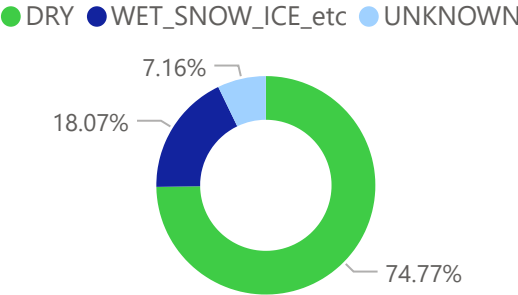


# Chicago, IL Crash Analysis : Pre vs Post Covid-19

The goal of the project was to investigate if there are visible changes in road accident trend pre and post Covid-19 in Chicago, IL. Initial hypothesis was the number and severity (measured by the number of fatal accidents) declined after Covid-19 as a result of national guidelines that placed restriction on movement and cultural shift in work environment (more companies permitting remote work) which combined reduced the number of vehicles on the roads and subsequently the number and severity of crashes.

Crash Record by Road Conditions



Key Findings

Changes in crash trend in 2020 (COVID-19 global wide-spread year) compared to 2019 resulted in :

- Overall total number of crashes declined by ~22%
- Fatal crashes increased by ~33%
- Vast majority of accidents occur under normal road conditions between 7am - 7pm

