Crime Data Analysis

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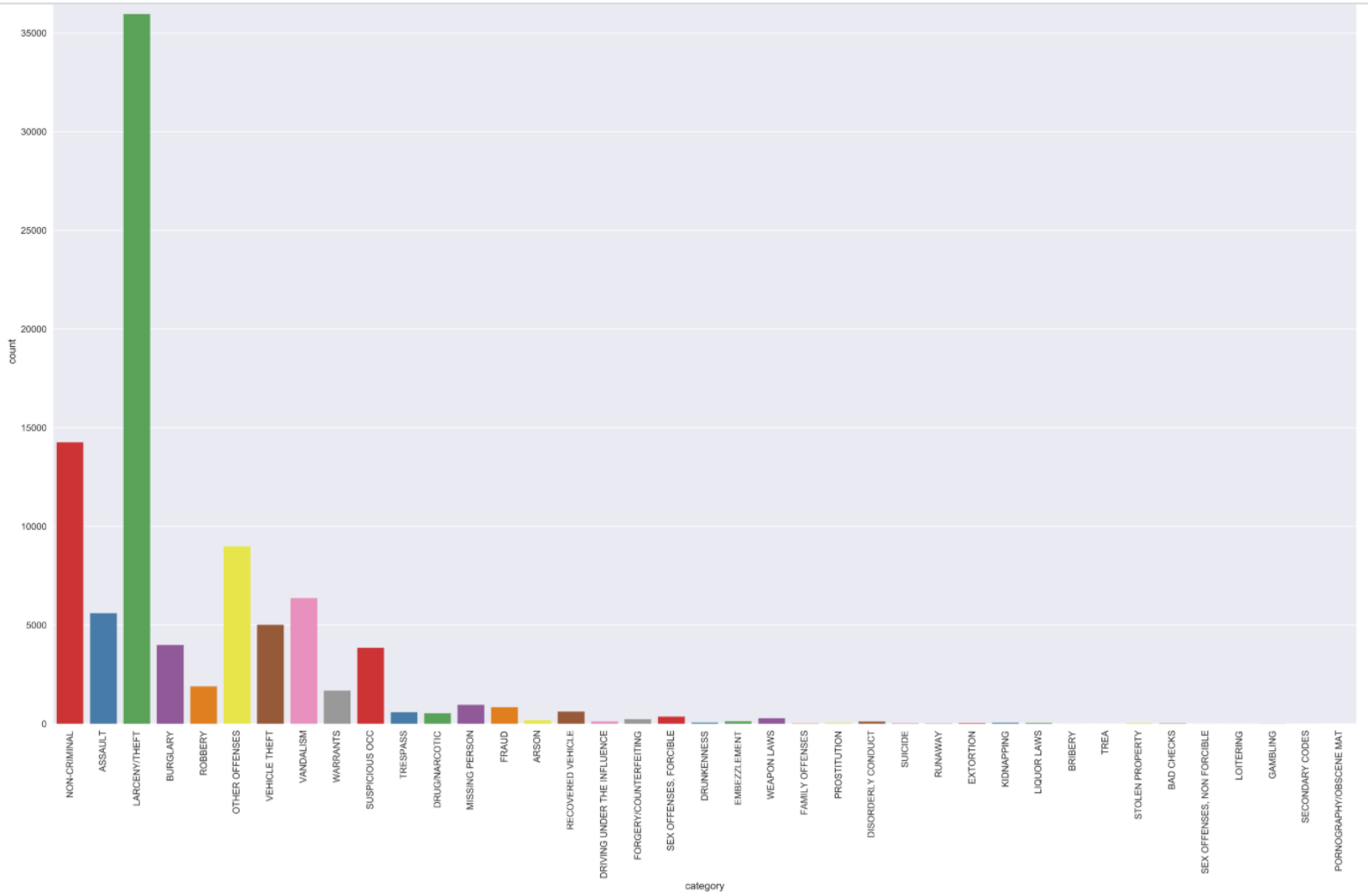
Dataset

The Data Description is as follows –

- incident_id - A number assigned to each incident reported.
- category - Category of the incident reported
- crime_description - Description explaining the nature of the crime.
- crime_date - date on which the crime was reported.
- department_district - district in which the police department is located.
- resolution - Details of resolution (if any).
- address - Address where the crime occurred.
- department_id - police department id.
- location - lat-long location where the crime was committed.

