

# 311 COMPLAINTS IN NYPD SERVICE AREAS



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# ABSTRACT

- **AN ANALYSIS OF NYC OPEN DATA ON "311 SERVICE REQUEST" DURING 2015 WAS PERFORMED.**
- **THE DATA SET WAS FILTERED IDENTIFYING ONLY COMPLAINTS WHICH WERE TOWARDS THE NYPD AGENCY.**
  - **IDENTIFYING: WHEN AND WHERE THESE COMPLAINTS ARISE: DATE, TIME AND LOCATION?**
- **THE DATA SET ALSO PROVIDED THE SERVICE REQUEST CREATED TIME AND CLOSED TIME AND HOW MANY OF THE COMPLAINTS GOT RESOLVED OR MARKED CLOSED.**
- **MAPPING OF NYPD PRECINCT SERVICE AREAS IN NEW YORK CITY DETERMINED WHICH SERVICE AREA HAD THE MOST COMPLAINTS, WHAT SERVICE AREAS HAD THE LEAST AMOUNT OF COMPLAINTS AND WHICH NYPD PRECINCT DIDN'T RESPONDED TO TOP COMPLAINTS WITHOUT CLOSED DATES.**
- **THE COMPARISON WAS FURTHER EXAMINED AND CATEGORIZED BY BOROUGH\$, AS WELL AS TEMPORAL COMPLAINTS OVER A PERIOD OF TIME.**
- **THE RESULTS OF THESE COMPARISONS (GEOSPATIAL AND TEMPORAL PATTERNS) IDENTIFY, "HOTSPOTS," HOT COMPLAINT TYPES AND PATTERNS WHICH IS VALUABLE AND USEFUL INFORMATION FOR NEW YORK CITY 311 COMPLAINT SERVICE.**

# DATASET

- FOUND ON NYC OPEN DATA.

- FILTERED DATE TO DISPLAY DATA WITHIN THE YEAR 2015

- FILTERED AGENCY TO 'NYPD'.

- 364555 ROWS, 53 COLUMNS.

- SHAPE FILES:

- NYPD SERVICE AREAS

- NYPD PRECINCTS

- ADDITIONAL DATASET:

- US CENSUS DATA

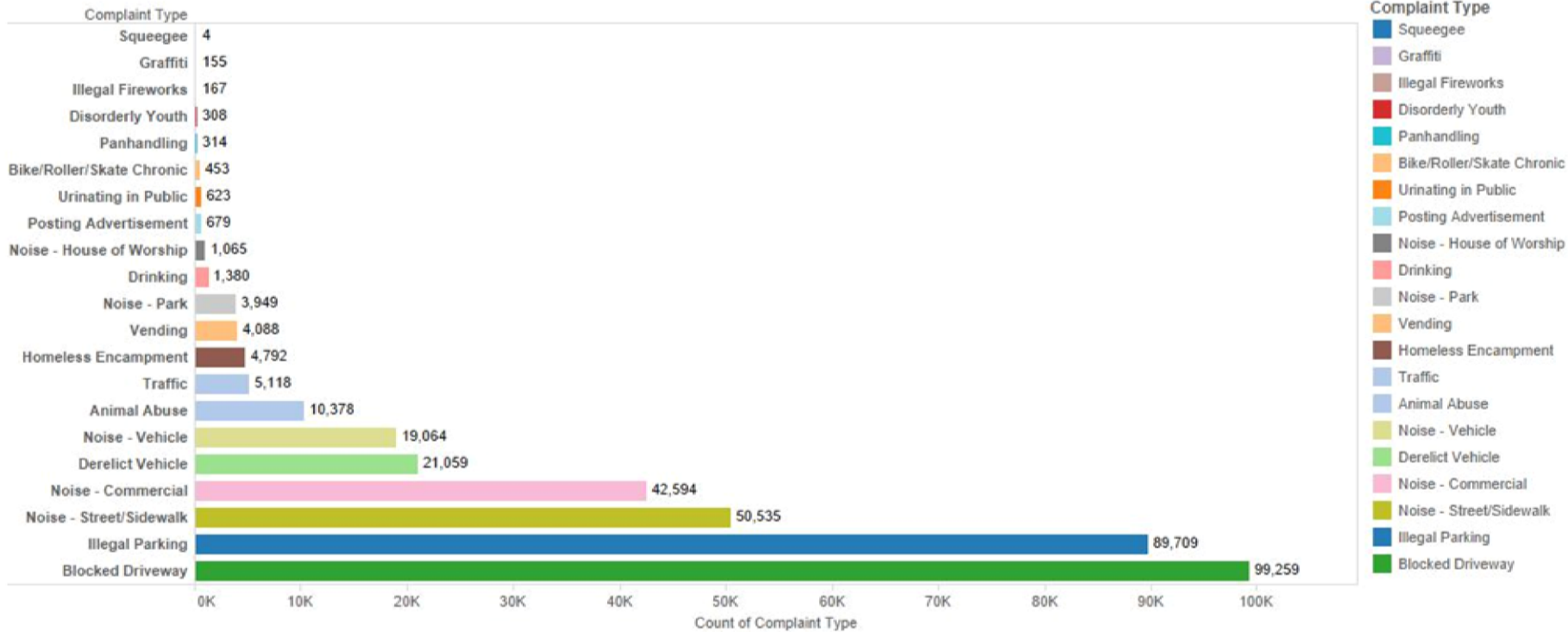
	Agency	Agency Name	Complaint Type	Descriptor	Location
1	NYPD	New York City Police Department	Illegal Parking	Commercial Overnight Parking	Street
2	NYPD	New York City Police Department	Illegal Parking	Blocked Sidewalk	Street
3	NYPD	New York City Police Department	Illegal Parking		Street
4	NYPD	New York City Police Department	Illegal Parking		Street
5	NYPD	New York City Police Department	Blocked Driveway		Street
6	NYPD	New York City Police Department	Blocked Driveway		Street
7	NYPD	New York City Police Department	Illegal Parking		Street
8	NYPD	New York City Police Department	Blocked Driveway		Street
9	NYPD	New York City Police Department	Blocked Driveway		Street
10	NYPD	New York City Police Department	Noise - Street/Sidewalk		Street
11	NYPD	New York City Police Department	Illegal Parking		Street
12	NYPD	New York City Police Department	Derelict Vehicle		Street
13	NYPD	New York City Police Department	Blocked Driveway		Street
14	NYPD	New York City Police Department	Blocked Driveway		Street
15	NYPD	New York City Police Department	Noise - Commercial		Club/B
16	NYPD	New York City Police Department	Noise - Commercial		Club/B
17	NYPD	New York City Police Department	Noise - Street/Sidewalk	Loud Music/Party	Street
18	NYPD	New York City Police Department	Illegal Parking	Unauthorized Bus Layover	Street

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"i..Unique.Key"
"Closed.Date"
"Agency.Name"
"Descriptor"
"Incident.Zip"
"Street.Name"
"Cross.Street.2"
"Intersection.Street.2"
"City"
"Facility.Type"
"Due.Date"
"Resolution.Action.Updated.Date"
"Borough"
"Y.Coordinate..State.Plane."
"Park.Borough"
"School.Number"
"School.Code"
"School.Address"
"School.State"
"School.Not.Found"
"Vehicle.Type"
"Taxi.Pick.Up.Location"
"Bridge.Highway.Direction"
"Bridge.Highway.Segment"
"Ferry.Direction"
"Latitude"

