

Fatal Accidents in Chicago 2019 - Present

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Objective

Identify **who** is affected by fatal accidents in Chicago, **where** the accidents are taking place and **when** it is likely for fatal accidents to occur.

The Dataset

Dataset was obtained from the Chicago Data Portal <https://data.cityofchicago.org/>

The data is pulled from the Vision Zero Chicago website. As stated in the description of the dataset, “Vision Zero is Chicago’s commitment to eliminating fatalities and serious injuries from traffic crashes”. Within this data set there is a list of designated fatal accidents as defined by the Fatal Crash Response Coordination Committee (FCRCC). For a death to be appended to the list, the death has to be within 30 days of an accident involving a motor vehicle within a public right of way.

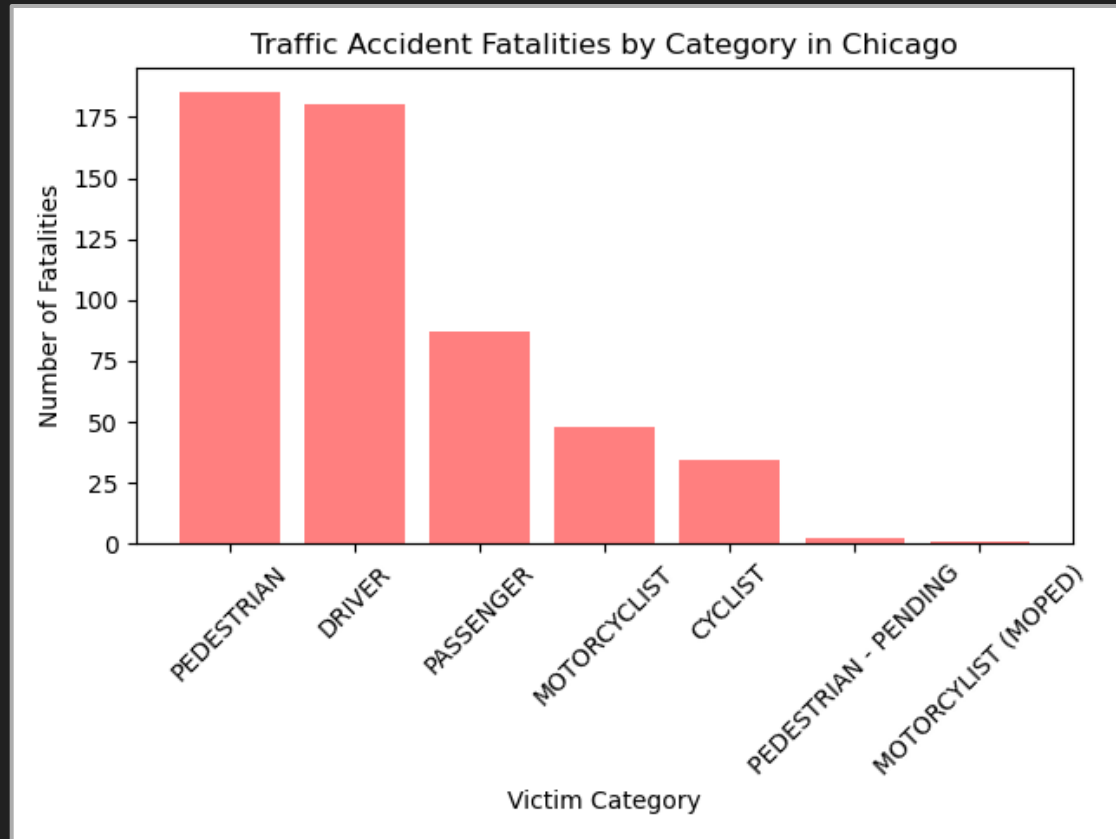
“The open data portal is required under an Executive Order signed by Mayor Rahm Emanuel on December 10, 2012.”

Who is affected?