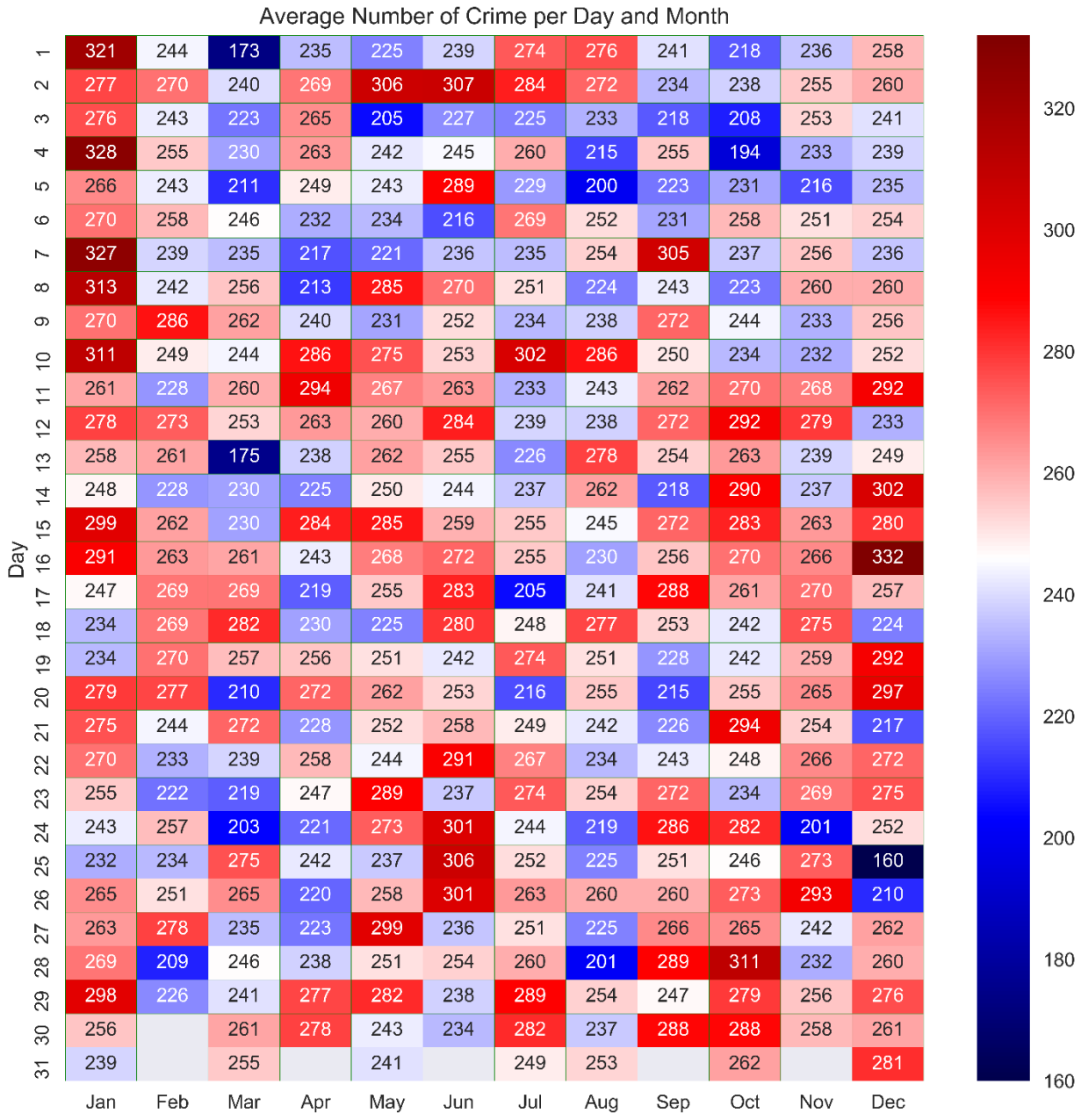
Insights

Frequency distribution of crime among different types of crimes



This graph is showing the frequency of crimes occurred.