"Created.Date"
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"Complaint.Type"
"Location.Type"
"Incident.Address"
"Cross.Street.1"
"Intersection.Street.1"
"Address.Type"
"Landmark"
>Status"
"Resolution.Description"
"Community.Board"
"X.Coordinate..State.Plane."
"Park.Facility.Name"
"School.Name"
"School.Region"
"School.Phone.Number"
"School.City"
"School.Zip"
"School.or.Citywide.Complaint"
"Taxi.Company.Borough"
"Bridge.Highway.Name"
"Road.Ramp"
"Garage.Lot.Name"
"Ferry.Terminal.Name"
"Longitude"
```



# NYPD COMPLAINTS CREATED IN 2015



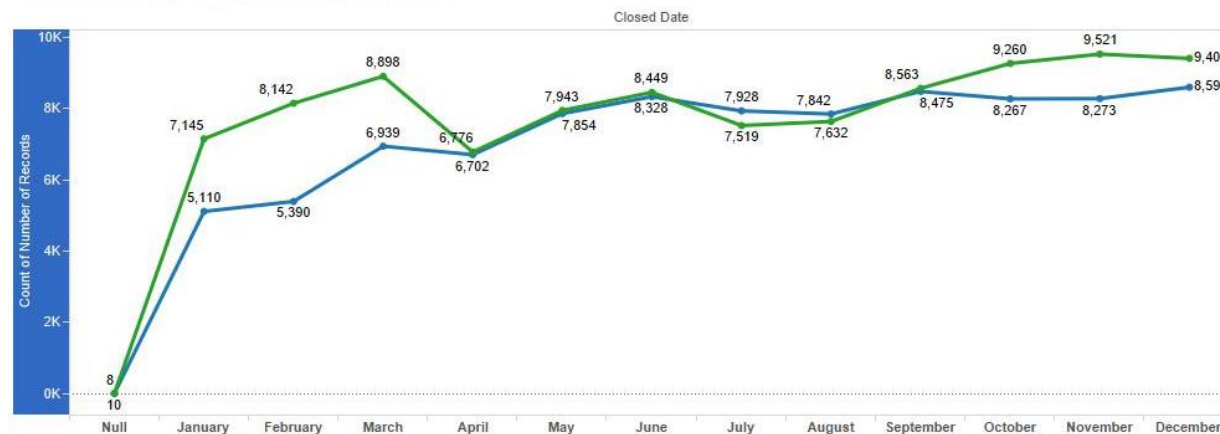
- **2 MAJOR TYPE OF COMPLAINTS**
  - **Parking**
  - **Noise**
- **PARKING**
  - **Blocked Driveway**
  - **Illegal Parking**
- **NOISE**
  - **Commercial**
  - **Street/Sidewalk**

# PARKING COMPLAINT: BLOCKED DRIVEWAY + ILLEGAL PARKING: CREATED DATE & CLOSED DATE

Blocked Driveway & Illegal Parking Created Date



Blocked Driveway vs Illegal Parking Closed Date



## BLOCKED DRIVEWAY

Increased monthly

7k to 9k by EOY

10 complaints without closed dates

## ILLEGAL PARKING

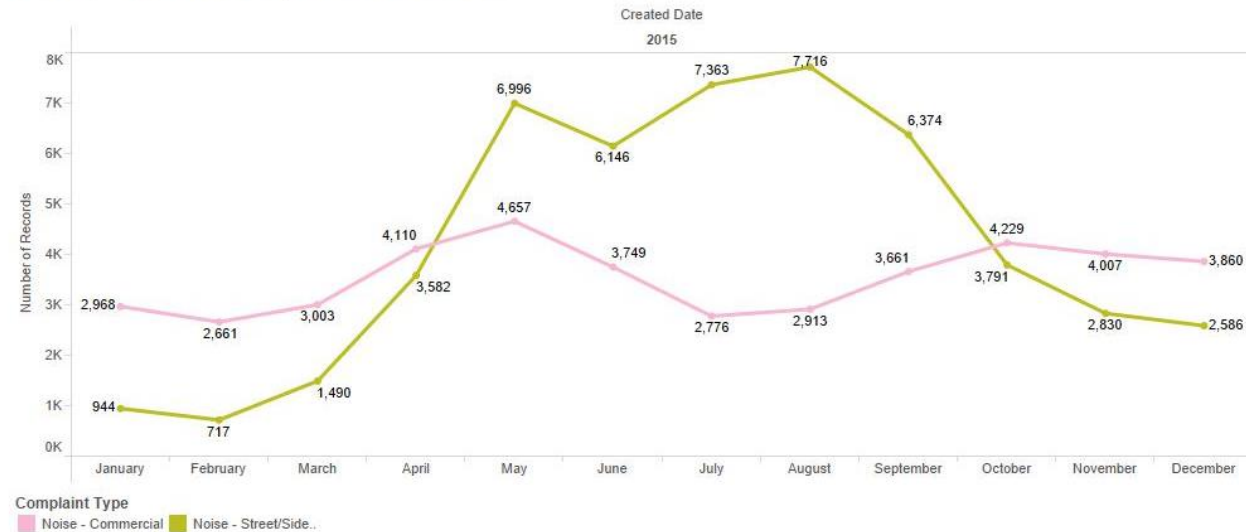
Increased monthly

5k to 8k by EOY

8 complaints without closed dates

# COMMERCIAL NOISE + STREET NOISE: CREATED DATE VS CLOSED DATE

Commercial vs Street Noise per Month Created Date



