

# Final Project

Analysis on Time Duration of Fire Department Calling System

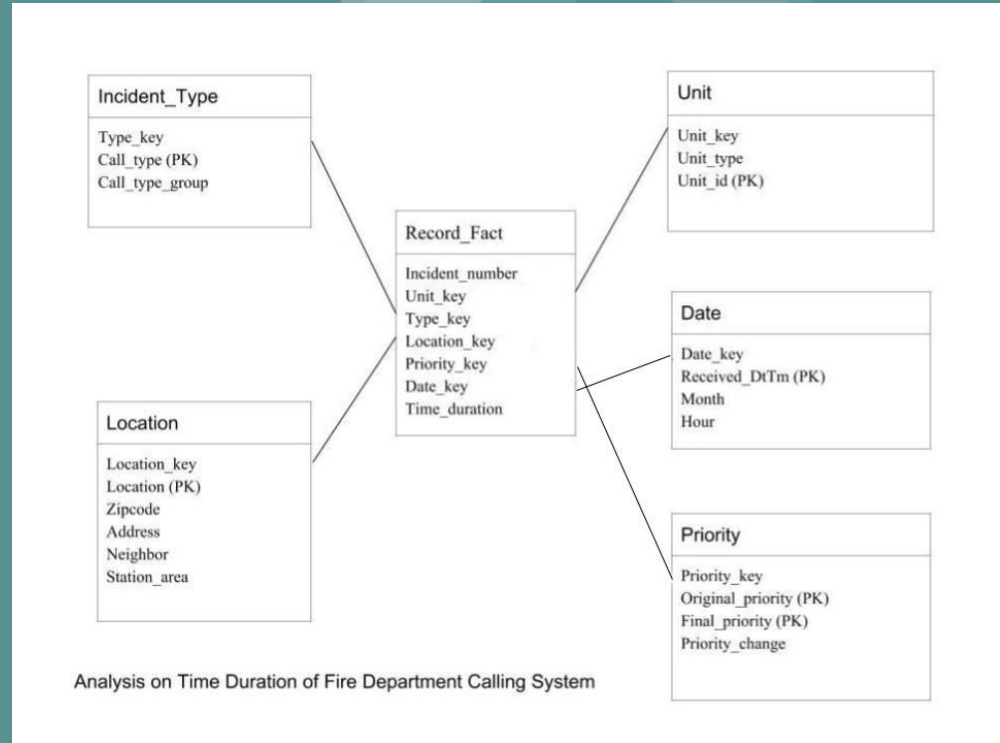
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# Fire Department Calls for Service in San Francisco

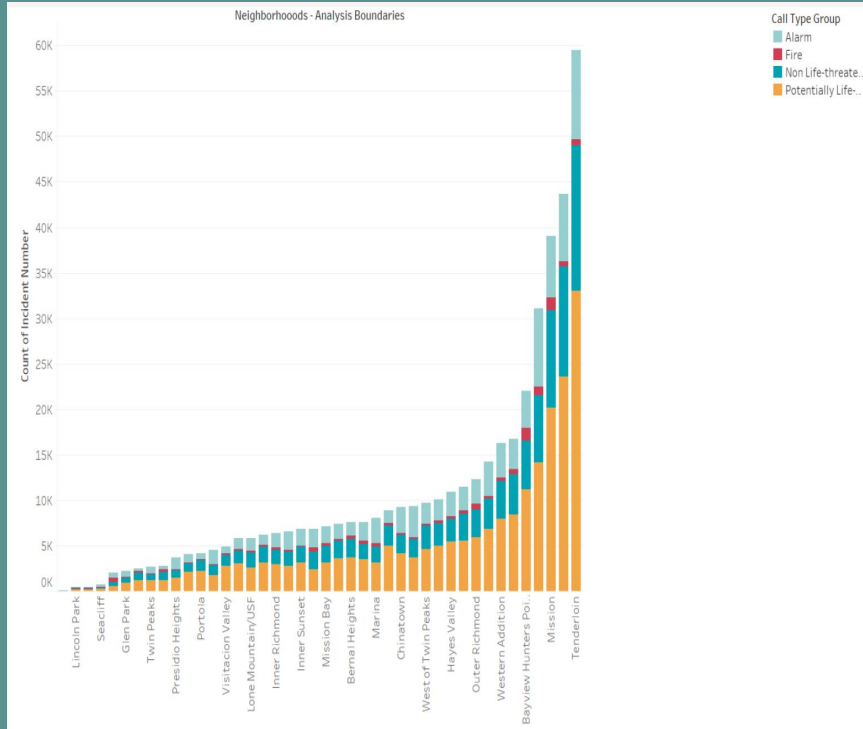
## Goal:

1. Characteristics of the Fire Department Calls in San Francisco
2. Analyze the average time response of the Fire Department in regards to different variables



