

# Chicago Crime 2019



Intent to inform

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The iconic “City of the Big Shoulders”, the “Windy City”, the “Second City”, can bring up many nicknames and images....

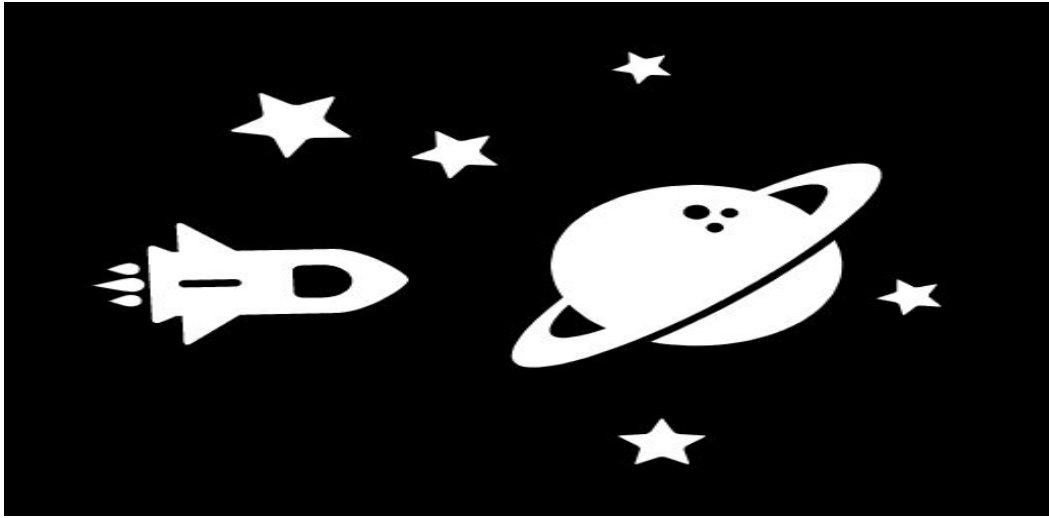


# One that's not flattering.....crime.

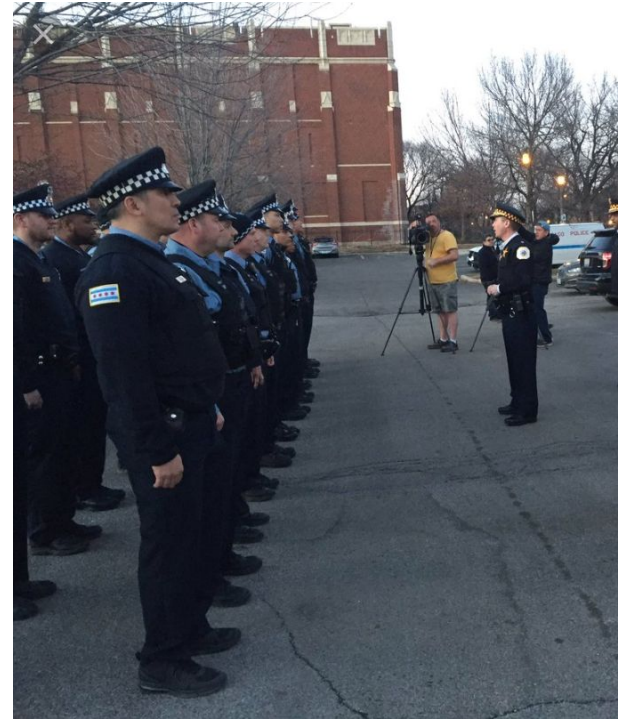
Among other things, the French Ministry has urged its citizens to avoid the West Side and anywhere south of 59th Street.