Commercial vs Street Noise per Month Closed Date



## COMMERCIAL

**Remained Stable throughout the year**

**3k to 4k by EOD**

**15 complaints without end dates**

## STREET NOISE

**Increased in may and declined in October**

**900 to 2.5k by EOD**

**Complaints increased during summer**

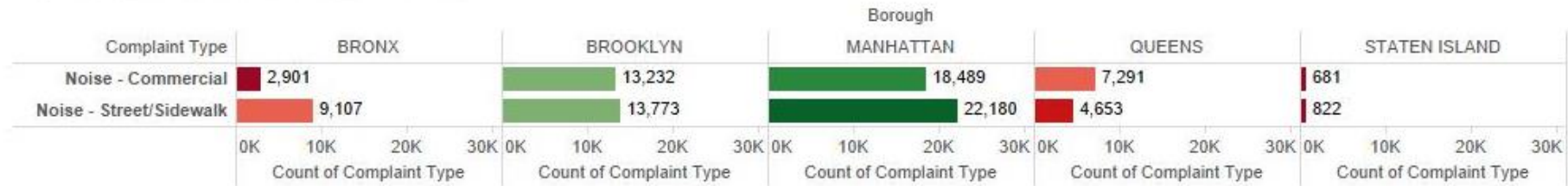
**14 complaints without end dates**

# BLOCKED DRIVEWAY + ILLEGAL PARKING VS COMMERCIAL + STREET NOISE BY BOROUGH

Blocked Driveway + Illegal Parking by Borough



Commercial + Street Noise by Borough



Count of Complaint Type



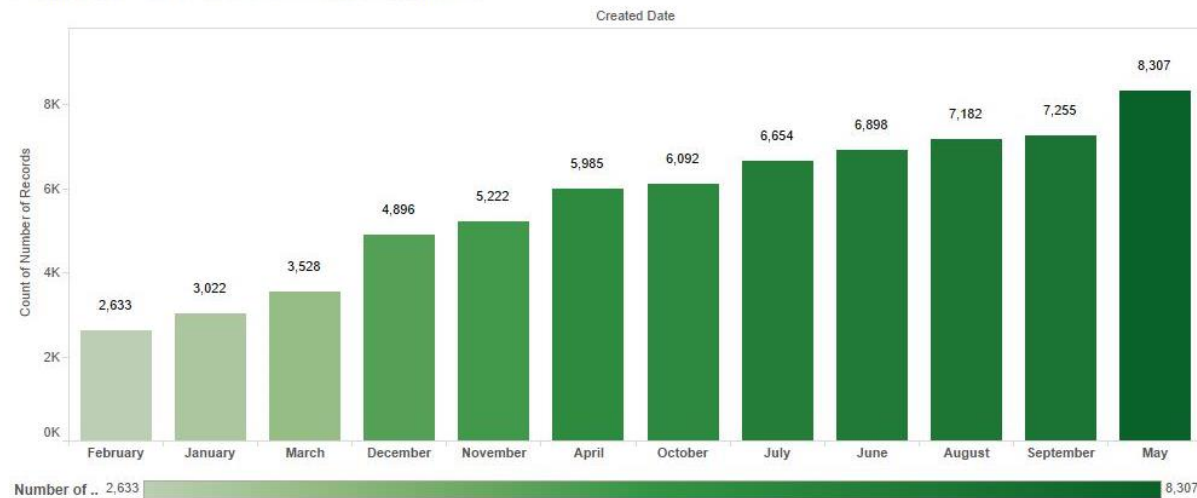


# BLOCKED DRIVEWAY + ILLEGAL PARKING VS COMMERCIAL + STREET NOISE BY MONTH + BOROUGH

Blocked Driveway + Illegal Parking In Brooklyn + Queens



Commercial + Street Noise in Brooklyn + Manhattan



## BLOCKED DRIVEWAY + ILLEGAL PARKING

Major Complaints in Brooklyn and Queens  
3 Top Months

October, November, December

## COMMERCIAL + STREET NOISE

Major Complaints in Brooklyn and Manhattan  
3 Top Months

May, August, September

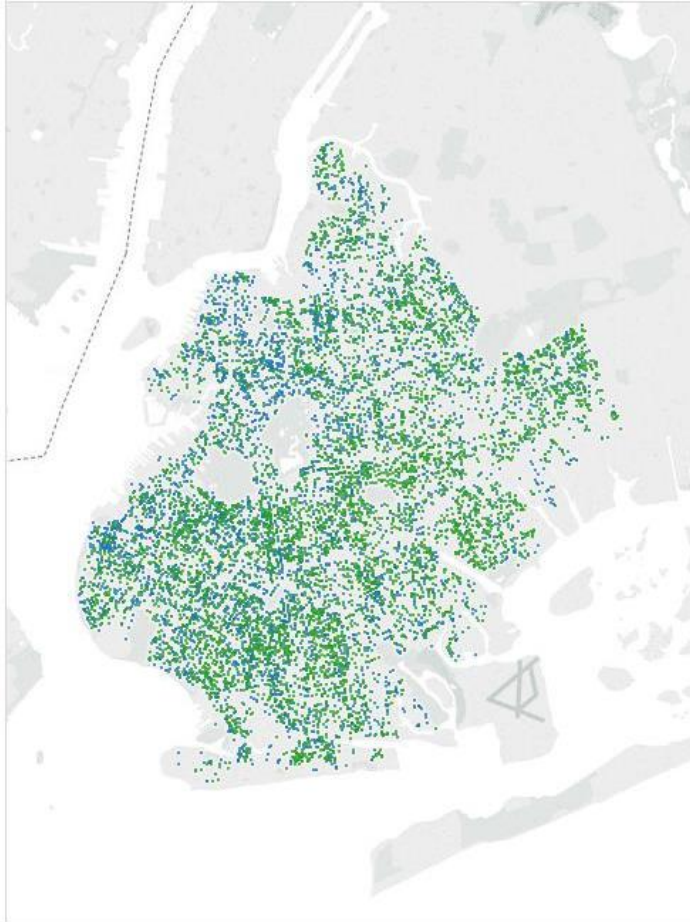


# BLOCKED DRIVEWAY + ILLEGAL PARKING AREAS BY BOROUGH

Complaint Type  
Blocked Driveway Illegal Parking

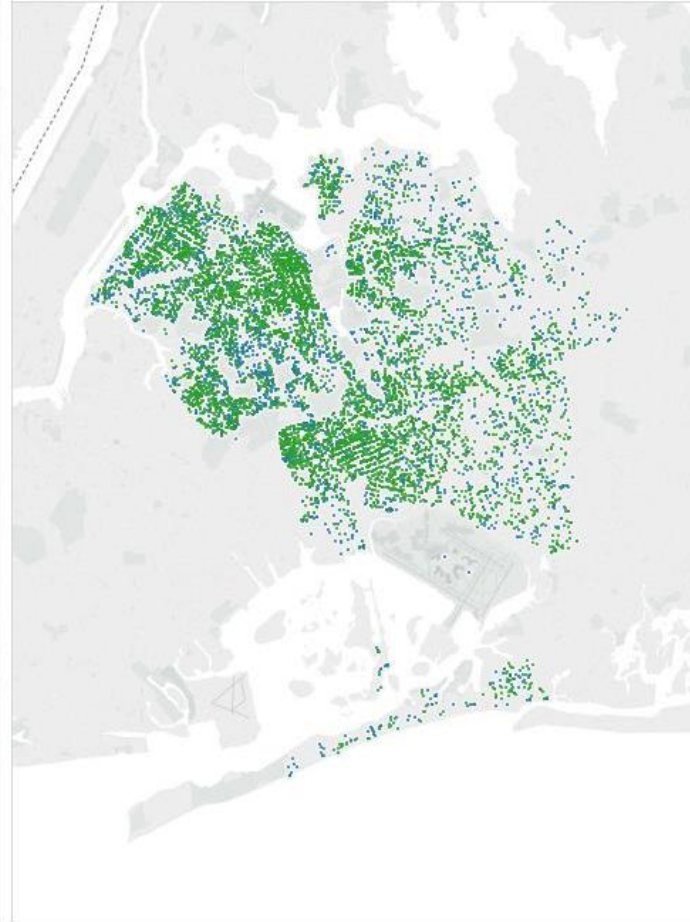
Brooklyn: Blocked Driveway + Illegal Parking Areas (October, November, December)

