



# Transportation Network and COVID19 Chicago

---

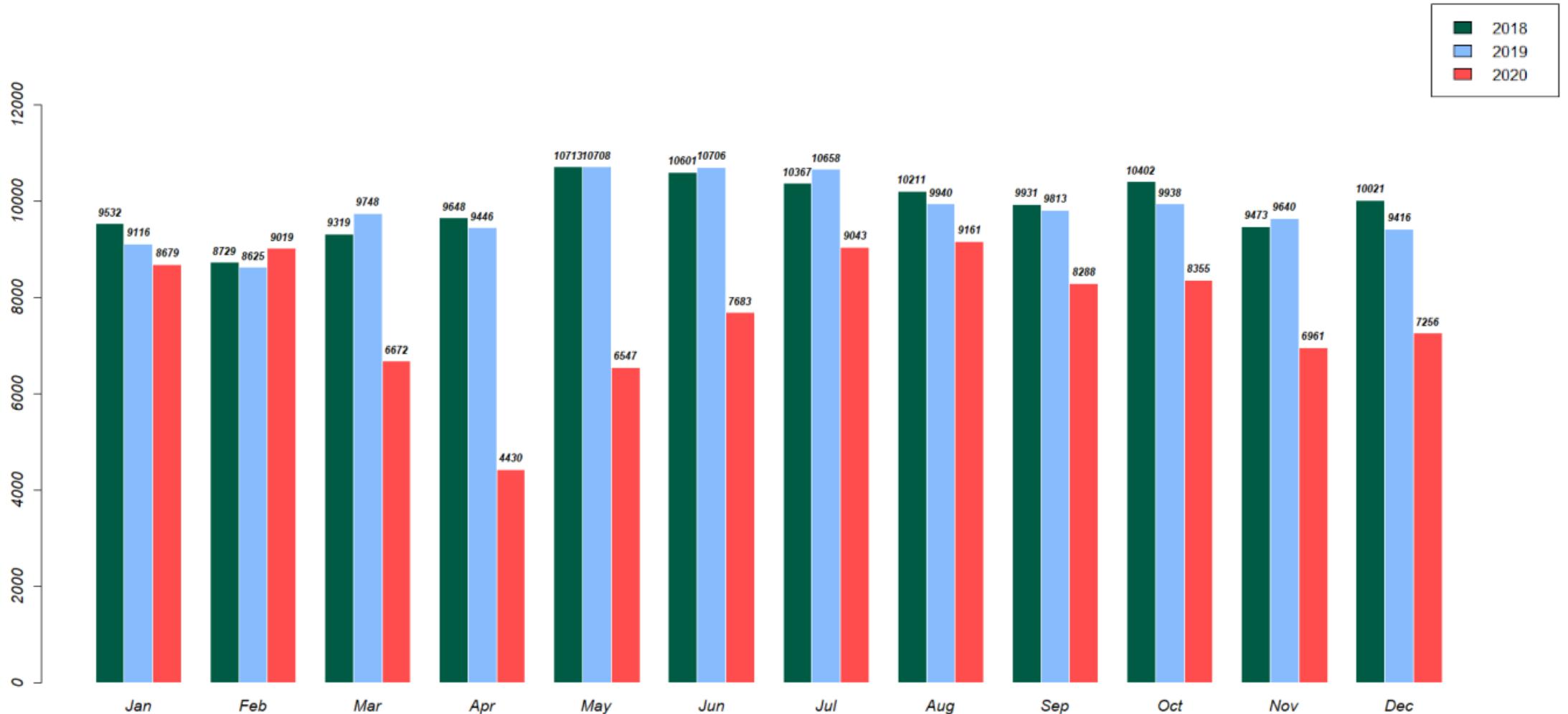
# DATA SOURCE



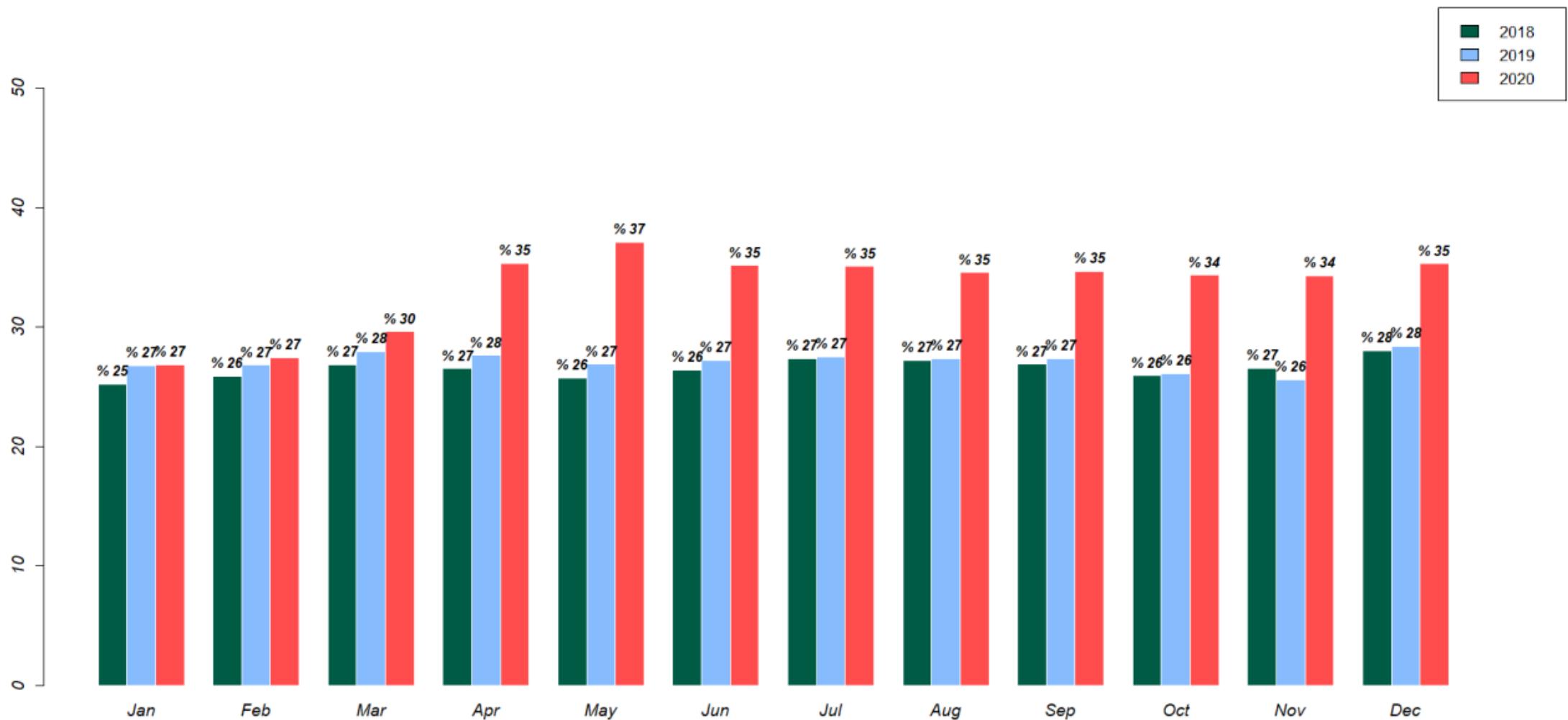
- **Car crashes**  
(2018, 2019, 2020)  
328,795 crashes
- **Transportation Network Providers TNP (Ride-share)**  
(2019, 2020)  
161,846,465 trips
- **Taxi Companies**  
(2019, 2020)  
20,365,840 trips



