

Investigated by:

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## Baton Rouge: A City in Conflict

**Key Events in 2016:** 

July 5

Alton Sterling shooting

**Following Days** 

Protests and arrests of ~200 people

**July 17** 

Attack on police officers

### **Systemic Challenges**

- Lingering effects of systemic racism
- Segregation and income inequality
- Strained police-community relations

### **Our Focus**



- Exploring crime data in three dimensions:
  - Geography: Where is crime most prevalent?
  - 2. Time: How has crime changed over time?
  - 3. Systemic Analysis: Where is data missing?

# DATASET DESCRIPTION



Baton Rouge Police

Crime Incidents 1/1/2021 - 7/16/2024





Crime Incidents 1/1/2011 - 12/31/2020



East Baton
Rouge Parish

Combined crime incidents for city and parish 1/1/2021 - 7/16/2024



**NOAA** Weather

Weather data for Baton Rouge metropolitan area 1/1/2011 - 7/19/2024

# DATA CLEANING PROCESS



**Baton Rouge** 

Combined legacy and current datasets

99

East Baton Rouge Parish

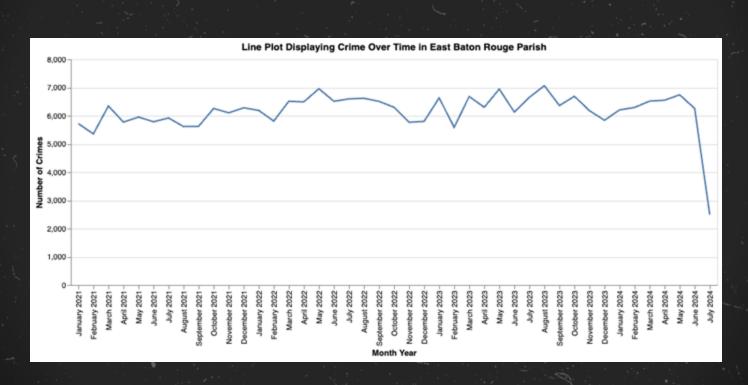
Dropped specific location data
Corrected misspellings



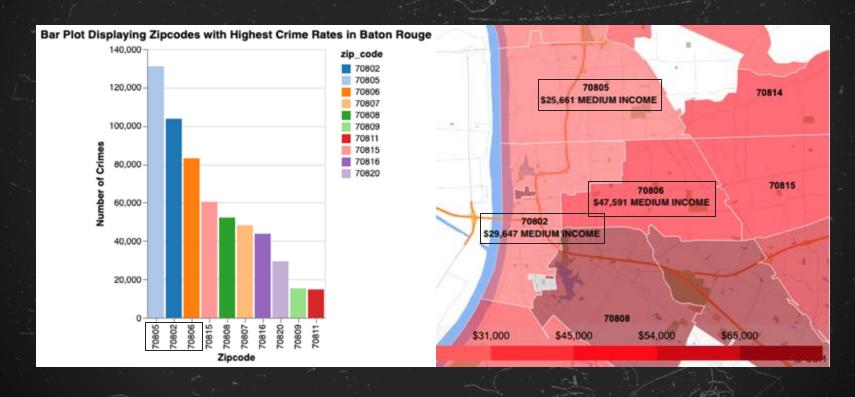
Weather

Decoded and renamed columns

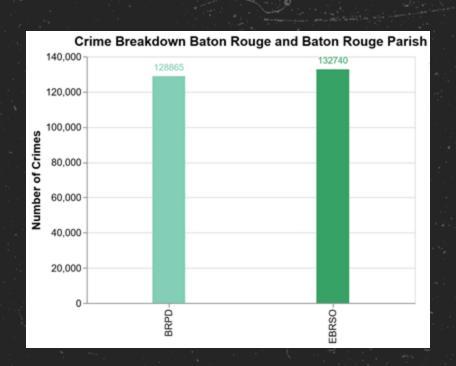
## **OVERALL TRENDS**



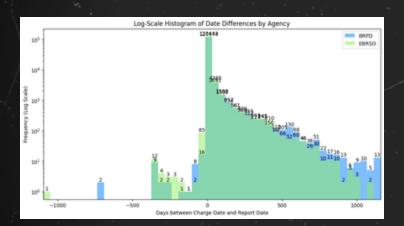
# Geographical Analysis of Crime in Baton Rouge



