



San Francisco Graffiti Analysis

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W200 - Group 2

Introduction



Data Cleaning - Closed Cases

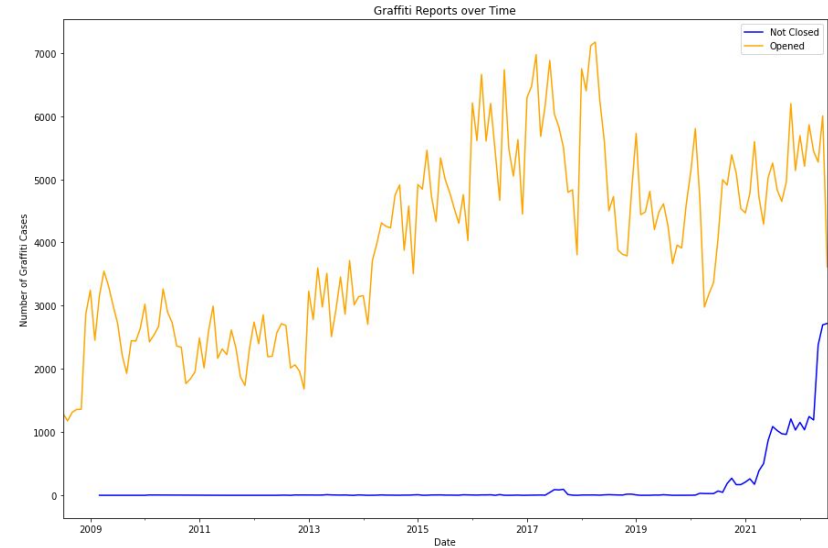
Duplicate records removed

3.4% of cases were not closed

~3700 closed cases were closed before they were opened

700k rows -> 500k rows

15 initial columns -> 21 columns

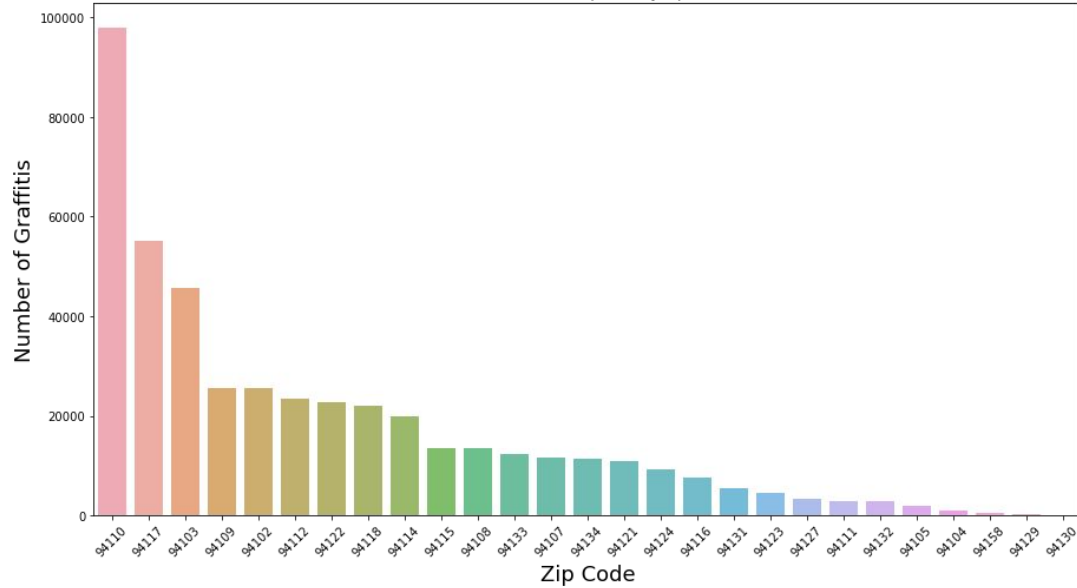


| Time to Close a Case | Number of Occurances |
|----------------------|----------------------|
| Less than 0 seconds | 3684 |
| More than 0 seconds | 650346 |
| 0 seconds | 5 |

