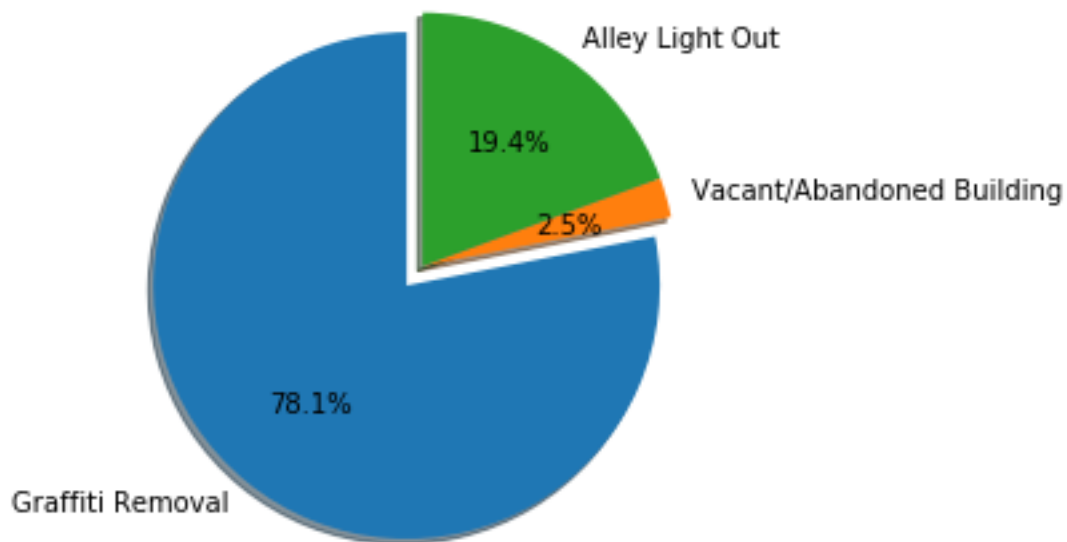


Problem 1: Data Acquisition and Analysis

During 2017 in the City of Chicago was made 112, 543 graffiti removal requests, 3,666 related with Vacant/Abandoned Building, and 27, 883 of Alley Light Out type.

The distribution is shown in the following image:



The zip codes where more graffiti removal requests were made are

60632.0	11295
60608.0	9811
60647.0	9617
60618.0	8878
60622.0	6182
60609.0	5834
60629.0	5750
60623.0	5386
60625.0	5243
60614.0	3152

What Type of Surface is the Graffiti on?

Metal - Painted	40397
Brick - Unpainted	19595
Brick - Painted	14698
Metal - Unpainted	10000
Cement (Sidewalk, Alley, Wall, Curb)	9239

Where is the Graffiti located?

Front	32754
Side	14900
Pole	13029
Garage	8008
Rear	6804

While the zip codes with the highest number of request related with Alley Light Out are:

60629	2153
60617	1513
60638	1474
60628	1359
60620	1212
60651	1143
60619	1129
60634	1085
60632	1053
60639	947

And in the case of Vacant/Abandoned Building the top 10 zip codes are:

60628.0	461
60636.0	380
60619.0	316
60620.0	315
60621.0	305
60617.0	285
60609.0	191
60643.0	151
60624.0	146
60637.0	144

The rate of not completed request during 2017 could be calculate for 'Graffiti Removal' and 'Alley Light Out' reports, in the first case it is very low (0.005%) while in the second is significant (13.32%).

Problem 2: Data Augmentation and APIs

Blocks groups with most “Vacant and Abandoned Buildings Reported”

TRACTCE	BLKGRPCE	GEOID	total
207	671300	1 170316713001	33
206	671100	1 170316711001	23
732	491200	1 170314912001	23
219	670200	1 170316702001	20
750	491000	4 170314910004	20

Blocks groups with most “Alley Lights Out”

TRACTCE	BLKGRPCE	GEOID	total
1283	530300	4 170315303004	121
1094	640800	2 170316408002	119
1630	640300	2 170316403002	98
275	190701	2 170311907012	96
1629	561100	5 170315611005	94

Problem 3:

Given the adrees the geographic point is :

lat = 41.8665840

lon = -87.7156089

wich is in block group with GEOID 170318430001, where is more likely a “Alley Lights Out” with 1.3%

CODE: