



Dallas Crime

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INSPIRATION

- “Half the crime in the city [Boston] came from 3.6 percent of the city’s blocks...And every place they looked, they saw the same thing: Crime in every city was concentrated in a tiny number of street segments. Weisburd refers to this as the Law of Crime Concentration. Crime is tied to very specific places and contexts.”
- What type of crimes and the frequency of them in our own area



DATA

```
[
  {
    "incidentnum": "003862-2021",
    "servyr": "2021",
    "servnumid": "003862-2021-01",
    "watch": "1",
    "signal": "6X - MAJOR DIST (VIOLENCE)",
    "offincident": "PUBLIC INTOXICATION",
    "premise": "Highway, Street, Alley ETC",
    "objattack": "N/A",
    "incident_address": "3083 HERSCHEL AVE",
    "ra": "3115",
    "beat": "544",
    "division": "NORTHWEST",
    "sector": "540",
    "district": "D2",
    "taag": "Wycliff Lemmon",
    "date1": "2021-01-07 00:00:00.000000",
    "year1": "2021",
    "month1": "January",
    "day1": "Thu",
    "time1": "02:30",
    "date1dayofyear": "7",
    "date2_of_occurrence_2": "2021-01-07 00:00:00.000000",
    "year2": "2021",
    "month2": "January",
    "day2": "Thu",
    "time2": "02:45",
    "date2dayofyear": "7",
    "reporteddate": "2021-01-07 03:00:00.000000",
    "edate": "2021-01-07 03:16:50.000000",
    "eyear": "2021",
    "emonth": "January",
    "eday": "Thu",
    "etime": "03:16",
    "edatedayofyear": "7",
    "cfs_number": "21-0038891",
    "callorgdate": "2021-01-07 02:45:50.000000",
    "callreceived": "2021-01-07 02:45:49.000000",
    "callcleared": "2021-01-07 05:23:31.000000",
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Sourced our data from the Dallas Open Data website, using the API for the Police Incident Dataset for the year 2020.



HYPOTHESES

- South Dallas Experiences the most crime out of any other area in Dallas.
- Murder is one of the most common crimes committed in the Dallas area.

WEB APP



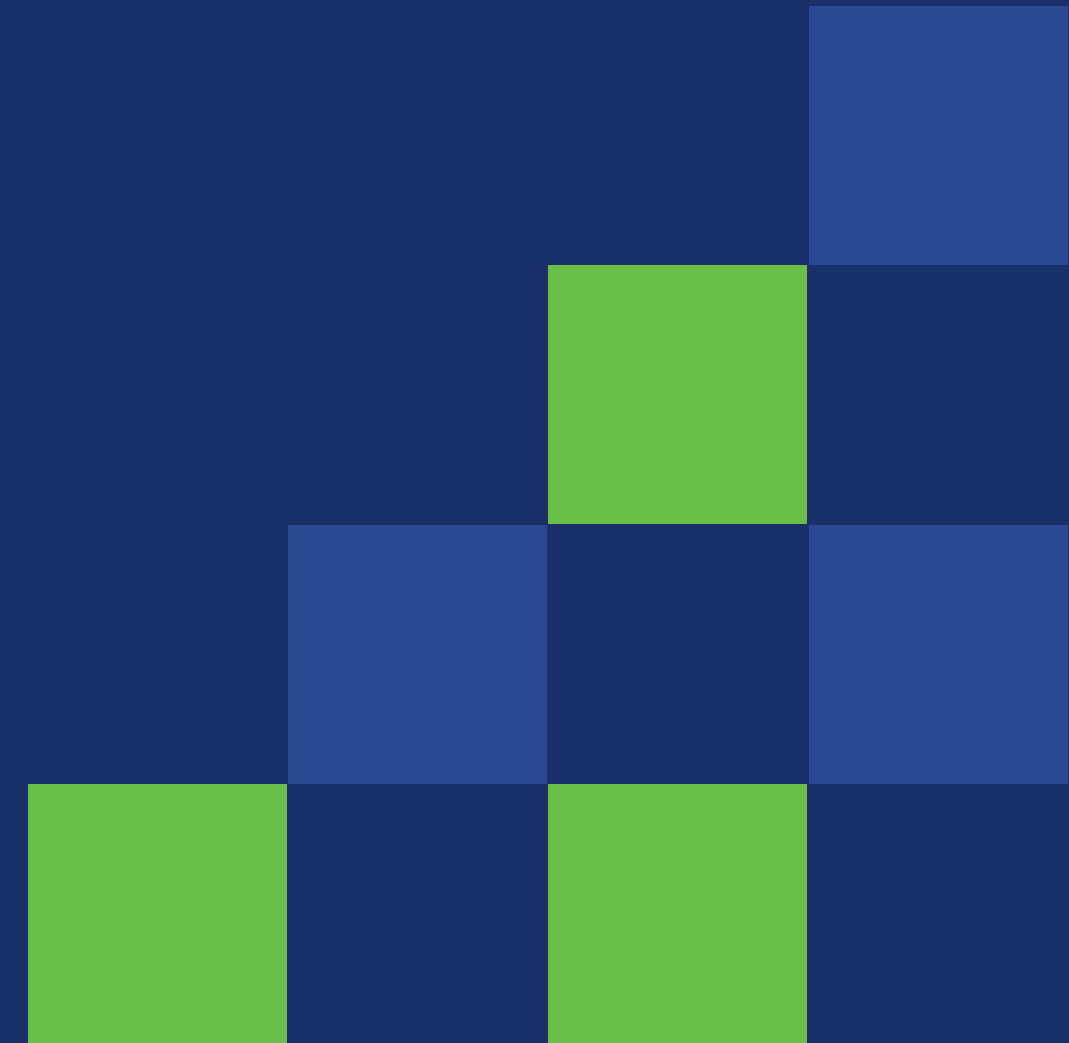
CONCLUSION

- Crime occurs throughout Dallas, concentrated in South and Central Dallas
- April has the lowest percentage of crime incidents
- The most common crimes are Miscellaneous, Larceny and Theft, and Assault crimes



RECOMMENDATION

- Increase in officers on duty during month of August
- Increase of officers patrolling Central and South Dallas
- New Dallas Police Chief





LIMITATIONS

- Data Discrepancies
- Only year 2020 data
- Huge Miscellaneous and Other categories



FUTURE WORK

- Prediction model over time
- Mapbox map using leaflet
- Additional visualizations
- Using other targets with other machine learning models





REFERENCES

Data:

- <https://www.dallasopendata.com/Public-Safety/Police-Incidents/qv6i-rri7>

Images:

- City of Dallas Logo:
 - https://pbs.twimg.com/profile_images/726146162852405248/n1_39hmF_400x400.jpg
- Dallas Skyline:
 - http://clipart-library.com/clip-art/3-31174_skyline-clipart-dallas-skyline-dallas-clipart.htm

Inspiration:

- Gladwell, Malcolm. Talking to Strangers: What We Should Know about the People We Don't Know. 1st ed., Little, Brown & Co., 2019.
- <https://dallascityhall.com/Pages/default.aspx>
- <https://www.dallaspolice.net/>
- <https://www.wfaa.com/article/news/local/new-dallas-police-chief-eddie-garcia-first-day/287-94067ec1-864e-41df-a669-6a80c8f4e2bc>
- <https://www.wfaa.com/article/news/local/city-of-dallas-ends-2020-with-highest-number-of-murders-in-more-than-15-years/287-d6902843-a927-4606-b1c3-019c85d5c502>

Kaggle:

- <https://www.kaggle.com/c/sf-crime>
- <https://www.kaggle.com/chasmo/sf-crime-analysis>
- <https://www.kaggle.com/carrie1/dallaspolicerreportedincidents>

NIBRS Crime Categories:

- <https://www.fbi.gov/services/cjis/ucr/nibrs>
- Crime Types Explanation:
 - https://www.denvergov.org/media/gis/DataCatalog/crime/pdf/NIBRS_Crime_Types.pdf

QUESTIONS?