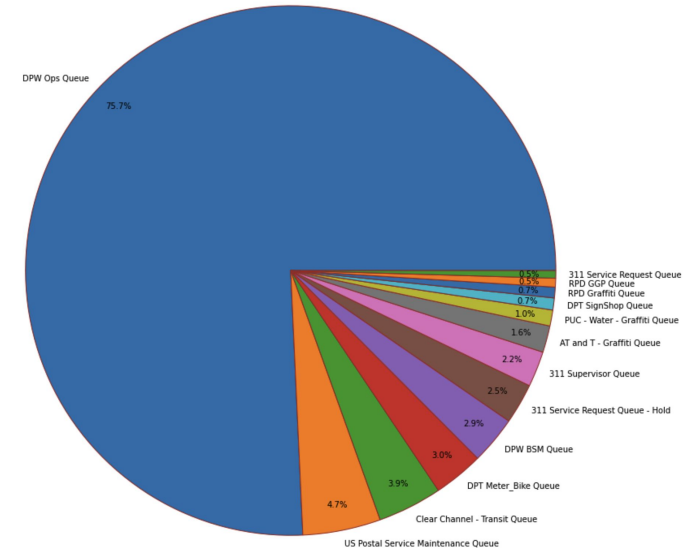
Initial Exploration



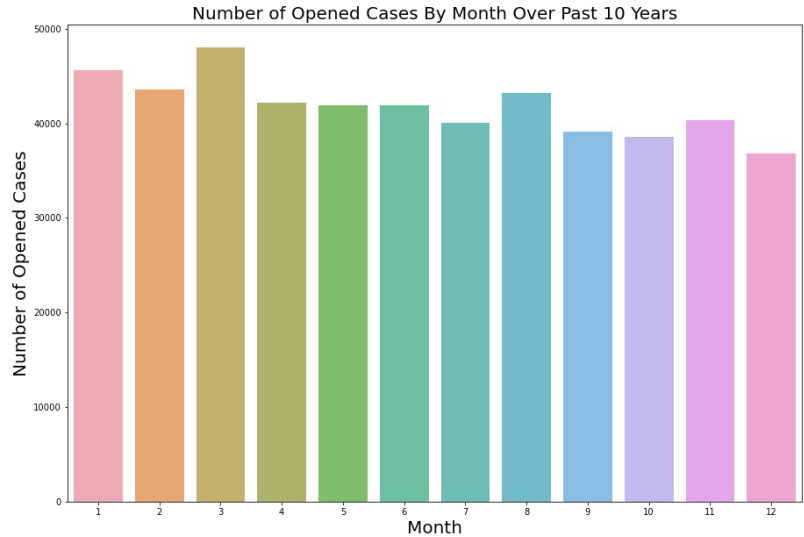
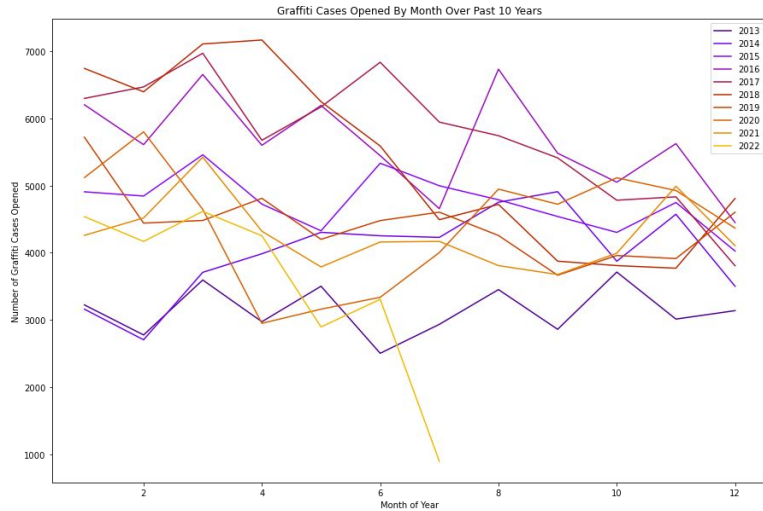
Overview of the Number of Graffiti's Reported by Zip Code from 2010 to 2022



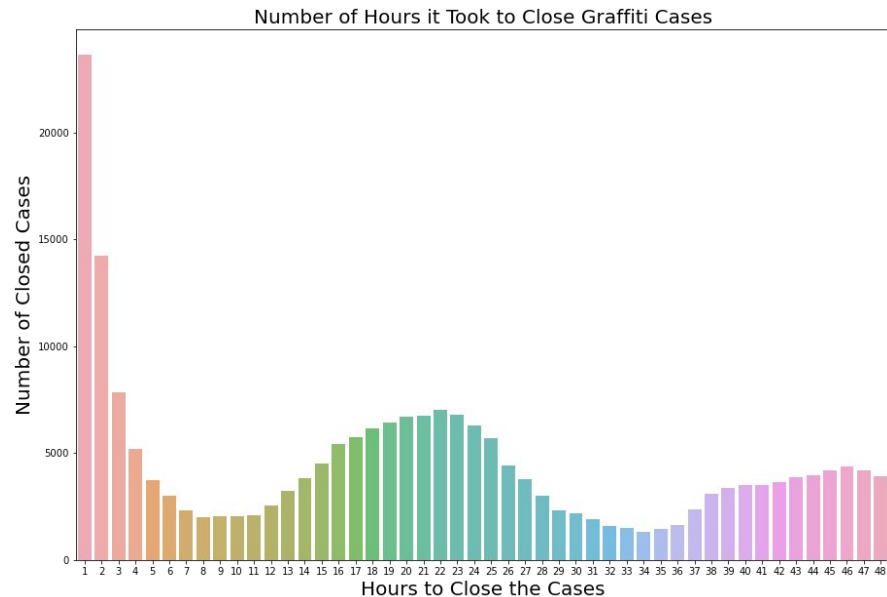
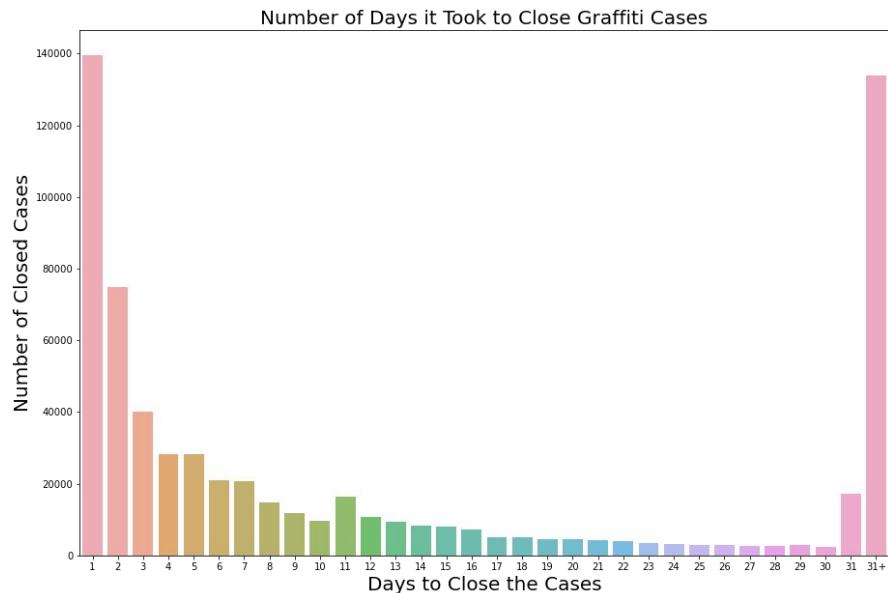
Agencies Responsible for Addressing Graffiti Incidents