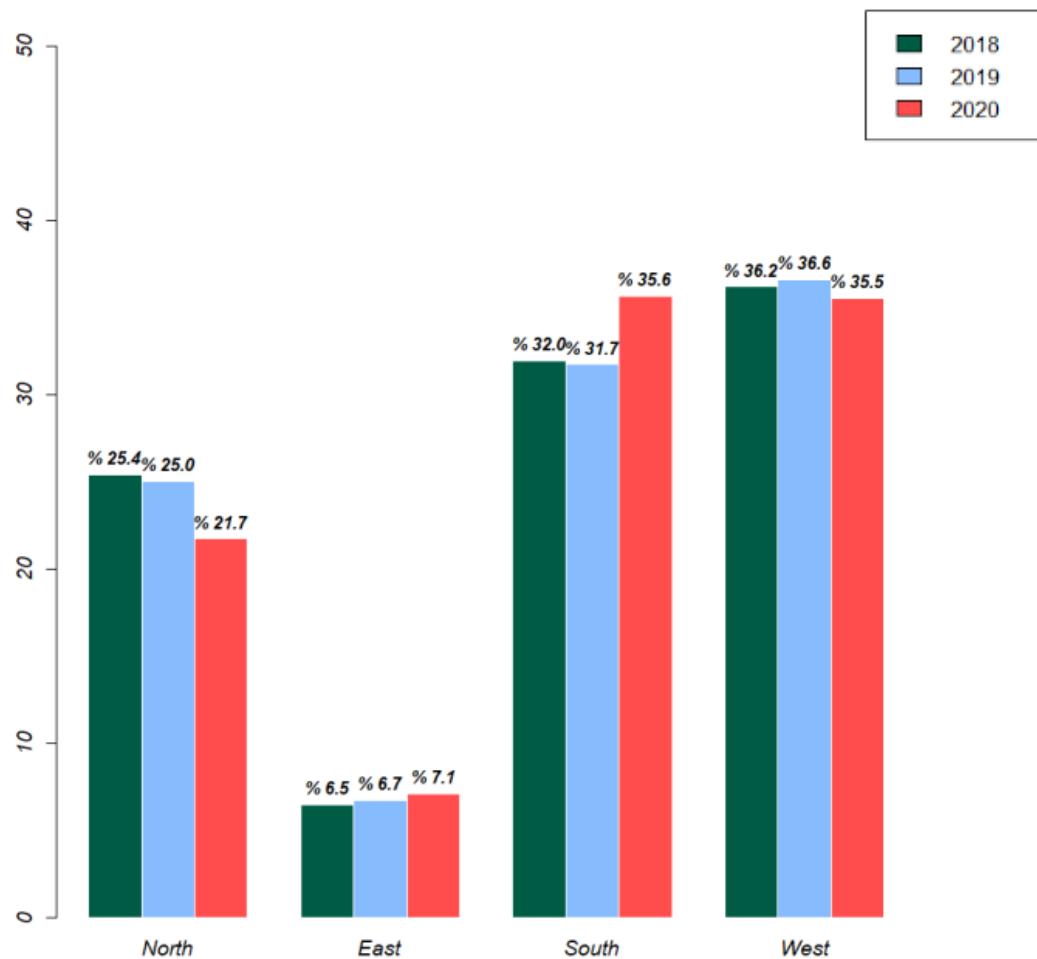
# Monthly Car Crashes



