

NYPD Complaints and Crime Statistics

2018 04 19

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Background:

- **Data:** NYPD Complaint Data Historic
- From free government repository via the NYC Open Data portal on NYC.gov
- Includes: valid felony, misdemeanor, and violation crimes reported to the New York City Police Department (NYPD) from 2006 to 2016.

Data:

24 features

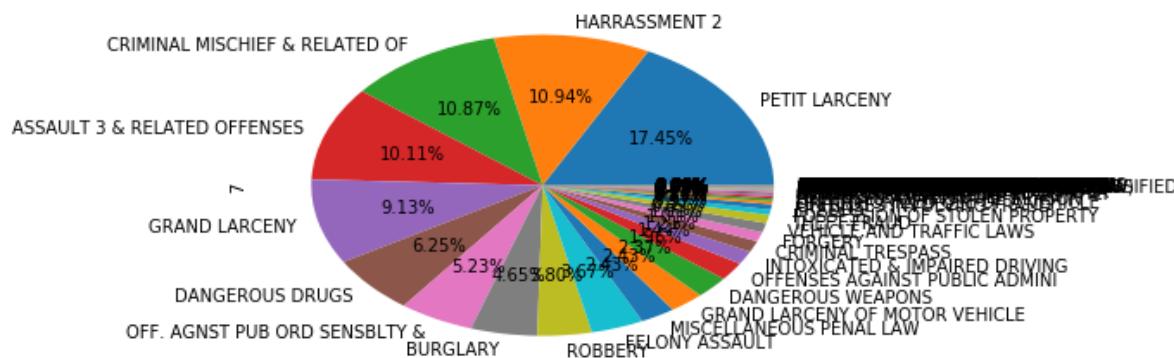
5.6 million crimes

A	B	C	D	E	F	G	H	I	J	K	L	M
1 CMPLNT_NU	CMPLNT_FR	CMPLNT_FR	CMPLNT_TO	CMPLNT_TO	RPT_DT	KY_CD	OFNS_DESC	PD_CD	PD_DESC	CRM_ATPT_C	LAW_CAT_CI	JURIS_DESC
2 101109527	12/31/15	23:45:00			12/31/15	113	FORGERY	729	FORGERY,ET	COMPLETED	FELONY	N.Y. POLICE
3 153401121	12/31/15	23:36:00			12/31/15	101	MURDER & NON-NEGL. MANSLAUGHTER			COMPLETED	FELONY	N.Y. POLICE
4 569369778	12/31/15	23:30:00			12/31/15	117	DANGEROUS DRUGS	503	CONTROLLED	COMPLETED	FELONY	N.Y. POLICE
5 968417082	12/31/15	23:30:00			12/31/15	344	ASSAULT 3 & RELATED OFFENSES	101	ASSAULT 3	COMPLETED	MISDEMEAN	N.Y. POLICE
6 641637920	12/31/15	23:25:00	12/31/15	23:30:00	12/31/15	344	ASSAULT 3 & RELATED OFFENSES	101	ASSAULT 3	COMPLETED	MISDEMEAN	N.Y. POLICE
7 365661343	12/31/15	23:18:00	12/31/15	23:25:00	12/31/15	106	FELONY ASSAULT	109	ASSAULT 2,1, ATTEMPTED	FELONY		N.Y. POLICE
8 608231454	12/31/15	23:15:00			12/31/15	235	DANGEROUS DRUGS	511	CONTROLLED	COMPLETED	MISDEMEAN	N.Y. POLICE
9 265023856	12/31/15	23:15:00	12/31/15	23:15:00	12/31/15	118	DANGEROUS WEAPONS	792	WEAPONS P	COMPLETED	FELONY	N.Y. POLICE
10 989238731	12/31/15	23:15:00	12/31/15	23:30:00	12/31/15	344	ASSAULT 3 & RELATED OFFENSES	101	ASSAULT 3	COMPLETED	MISDEMEAN	N.Y. POLICE
11 415095955	12/31/15	23:10:00	12/31/15	23:10:00	12/31/15	341	PETIT LARCENY	338	LARCENY,PE	COMPLETED	MISDEMEAN	N.Y. POLICE
12 731283092	12/31/15	23:05:00	12/31/15	23:15:00	12/31/15	341	PETIT LARCENY	343	LARCENY,PE	COMPLETED	MISDEMEAN	N.Y. POLICE
13 178090167	12/31/15	23:00:00	12/31/15	23:05:00	12/31/15	341	PETIT LARCENY	338	LARCENY,PE	COMPLETED	MISDEMEAN	N.Y. POLICE
14 898496564	12/31/15	23:00:00			12/31/15	109	GRAND LARCENY	406	LARCENY,GR	COMPLETED	FELONY	N.Y. POLICE
15 566081066	12/31/15	23:00:00			12/31/15	109	GRAND LARCENY	415	LARCENY,GR	COMPLETED	FELONY	N.Y. POLICE
16 584555879	12/31/15	23:00:00			12/31/15	113	FORGERY	729	FORGERY,ET	COMPLETED	FELONY	N.Y. POLICE
17 715942154	12/31/15	23:00:00	12/31/15	23:05:00	12/31/15	105	ROBBERY	386	ROBBERY,PE	COMPLETED	FELONY	N.Y. POLICE
18 338440707	12/31/15	23:00:00	12/31/15	23:10:00	12/31/15	109	GRAND LARCENY	411	LARCENY,GR	COMPLETED	FELONY	N.Y. POLICE
19 433257334	12/31/15	23:00:00	12/31/15	23:05:00	12/31/15	359	OFFENSES AGAINST PUBLIC ADMINI	748	CONTEMPT,C	COMPLETED	MISDEMEAN	N.Y. POLICE
20 761004485	12/31/15	23:00:00	12/31/15	23:05:00	12/31/15	344	ASSAULT 3 & RELATED OFFENSES	101	ASSAULT 3	COMPLETED	MISDEMEAN	N.Y. POLICE
21 234892198	12/31/15	22:55:00	12/31/15	23:10:00	12/31/15	351	CRIMINAL MISCHIEF & RELATED OF	259	CRIMINAL M	COMPLETED	MISDEMEAN	N.Y. POLICE
22 231688534	12/31/15	22:53:00	12/31/15	22:55:00	12/31/15	235	DANGEROUS DRUGS	511	CONTROLLED	COMPLETED	MISDEMEAN	N.Y. POLICE
23 340513307	4/6/15	12:00:00	4/10/15	18:00:00	12/21/15	104	RAPE	155	RAPE 2	COMPLETED	FELONY	N.Y. POLICE
24 704037588	12/31/15	22:50:00	12/31/15	22:57:00	12/31/15	235	DANGEROUS DRUGS	511	CONTROLLED	COMPLETED	MISDEMEAN	N.Y. POLICE