Seasonal Trends of Opened Graffiti Cases

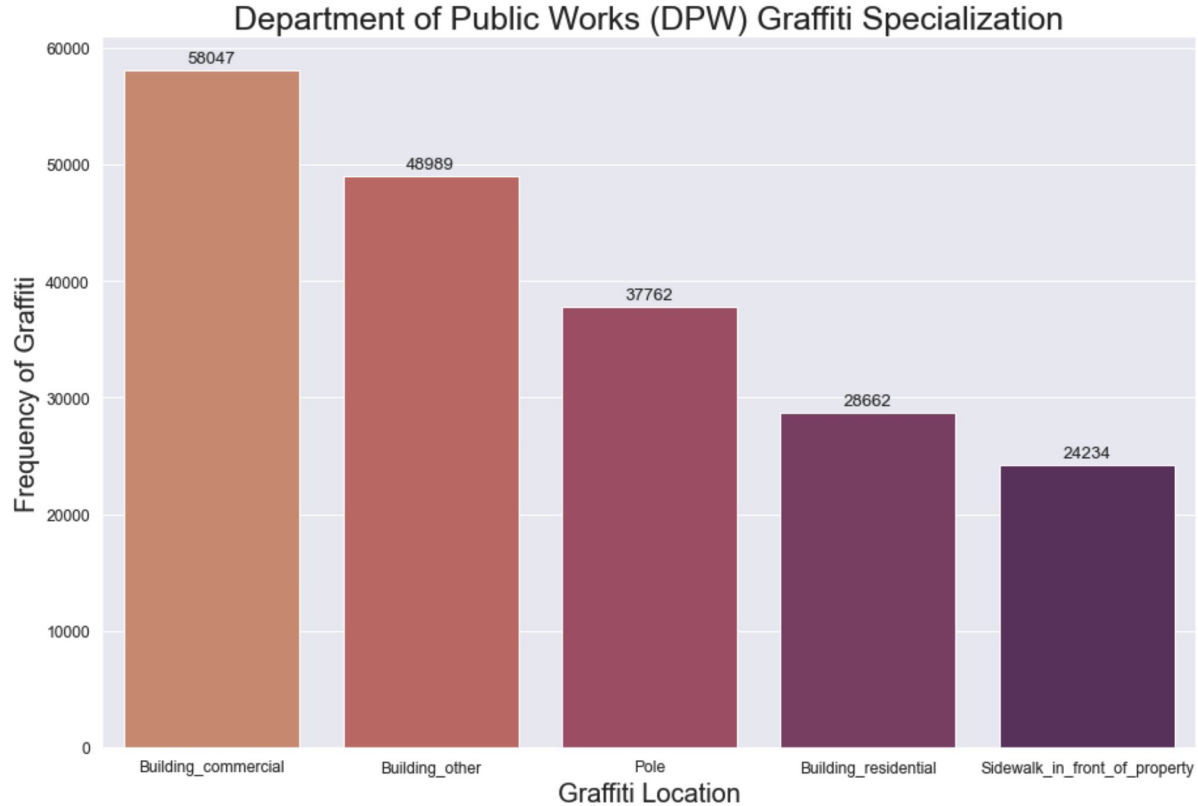


Time to Close Cases



Average = 58 days , Median = 5.6 days.

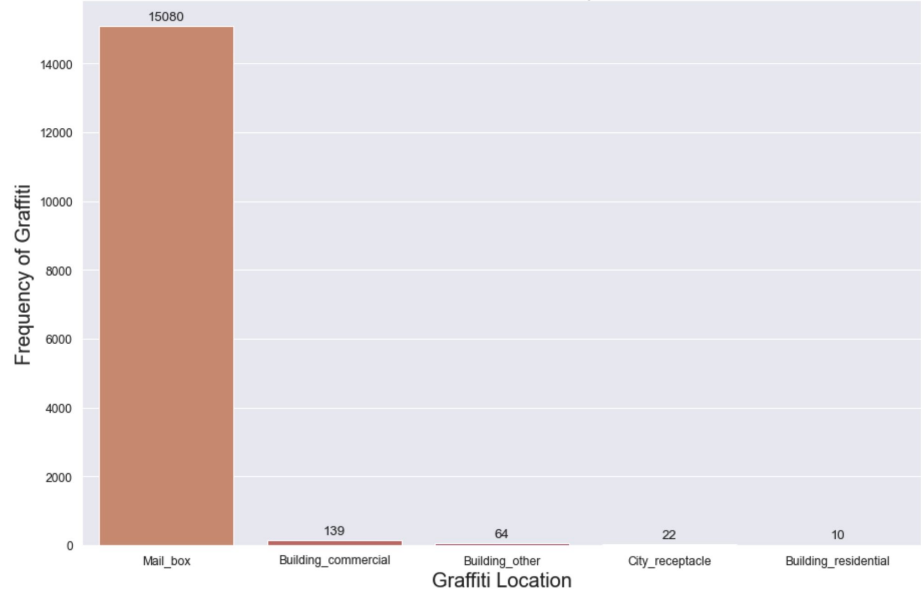
Agency Specialization in Fighting Graffiti