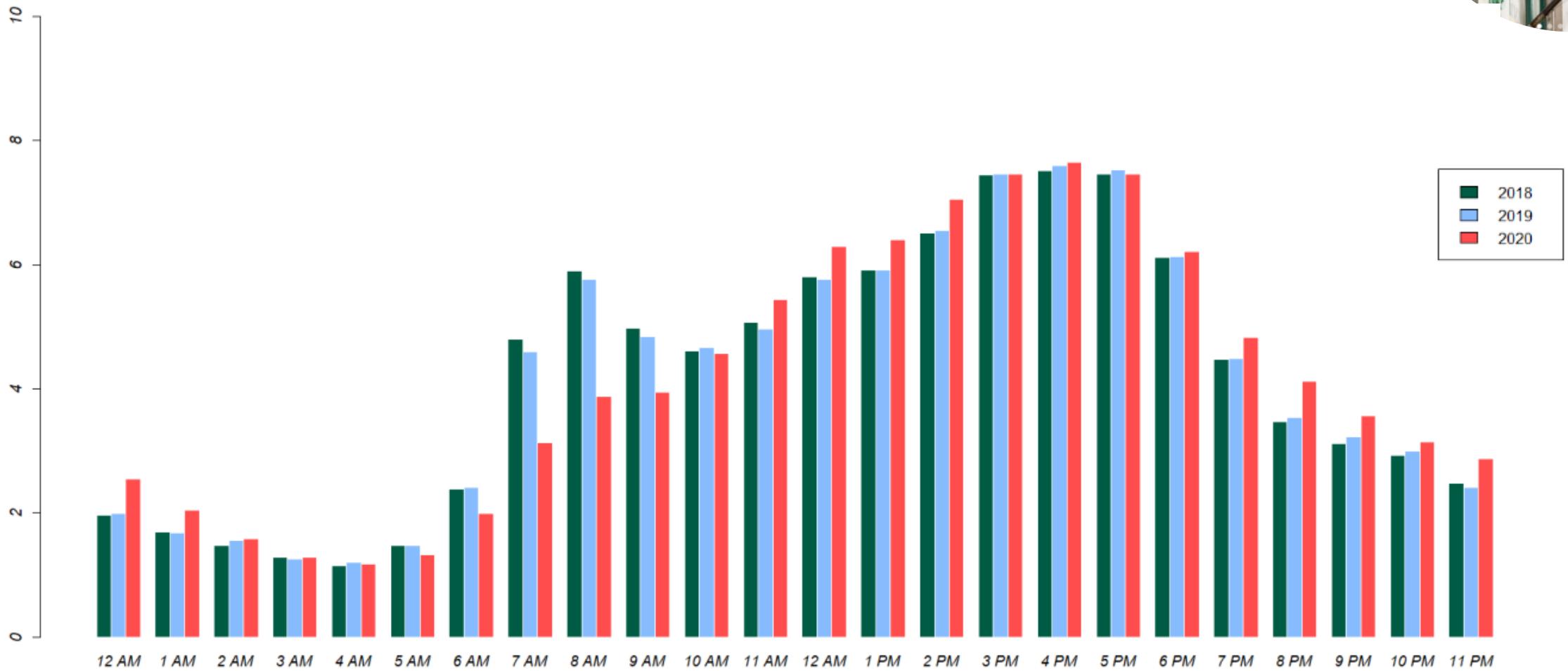
# Monthly Hit and Run Percentage