**Amateurs.....**



Case for reason, science, exploratory spirit





Theft



Battery



Criminal  
Damage

50%+

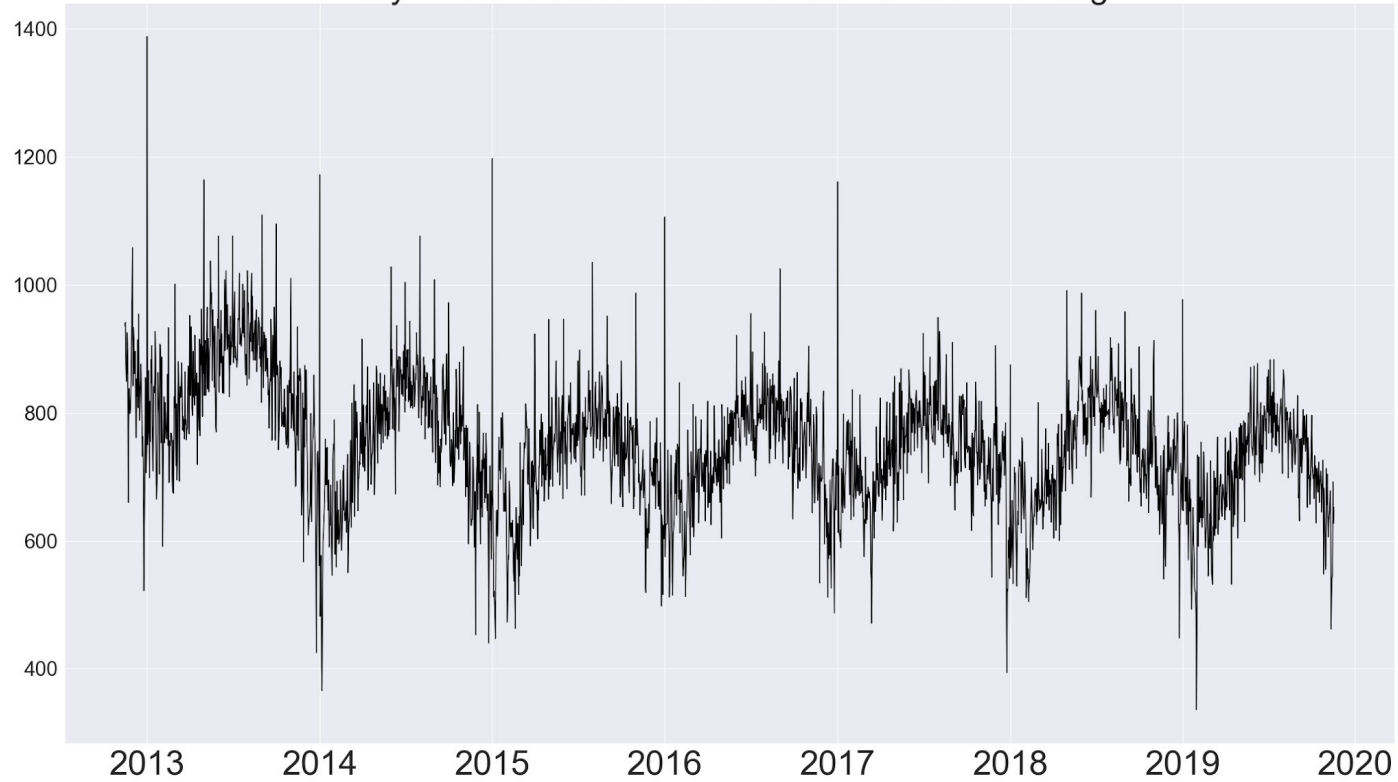
Whoa! That's a big number.

# Constituents can investigate their areas of interest

Austin	BATTERY	0.227454
	NARCOTICS	0.175675
	THEFT	0.124442
	CRIMINAL DAMAGE	0.092677
	ASSAULT	0.073121
Near North	THEFT	0.474187
	DECEPTIVE PRACTICE	0.128927
	BATTERY	0.113492
	CRIMINAL DAMAGE	0.062055
	ASSAULT	0.036820



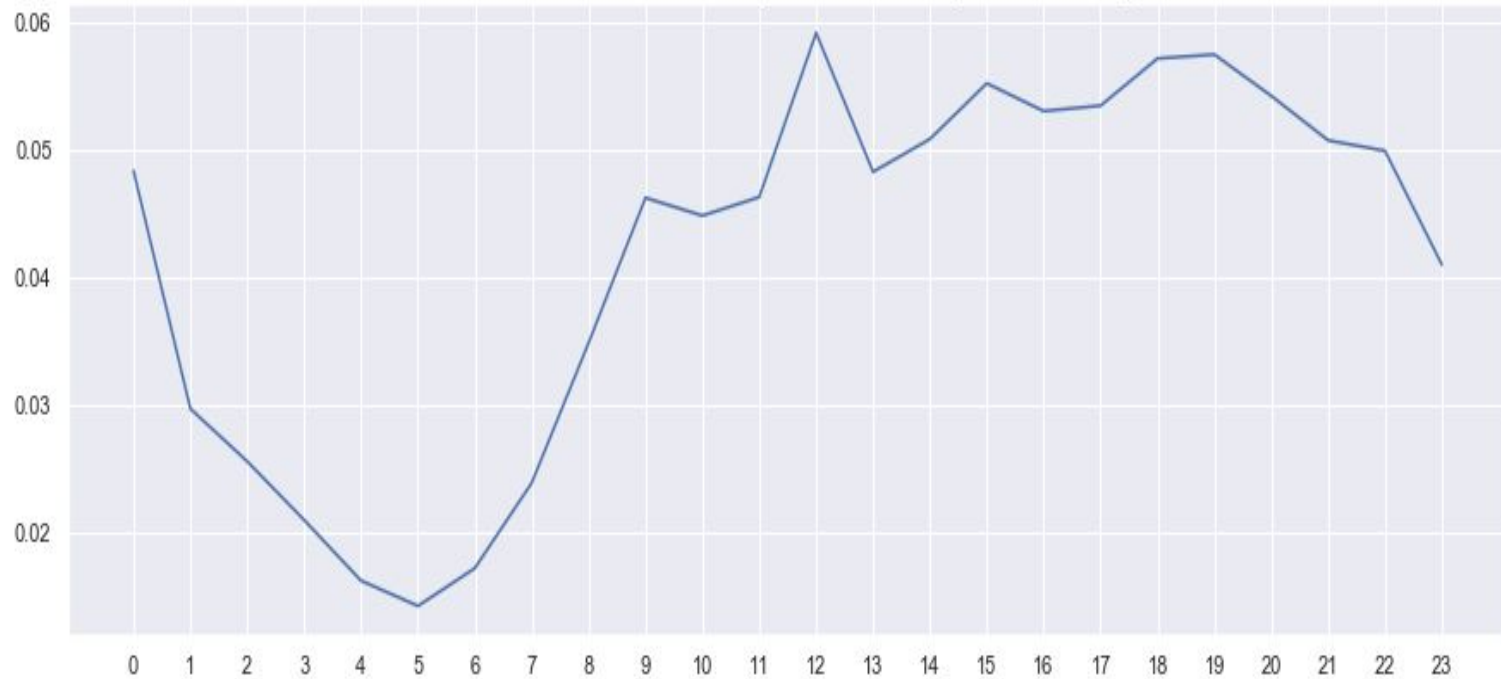
Daily Crime Rate Nov 2012 to Nov 2019: All Chicago







