Chicago Crime Analysis

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Definitions

Assault

Occurs when one "engages in conduct which places another in reasonable apprehension of receiving a battery."

Arson

Arson is "the malicious burning of the dwelling of another." ²

Battery

Occurs when one "causes bodily harm" to a person. Or when someone "makes physical contact of an insulting or provoking nature with an individual."¹

Burglary

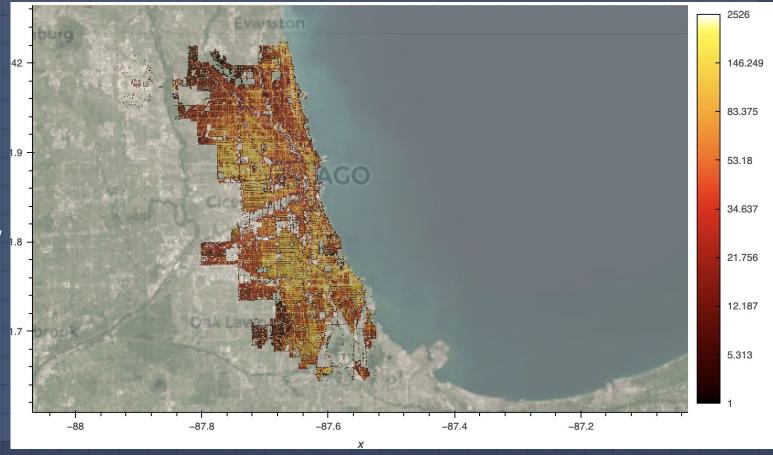
Occurs when "some form of illegally entering a building at night with the intent to commit a crime within"³

What are the crime hotspots in the city, and how have they changed over time?

Crime Hot Spots - Heat Map

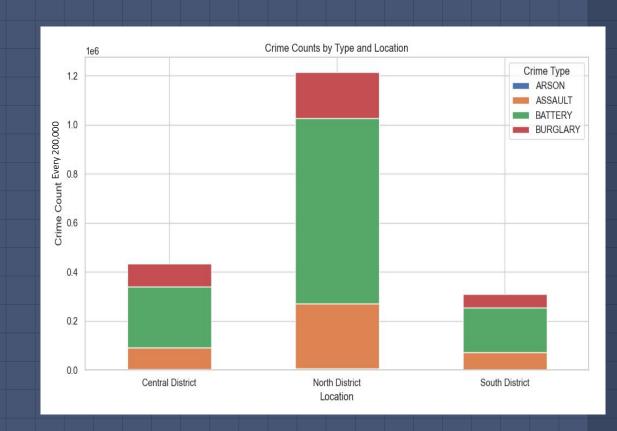


Provides a broad idea of crime density



Crime Hot Spots

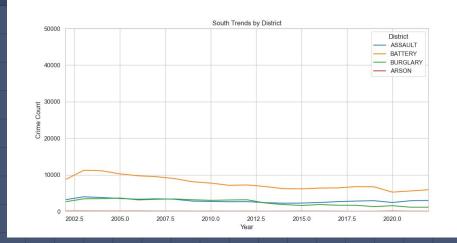
- North district highest count of the crime
 - District 17.0:174,295
 - Largest district
- South district has least crimes
 - Worth further
 investigation on if
 this is true for other
 types of crime
- Arson has very small number

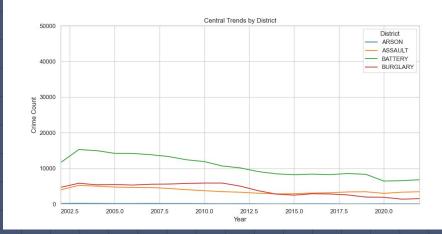


Crime Hot Spots Over Time

- Elevated near 2003
- North district has the most evident decrease in battery, but still having higher totals
- Same scales

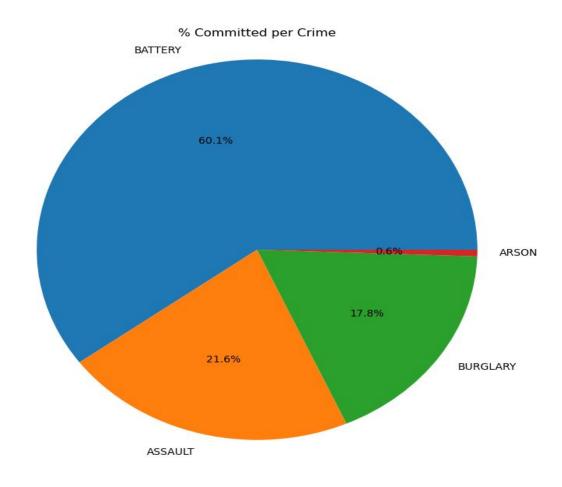






Where do the crimes typically take place and what is most common crime/location combination?