537 fatal accidents have occurred in Chicago since 2019

185 Pedestrians have been killed since 2019

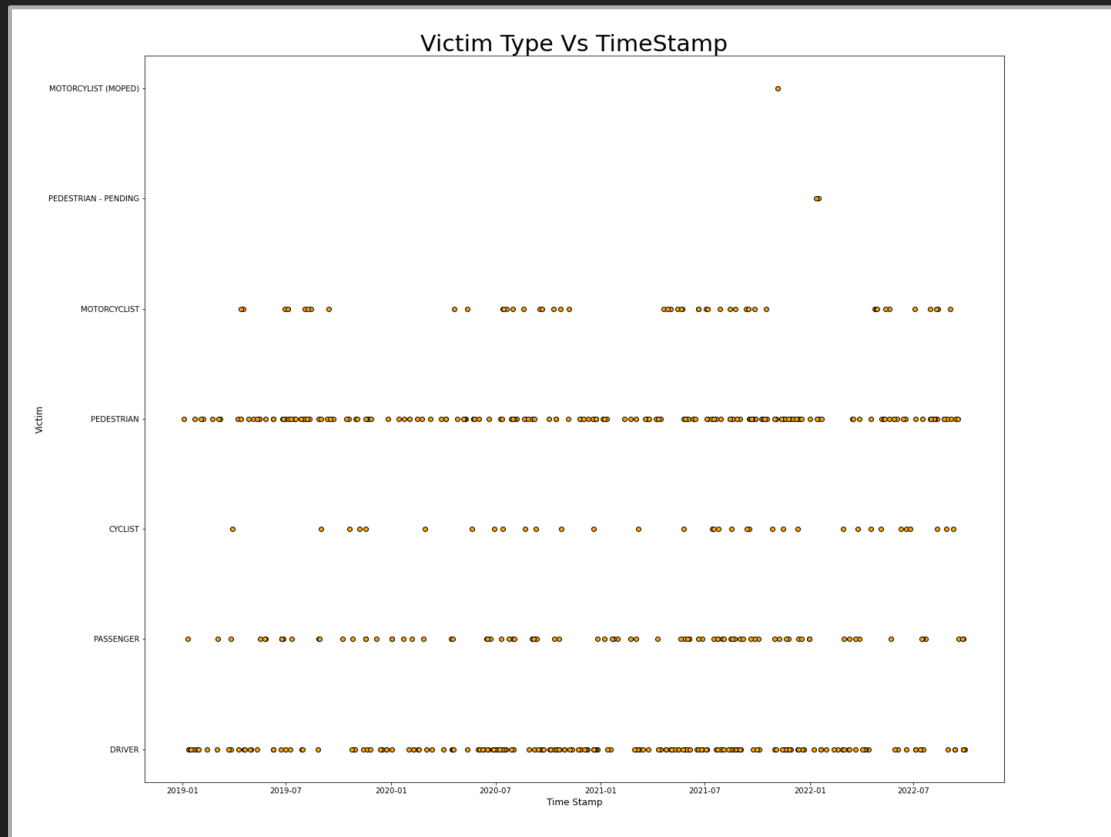
180 Drivers have died in an accident since 2019



Is there a connection between victim type and when the fatality occurred?

Each Victim Type has pattern across time.

There are distinct trends surrounding changes in season for particular victim types.