Q. What are the most frequent crimes over 10 years in New York?

The most frequent crimes between 2006 – 2016

PETIT LARCENY	688005
HARRASSMENT 2	431275
CRIMINAL MISCHIEF & RELATED OF	428688
ASSAULT 3 & RELATED OFFENSES	398708
GRAND LARCENY	359811
DANGEROUS DRUGS	246411
OFF. AGNST PUB ORD SENSBLTY &	206066
BURGLARY	183337
ROBBERY	149707
FELONY ASSAULT	144699

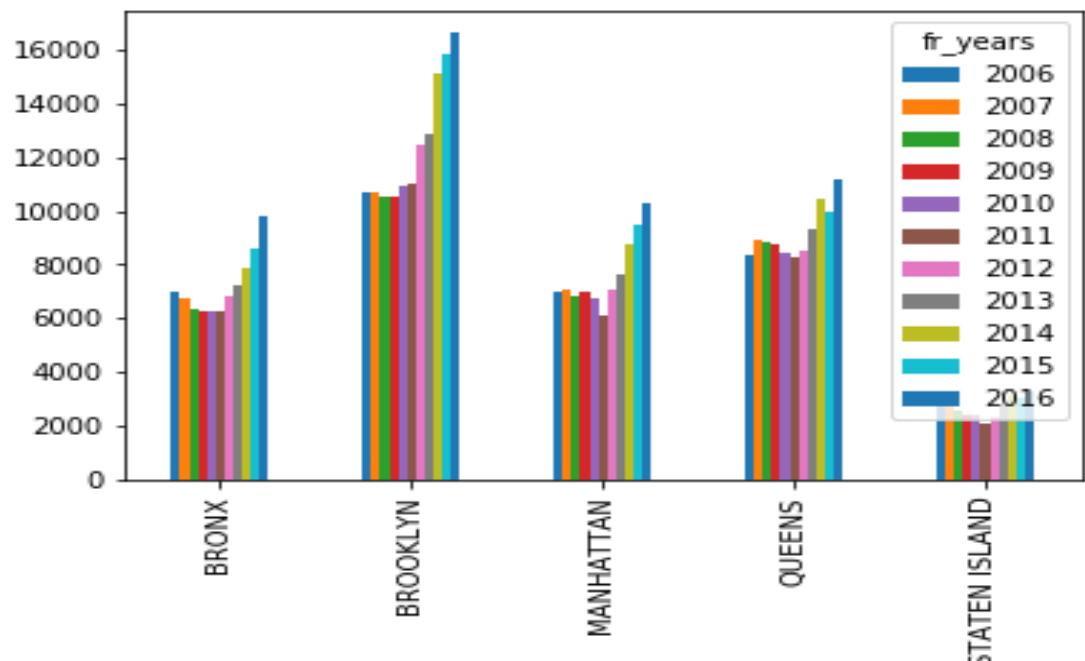


Q. How does 'Harassment' complaints relate to each year?

'HARASSMENT 2' statistics by city from 2006 to 2016

BROOKLYN	137079
QUEENS	100964
MANHATTAN	84029
BRONX	79179
STATEN ISLAND	30024

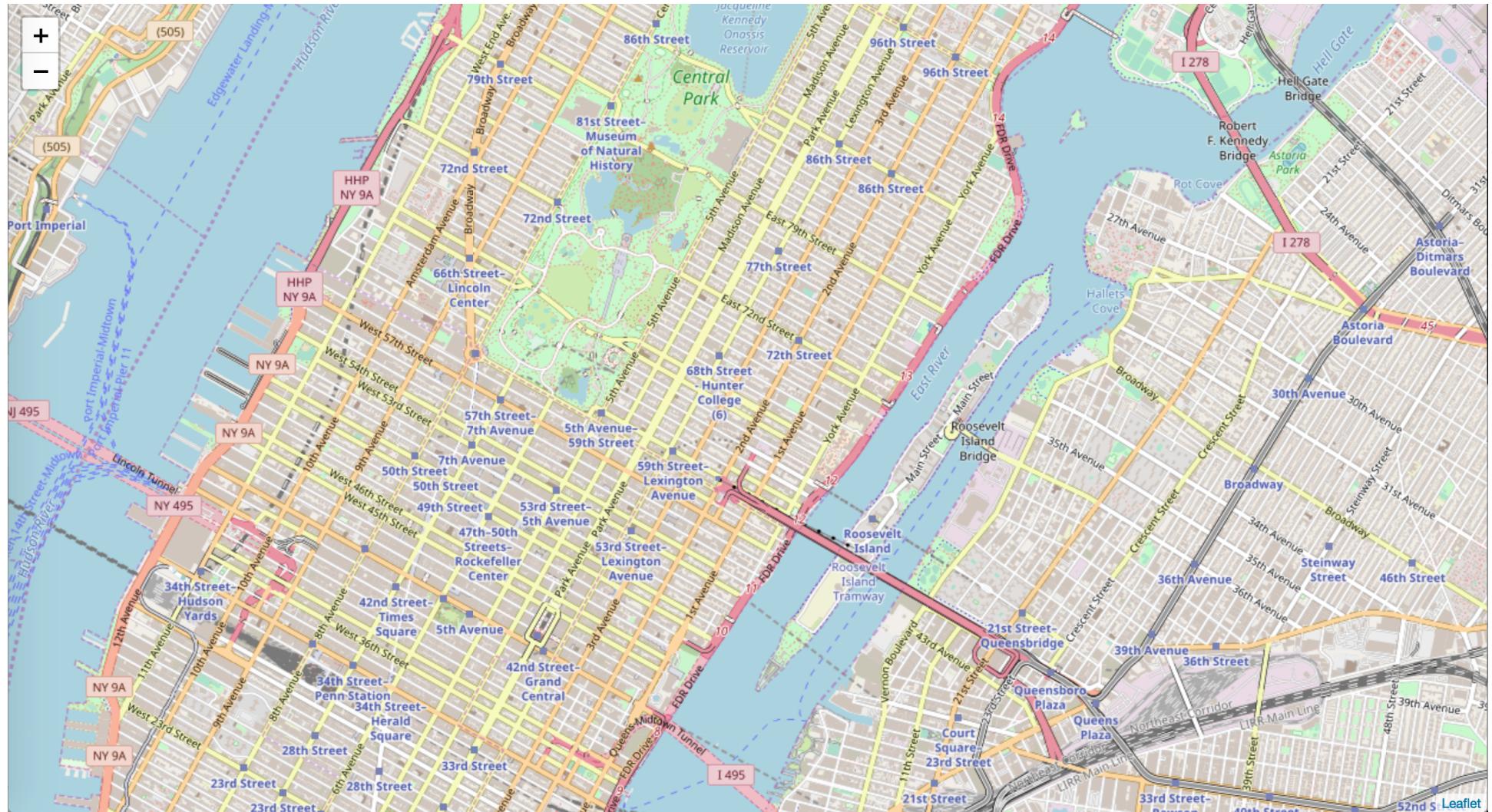
'HARASSMENT 2' crimes in each city with respective year