Overall Crime Rates By Hour of Day: All Chicago



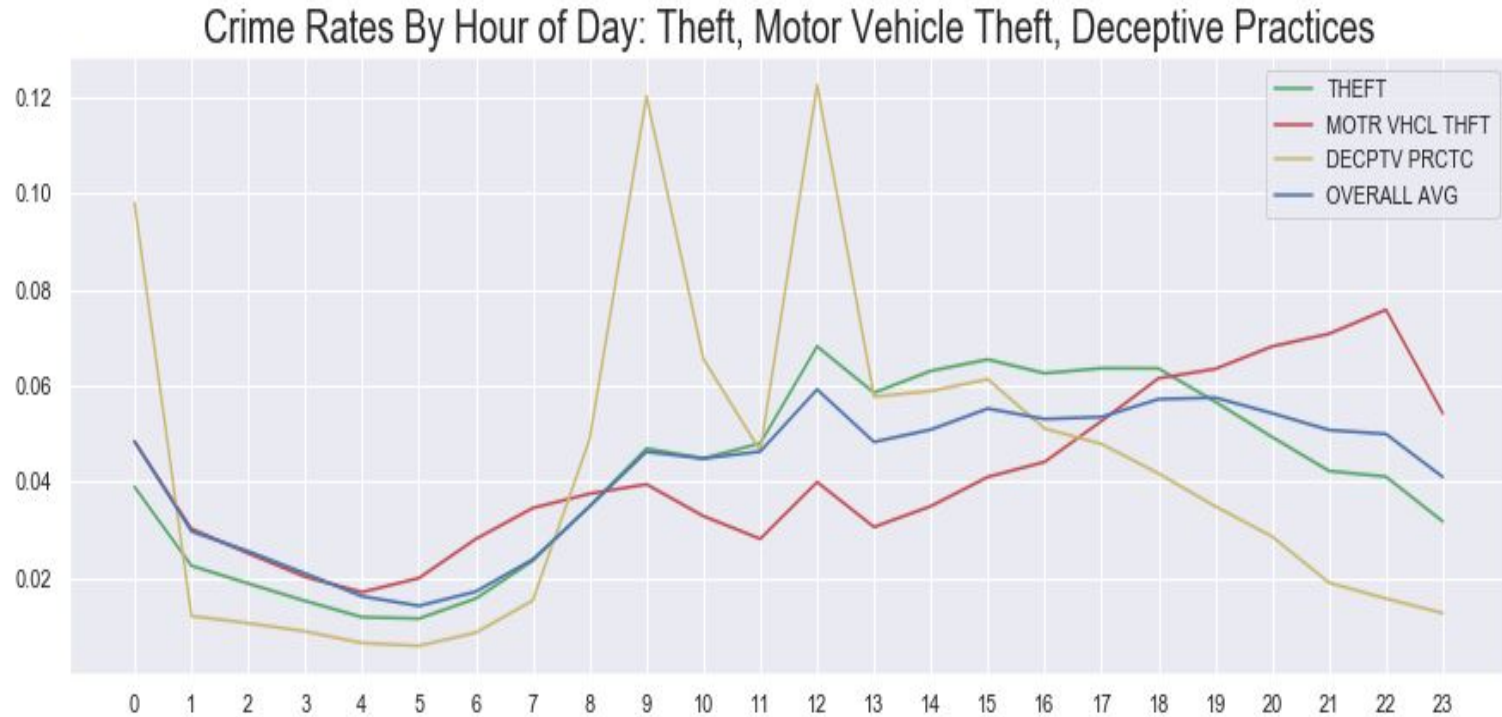
Troughs ~ 6AM =====> Peaks ~ 6PM

# The Big Violent Crime Types