Select 2 years to compare % change in total/fatal crashes

2018

2019

2020

2021

Total cashes % change for selected years

-21.69%

Fatal crashes % change for selected years

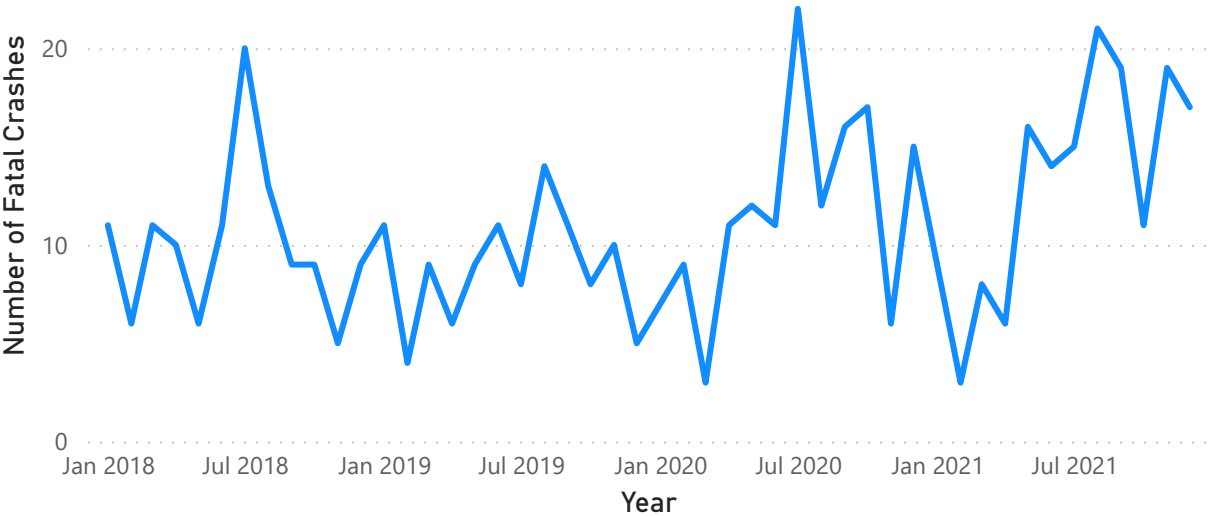
33.02%

Pre vs post covid -19 slicer

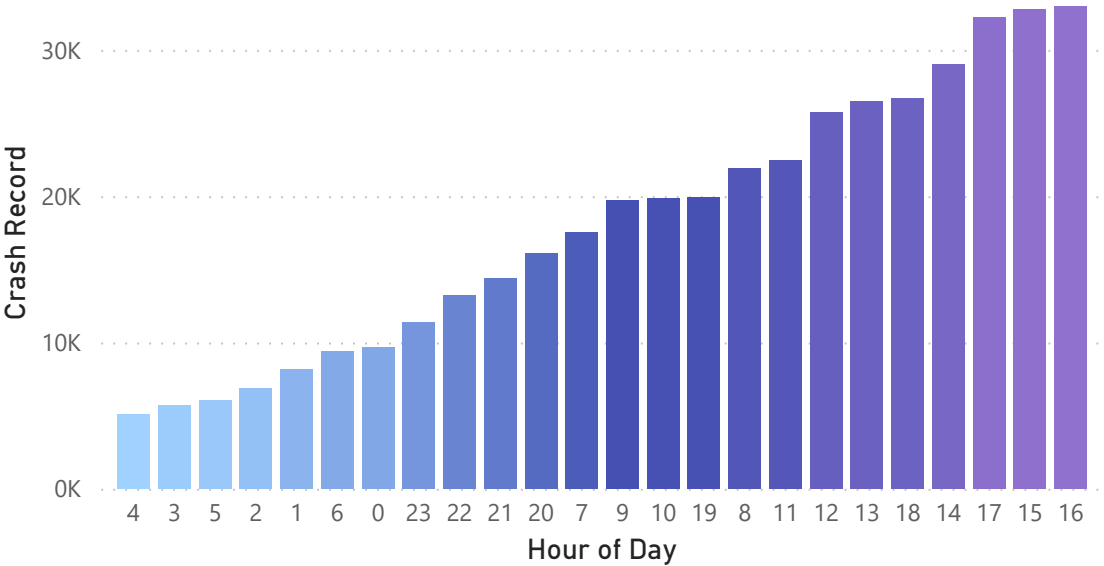