- According to this graph “Larceny/Theft” has the most number of crimes and “Pornography/Obscene Mat” has the least number. So, by analyzing this graph we can easily get the rates of crime occurring and can focus on the same.

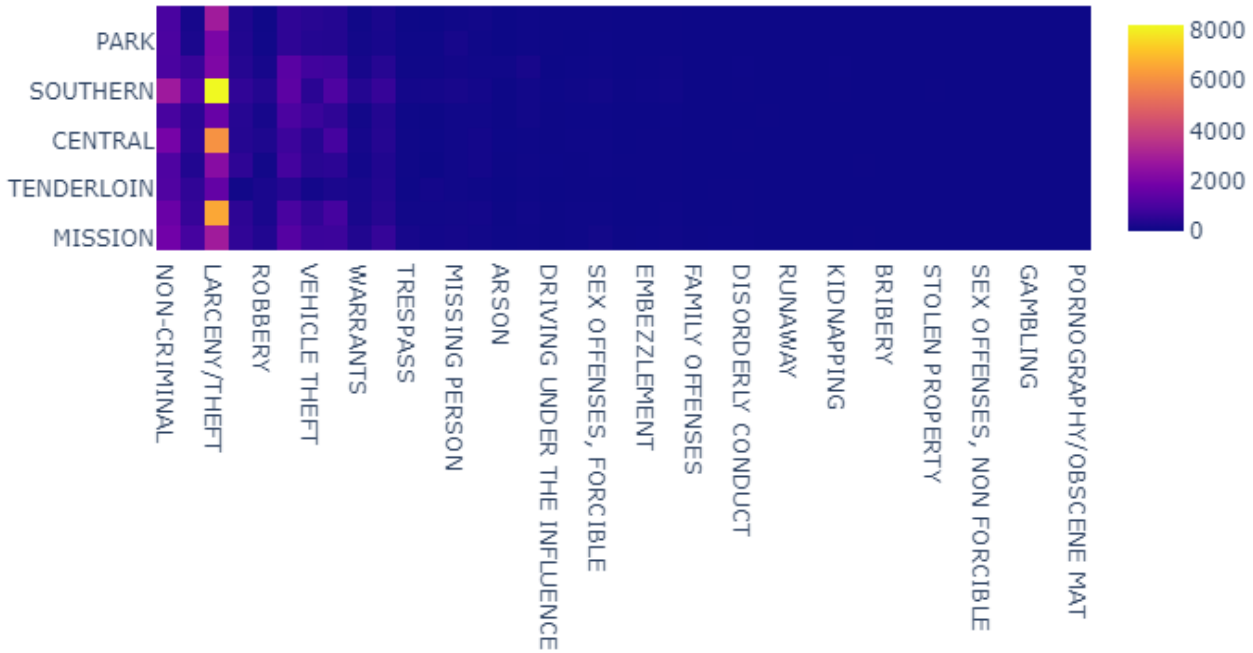


Blue means good days. Red bad days. White average days.

- The calmest day of crime is Christmas Day, December 25 (30% below averag e). Criminals also celebrate with families.