# Location: How does efficiency differ among neighborhoods?

## Counts of Incidents



## Average Time Duration

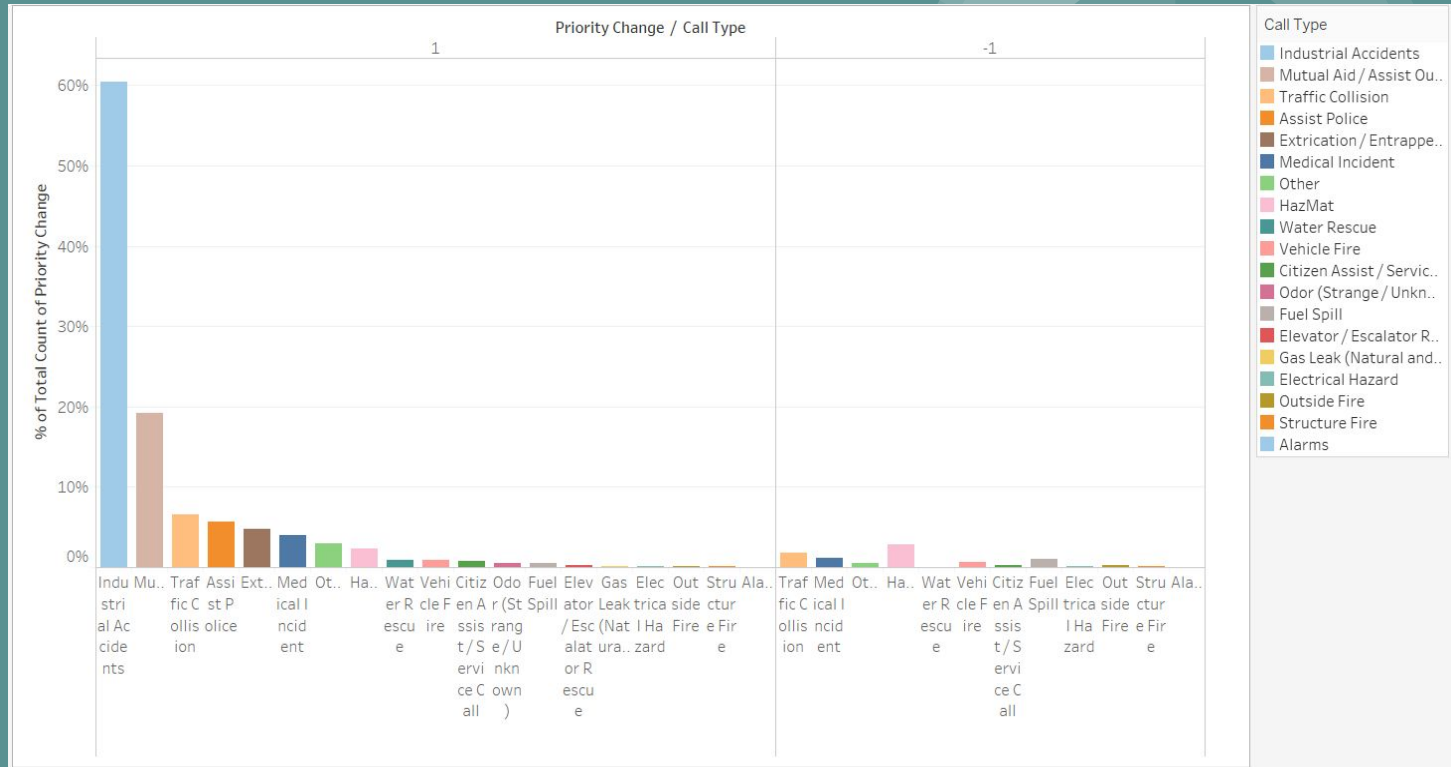
neighbor	round
Nob Hill	487.98
Pacific Heights	491.94
Noe Valley	508.48
Presidio Heights	518.82
Inner Richmond	522.79

Shortest Avg.Time

neighbor	round
Treasure Island	807.67
Lincoln Park	740.39
Presidio	732.73
Bernal Heights	730.15
Visitacion Valley	714.71

Longest Avg.Time

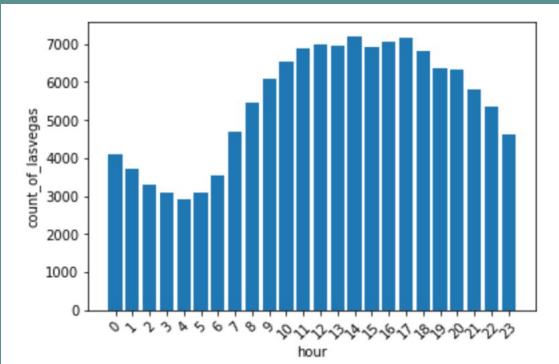
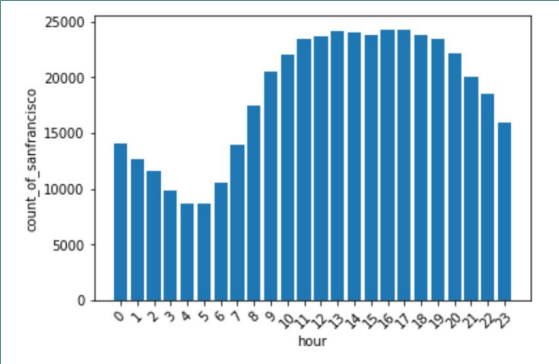
# Priority: How often do priorities of incidents change?



Proportion of Priority Change Counts According to Incident Type

# Bonus: San Francisco vs. Las Vegas

Similarities: Count of Incidents according to Time



Differences: Average Time Duration according to Time

hour	avg_of_sanfrancisco
7	610.76
14	606.56
17	599.61
8	598.15
5	596.30
16	589.90
6	588.25
4	583.70
9	582.42
13	580.24

San Francisco

hour	avg_of_las_vegas
20	195.16
22	193.16
21	190.58
19	184.19
23	181.60
17	180.86
1	178.10
14	171.61
0	168.04
6	164.97

Las Vegas

# Conclusion:

## 1. Hour

- Response time differ according to the city's situation by time

## 2. Location

- Relocate their police resources based on incident frequency and average time duration.

## 3. Unit Type & Incident Type

- The units could improve their efficiency for specific types of incidents, through learning from the most efficient unit for different incident types.

## 4. Priority change

- Reconsideration of original priority level

**THANK YOU!**