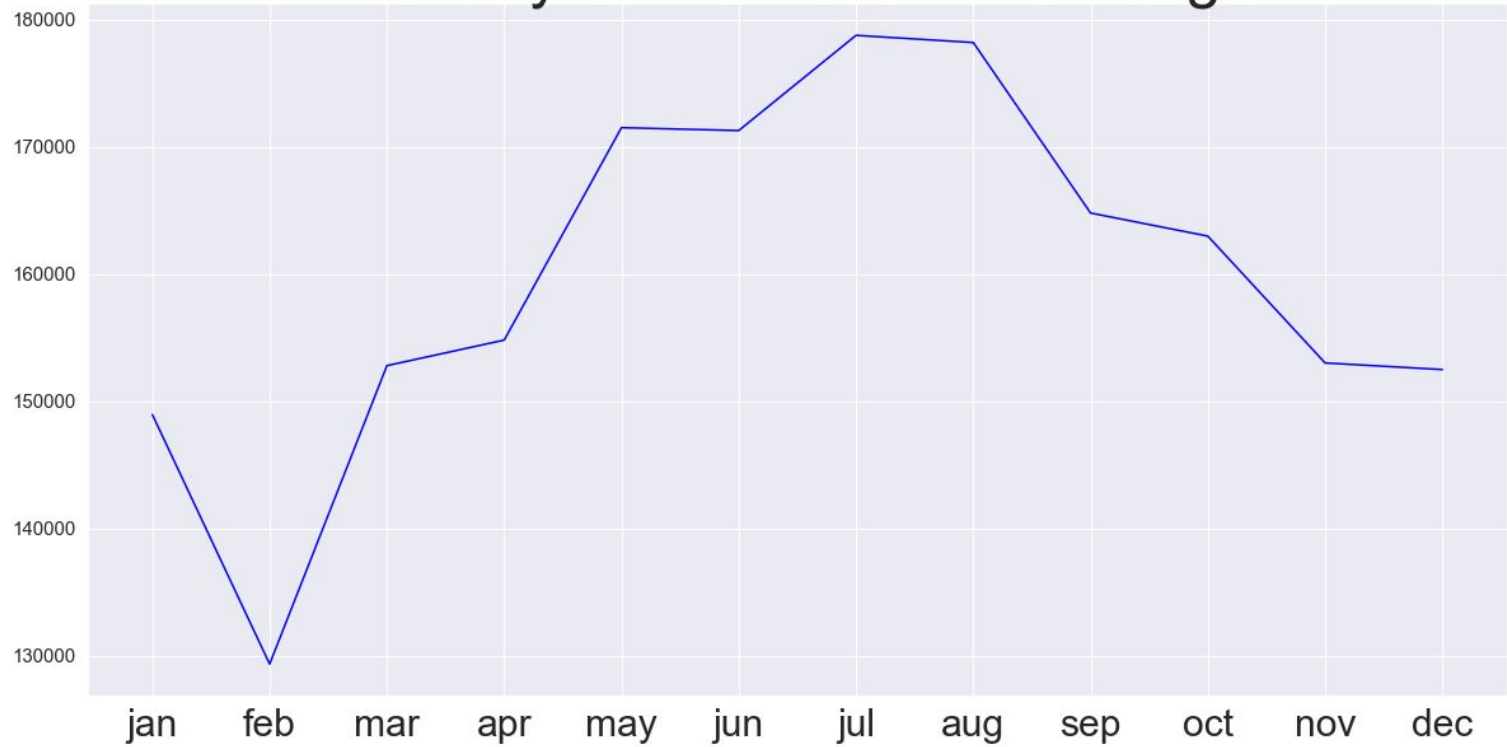
Crime Rates By Hour of Day: Homicide, Battery, Robbery



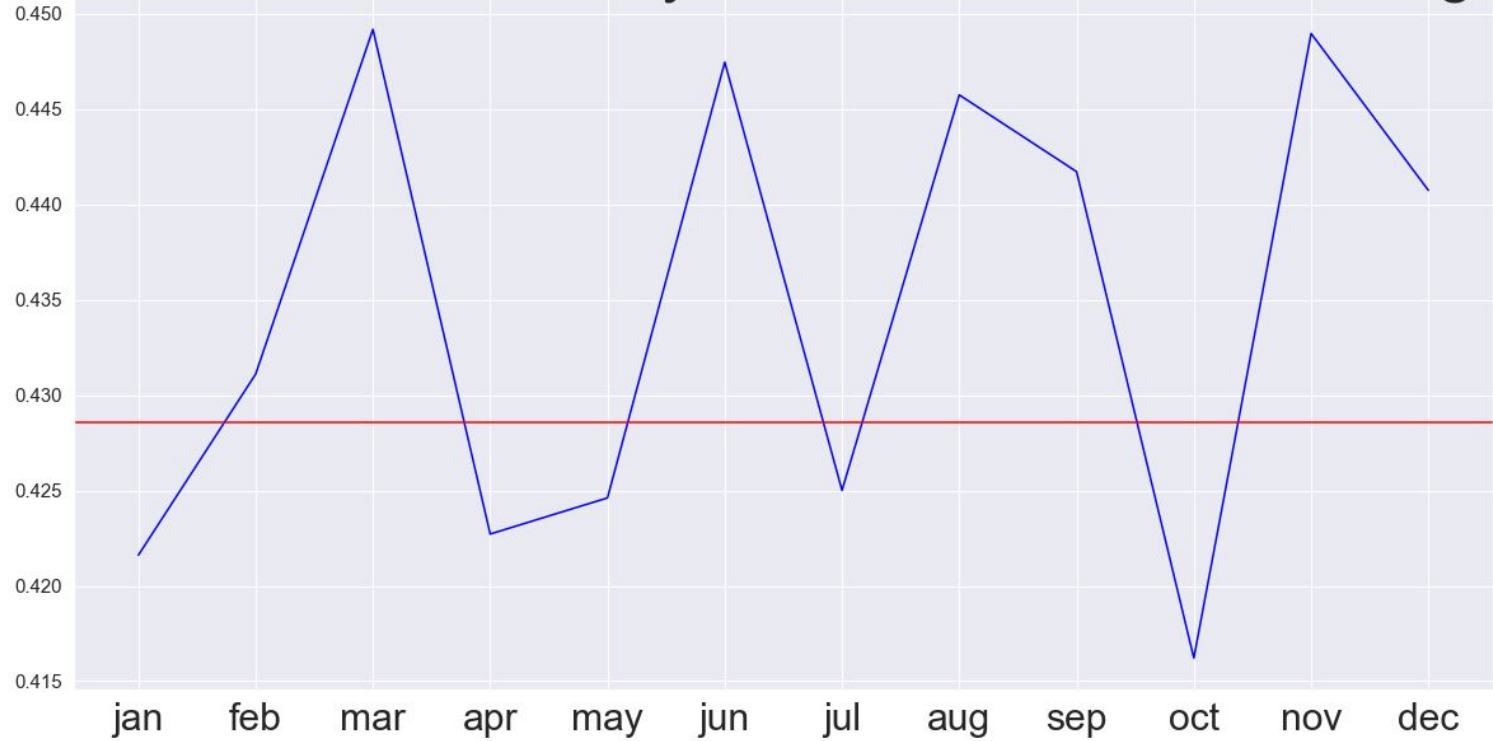
# Underlying surprises:



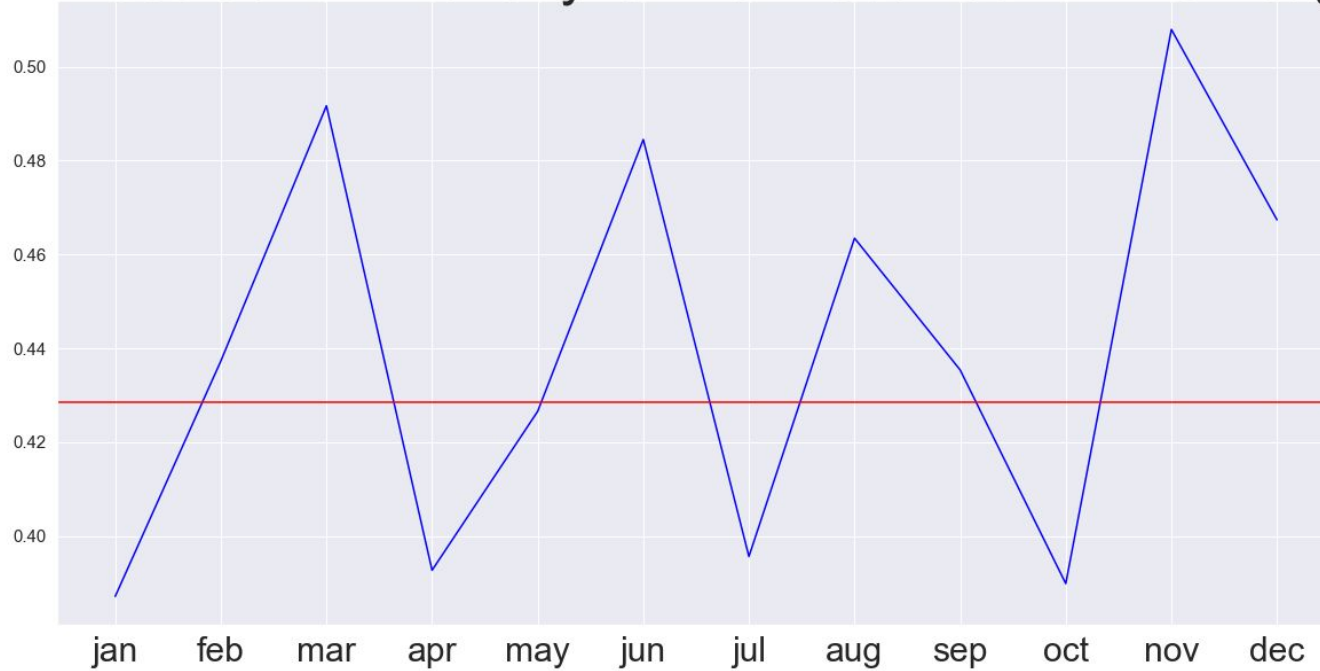
# Monthly Crime Rate: All Chicago



# Fri-Sat-Sun In Monthly Crime: 7 Years : All Chicago

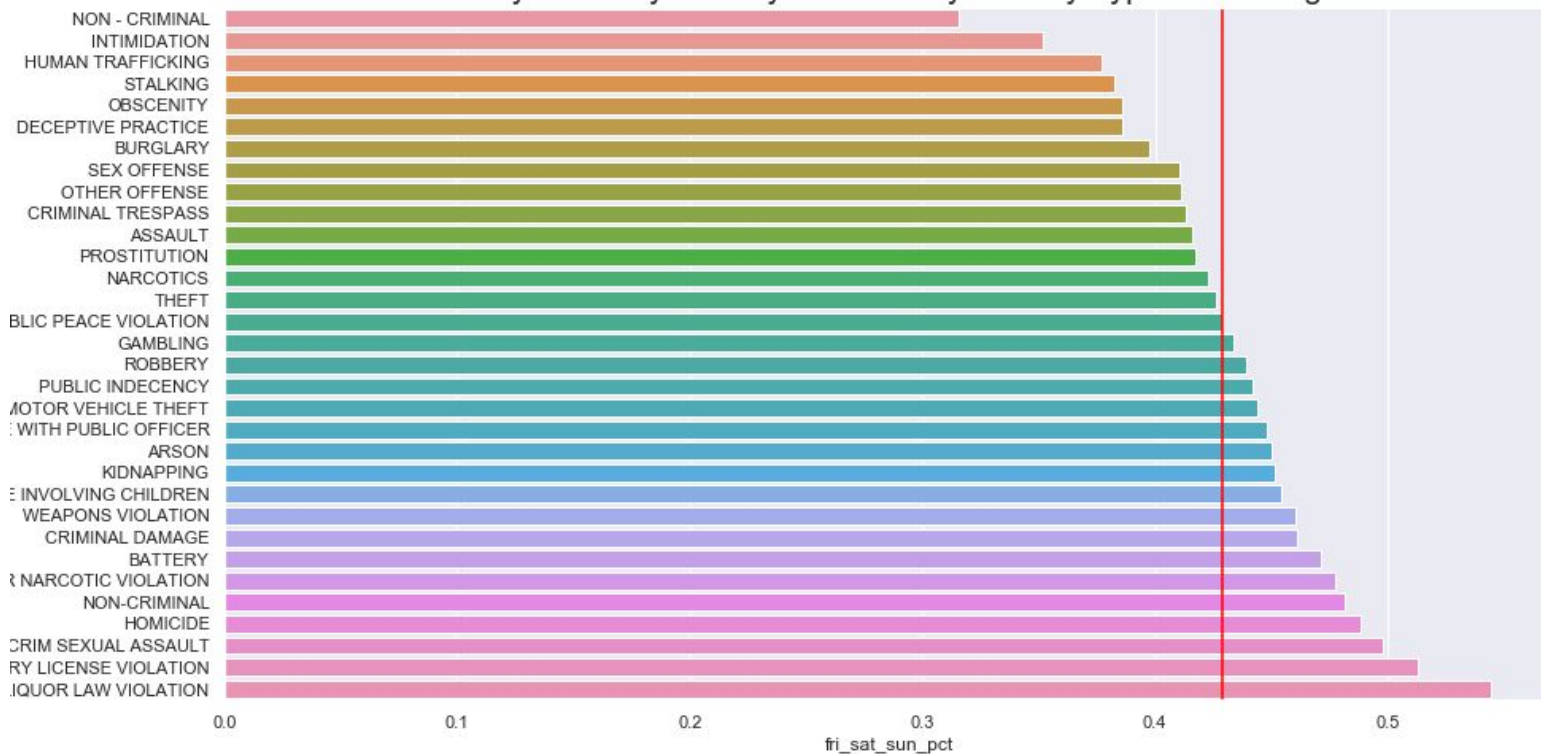


## Fri-Sat-Sun In Monthly Crime: Past Year : All