Borough  
BROOKLYN



Queens: Blocked Driveway + Illegal Parking Areas (October, November, December)

Borough  
QUEENS

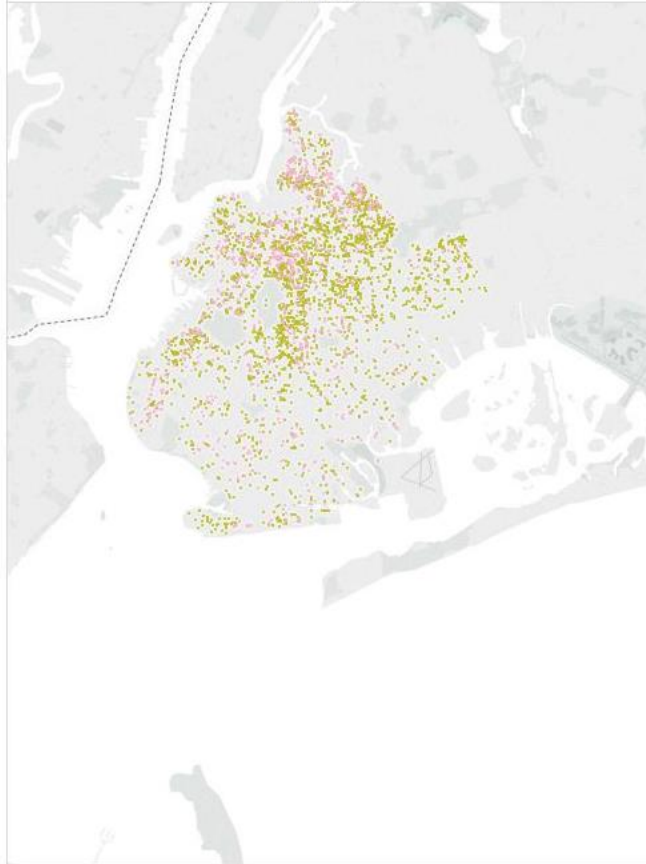


# COMMERCIAL + STREET NOISE AREA BY BOROUGH

Complaint Type  
Noise - Commercial Noise - Street/Side...

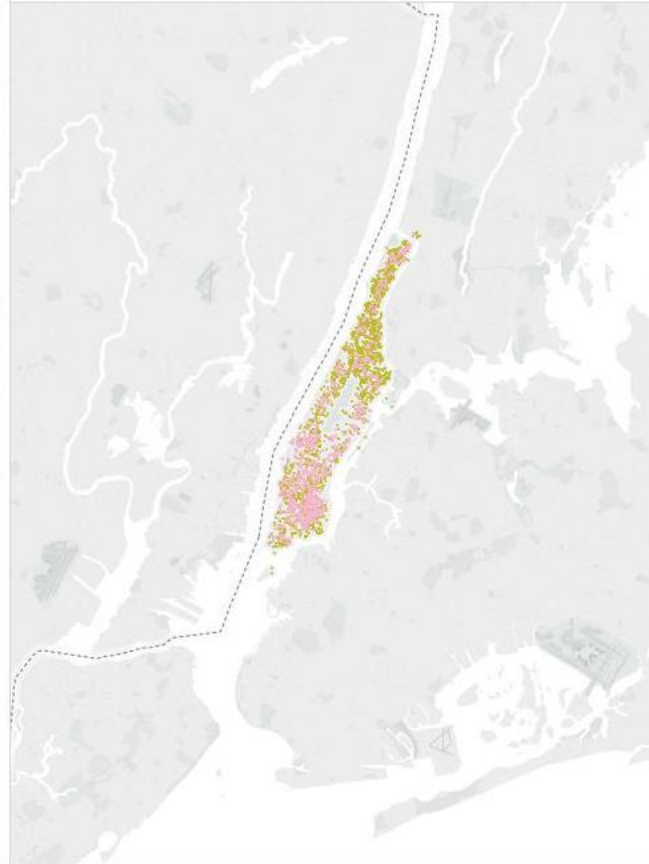
Brooklyn: Commercial + Street Noise Area (May, August, September)

Borough  
BROOKLYN



Manhattan: Commercial + Street Noise Area (May, August, September)

Borough  
MANHATTAN

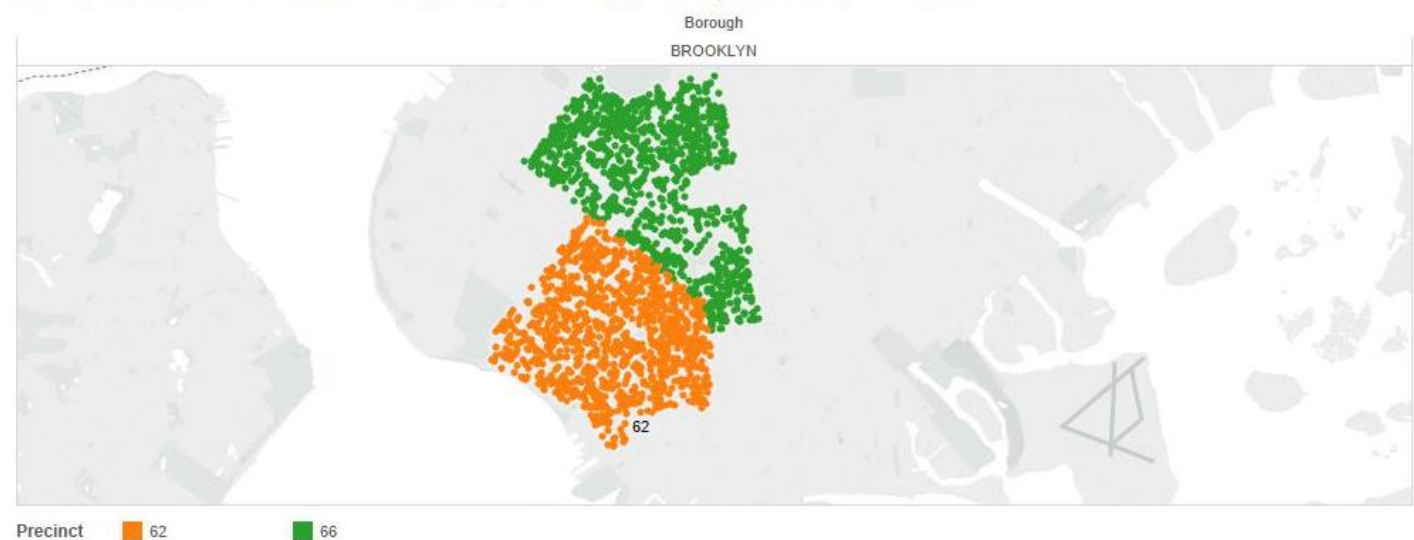


# BLOCKED DRIVEWAY + ILLEGAL PARKING: BROOKLYN BY PRECINCT

Brooklyn by Precinct: Blocked Driveway + Illegal Parking (October, November, December) Count



Brooklyn by Precinct: Blocked Driveway + Illegal Parking (October, November, December)



Precinct 62 66

**TOP 2 PRECINCTS IN BROOKLYN WITH MOST COMPLAINTS IN THE MONTHS OF OCTOBER, NOVEMBER AND DECEMBER**

**62**

**Blocked Driveway – 1,050  
Illegal Parking - 1,005**

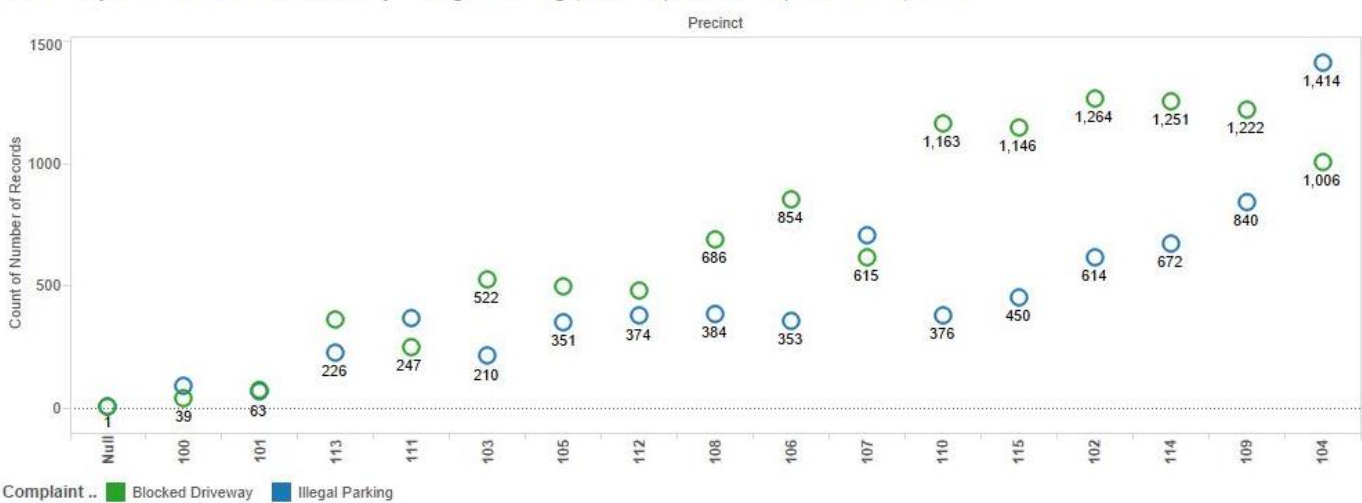
**66**

**Blocked Driveway – 1,349  
Illegal Parking - 966**

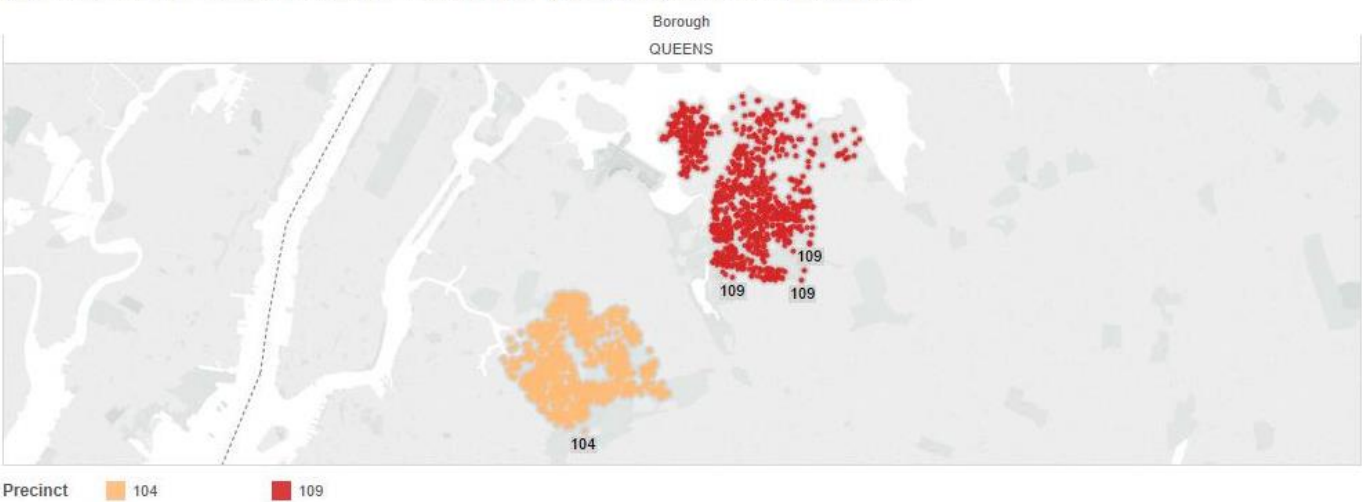


# BLOCKED DRIVEWAY + ILLEGAL PARKING: QUEENS BY PRECINCT

Queens by Precinct Blocked Driveway + Illegal Parking (October, November, December) Count