Order of Most Frequent Crime (Pie Chart Percent)



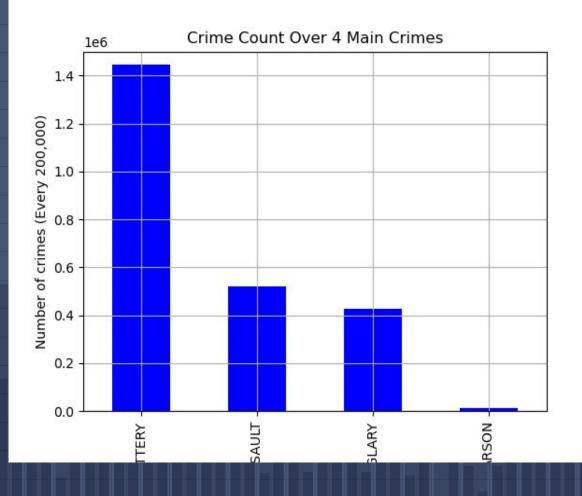
Order of Most Frequent Crime (Bar Chart Count)

BATTERY: 1,445,060

ASSAULT: 518,529

BURGLARY: 427,866

ARSON: 13,512



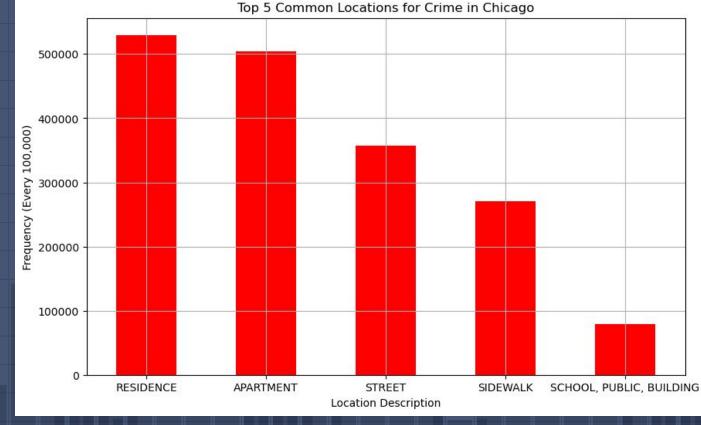
5 Most Common Locations

Residence: 529,659

Apartment: 504,073

Street: 357,434

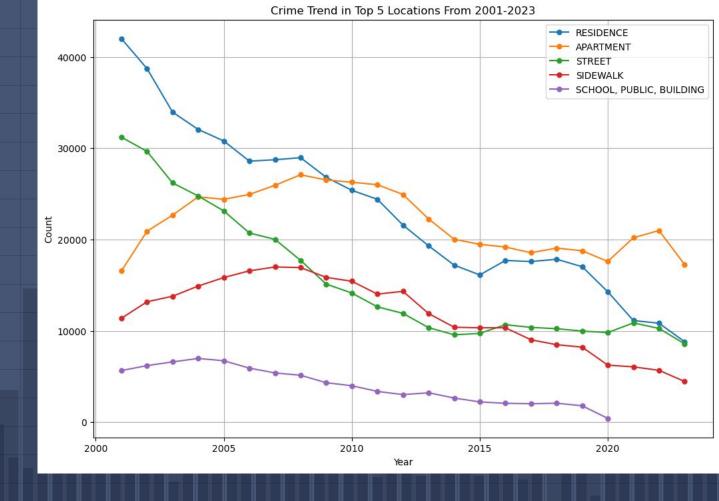
Sidewalk: 270,114



Public School Building: 79,531

Most Common Location: Residence

Line Graph for Crime Trend in Top 5 Locations



Battery Count for Each Location

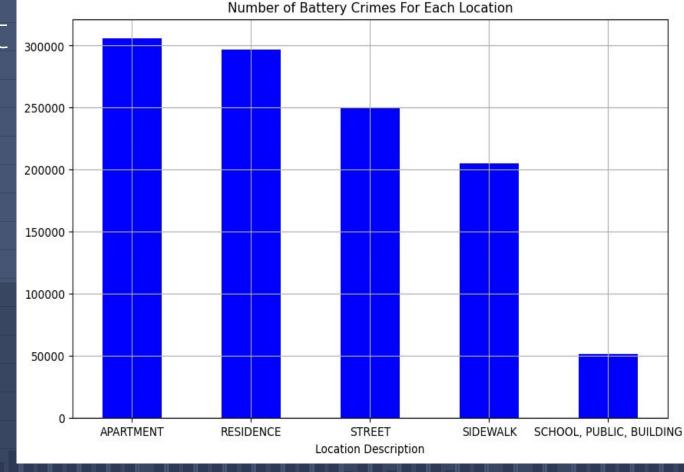
Apartment: 306,046

Residence: 297,136

Street: 249,234

Sidewalk: 204,853

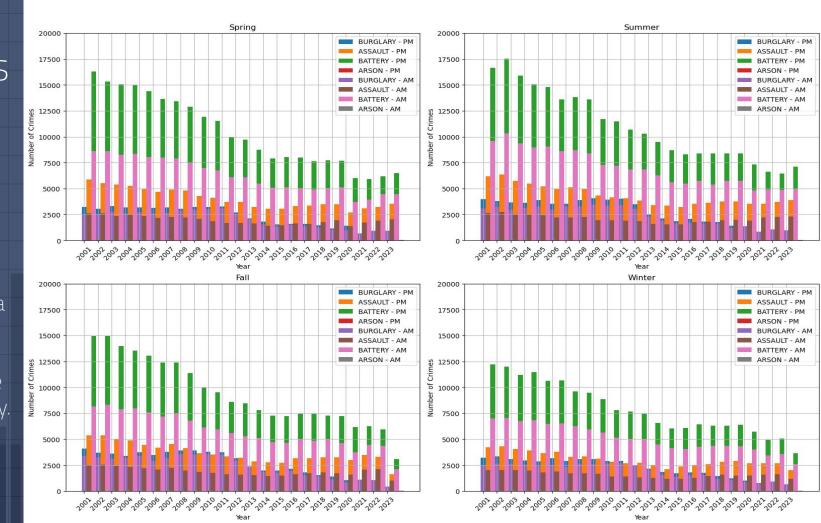
