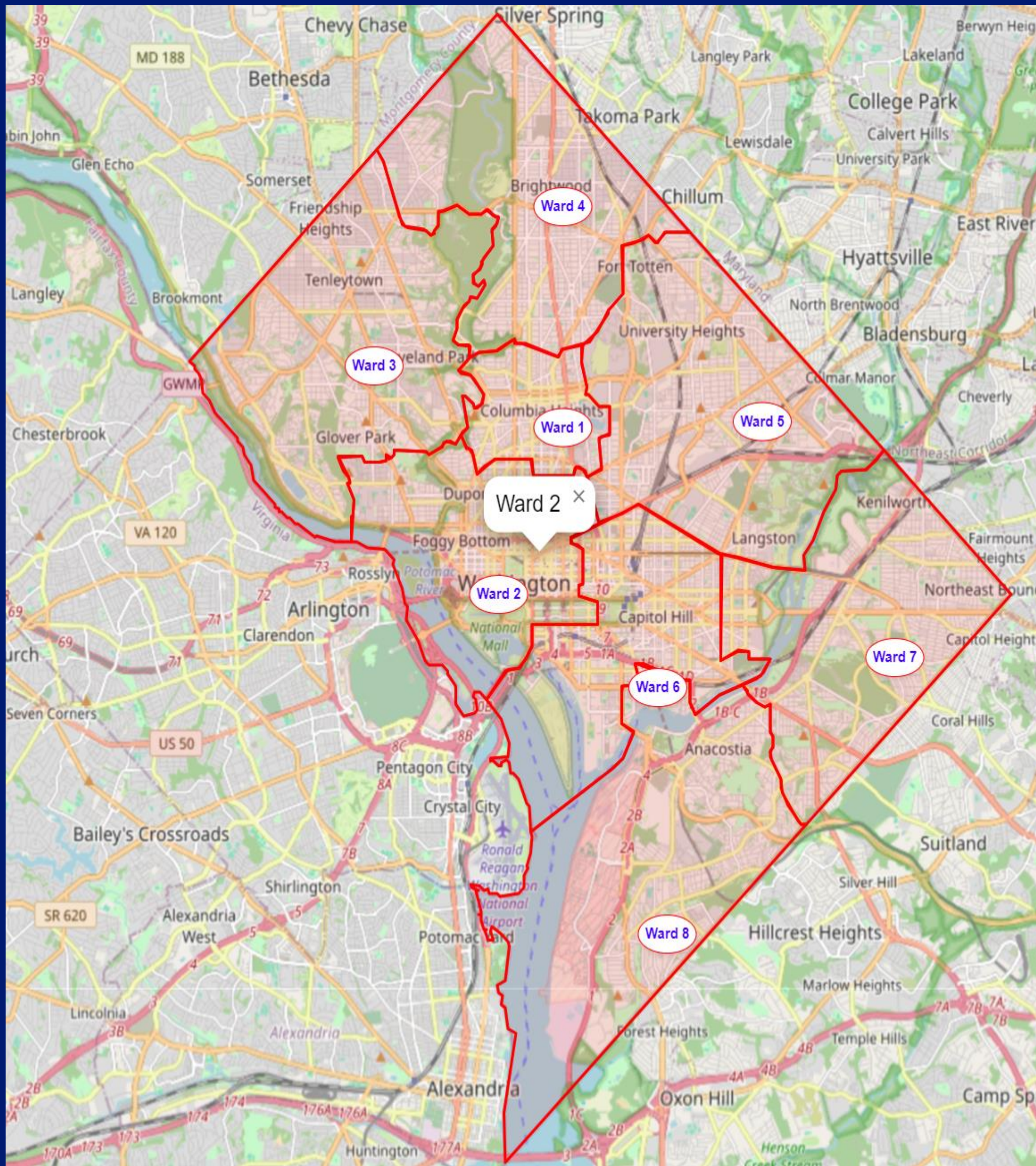


# Boundaries Identified

Utilizing geojson to define the polygon params for each Ward, or section of D.C. allows us to incorporate the colored overlay within our research area

