New York City

311 Service Call Analysis

Overview

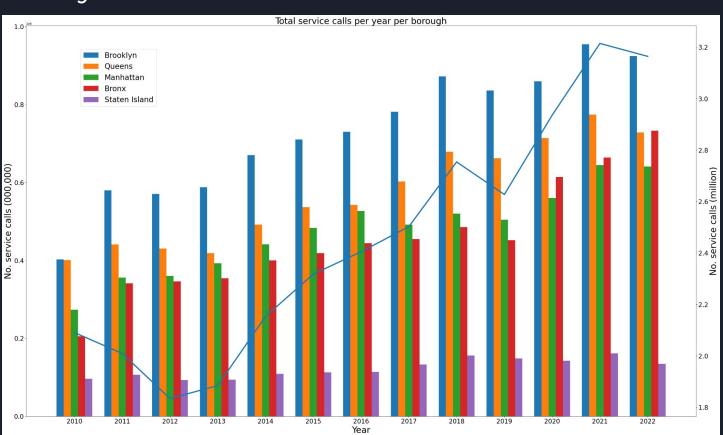Introduction

Analysis

Q&A

Process

Recommendations

Introduction - What questions are we trying to answer?

- When is the highest call volume?

- Which zip codes are the highest calls coming from?

- What are the most common requests regarding?

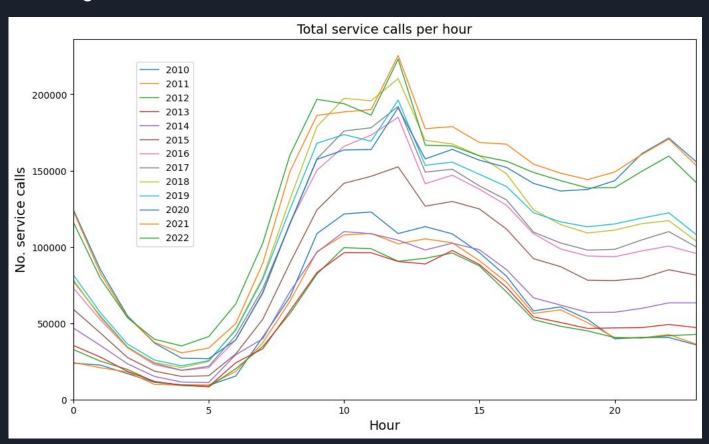- Are there trends for certain boroughs or agencies?

Process

- Identify questions that we want to answer.

- Extract data via API endpoint into CSV files.

- Transform and Load the data using Python.

- Visualise the data.
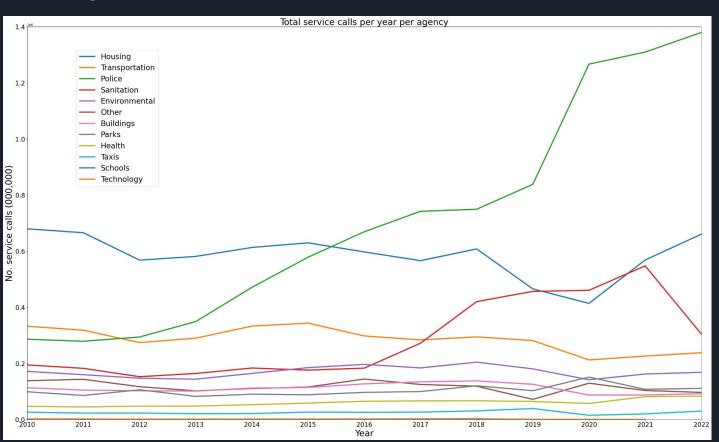
- Use the data to answer the questions set out.

Analysis

Analysis

Zip				
Manhattan	**Queens**	**Brooklyn**	**Bronx**	**Staten Island**
10031	11385	11226	10466	10314
10032	11368	11207	10467	10312
10025	11377	11221	10468	10306
10002	11373	11208	10458	10301
10033	11419	11233	10457	10304

Analysis

Total service calls per hour

Analysis

Total service calls per year per agency

Analysis

NYPD	
Request Type	**No. Complaints**
Noise - Residential	2948224
Illegal Parking	1828819
Blocked Driveway	1342250
Noise - Street/Sidewalk	1016224
Noise - Commercial	507378

Department Of Health	
Request Type	**No. Complaints**
Request Large Bulky Item Collection	1071920
Dirty Conditions	416473
Sanitation Condition	382416
Missed Collection (All Materials)	343562
Derelict Vehicles	333223

Department Of Sanitation	
Request Type	**No. Complaints**
Rodent	379186
Food Establishment	112815
Indoor Air Quality	60670
Food Poisoning	36371
Smoking	30157

Department Of Transportation	
Request Type	**No. Complaints**
Street Condition	1168614
Street Light Condition	1091618
Traffic Signal Condition	541759
Sidewalk Condition	324477
Broken Muni Meter	171652

Analysis

Zip Code			
NYPD	**DoH**	**DoS**	**DoT**
10466	10025	11385	10314
11385	11221	10314	11385
11226	11216	11215	10312
10468	11226	11234	10306
10467	11238	10312	11207

Recommendations

- Resources/funding to be directed to boroughs based on call volume data proportionally.

- Align shift patterns to align with call volume data to make sure that action is taken as quickly as possible, between 09:00 and 16:00.

- Resources/funding to be directed within these boroughs to the zip codes where the highest number of requests originate.

- Explore new sites for police stations, ambulance hubs, sanitation routes based on zip code call rates per agency.

- Schemes to tackle most prevalent requests per borough/agency explored.

Q&A

Thank you for listening. I am happy to answer any questions and gather any feedback.