Queens by Precinct Blocked Driveway + Illegal Parking (October, November, December)



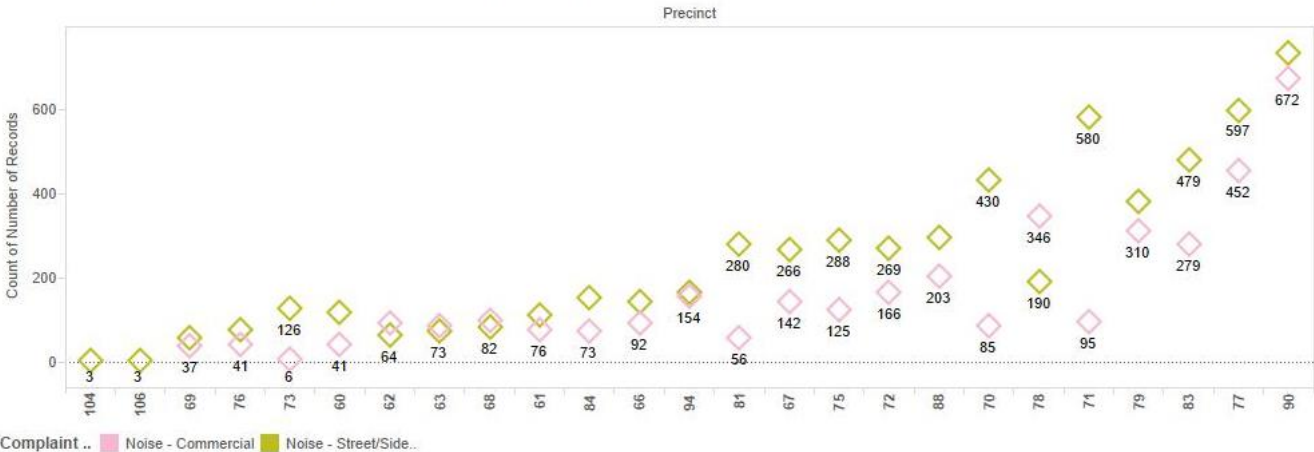
**TOP 2 PRECINCTS IN QUEENS WITH MOST COMPLAINTS IN THE MONTHS OF OCTOBER, NOVEMBER AND DECEMBER**

**109**  
**Blocked Driveway – 1,222**  
**Illegal Parking - 840**

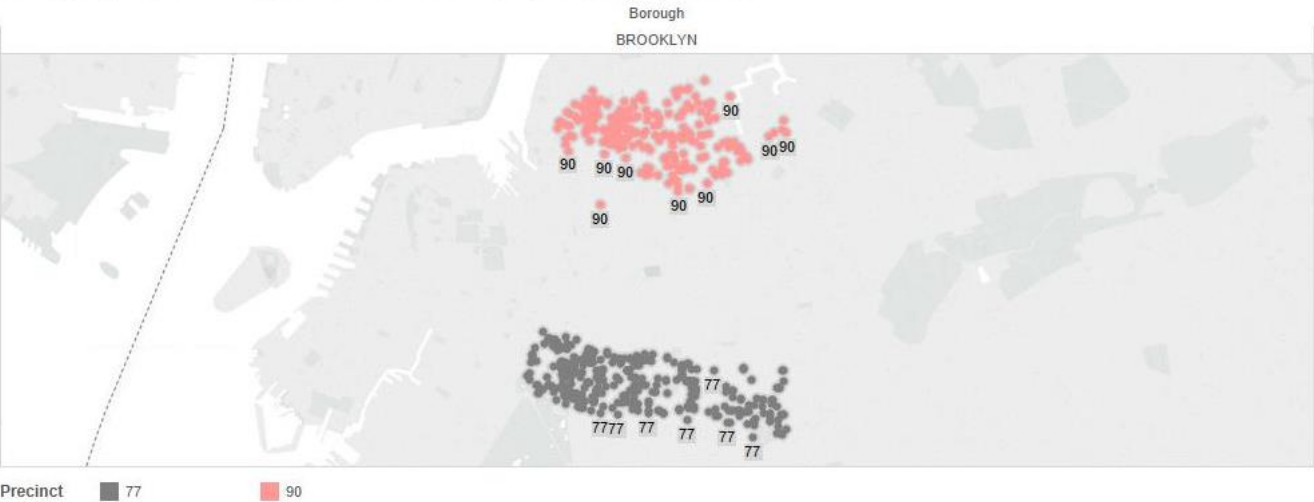
**104**  
**Blocked Driveway – 1,414**  
**Illegal Parking – 1,006**

# COMMERCIAL + STREET NOISE: BROOKLYN BY PRECINCT

Brooklyn by Precinct: Commercial + Street Noise (May, August, September) Count



Brooklyn by Precinct: Commercial + Street Noise (May, August, September)



**TOP 2 PRECINCTS IN BROOKLYN WITH MOST COMPLAINTS IN THE MONTHS OF OCTOBER, NOVEMBER AND DECEMBER**

**77**

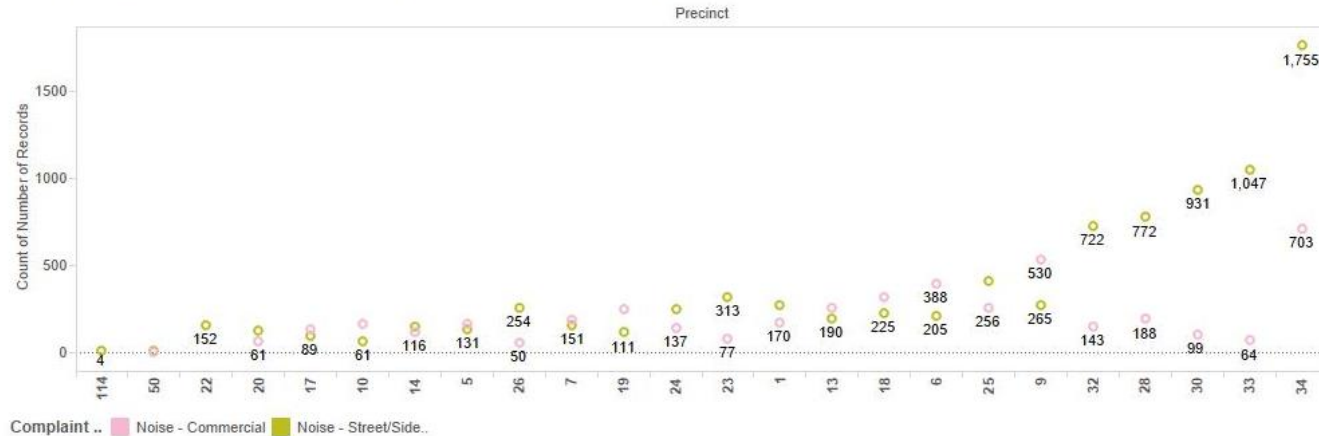
**Commercial – 452  
Street/Sidewalk - 597**

**90**

**Commercial – 672  
Street/Sidewalk – 732**

# COMMERCIAL + STREET NOISE: MANHATTAN BY PRECINCT

Manhattan by Precinct: Commercial + Street Noise (May, August, September) Count



Manhattan by Precinct: Commercial + Street Noise (May, August, September)



**TOP 2 PRECINCTS IN MANHATTAN WITH MOST COMPLAINTS IN THE MONTHS OF OCTOBER, NOVEMBER AND DECEMBER**

**33**

**Commercial – 64  
Street/Sidewalk – 1,047**

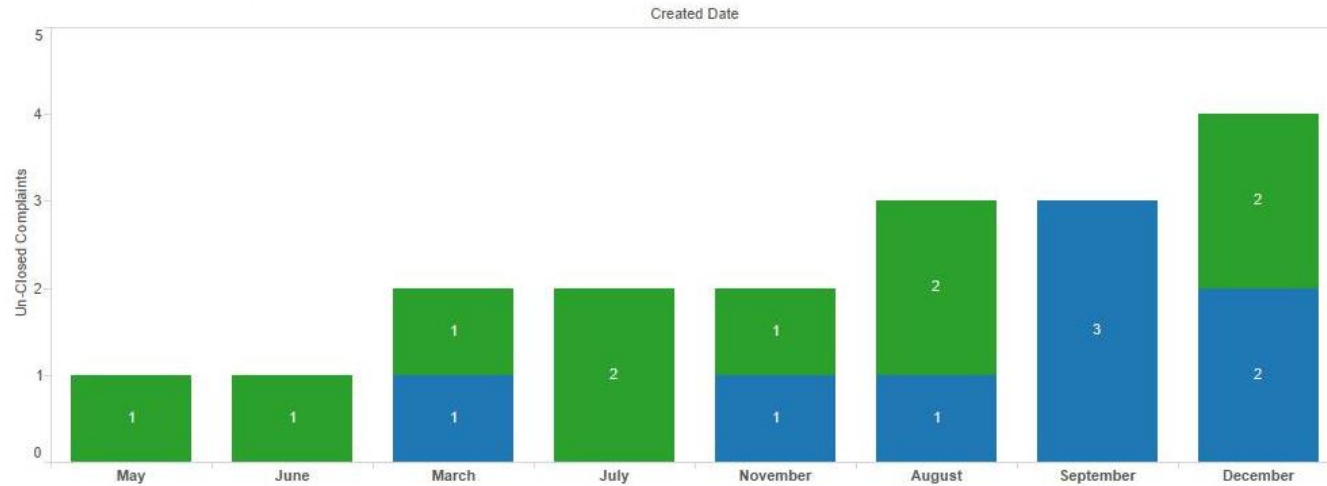
**34**

**Commercial – 703  
Street/Sidewalk – 1,755**