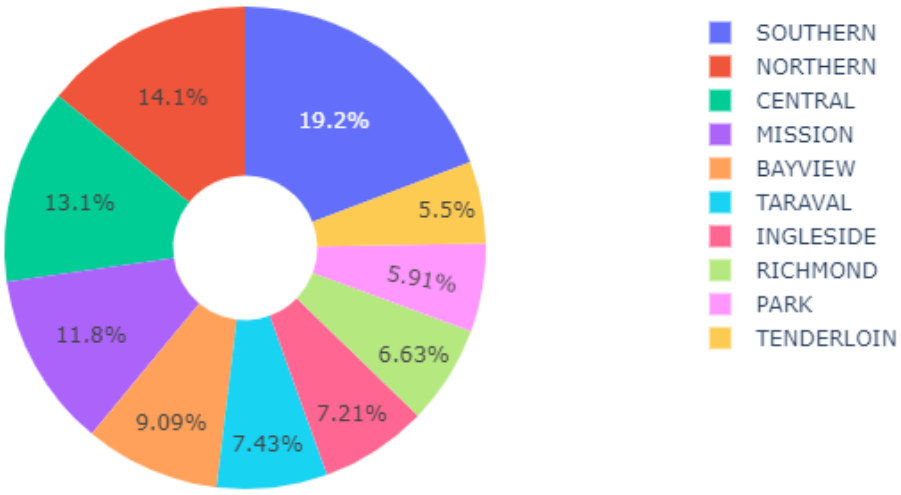
- The worst day is New Year's Day, January 1 (30% above average). And then a fter Christmas celebration, criminals take advantage of drunk people at parti es?
- The first day of the month is a busy day for all months.
- Halloween (October 30, 31 and November 1) are also dangerous days.
- The second week of summer months are usually the most dangerous.
- BC Day (August 7) long weekend have high averages

Intensity Graph between types of crime and area



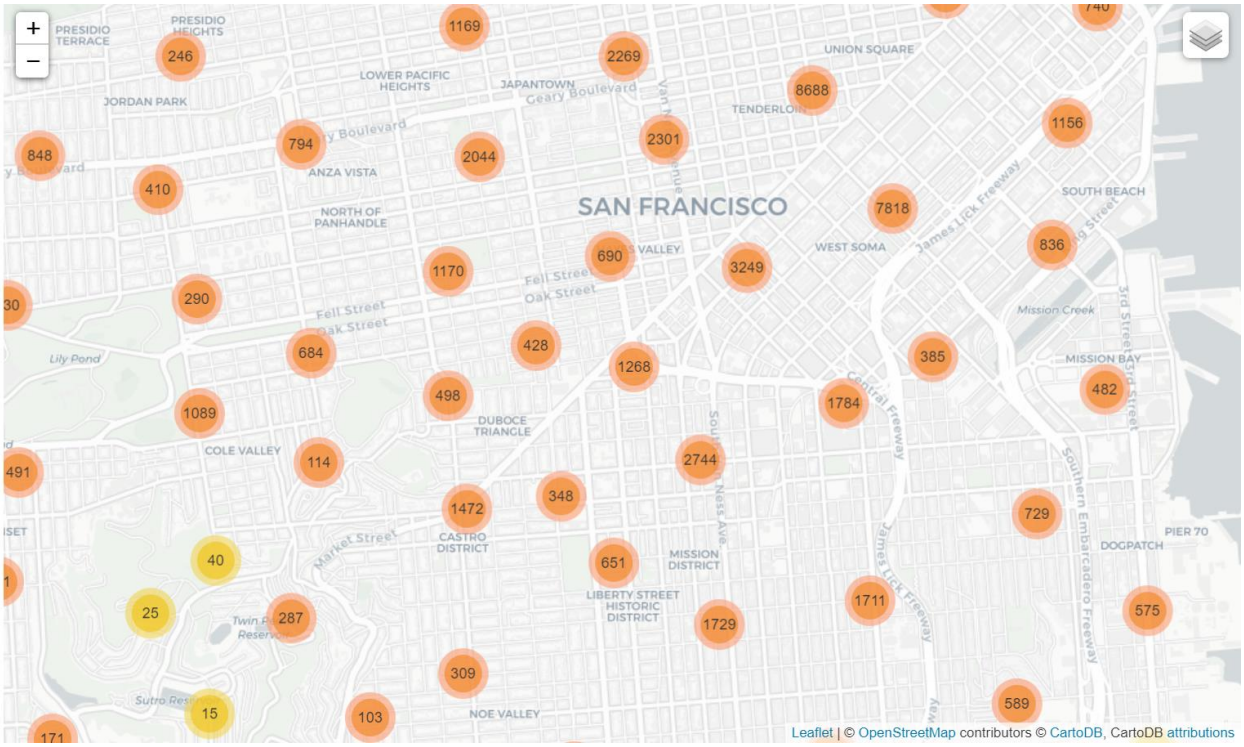
This graph basically shows the type of crime occurred in specific reason. So, here we have observed that the southern part has most of the cases of “Larceny/Theft”. So we can focus on that area on the basis of the seriousness of the crimes. We can see that the Park area has very low intensity of crimes among all.

