Unequal Safety, Unequal Justice: Analyzing Crime Patterns in Los Angeles to Reveal Gaps in Visibility and Justice Outcomes

This project analyzes over 1 million crime reports filed in Los Angeles between 2020 and 2024 to uncover how gender identity and time of day shape both who is harmed and how the justice system responds. By surfacing patterns of visibility, silence, and disparity, this work challenges us to ask: **Whose stories get counted? Whose safety is prioritized? And who remains unseen in public safety data?**

By Gabriel Davila-Campos

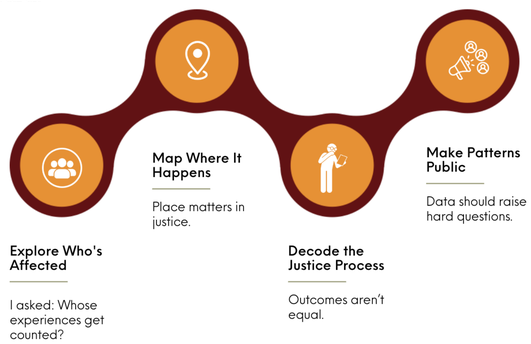
About the Data

This dataset was collected from the Los Angeles Open Data portal, capturing crime reports filed by the Los Angeles Police Department (LAPD) between 2020 and early 2024. Due to the transition to the FBI's **National Incident-Based Reporting System (NIBRS)**, LAPD's reporting format is undergoing changes. Users may encounter reporting gaps or inconsistencies as a result. Additionally, incident locations are generalized to the nearest hundred block, and some records may include inaccuracies due to transcription from handwritten forms.

As of January 2021, the FBI mandated the use of NIBRS nationwide. Unlike the older summary system, NIBRS provides deeper insights into crime incidents, including victim-offender relationships, incident locations, and demographics — making it ideal for exploring social disparities in justice outcomes.

Research Objective

I wanted to explore how crime patterns in Los Angeles reflect broader issues of equity and justice. By focusing on victim identity, place, and the justice process, my goal was to raise questions about *who* experiences crime, *where* it happens, and *what* justice looks like afterward.



Methodology

I worked with over 1 million crime reports from the City of Los Angeles, spanning 2020 to early 2024. To begin, I cleaned and pre-processed the data in R using dplyr, lubridate, and stringr. This included:

- Parsing date/time fields like DATE.OCC and TIME.OCC into readable formats
- Filtering out ambiguous or missing entries (e.g., NA values in Vict.Sex or invalid coordinates)
- Reclassifying justice outcomes (e.g., combining "Adult Arrest" and "Juv Arrest" as "Arrest")
- Creating new categorical fields for crime type (Crime.Category) and location (Premis.Type)

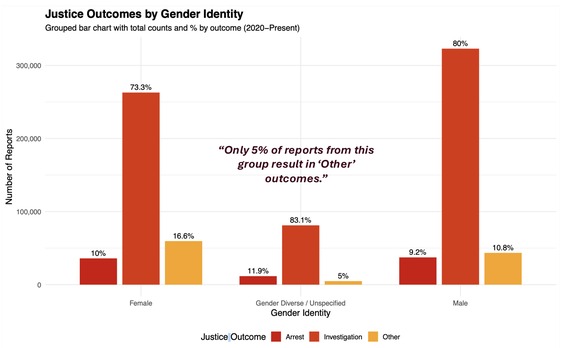
I was intentional about how I grouped and visualized identities — especially around gender. The "X" value in Vict.Sex can mean nonbinary, unlisted, or unknown, so I labeled it as *Gender Diverse / Unspecified* to acknowledge complexity without making assumptions.

My approach to cleaning prioritized transparency, reproducibility, and ethical integrity. I constantly asked: *Am I amplifying harm? Am I invisibilizing anyone?* These questions shaped how I structured categories, interpreted results, and even designed color schemes — making sure no group was visually minimized or othered.

The final visualizations were created using ggplot2, sf for mapping, and other tidyverse tools. Each chart was designed to reveal nuanced patterns while staying readable and intuitive, even for non-technical audiences.