## Systemic Analysis: Agency Reporting



## Systemic Analysis: Charge Date vs. Report Date



Log-Scale
Due to huge
dataset
Negative Values
(Report filed before incident charged)

~7,000

Cases

<1 minute discrepancy

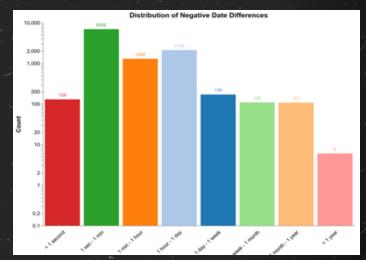
3,400 Cases

1 minute to 1 day discrepancy

~390

Cases

Larger Discrepancy (data entry?)

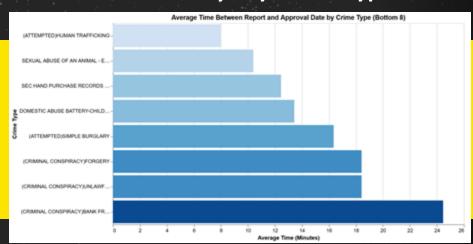


## Systemic Analysis: Report Approval Delays

#### **Top Delays by Crime Type**

# Average Time Between Report and Approval Date by Crime Type (Top 8) POSS OF FIREARM WIDRUGS SWITCHED LICENSE PLATE - CT. RESISTING AN OFFICERICG RESISTING AN OFFICERICG THEFT OF MOTOR VEHICLE DOMESTIC ABUSE AGGRAVATED B... SMIPLE BATTERY OF A DATING PA... 0 200,000 400,000 800,000 800,000 1,000,000

### **Lowest Delays by Crime Type**



Top Delay by District: District 1.