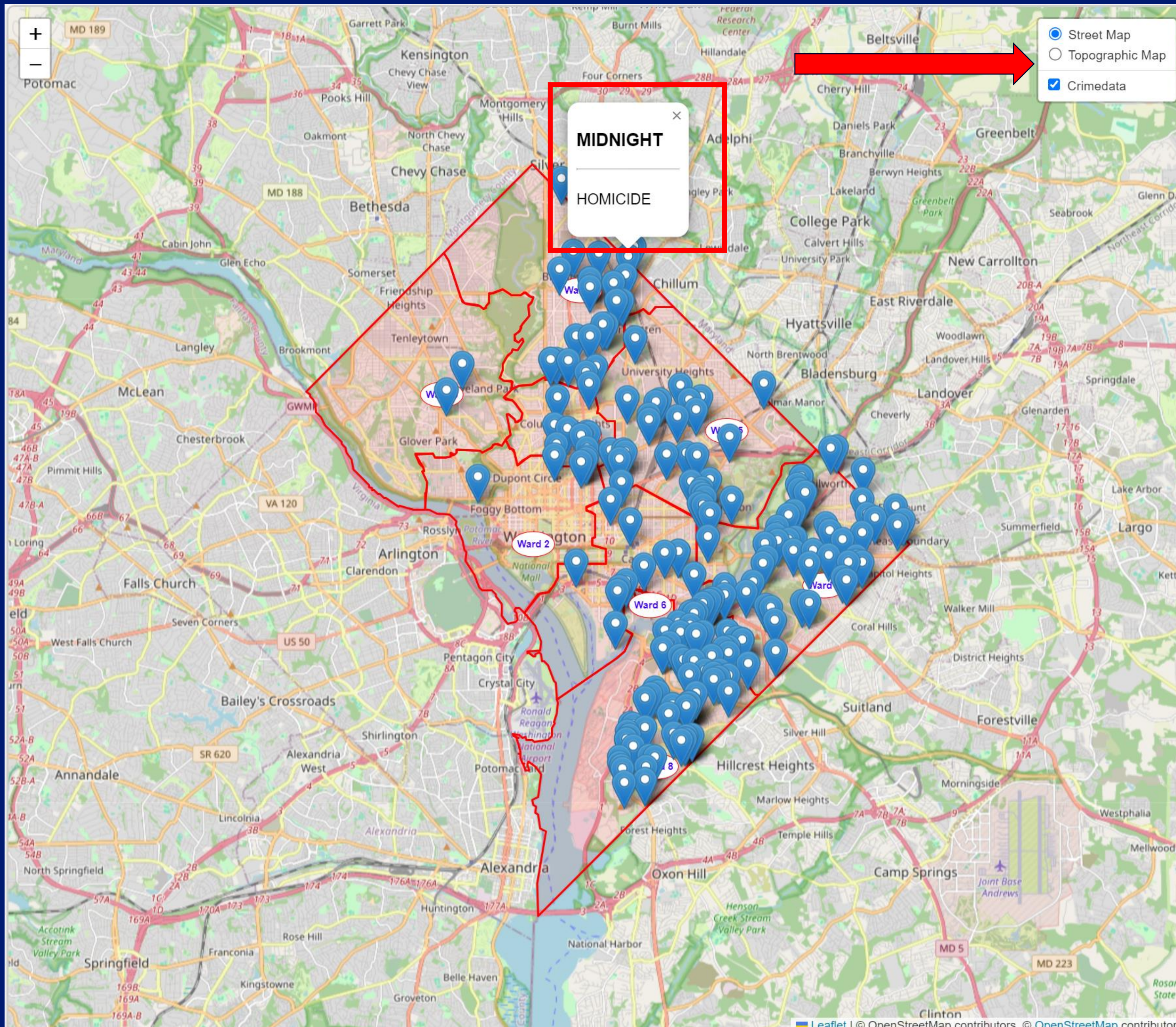
## Tile Layer Features

- Bind-popup that features Ward name
- event listener to open the modal with ward info
- Geo-json boundaries & color tile Layer