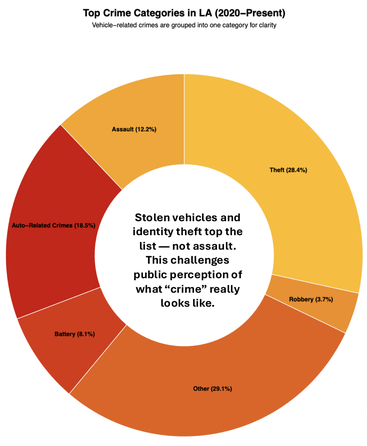
Key Findings

Justice Outcomes Are Not Equally Distributed

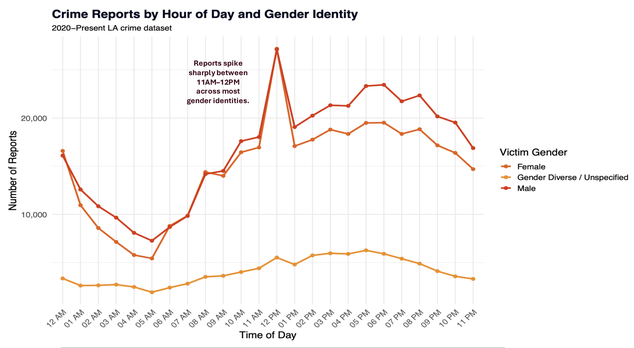


Gender-diverse individuals are **less likely to have a clear justice outcome**. Their arrest and investigation rates lag behind others, hinting at possible systemic gaps.

Most Crimes Are Property-Based, Not Violent

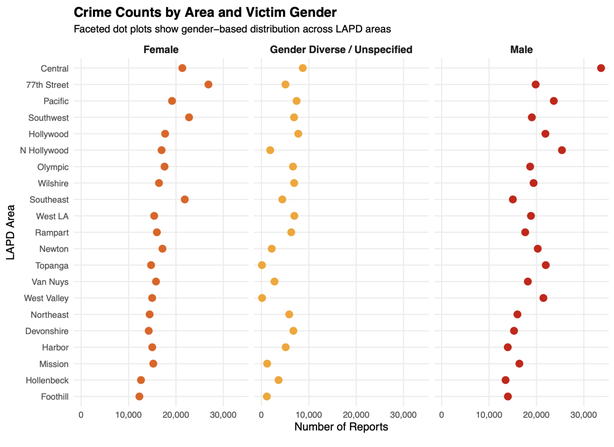


Noon = Peak Crime Reporting Time

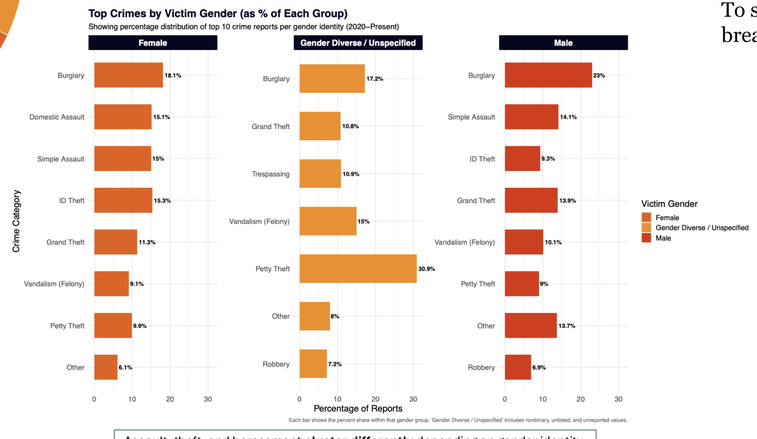


Safety interventions may be more effective during the day than at night.

Place Shapes Justice Visibility



Each Gender Group Faces Unique Threats



Assault, theft, and harassment **cluster differently** depending on gender identity. This underscores the need for gender-aware policy design.

Conclusion & Next Steps

This project reveals how crime experiences in Los Angeles are shaped not only by time and location, but also by identity — especially gender. While most crimes are property-related and occur during daytime hours, disparities in justice outcomes and exposure across gender groups point to deeper systemic patterns.

As we push for more equitable public safety systems, it's essential to ask:

- Who is being seen in crime data?
- Who is being overlooked?
- And how can data help shape more just outcomes?

To see how these patterns unfold across time, scan the QR code to watch an animated breakdown of crime trends by hour and crime type.

SCAN ME!

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