Crime Rates in a Specific Region



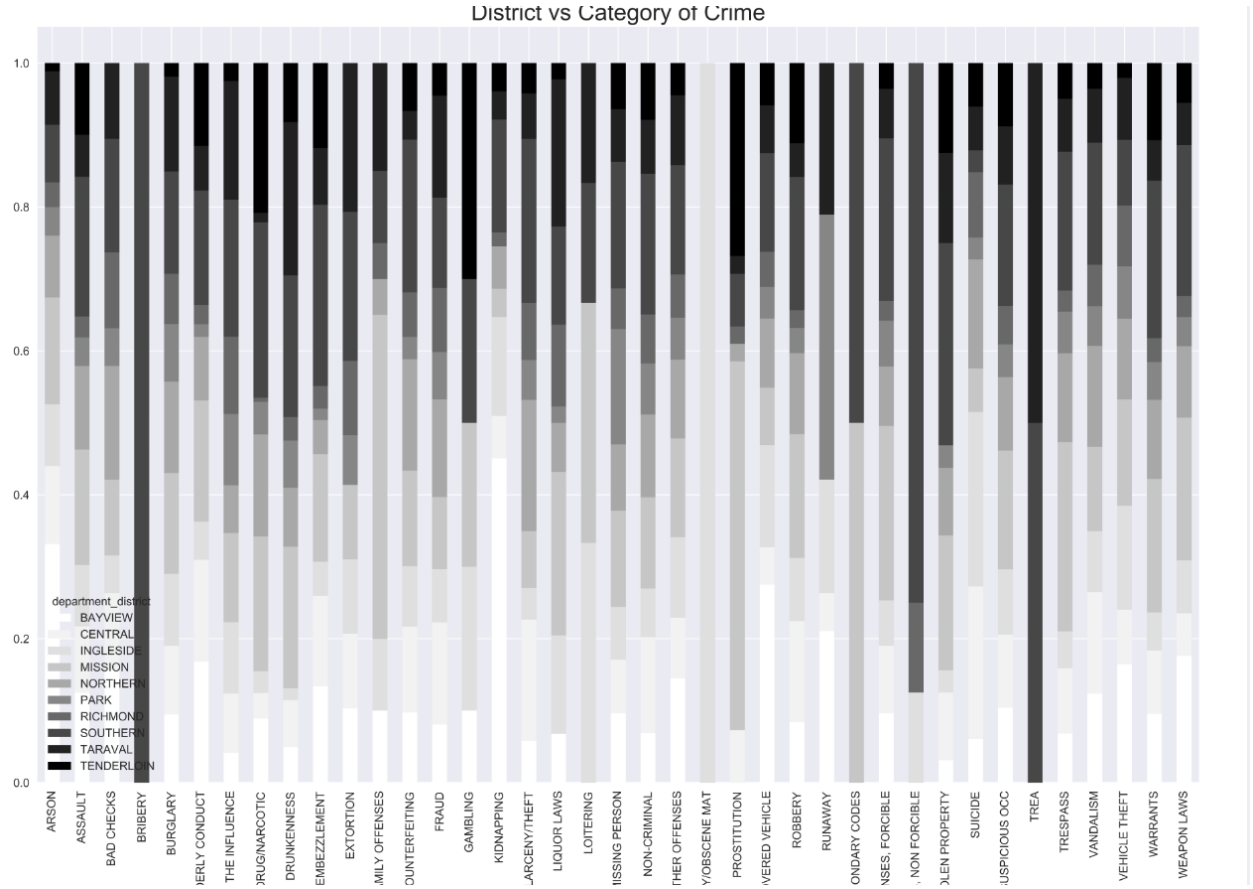
This graphs describes the crime rates in different regions like which region is having the greatest and the least crime rate. As this graph shows that “Southern” region has the greatest crime rate and the “Tenderlon” has the least for the same. This graph shows the collaborative analysis of all types of crimes.