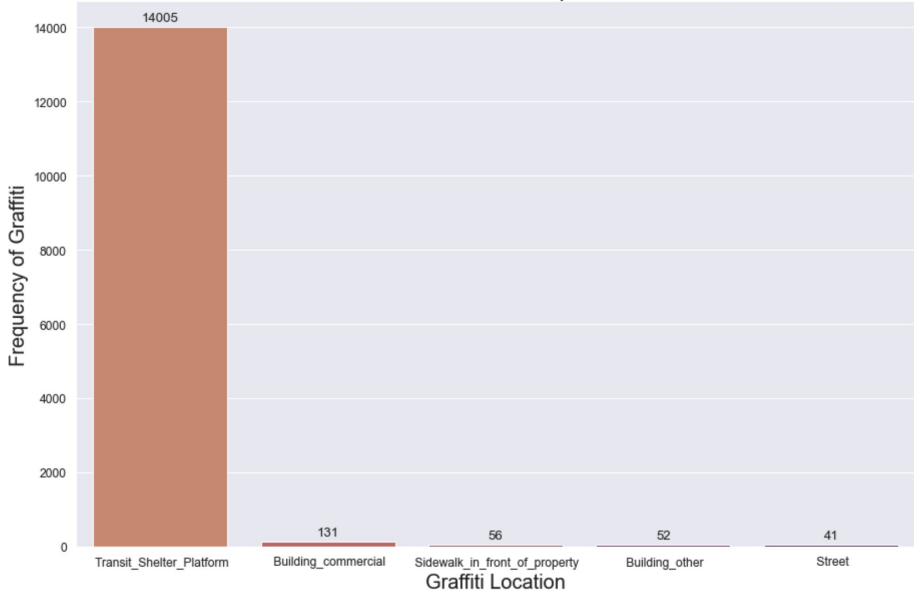
Agency Specialization in Fighting Graffiti



US Postal Service Graffiti Specialization

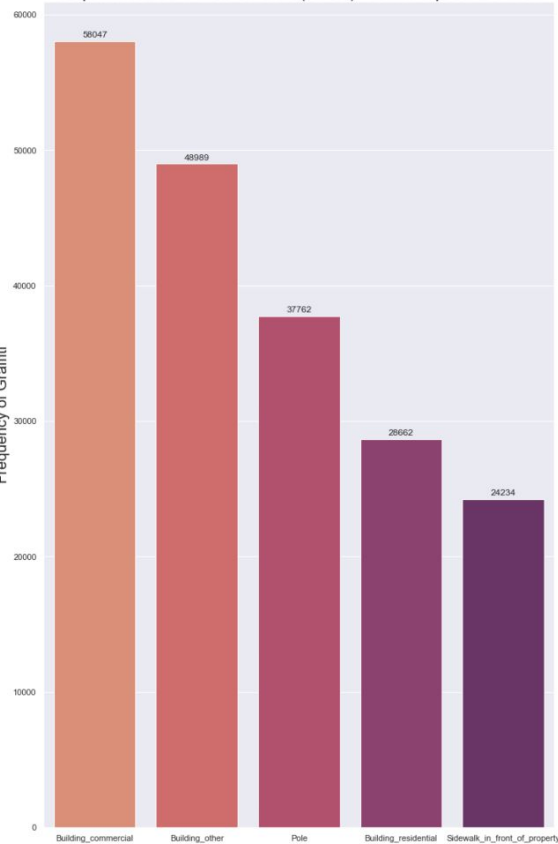


Clear Channel Graffiti Specialization

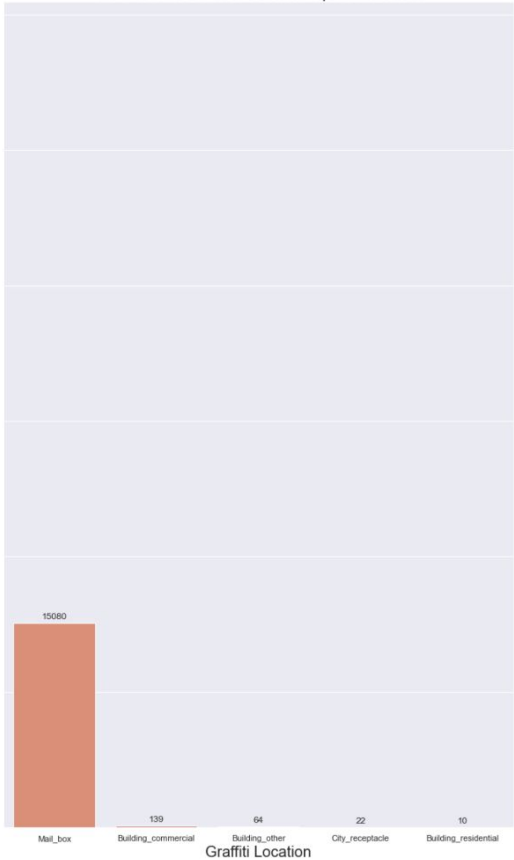


Agency Specialization in Fighting Graffiti

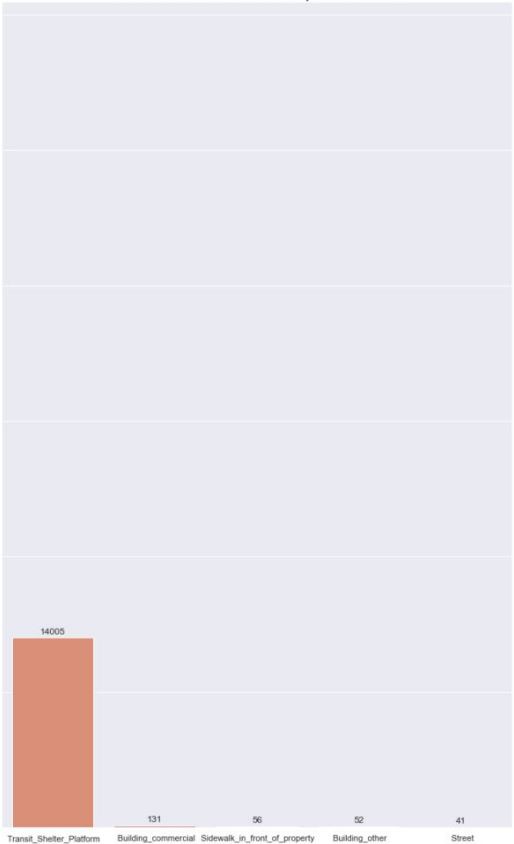
Department of Public Works (DPW) Graffiti Specialization



