## Crime Data Analysis



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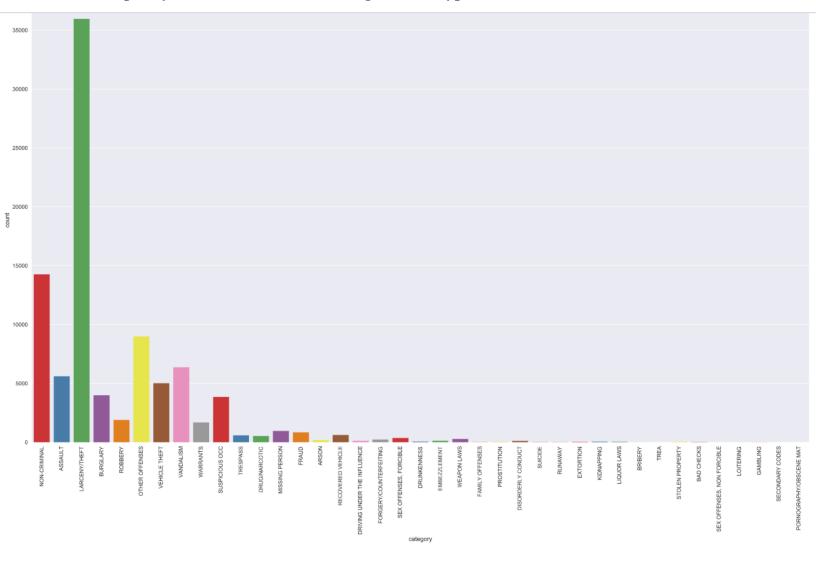
#### **Dataset**

#### 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.

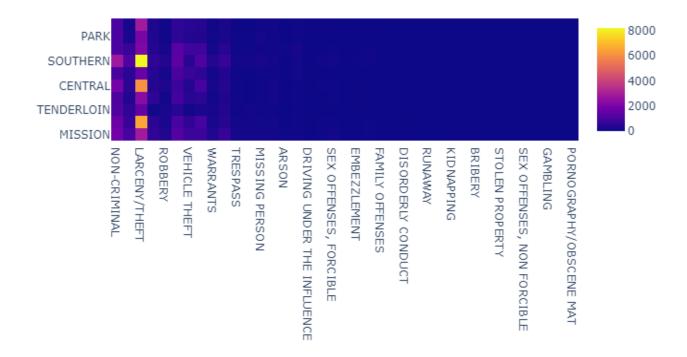
• According to this graph "Larceny/Theft" has the most number of crimes and "Pornography/Obscene Mat" has the least number. So, by analyzing this graph we can easily get the rates of crime occurring and can focus on the same.

# Average Number of Crime per Day and Month

5 4 3 2 1	321 277 276 328 266 270 327	244 270 243 255 243 258	173 240 223 230 211	235 269 265 263	225 306 205	239 307 227	274 284	276 272	241 234	218 238	236 255	258 260		
5 4 3	276 328 266 270	243 255 243	223 230	265	205			272	234	238	255	260		
5 4	328 266 270	255 243	230			227								
2	266 270	243		263	0.40		225	233	218	208	253	241		320
	270		211		242	245	260	215	255	194	233	239		
		258		249	243	289	229	200	223	231	216	235		
9	327		246	232	234	216	269	252	231	258	251	254		300
7		239	235	217	221	236	235	254	305	237	256	236		
œ	313	242	256	213	285	270	251	224	243	223	260	260		
6	270	286	262	240	231	252	234	238	272	244	233	256		
10	311	249	244	286	275	253	302	286	250	234	232	252		280
7	261	228	260	294	267	263	233	243	262	270	268	292		
12	278	273	253	263	260	284	239	238	272	292	279	233		
13	258	261	175	238	262	255	226	278	254	263	239	249		260
4	248	228	230	225	250	244	237	262	218	290	237	302		200
15	299	262	230	284	285	259	255	245	272	283	263	280		
Day 17 16	291	263	261	243	268	272	255	230	256	270	266	332		
	247	269	269	219	255	283	205	241	288	261	270	257		240
18	234	269	282	230	225	280	248	277	253	242	275	224		
19	234	270	257	256	251	242	274	251	228	242	259	292		
20	279	277	210	272	262	253	216	255	215	255	265	297		
21	275	244	272	228	252	258	249	242	226	294	254	217		220
22	270	233	239	258	244	291	267	234	243	248	266	272		
23	255	222	219	247	289	237	274	254	272	234	269	275		
24	243	257	203	221	273	301	244	219	286	282	201	252		200
25	232	234	275	242	237	306	252	225	251	246	273	160		
26	265	251	265	220	258	301	263	260	260	273	293	210		
27	263	278	235	223	299	236	251	225	266	265	242	262		
28	269	209	246	238	251	254	260	201	289	311	232	260		180
29	298	226	241	277	282	238	289	254	247	279	256	276		
30	256		261	278	243	234	282	237	288	288	258	261		
31	239		255		241		249	253		262		281		160
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		100

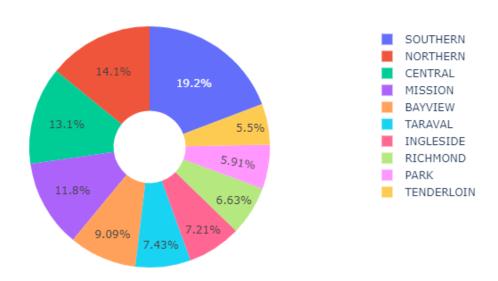
- The calmest day of crime is Christmas Day, December 25 (30% below averag e). Criminals also celebrate with families.
- The worst day is New Year's Day, January 1 (30% above average). And then a fter Christmas celebration, criminals take advantage of drunk people at parti es?
- The first day of the 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