Crime Rates in a Specific Locality

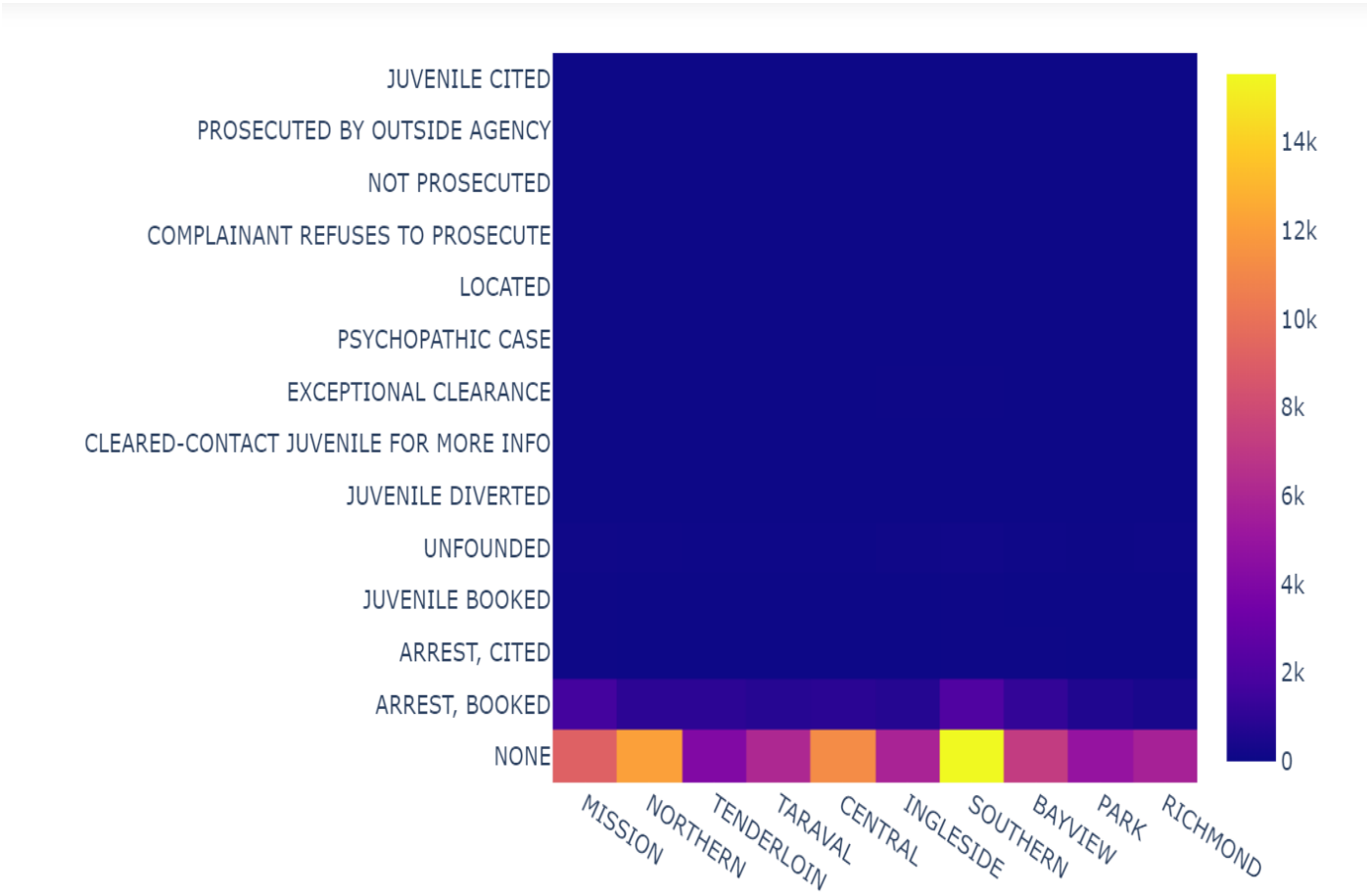


As we can see that this graph shows the number of crimes in a specific locality, street or any area. So, by this graph we can analyze in a more deeper manner to take the necessary action in a required location.