# BLOCKED DRIVEWAY + ILLEGAL PARKING VS COMMERCIAL + STREET NOISE: UN-CLOSED COMPLAINTS

Blocked Driveway + Illegal Parking: Un-Closed Complaints



Commercial + Street Noise: Un-Closed Complaints



**TOP 3 MONTHS WHERE COMPLAINTS WEREN'T CLOSED**

**Blocked Driveway + Illegal Parking**  
**August, September and December**  
**Commercial + Street/Sidewalk Noise**  
**August, November, December**

# RELATIONSHIP BETWEEN UNCLOSED COMPLAINT + PRECINCTS IN BROOKLYN + QUEENS VS BROOKLYN + MANHATTAN

Blocked Driveway + Illegal Parking Un-Closed Tickets by Precincts



Commercial + Street Noise Un-Closed Tickets by Precincts



**TOP PRECINCTS WHERE COMPLAINTS WEREN'T CLOSED**

**Blocked Driveway + Illegal Parking**

**102 – 2 Complaints**

**115 – 2 complaints**

**Commercial + Street/Sidewalk Noise**

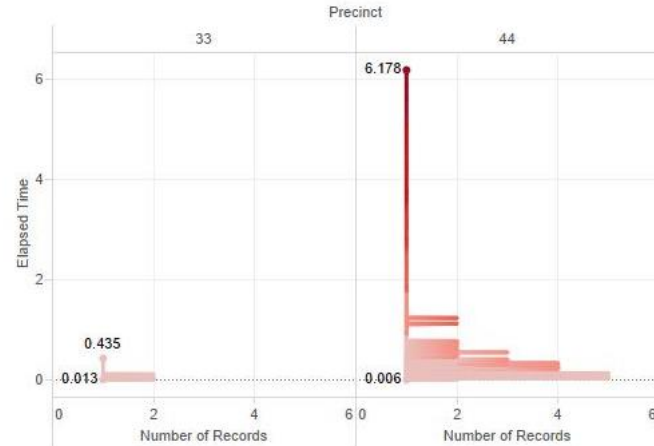
**77 – 2**

**28 - 2 Commercial Noise**

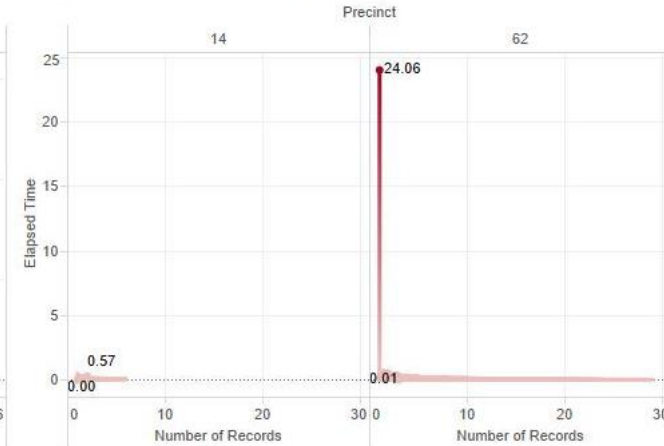
**3-Street Noise**

# TIME ELAPSED FROM COMPLIANT OPEN DATE & TIME TO CLOSE BY PRECINCT (MIN AND MAX)

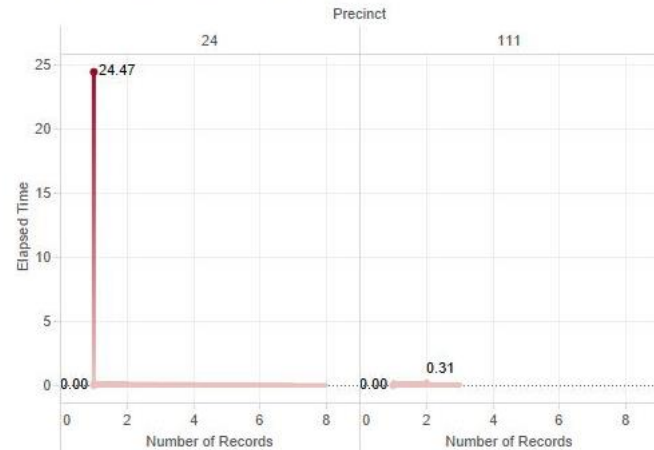
Time Elapsed: Blocked Driveways



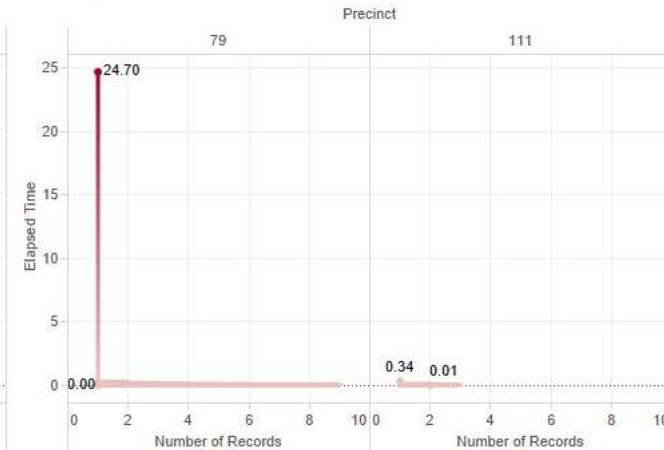
Time Elapsed: Illegal Parking



Time Elapsed: Noise: Commercial



Time Elapsed: Noise: Street