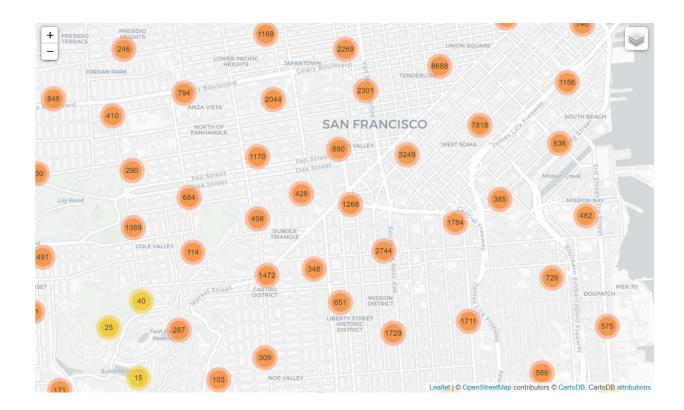
This graph basically shows the type of crime occurred in specific reason. So, here we have observed that the southern part has most of the cases of "Larceny/Theft". So we can focus on that area on the basis of the seriousness of the crimes. We can see that the Park area has very low intensity of crimes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

#### Crime Rates in a Specific Region



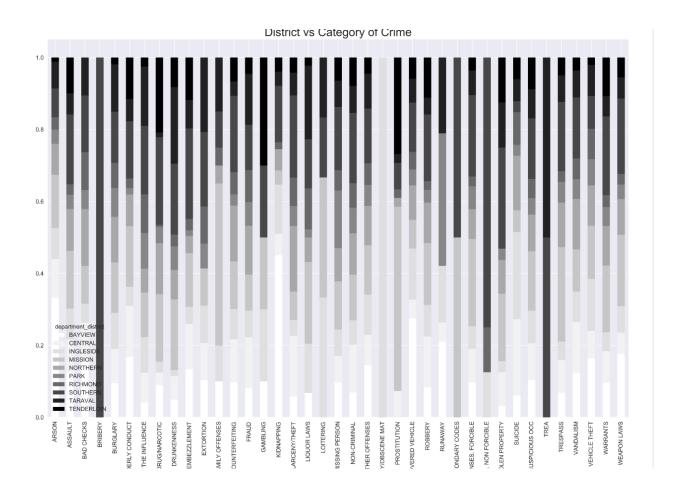
This graphs describes the crime rates in different regions like which region is having the greatest and the least crime rate. As this graph shows that "Southern" region has the greatest crime rate and the "Tenderlon" has the least for the same. This graph shows the collaborative analysis of all types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

#### Crime Rates in a Specific Locality

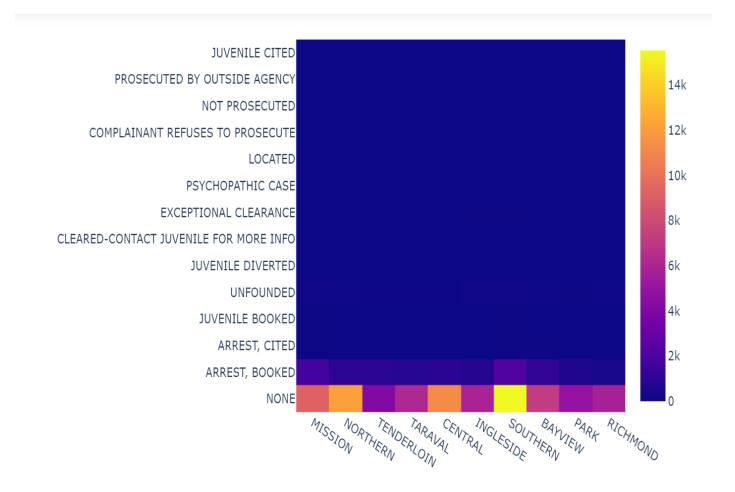


As we can see that this graph shows the number of crimes in a specific locality, street or any area. So, by this graph we can analyze in a more deeper manner to take the necessary action in a required location.

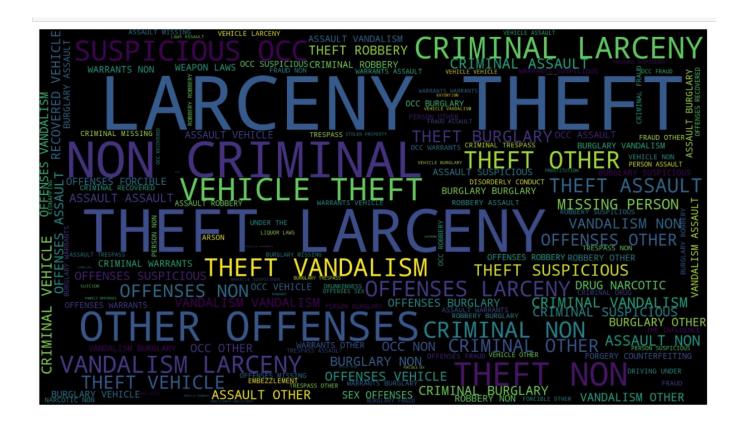
### District wise analysis of the crime



#### 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



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