District wise analysis of the crime

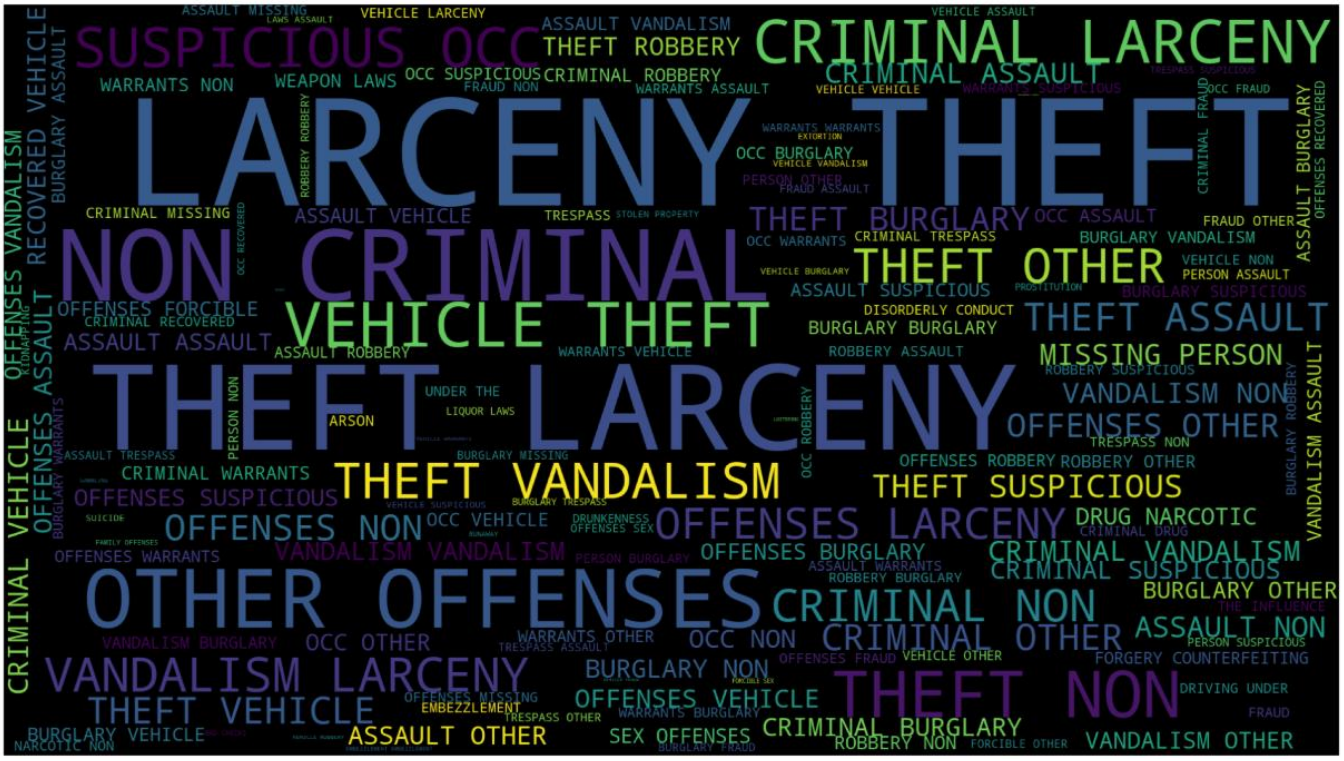


Analysis of Action taken by department_district:



As we can see that graph shows Action taken by each department like arrested ,juvenile sited and not proseducated and it is clearly shown that " Southern" district are more active as compare to any other region

Word Cloud



This word cloud represents the occurrence of the crime all over the area which crime has higher occurrence rates and which crime.

Summary

In this analysis we have analyzed the crime rates on particular area and the locality and which crime has the largest occurrence rate and which has the least occurrence. On the basis of these analysis the police authority can make decisions easily and efficiently take necessary action which are required.

For code used for Analysis please visit:-

https://github.com/99Shakti/San-Francisco-Crime-Data-Analysis