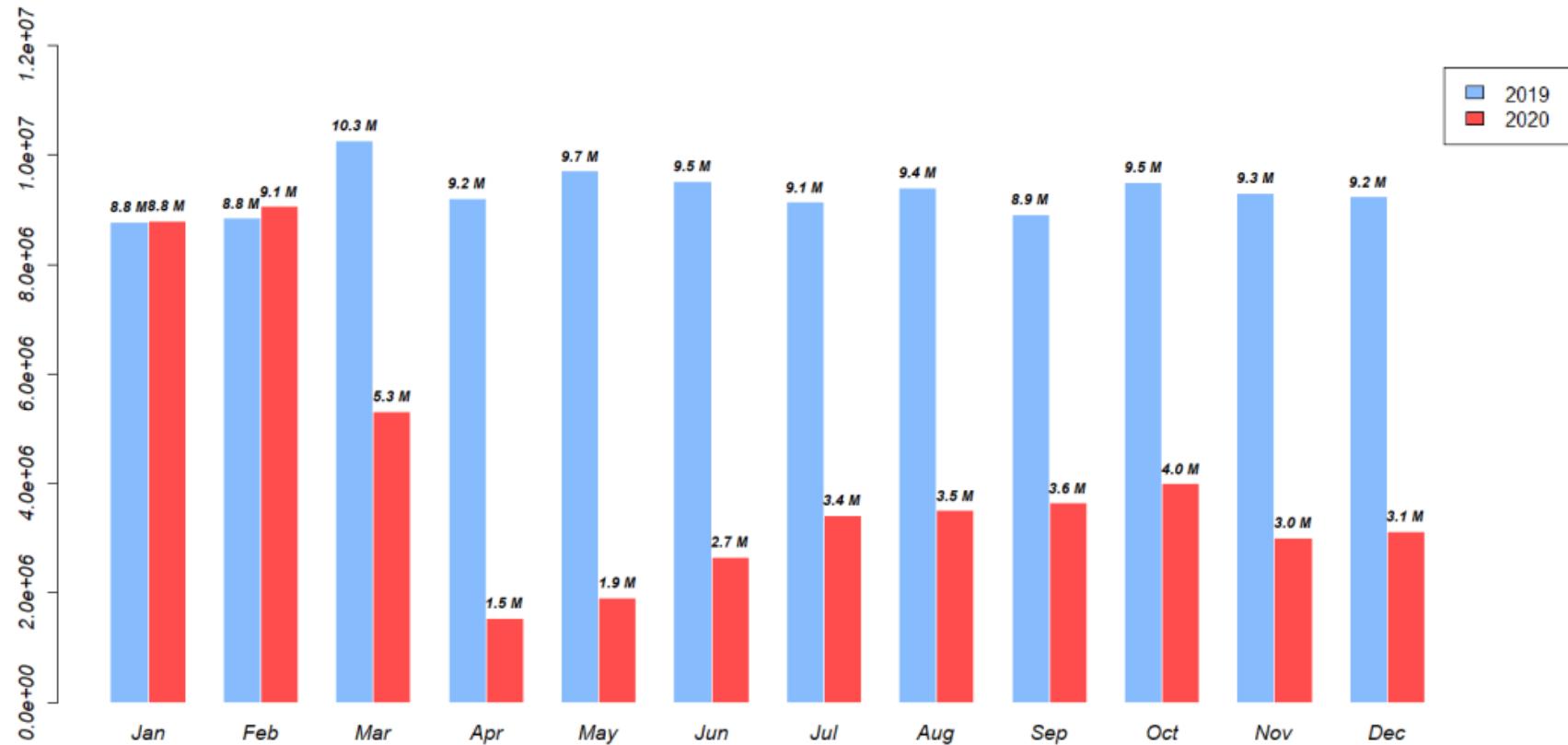
# Crashes Percentage By Street Direction