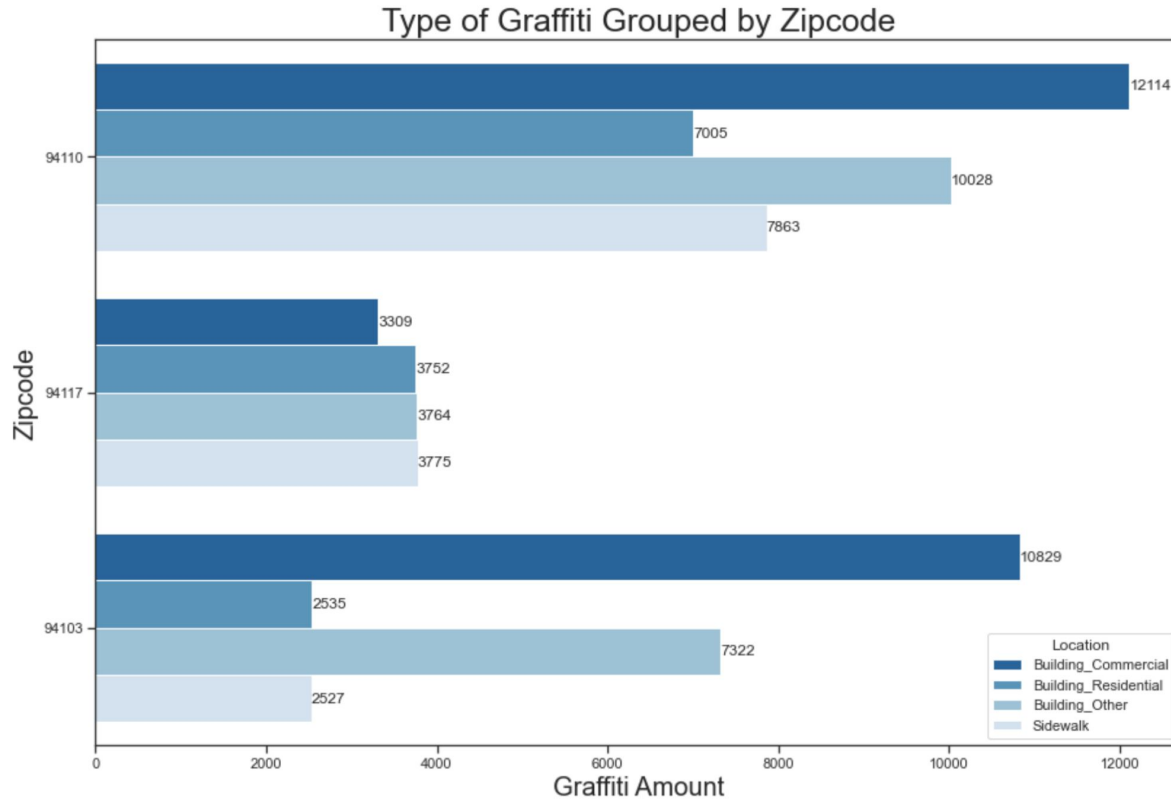
US Postal Service Graffiti Specialization