Average delay = 38 days

# POPULAR CRIMES BATON ROUGE

**OTHER** 

140,300 crimes 23%

**THEFT** 

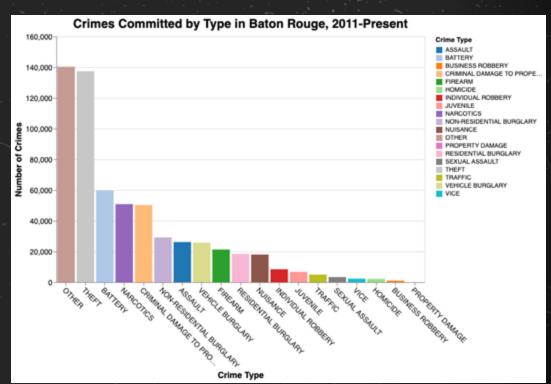
137,362 thefts 22.6%



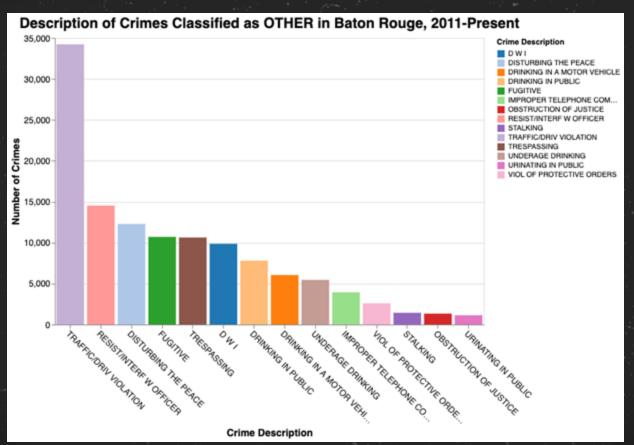
**BATTERY** 

59,757 batteries 9.8%

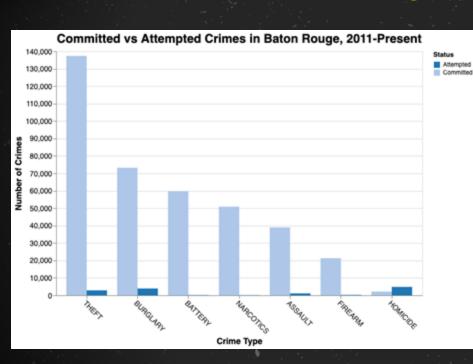


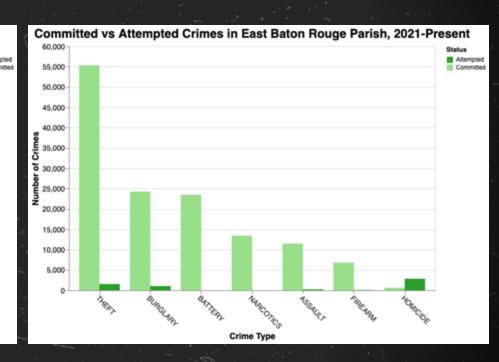


## STATUTE CATEGORY: OTHER



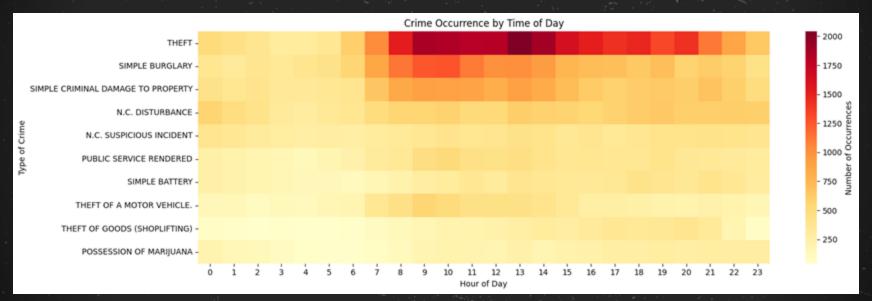
# COMMITTED vs ATTEMPTED CRIMES





## **CRIME OCCURRENCE**

By Time of Day



31.4%
Afternoon

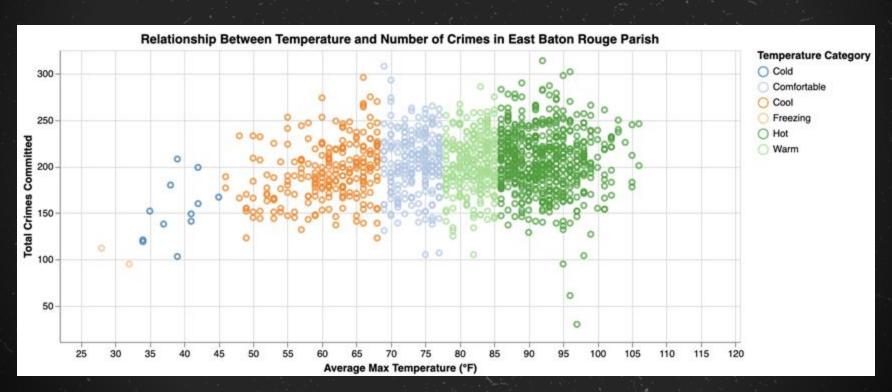
29.0% Morning

25.9% Evening

13.7% Afternoon

# **CRIME FREQUENCY**

By Average Max Temperature



# CONCLUSION & SUMMARY



### **MAJOR FINDINGS:**

- Increasing overall crime rates in East Baton Rough
   Parish
- We identified a crime hotspot in Baton Rouge which has a lower median income than other zip codes in the city
- "other" and theft are most common crimes
- Most crimes occur during daylight hours
- Temperature correlates with crime rates
- Systemic delays in crime reporting and processing

### **FUTURE RESEARCH:**

- Investigate crime reporting vs. occurrence timing
- Study long-term weather effects on crime, particularly hurricane conditions
- Examine police response times and prevention strategies