## BLOCKED DRIVEWAY

**33 Precinct**

**Max - 43 min**

**Min - 1 min**

**44 Precinct**

**Max - 6 Hours**

**Min - less than 1 min**

## ILLEGAL PARKING

**14**

**Max - 57 Min**

**Min - less than 1 min**

**62**

**Max - 24 hours**

**Min - 1 minute**

## COMMERCIAL NOISE

**111**

**Max - 31 min**

**Min - less than 1 min**

**24**

**Max - 24 hours**

**Min - less than 1 min**

## STREET/SIDEWALK NOISE

**111**

**Max - 34 min**

**Min - 1 min**

**79**

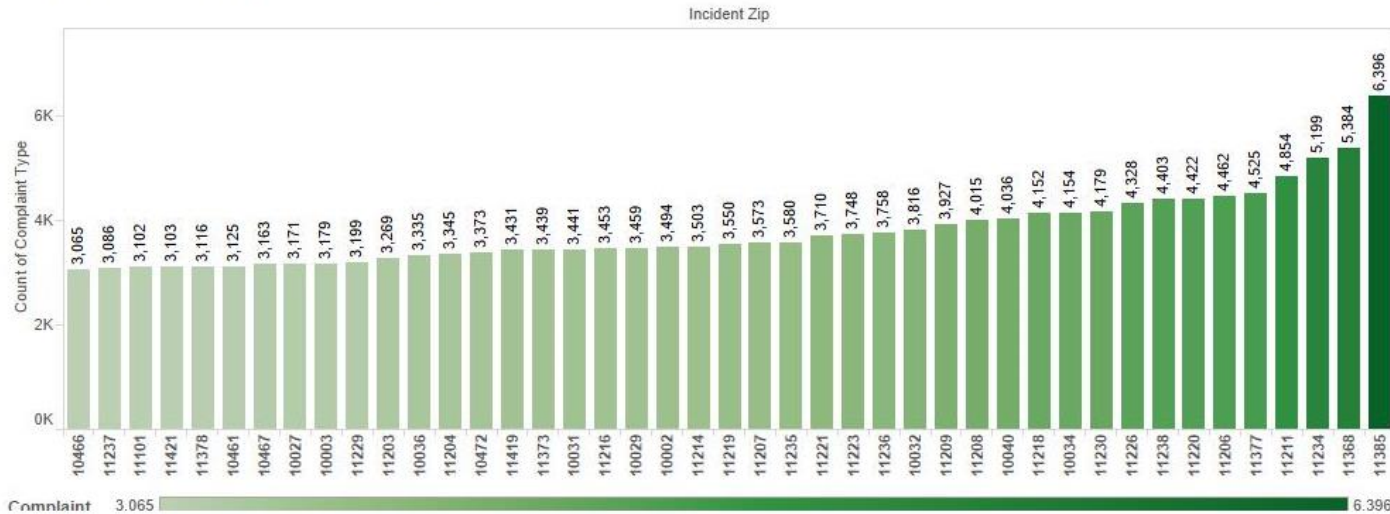
**Max - 24 hours**

**Min - less than 1 min**

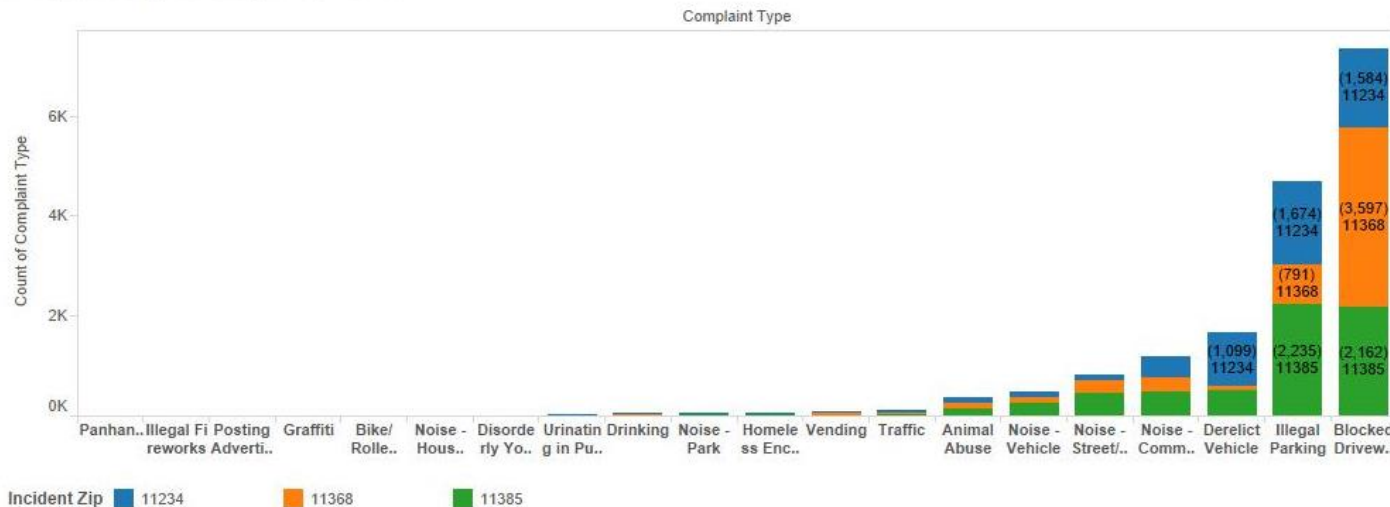


# HOT SPOTS FOR COMPLAINT TYPE BY ZIP

HotSpot Complaint by ZipCodes > Than 3,000



Complaints Types in Top 3 Zip Codes



## TOP 3 ZIP CODES AND COMPLAINT TYPES FOR COMPLAINTS

### ZIP CODES

11234

11368

11385

### COMPLAINT TYPES

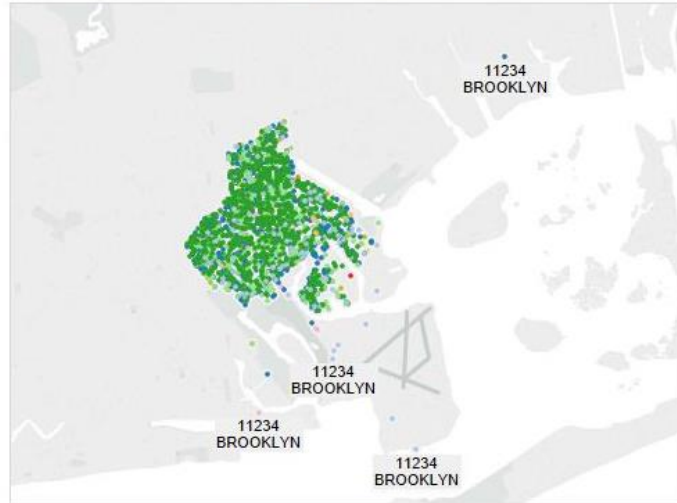
Derelict Vehicle

Illegal parking

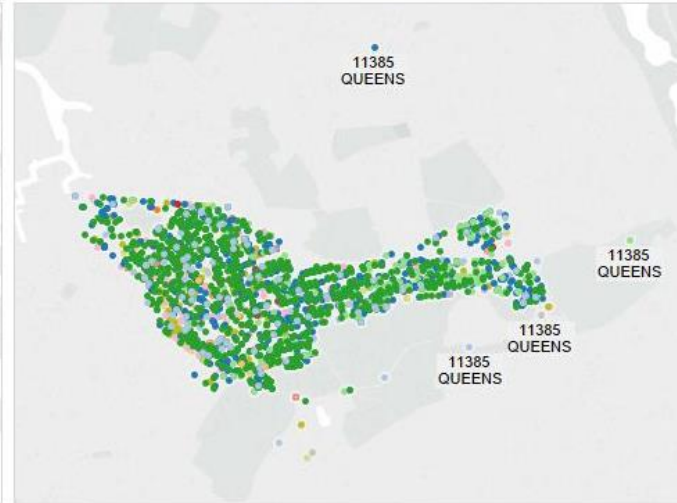
Blocked Driveway

# COMPLAINT TYPE BY TOP 3 ZIP - MAP

Top Complaint HotSpot by Zip Code: 11234



Top Complaint HotSpot by Zip Code: 11385



Top Complaint HotSpot by Zip Code: 11368



- Complaint Type
- Animal Abuse
  - Bike/Roller/Skate ...
  - Blocked Driveway
  - Derelict Vehicle
  - Disorderly Youth
  - Drinking
  - Homeless Encamp..
  - Illegal Fireworks
  - Illegal Parking
  - Noise - Commercial