Clear Channel Graffiti Specialization



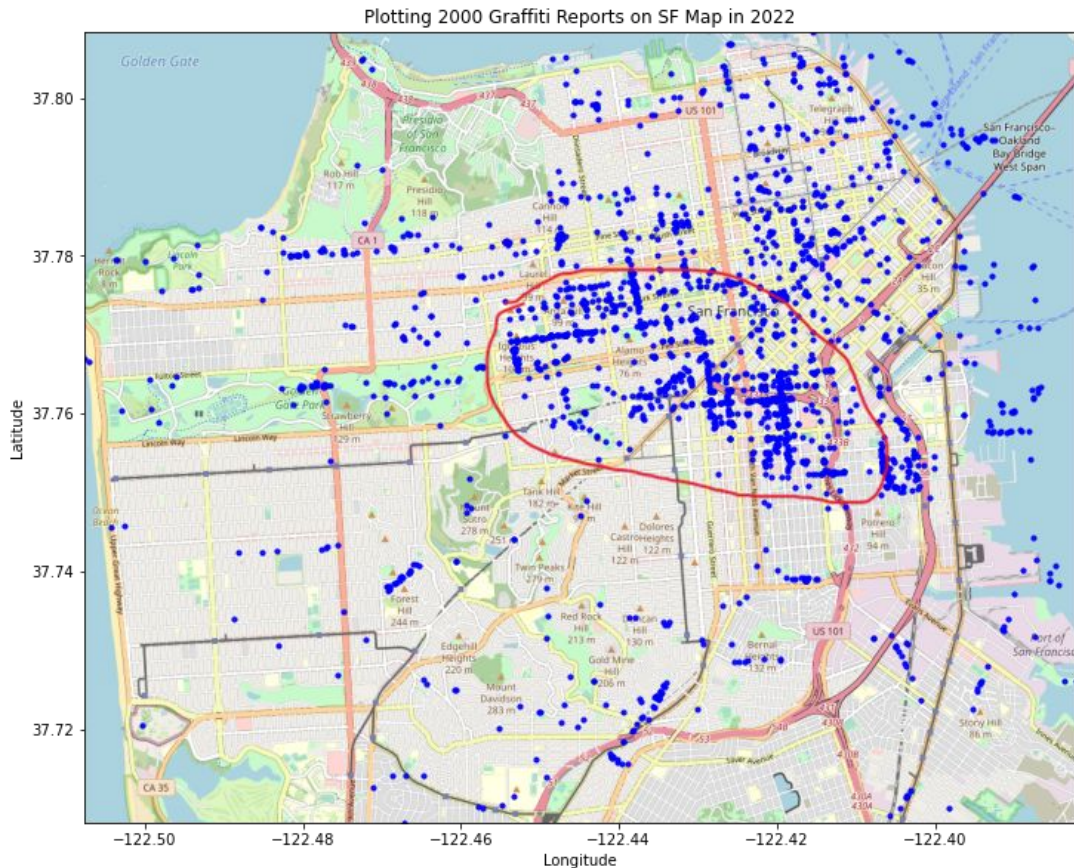
Graffiti Localization in Zipcodes



Which Streets that Contain the Most Graffiti?

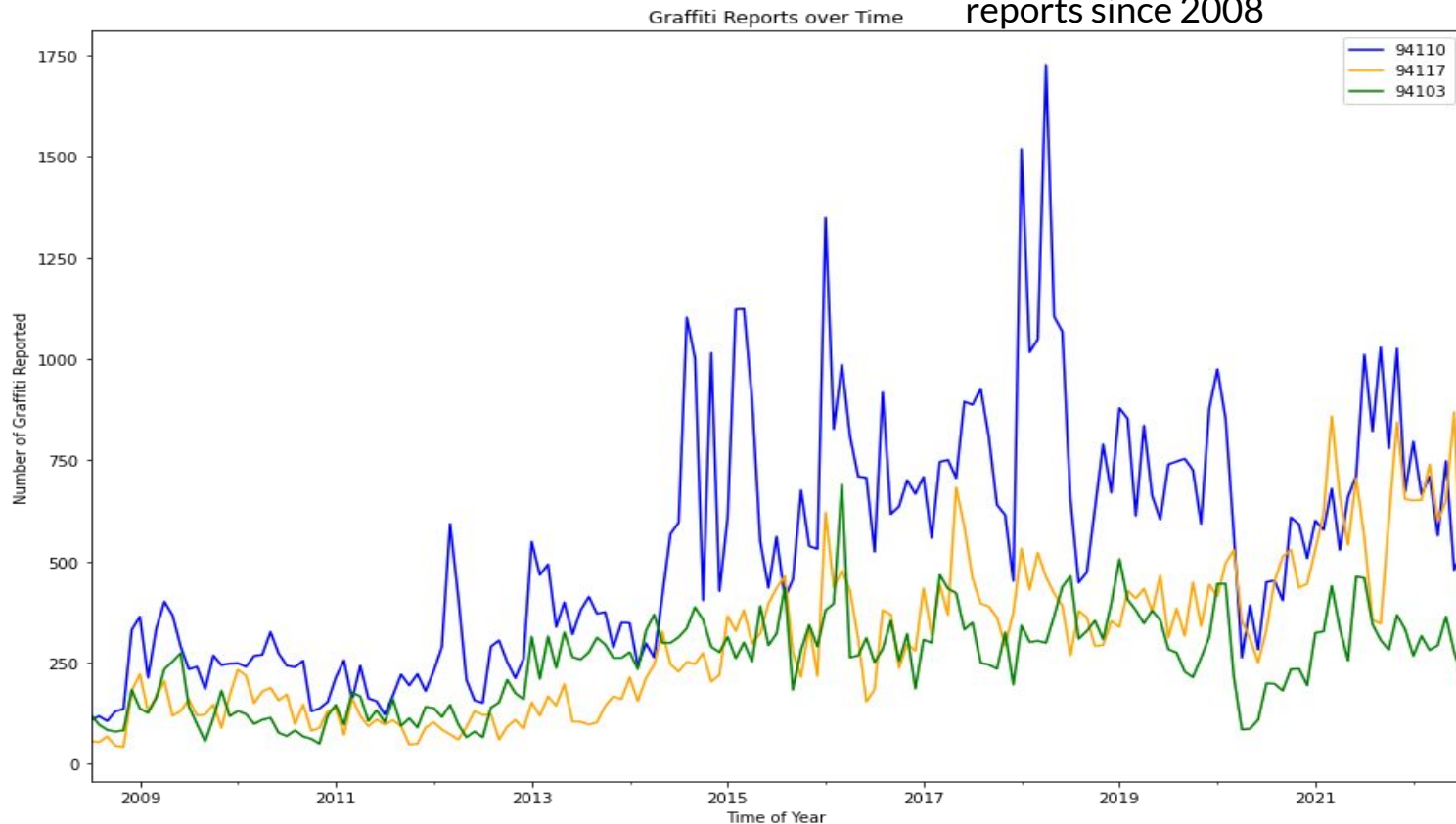
Will be looking at zip codes 94110, 94117, 94103 (circled in Red)

These are hot zones for graffiti and just so happen to be right next to each other in the Mission district.