# Multi-Layered Maps

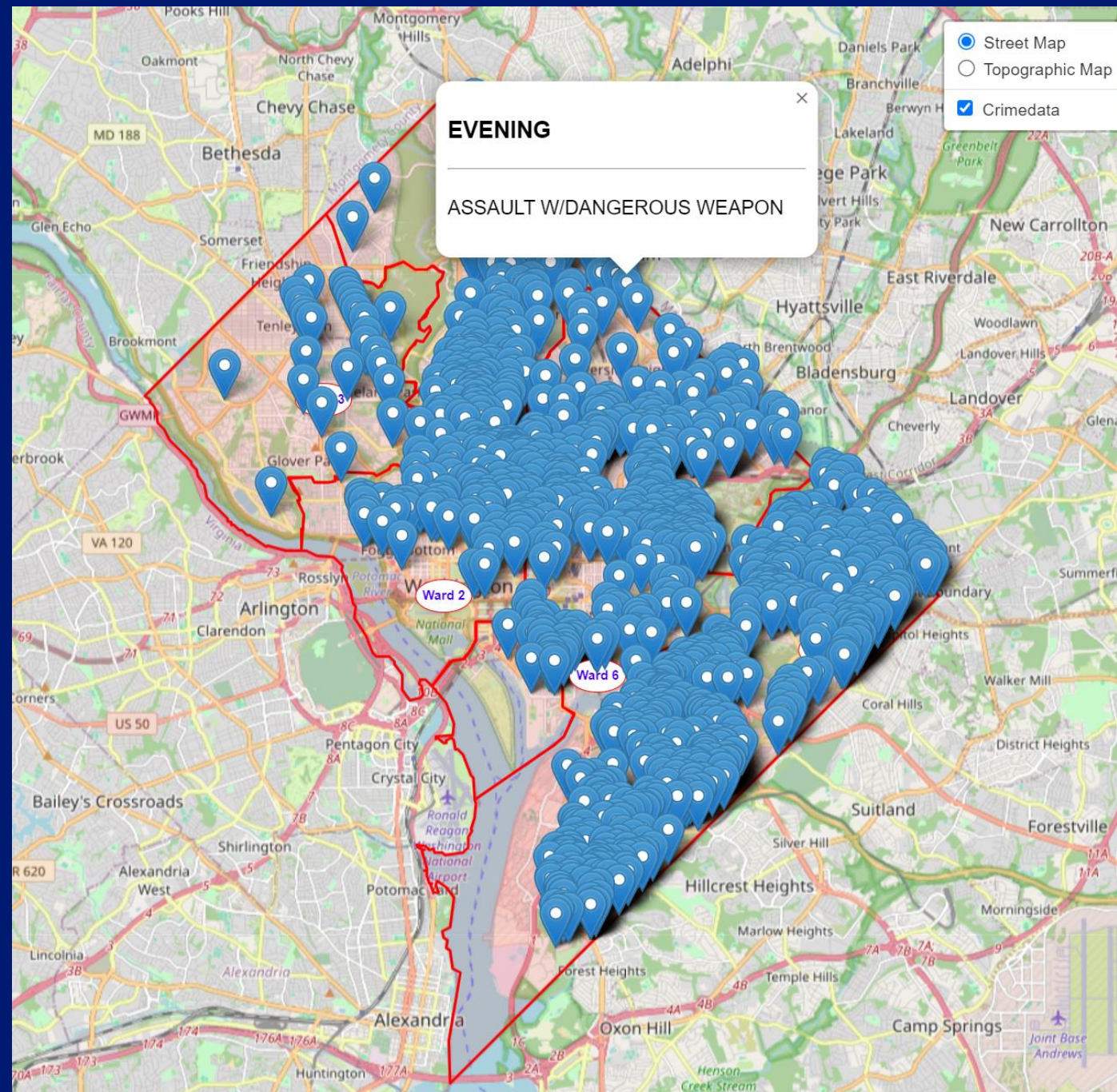


- Utilizing Offense Type as a Filter we can reduce our dataset of over 27K data points to a more consumable visual aid when reviewing one offence type at a time
- Adding the Ward Boundaries, we can then further analyze trends and location within Washington D.C.
- Unfilter/filter by crime Data
- Bind-popups that display time of day for each Offense and Offense Type