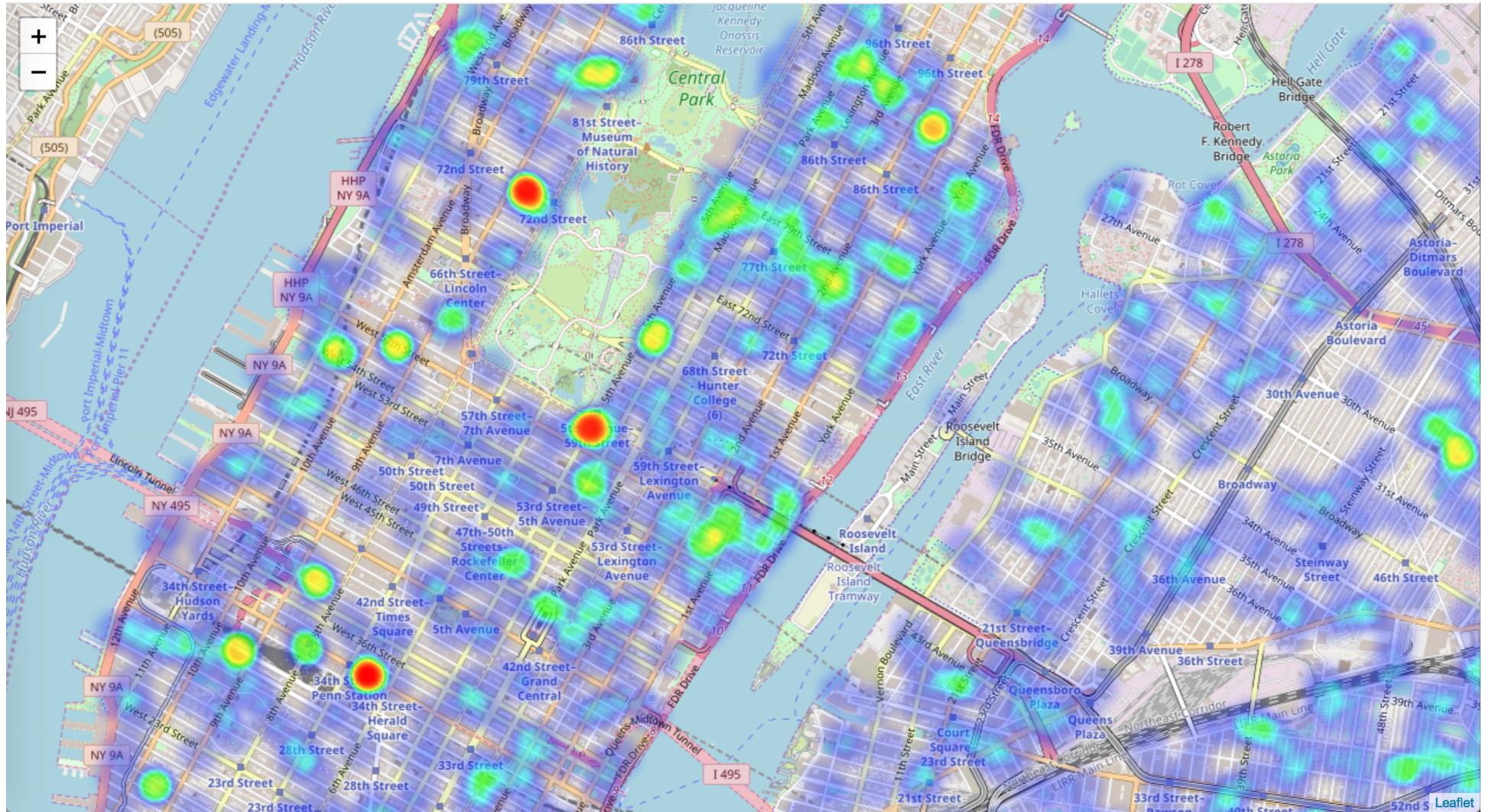
Q. How long does it take to close the crime?

Total minutes taken		Crimes that takes 547 days to close
5.0	527289	27435 BURGLARY
10.0	364559	143061 HARRASSMENT 2
15.0	233072	224522 OFF. AGNST PUB ORD SENSBLTY &
0.0	222278	244856 THEFT-FRAUD
30.0	213119	933785 GRAND LARCENY
20.0	119527	1806860 GRAND LARCENY
60.0	105768	1932161 HARRASSMENT 2
2.0	78363	2027358 GRAND LARCENY
1.0	68354	2334642 GRAND LARCENY
3.0	59321	2635346 THEFT-FRAUD
4.0	48384	2970653 GRAND LARCENY
6.0	44470	3684636 OTHER OFFENSES RELATED TO THEF
7.0	43223	3954257 OFF. AGNST PUB ORD SENSBLTY &
120.0	41029	