Chicago



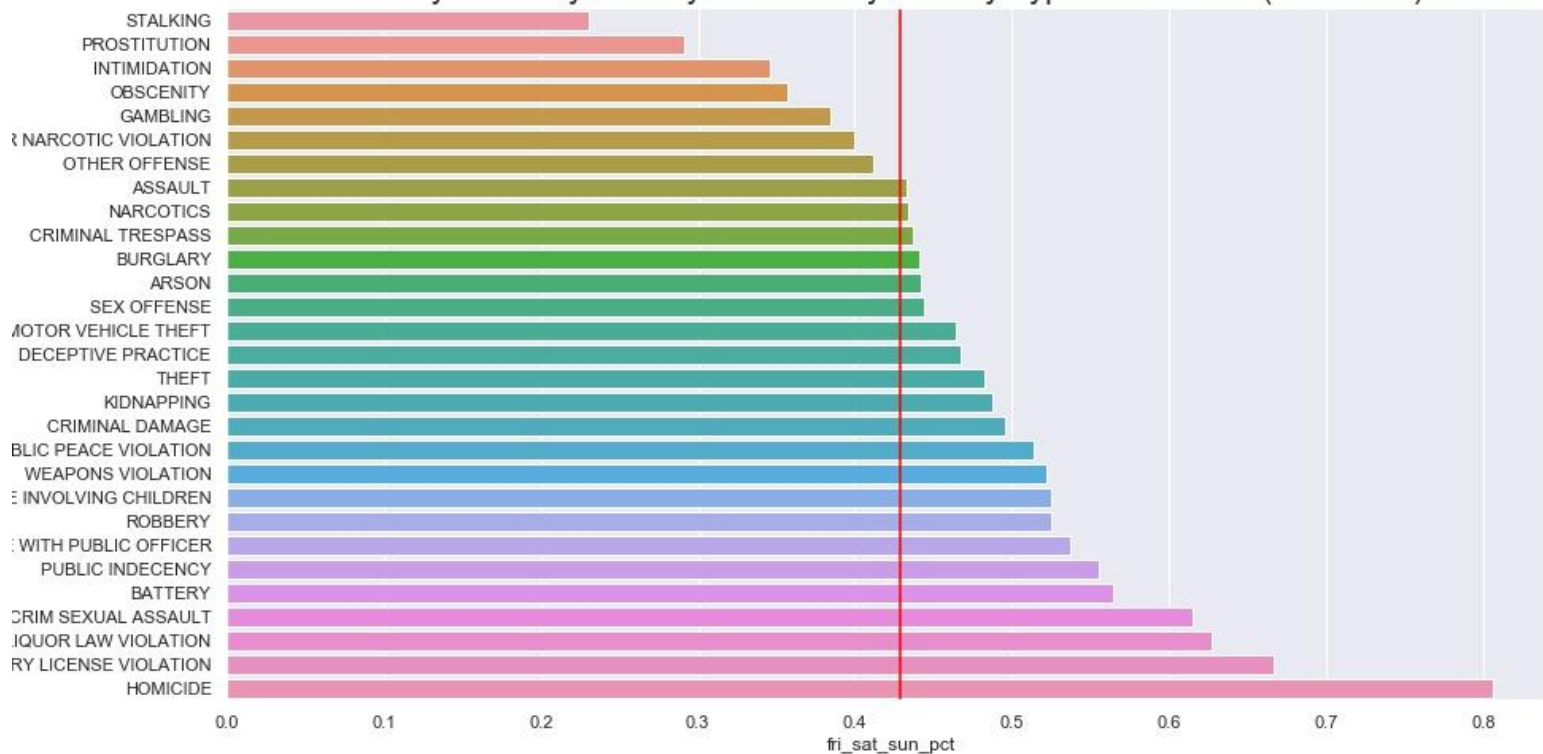
King of Swing swings even heavier

Friday-Saturday-Sunday Percents By Primary Type: All Chicago





Friday-Saturday-Sunday Percents By Primary Type: Near North (District 18)