Post COVID-19

Pre COVID-19

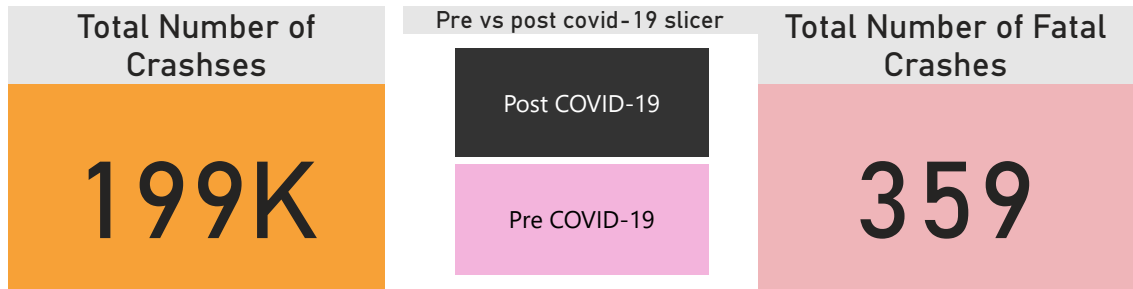
Fatal Crashes Over Time



Number of Crashes by Hour of Day



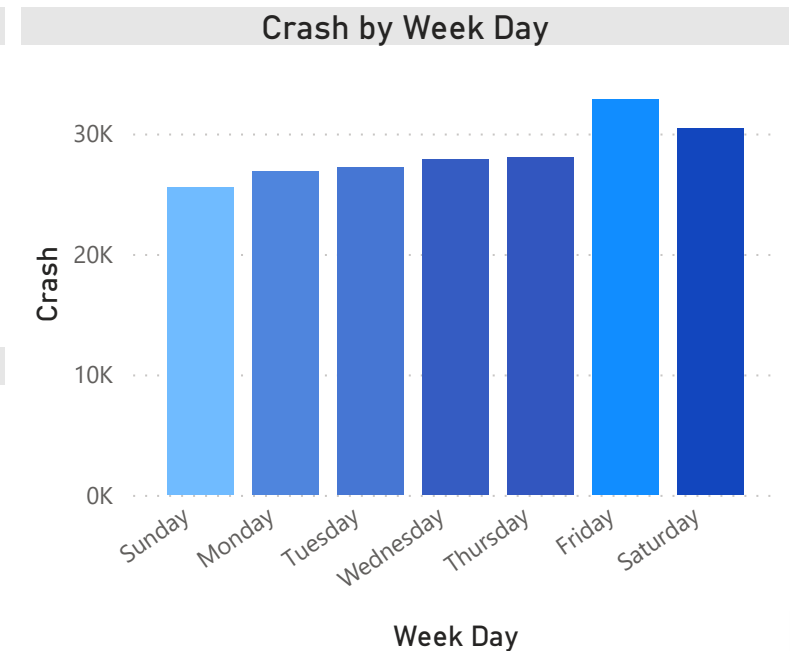
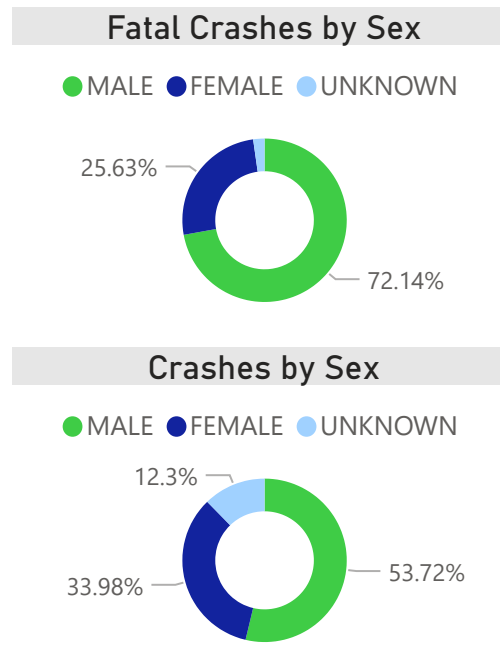
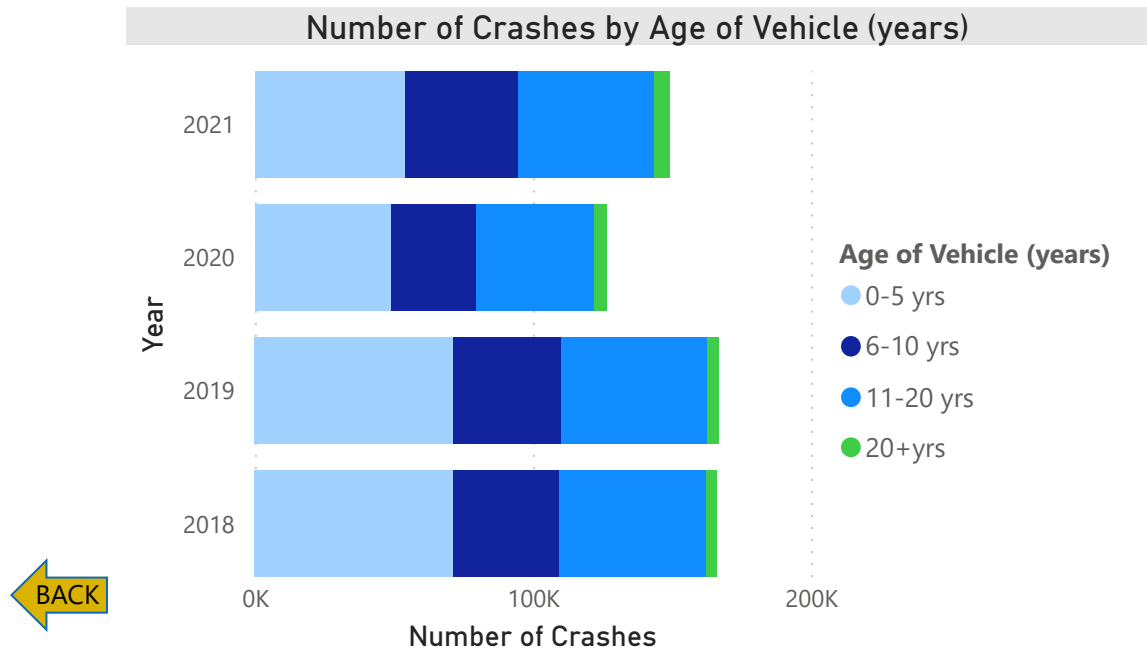
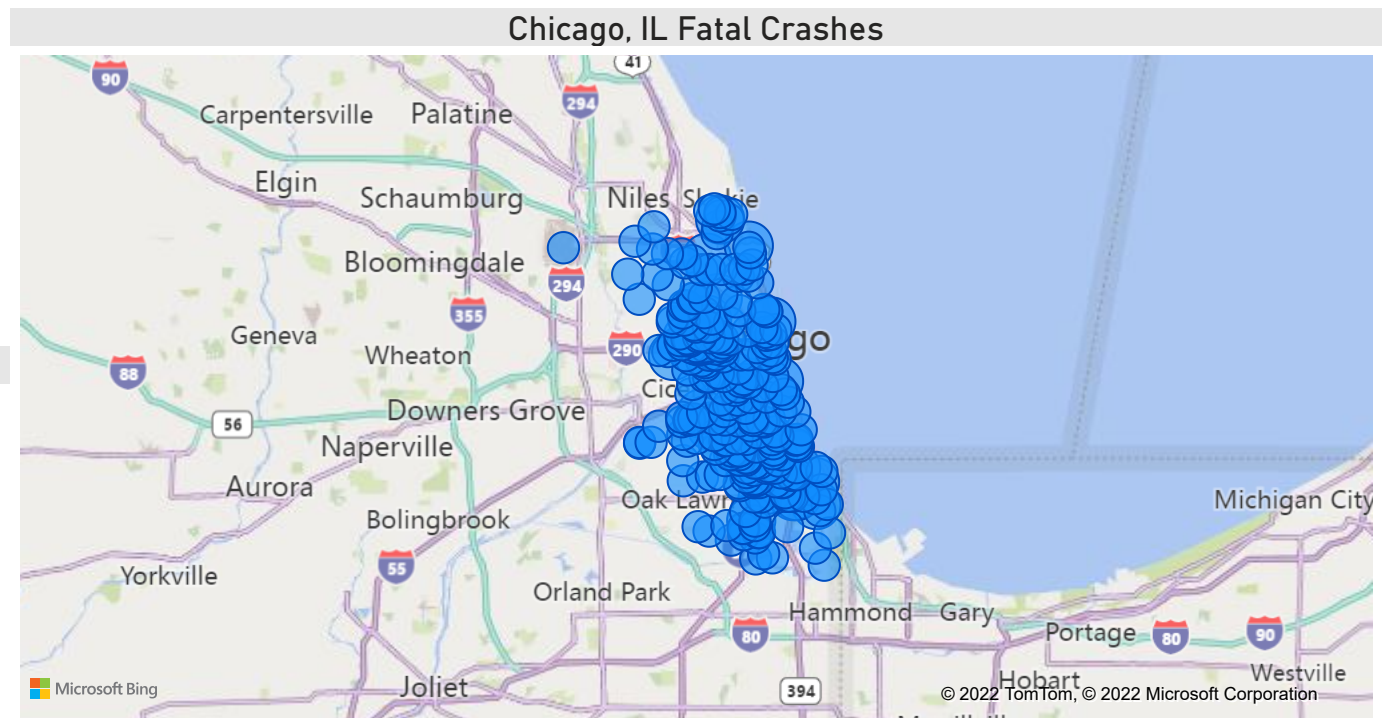
NEXT