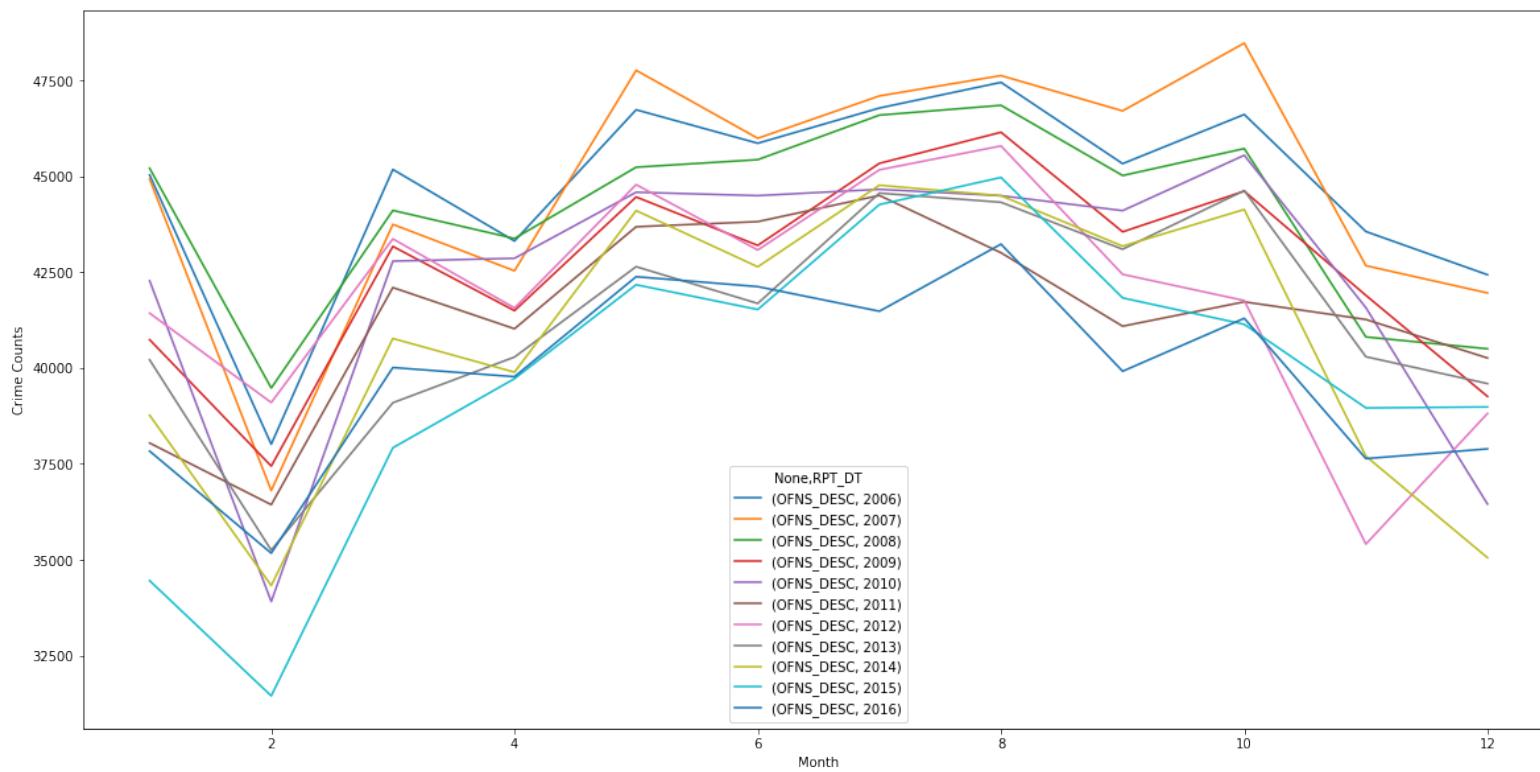
New York (Manhattan) Crimes that take more than 546 days to close



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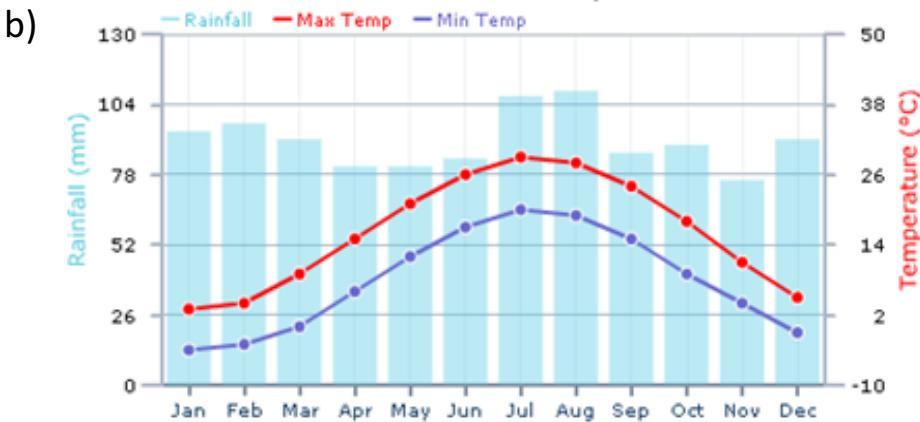


Which year or month has the most crimes? Are the crimes related to seasons or weather?



The monthly average of crimes from 2006 to 2016.