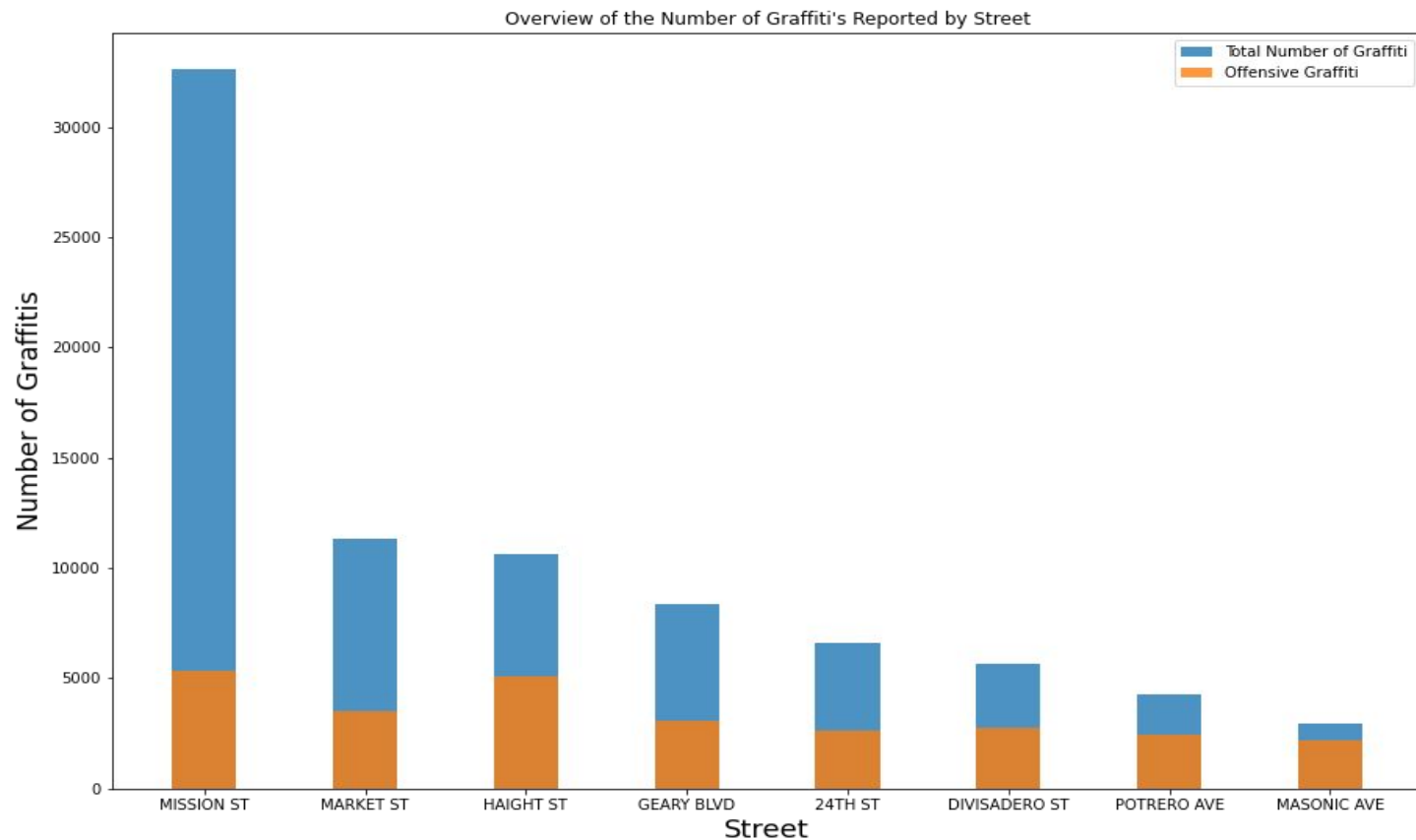


Graffiti over time

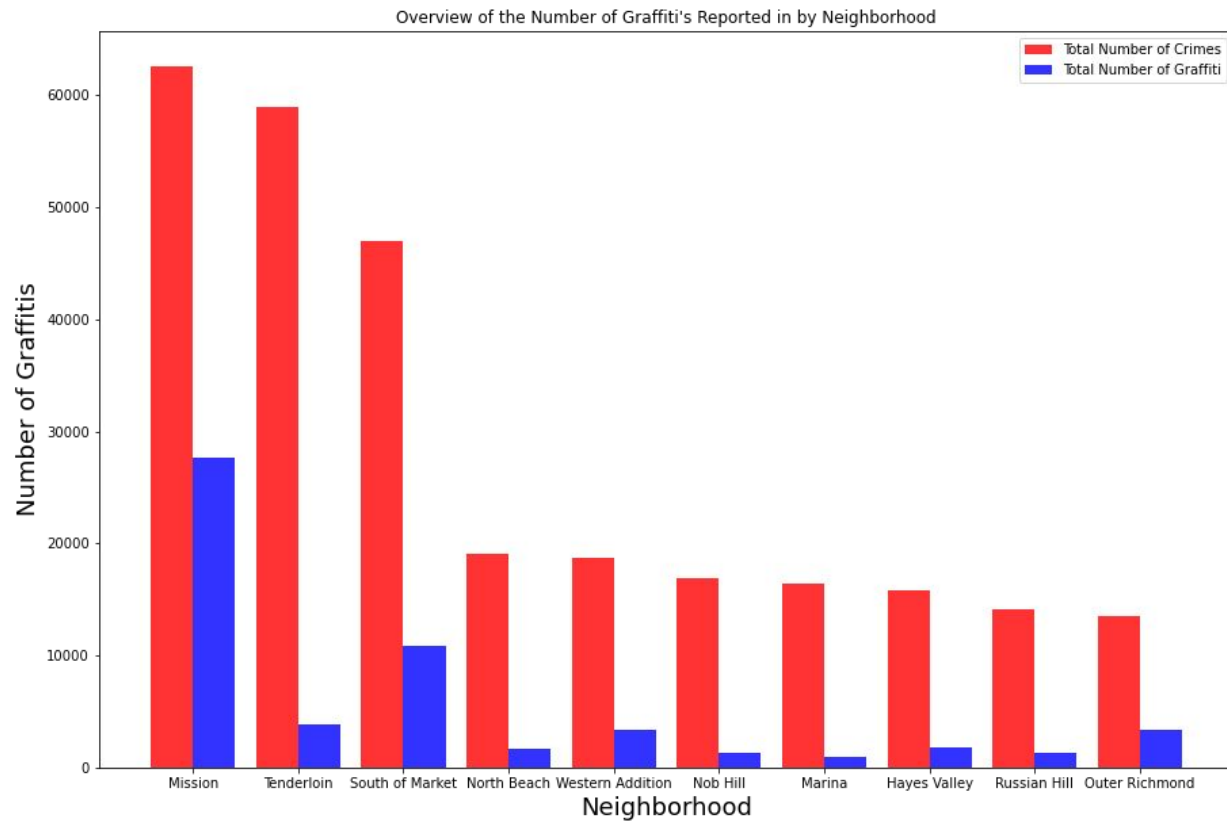
Reminder: 94110 dominated SF with the most Graffiti reports with almost 100k reports since 2008



Hot zones -> Offensive?