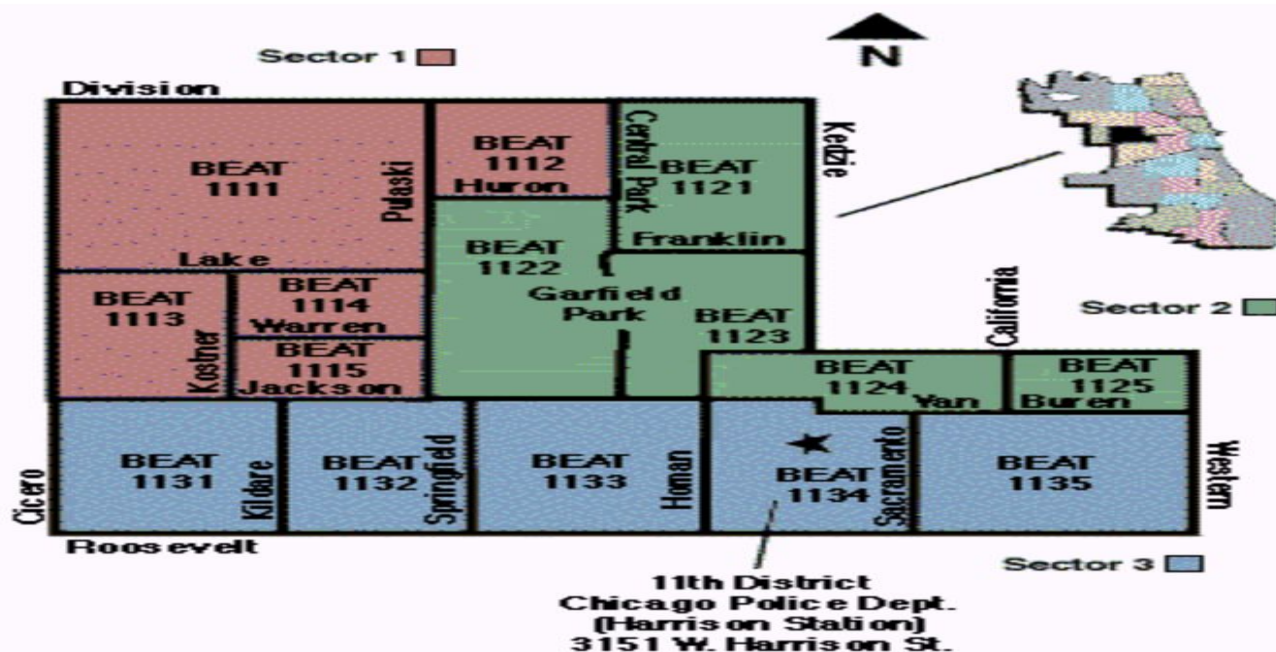
# District 11: Harrison



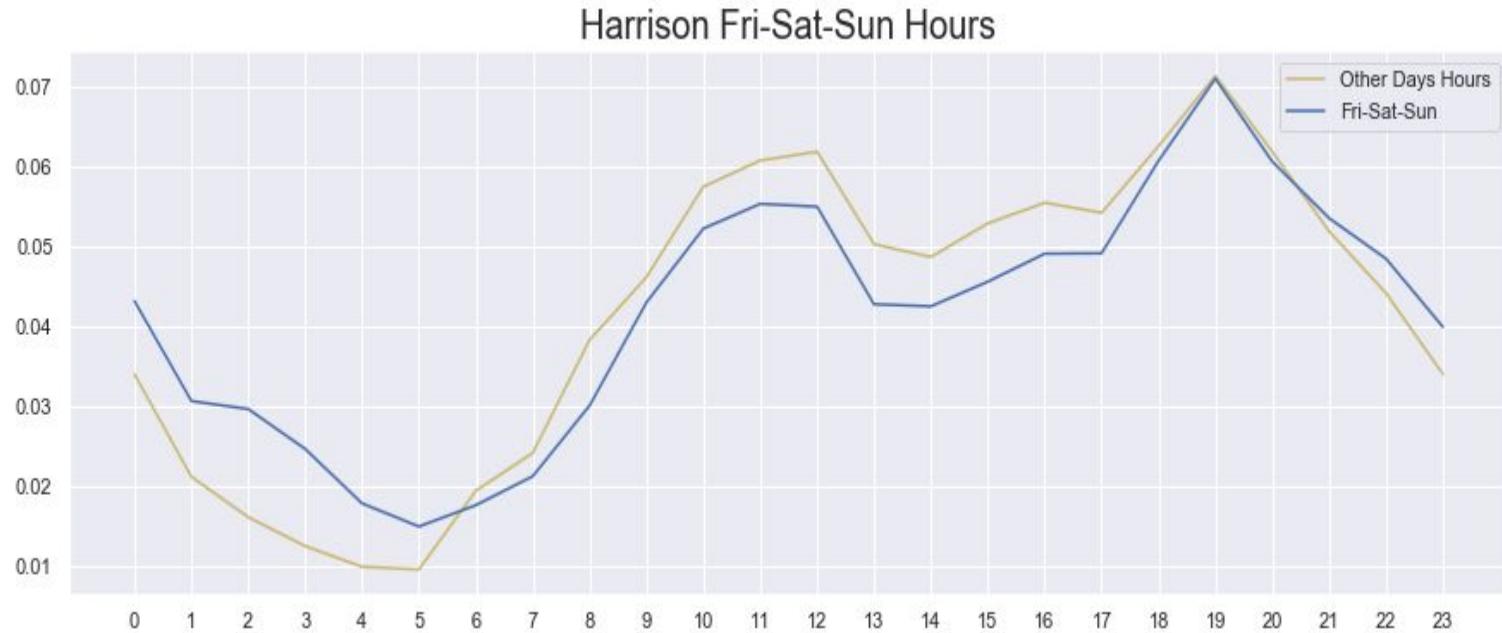
NARCOTICS	0.258367
BATTERY	0.192131
THEFT	0.108826
CRIMINAL DAMAGE	0.080011
ASSAULT	0.064605
OTHER OFFENSE	0.052726
ROBBERY	0.044880
MOTOR VEHICLE THEFT	0.034106
DECEPTIVE PRACTICE	0.031933
BURGLARY	0.026231

MADISONST	2300
FILLMOREST	1556
LEXINGTONST	1235
PULASKIRD	1205
WILCOXST	1203
MONROEST	1190

MADISONST	1294
JACKSONBLVD	1128
MONROEST	865
PULASKIRD	817
ADAMSST	804
WILCOXST	768



Not everything is an insight....



# Fiction or Fact ?

Full moons bring out the crazies.....

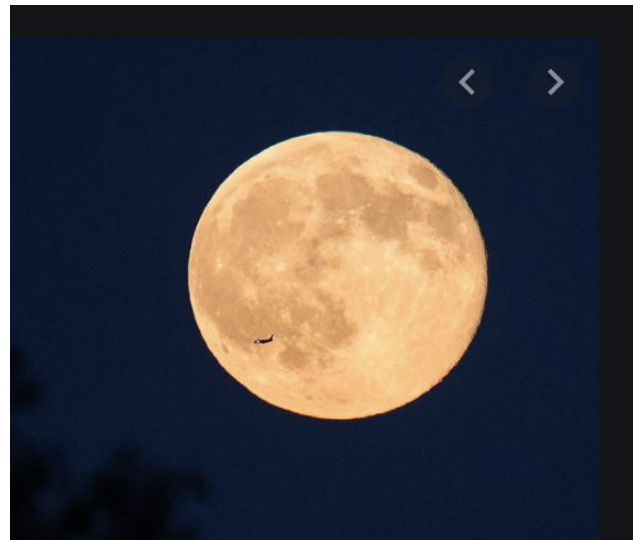
When it gets hot, people get shot !!

# Full Moons

**Null Hypothesis:** *The Null Hypothesis is that there is no difference in the the average number of crimes on those overnights when there is no full moon than the average number of crimes on those overnights when there is a full moon.*

Collected an unbalanced set of 82 full moons to 2559 non; did take into consideration that an “overnight” consisted of the time period between 6 PM until 3 AM the following day.

Used the Mann-Whitney test be used for the unbalanced classes.



**NO.**

(p value = 0.2501)



# High, Hot Summer Temperatures

**Null Hypothesis:** *Null Hypothesis is that there is no difference in the average number of crimes committed on a summer June/July/August day when the high temperature reaches 85 deg F or above compared to the average number of crimes committed on a summer June/July/August day when the high temperature did not reach 85 deg F*

**Data from the NOAA O'Hare Field reporting station.**  
**Collected an unbalanced data set of 372 in the 85 or over category to 526 in the not over 85 degrees.**

**Used the Mann-Whitney test for the unbalanced classes.**



# YES.

( p value =  $6.12 \times 10^{-105}$  )