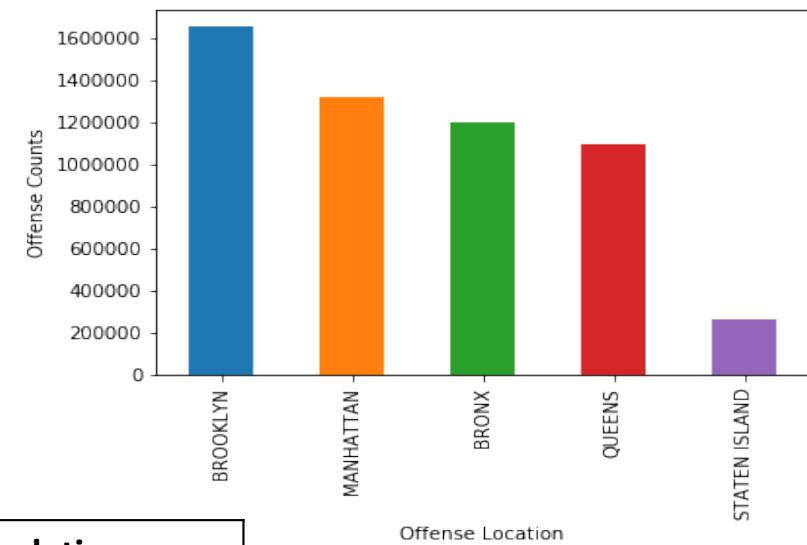
Which year or month has the most crimes? Are the crimes related to seasons or weather?



a) The mean crimes of each month from 2006 to 2016. b) The average temperature of New York City each month.

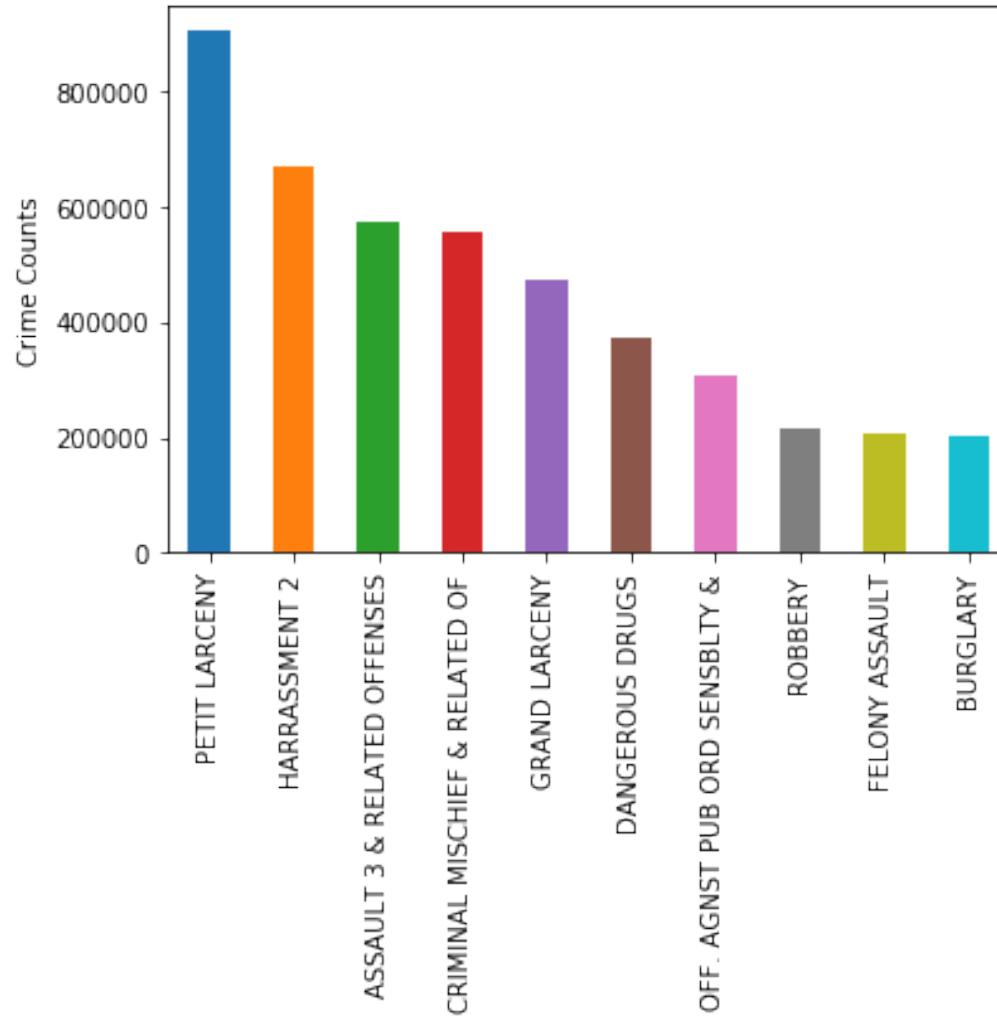
- The correlation of crimes to average temperature over months is 0.95
- It seems the crimes are correlated to temperature except January.

How are crimes correlated to demographic and population data geographically?