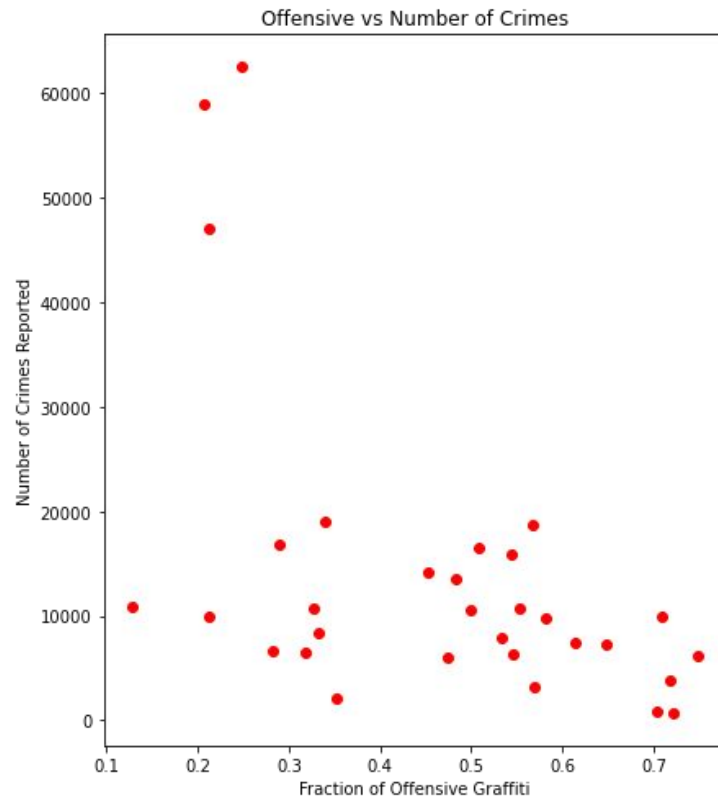
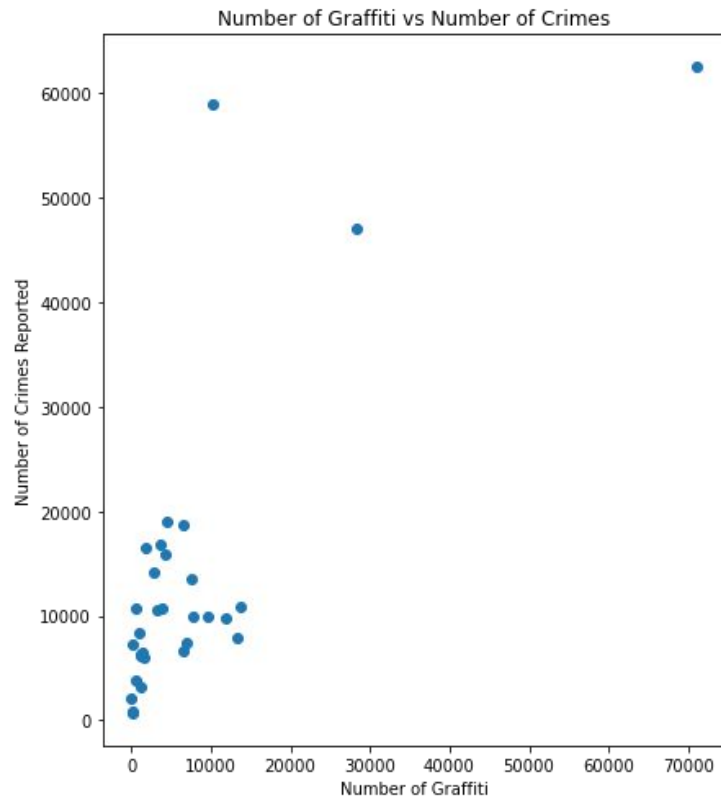


Crime Rate and Graffiti



Offensive Graffiti vs Crime Rate

Scatterplots of Crimes and Graffiti



Future Explorations



- Although we analyzed how the time to close cases vary, we do not know why they vary
- Crime and graffiti have many motivations, what are they?
 - Survey actual artists to understand why people present their graffiti in certain areas
- Potential impact of the city allocating funding/resources to the smaller organizations that address graffiti to see if they can bolster their numbers and contribute to addressing graffiti at a higher volume

References



311, San Francisco. “Graffiti: DataSF: City and County of San Francisco.” *Graffiti | DataSF | City and County of San Francisco*, 31 July 2022, <https://data.sfgov.org/City-Infrastructure/Graffiti/vg6y-3pcr>.

Department, Police. “Police Department Incident Reports: 2018 to Present: DataSF: City and County of San Francisco.” *Police Department Incident Reports: 2018 to Present | DataSF | City and County of San Francisco*, 31 July 2022, <https://data.sfgov.org/Public-Safety/Police-Department-Incident-Reports-2018-to-Present/wg3w-h783>.

Thank You!

Questions?