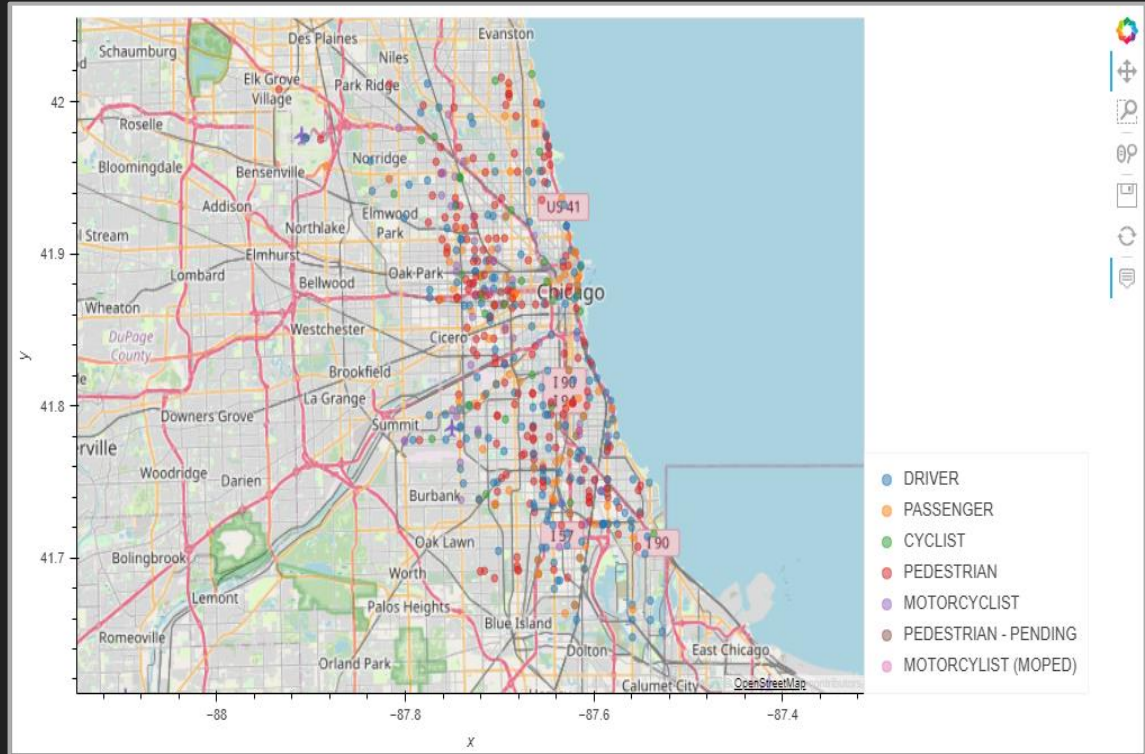


Where are these fatal accidents?

Plotted fatal accident locations across Chicago by victim category

Observed clusters:

- S Stony Island merge to S Cornell near the Jackson Park Golf Course
- S Pulaski and 5th Avenue
- W Madison Street stretch between N Kildare & S Pulaski intersection



Which streets have the most fatalities?

Took the count of street names to see the amount of times each street name showed up.

- S Ashland Ave - 17 fatalities, S Pulaski Rd - 12 fatalities, S Cicero Ave - 11 fatalities, S Western Ave & S Archer Ave - 10 fatalities.
- Total of 60 fatalities from these streets
- Majority of the streets located in the southern parts of Chicago.



What time of the year are these accidents happening?

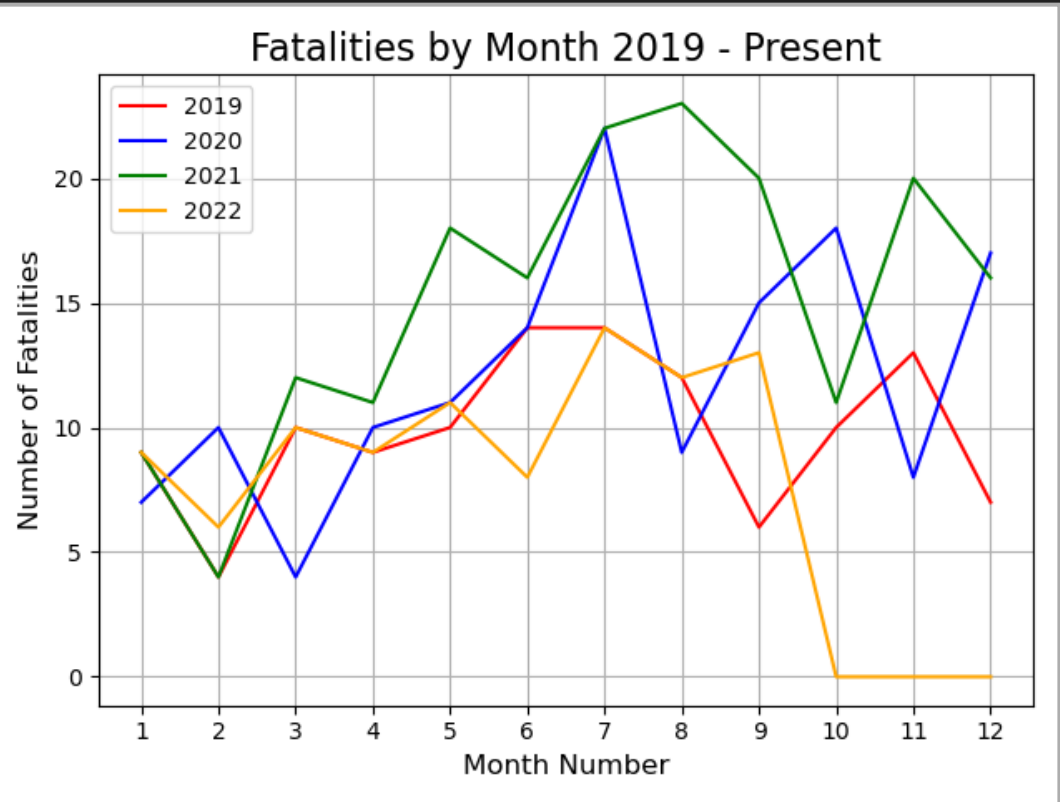
Worst Year: 2021

Most Fatalities: July

Biggest factors: Weather and

Covid

Limit to dataset



When are more fatalities occurring?