Key Findings

Changes in crash trend pre and post Covid-19

- Majority of vehicles involved in crashes were manufactured within a decade of the accident date (i.e most vehicles were relatively young in age)
- Friday is when the highest number of crashes happen
- Males are more involved in crashes than females pre & post Covid-19
- Geographic location for fatal accidents remained relatively within same proximity for crashes that occurred pre & post Covid-19, with visibly more fatal crashes post Covid-19



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Source **Los Angeles Times**  
<https://www.latimes.com/world-nation/story/2021-12-08/traffic-deaths-surged-during-covid-19-pandemic-heres-why>

What made last year's (2021) increase so astonishing was that the total miles driven — an estimate calculated by sampling traffic on various roadways — **fell by over 13%** as cities locked down and more people worked from home.

Experts say that this behavior on the road is likely a reflection of widespread feelings of **isolation, loneliness and depression**.

Federal researchers who looked at accidents in which drivers were killed or seriously injured found that the proportion who **tested positive for opioids** nearly **doubled** after the pandemic began. Marijuana use also rose considerably.

For every 100 million miles driven last year, 1.37 people died, a **23% rise** from 2019.

Since the start of the pandemic, a larger share of accident victims — including those who survived — have been **ejected from their vehicles**, typically because they **were not wearing seat belts**.

Chief among them is that the **death rate for black people (drivers) rose more than three times faster than the death rate overall**, a disparity that could reflect a deeper sense of despair in the poorer communities hit hardest by the pandemic.

People's disregard for themselves and others on the road is part of a national **decline in civility that accelerated during the pandemic**.

Disproportionate number of Black people are in the essential workforce, including delivery drivers who are **paid by how fast you can move**.

It was a tally that shocked the experts: **38,680** deaths on U.S. roadways last year (2020), the most since 2007, even though pandemic precautions had dramatically reduced driving.