  - Noise - House of ..
  - Noise - Park
  - Noise - Street/Side..
  - Noise - Vehicle
  - Panhandling
  - Posting Advertise..
  - Traffic
  - Urinating in Public
  - Vending

# AND THE RESEARCH CONTINUES

## RECOMMENDATIONS

**FOR BLOCKED DRIVEWAY AND/OR ILLEGAL PARKING COMPLAINTS THE NYPD FOLLOWS UP AND IF VEHICLE IS STILL IN COMPLAINT CONDITION IT IS TICKETED AND THEN TOWED TO THE POUND**

**FOR COMMERCIAL + STREET/SIDEWALK NOISE COMPLAINTS THE NYPD FOLLOWS UP AND EITHER FINES THE SOURCE OF THE NOISE OR GETS THEM TO QUITE DOWN**

**CURRENTLY THE NYPD DOES NOT HAVE ANY SPECIFIC OFFICERS ON THE FORCE TASKED TO ANY 311 COMPLAINTS. THEY ARE ASSIGNED TO AN OFFICER NEAR BY AFTER THE EMERGENCY CALLS ARE PERFORMED. IN MOST CASES THE SOURCE CAUSE OF THE COMPLAINT IS NO WHERE TO BE SEEN BY THE TIME THE OFFICER SHOWS UP**

**THIS CAUSES INACCURATE DATA FOR HOW LONG IT REALLY TAKES TO CLOSE A COMPLAINT TICKET. NYPD SHOULD ASSIGN A TASK FORCE SPECIFIC FOR 311 COMPLAINTS SINCE THESE COMPLAINTS ARE INCREASING.**

## FURTHERMORE

**THIS DATA IS CONSTANTLY REOCCURRING. THESE ANALYTICS WILL BE COMPARED TO 2016 DATA FOR IMPROVEMENT AND/OR INCREASED IN COMPLAINTS.**



# LINK TO INTERACTIVE CHARTS ONLINE

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S O F T W A R E

**NYC** OpenData