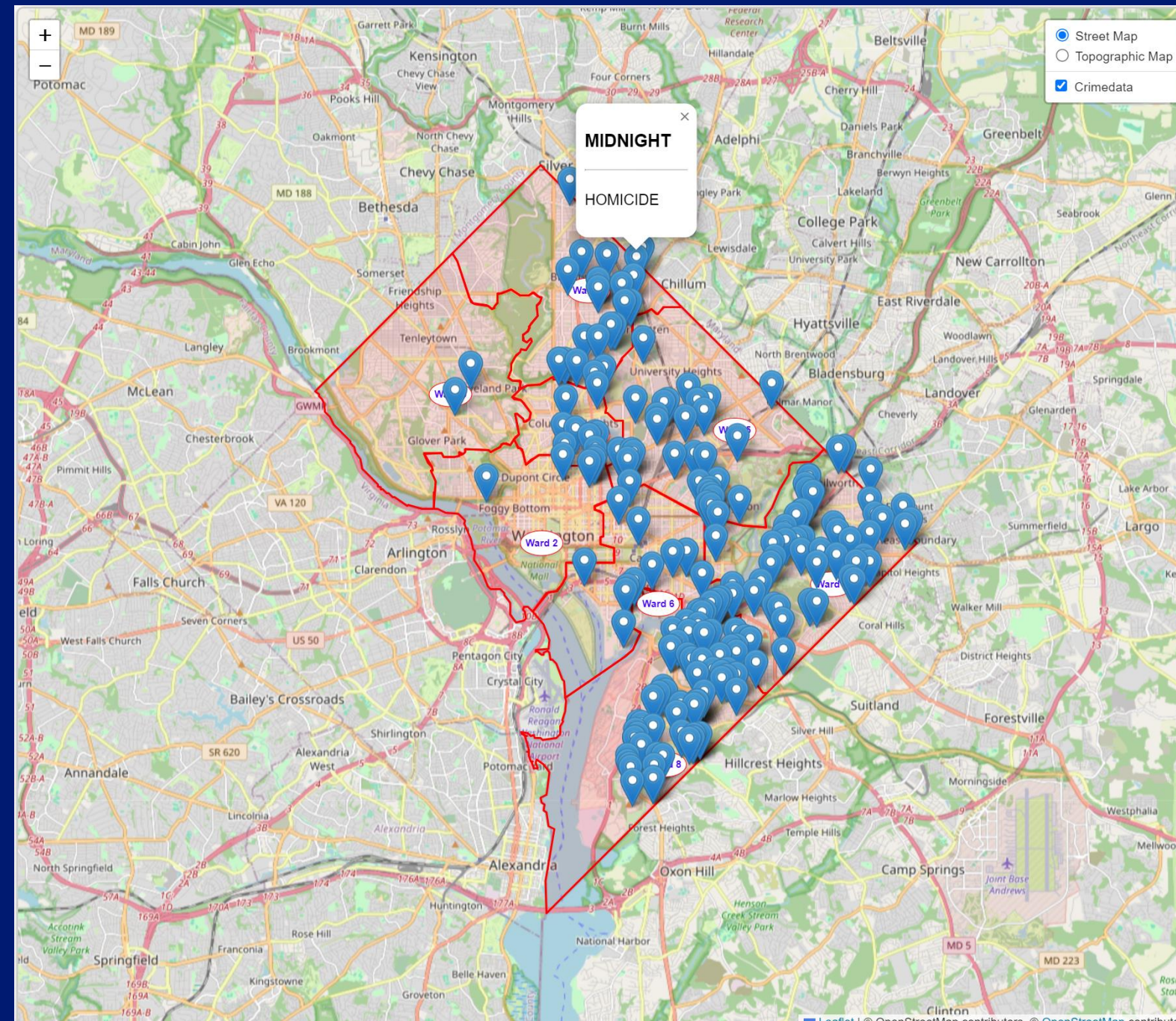


# By Offense filtering

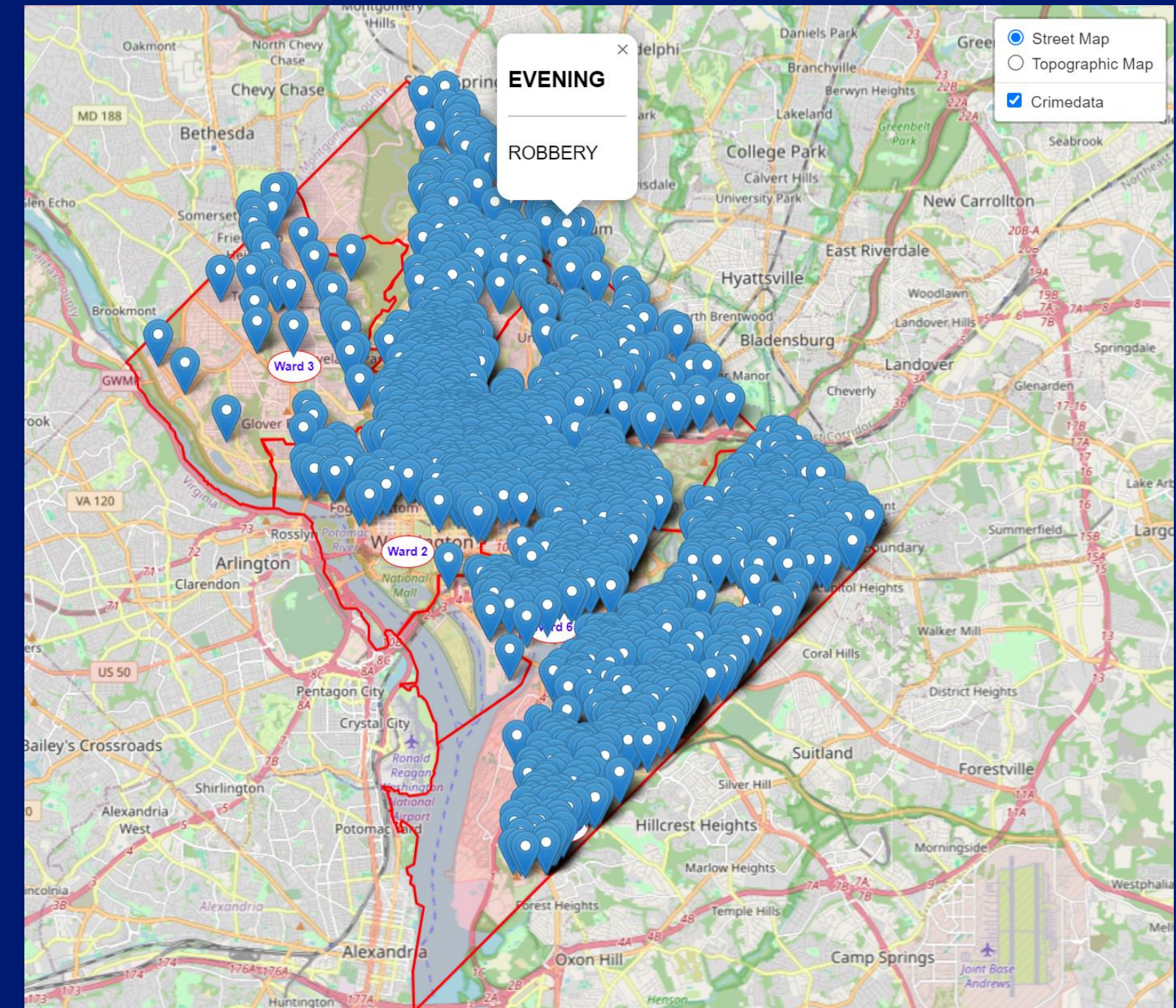
## Assault W/Dangerous Weapons



## Homicide



## Robbery



```
}  
function createFeatures(crimeData) {  
  console.log(crimeData)  
  // Define a function that we want to run once for each feature in the features array.  
  // Give each feature a popup that describes the crime data and time of day as an example.  
  function onEachFeature(feature, layer) {  
    layer.bindPopup(`

### ${feature.properties.SHIFT}</h3><hr><p>${feature.properties.OFFENSE}</p>`); } function homicide_filter(feature){ if(feature.properties.OFFENSE=="ASSAULT W/DANGEROUS WEAPON")return true } }


```



# Live Local Host Demo





# Ethical Considerations

- Potentially skewed data on who's reporting crimes by racial/demographic biases
- Use of data in a discriminatory manner
- Crime reporting – how personal information is gathered on victims and if/how publicized



Questions?

---