Public School Building: 51,517



Most Common Crime/Location Combination: Apartment/Battery

What does the date and time of these crimes tell us? Could these differ based on season?

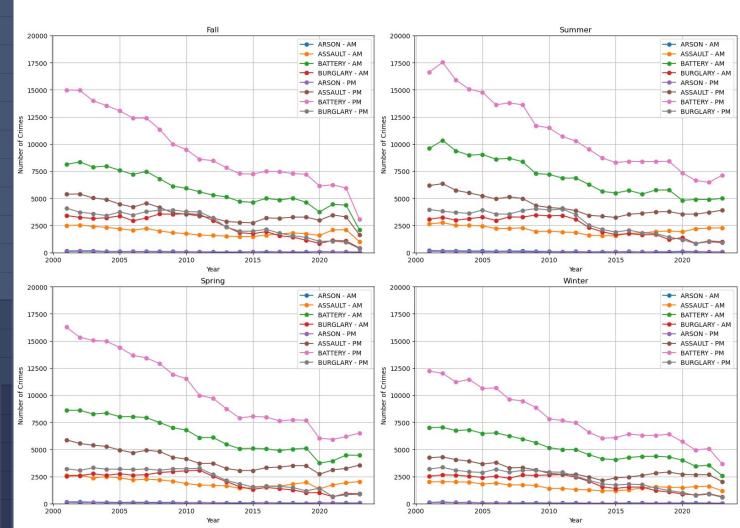
Do the seasons affect crime? Short Answer: Yes! Long Answer: The seasons can introduce a variety of factors that could influence criminal activity. Most criminal season: Summer



Middle Crime Heatmap for All Seasons in 2013 2013-Fall-AM - 8000 dates 2013-Fall-PM for 2013-Spring-AM Number of Crimes 2013-Spring-PM data. 013-Summer-AM 013-Summer-PM - 2000 2013-Winter-AM 2013-Winter-PM **ARSON ASSAULT BATTERY** BURGLARY Primary Type

Does time of day affect crime rates?