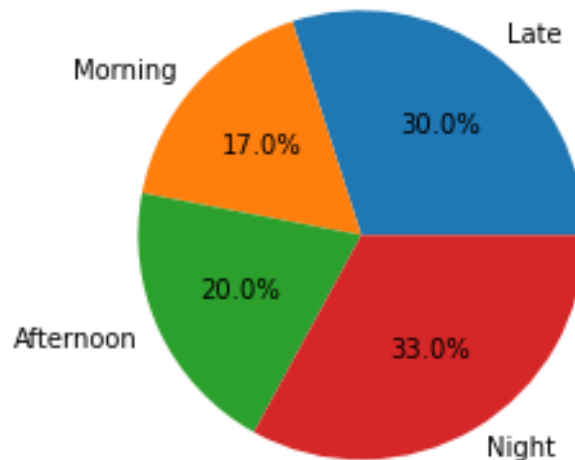
Times of day were sorted as follows:

- Morning: 6 am -12 pm
- Afternoon: 12 pm - 6 pm
- Night: 6 pm -12 am
- Late: 12 am - 6 am

Fatalities occur more frequently at night, with late trailing close behind.

Morning is the least common time.

This may be expected due to difference in visibility.

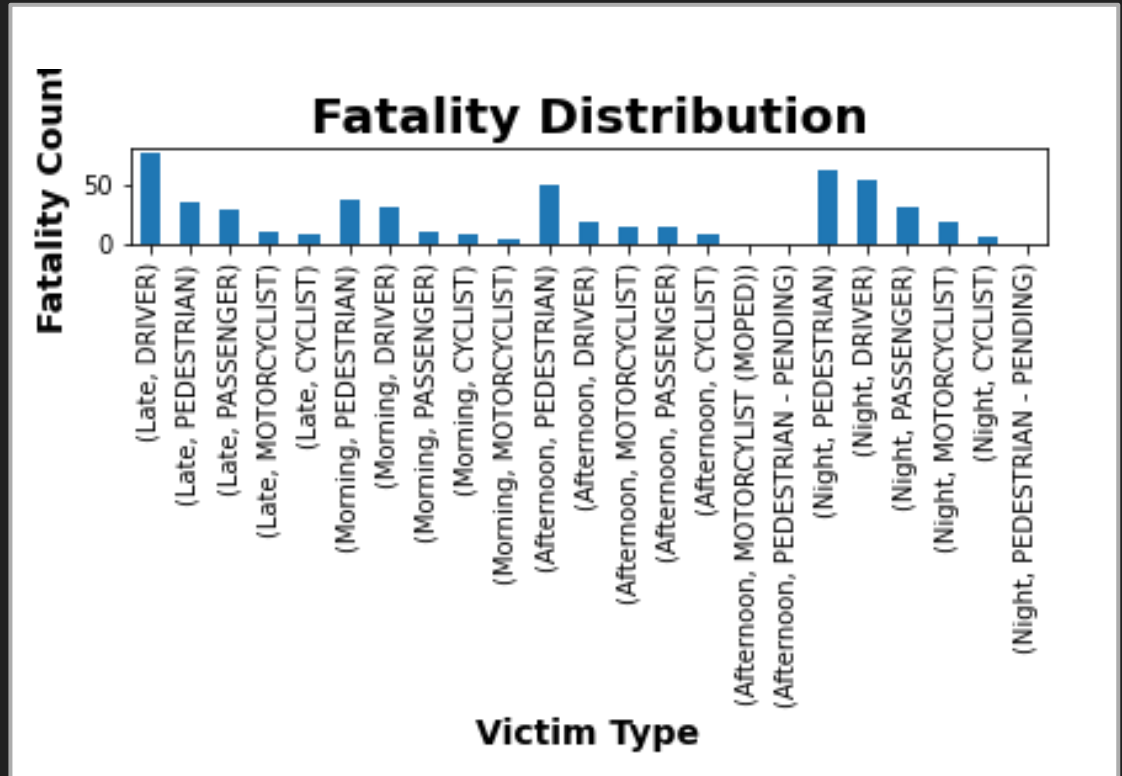


Do the trends in “When” differ by victim type?

The same trends as captured by the previous chart seem to be replicated among victim types.

While late and night have similarly larger trends, the distribution between victim types seems consistent across times as well.

Fatalities are most common for pedestrians with the notable exception of late.



Conclusion

Most affected group : Pedestrians & Drivers

Most affected area : Southside of Chicago

Deadliest Street : South Ashland Ave

Worst year : 2021

Deadliest Month : July

Largest dip in Fatalities : March 2020 (COVID)

63% of fatal crashes happened between 6PM-6AM

Drivers were the most affected group between 12AM-6AM

Pedestrians were the most affected group between 6PM-12AM

Limitations of the data: This is a very general overhead look at fatal crashes in Chicago. Each case can be different and have different reasons as to why/how that person died. To dig into the causes of death to solve possible traffic infrastructure issues would require more time and a granular analysis of the required dataset(s).