Area	Crimes	population_2010	population_per_acre
BROOKLYN	151919	2504700	55.3
MANHATTAN	120960	1585873	108.5
BRONX	111824	1385108	51.4
QUEENS	99082	2230722	32.1
STATEN ISLAND	24063	468730	12.5

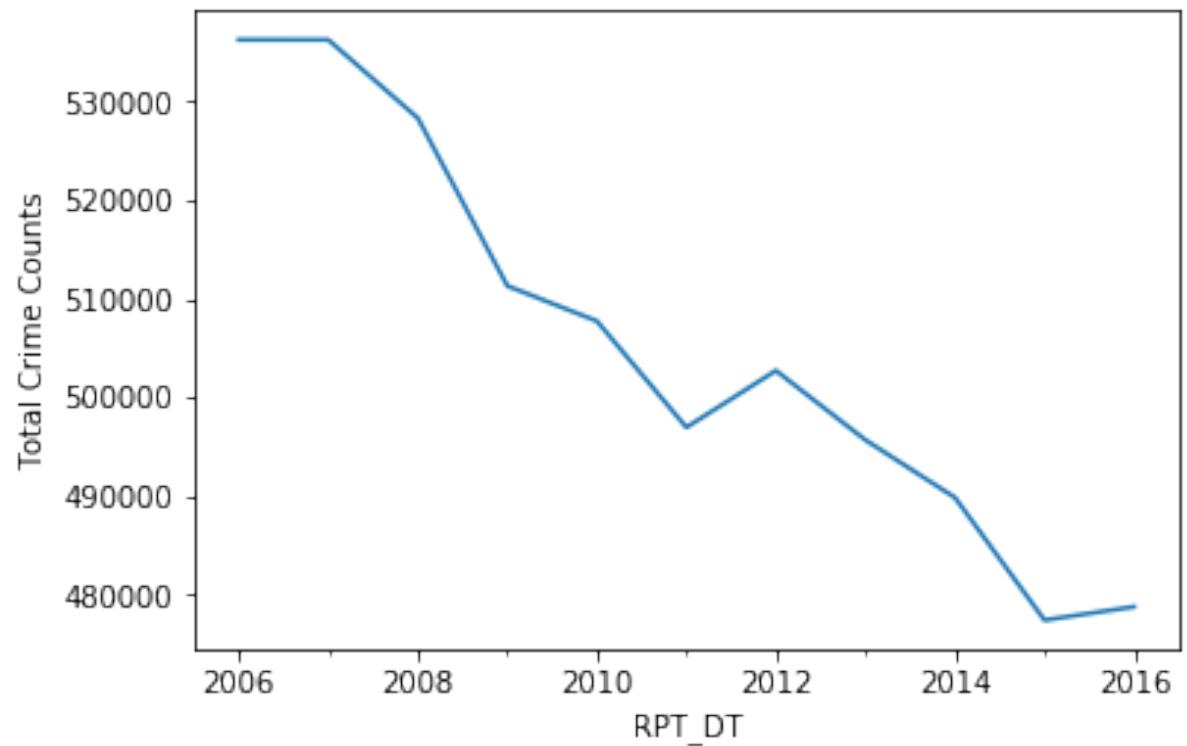
Top 10 most frequent crimes:



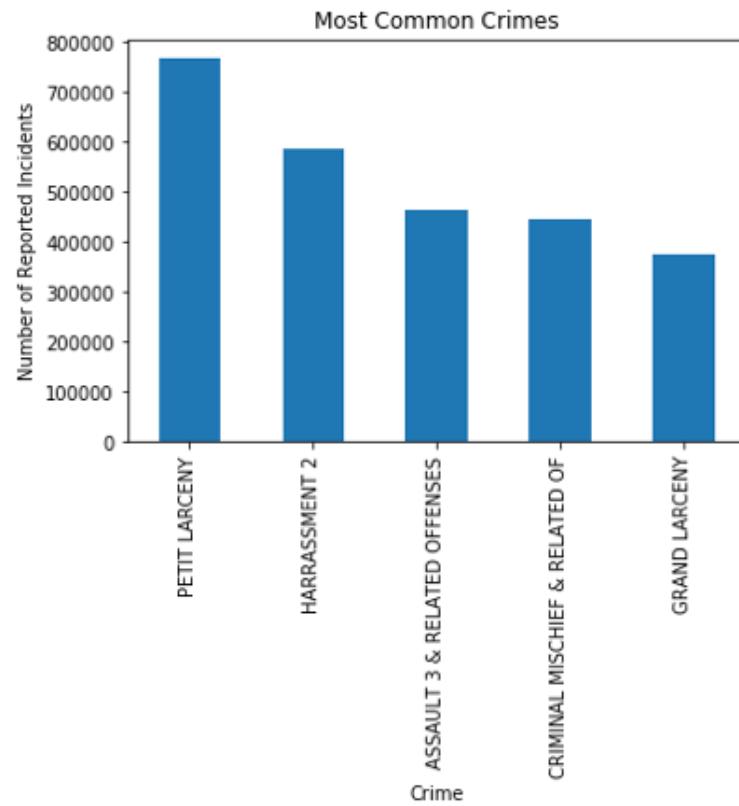
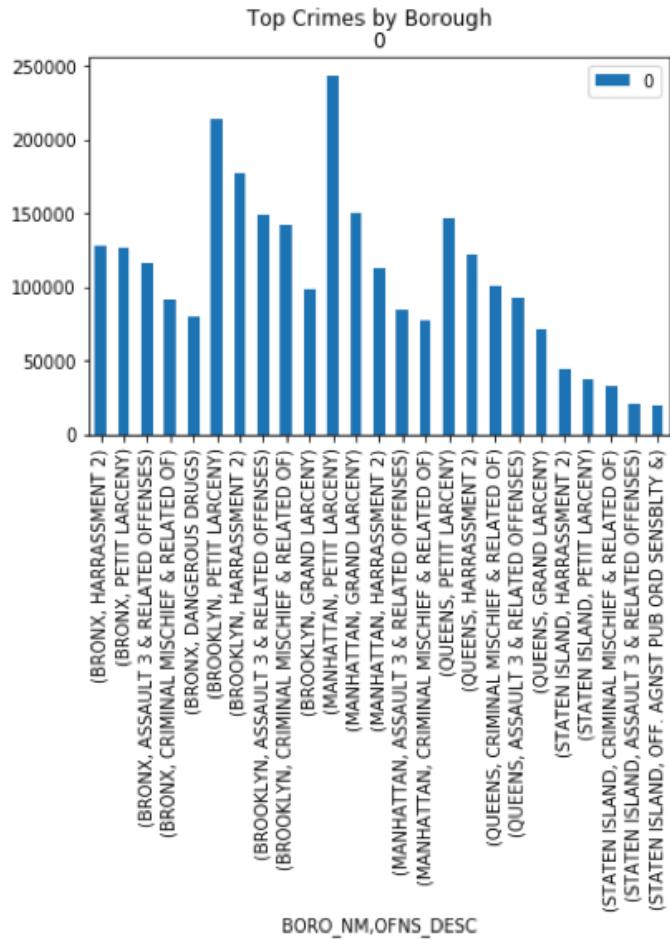
Crimes counts over 2006-2016:

RPT_DT	
2006	536263
2007	536261
2008	528317
2009	511293
2010	507730
2011	496945
2012	502701
2013	495662
2014	489825
2015	477394
2016	478752

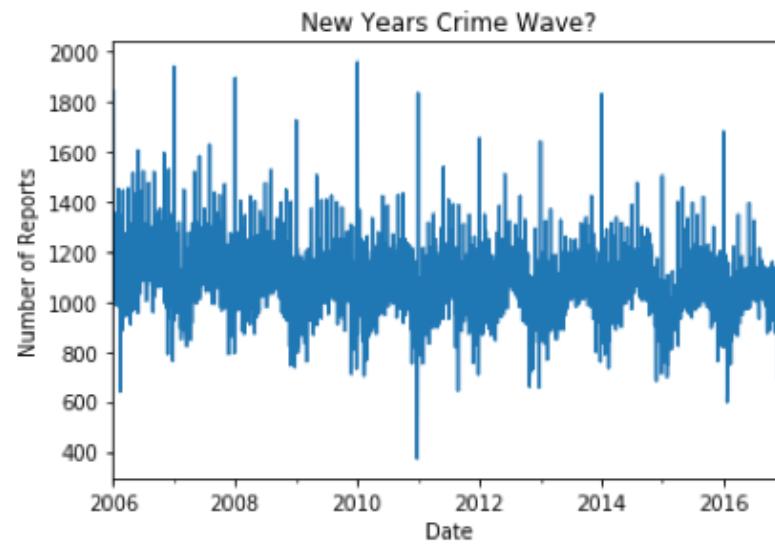
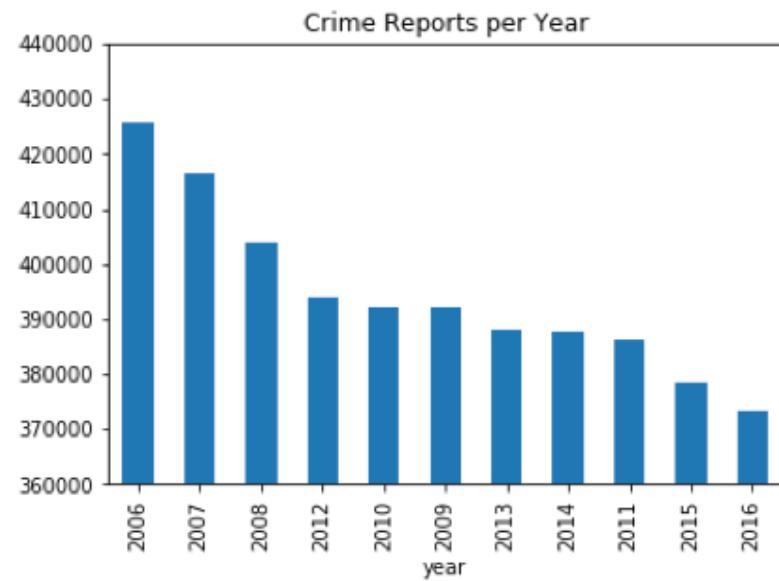
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What are the most frequent crimes? Does this differ by borough



Does crime fluctuate over time? What are the crime trends from 2006–2016?



Thank you



Future: Data Science Fights against Crimes