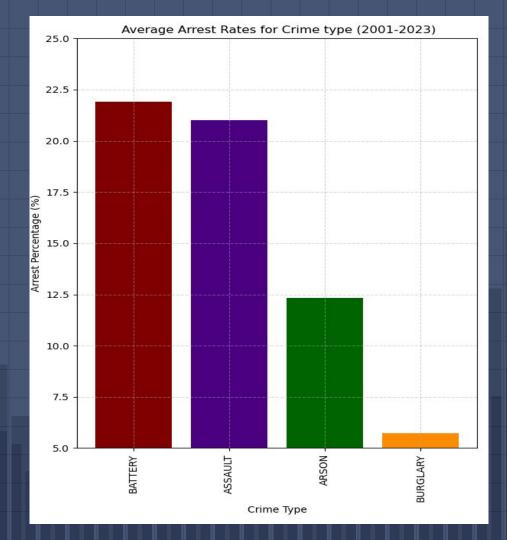
Most crimes are committed in the later hours of each day with the main component of crime being the visibility of it.



How have arrest rates changed in comparison to crime rates?

Important ideas regarding arrest rates in comparison to crime rates:

- There is not always a direct correlation between arrest rates and crime rates, however an increase in crime can coincide with increased arrest rates
- Policy, funds, and police procedure are believed to be the biggest influences on arrest rates

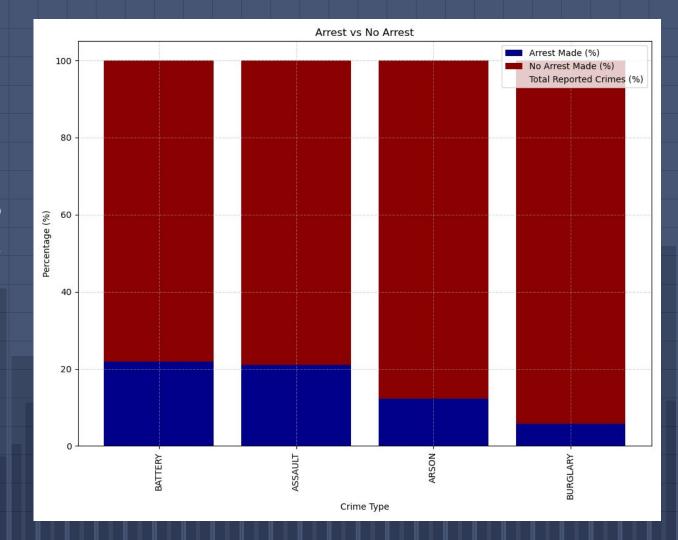


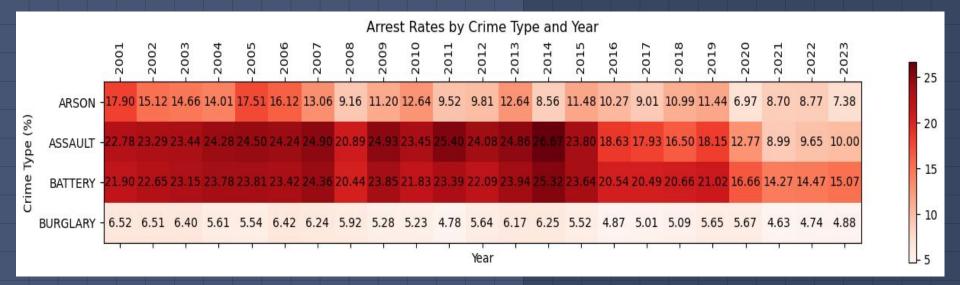
Average Arrest Rates: Battery 22% Assault 21% Arson 12% Burglary 6%

Arrest vs No Arrest Made:

No Arrest

- Battery = 78%
- Assault = 79%
- Arson = 88%
- Burglary = 94%





- Peak arrest rates occurred in 2014 for assault and battery
- Assault = 27%
- Battery = 25%
- Burglary has had around the same arrest rate
- Arsons arrest rate has gone down

When compared to total reported crime committed:

- Arrest Rates have also gone down
- Assault and Battery have dropped quickly
- Arson and Burglary have gone down more so over time Total Crime

It can be argued there is some correlation based on the data

Arrest Rates