# Crashes Percentage By Hour



# Monthly Ride-share and Taxi Trips

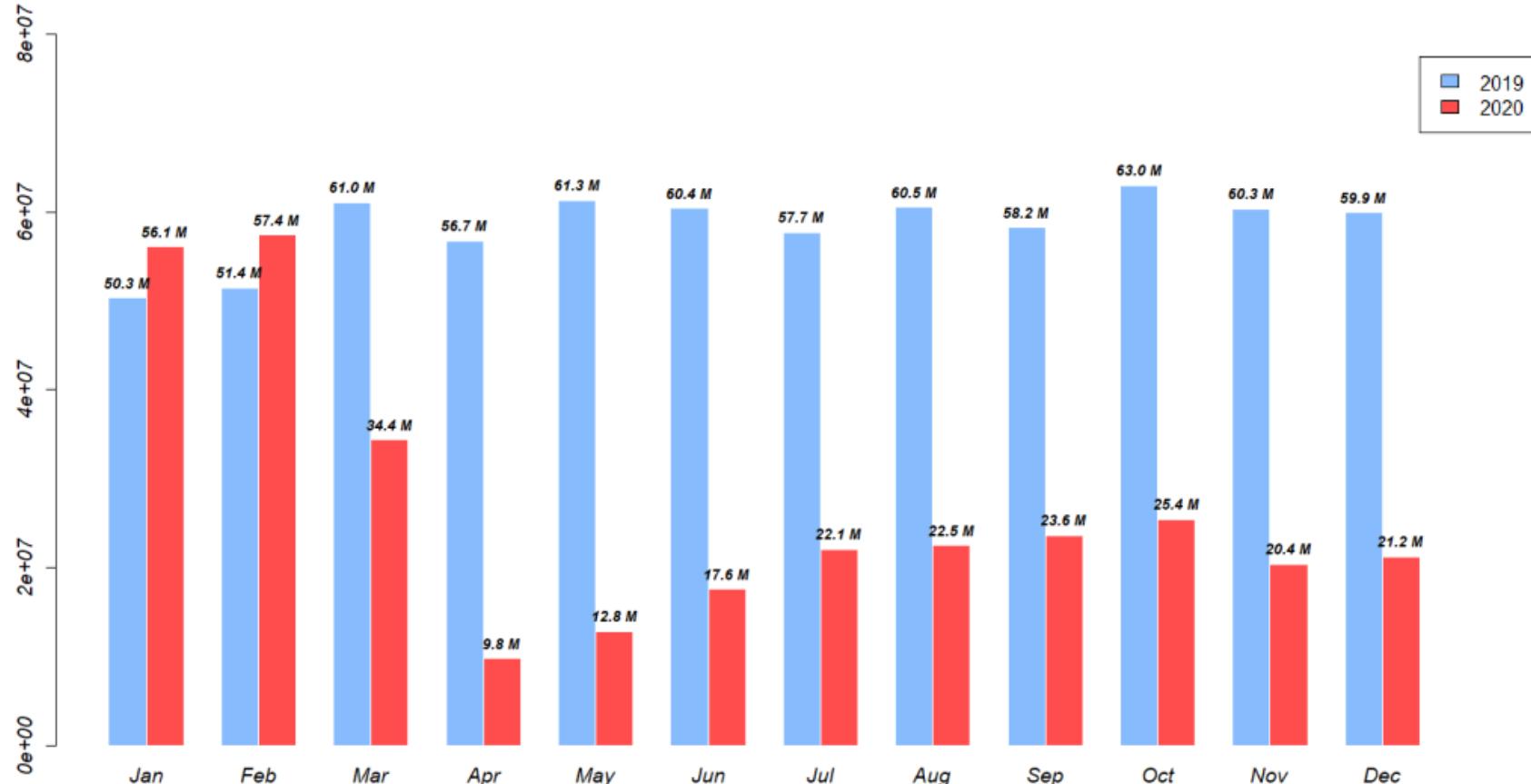


RIDE-SHARE TRIPS

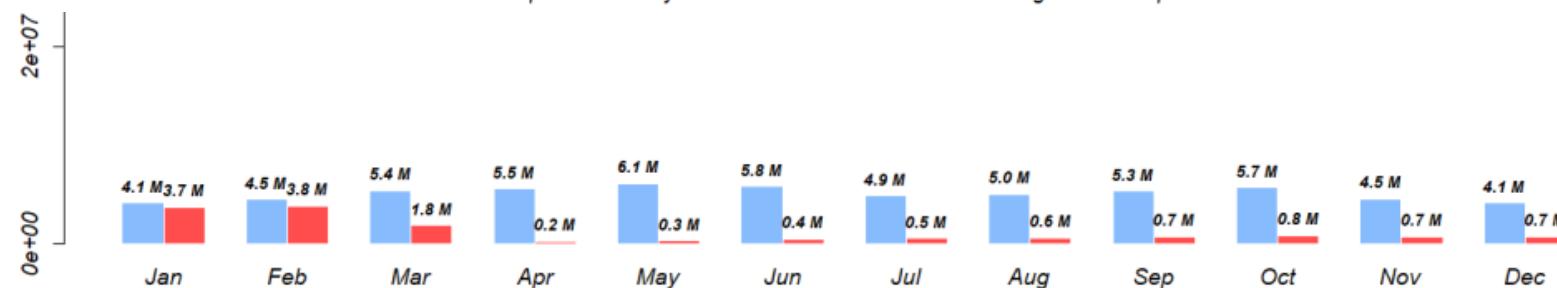


TAXI TRIPS

# Monthly Ride-share and Taxi Miles Traveled

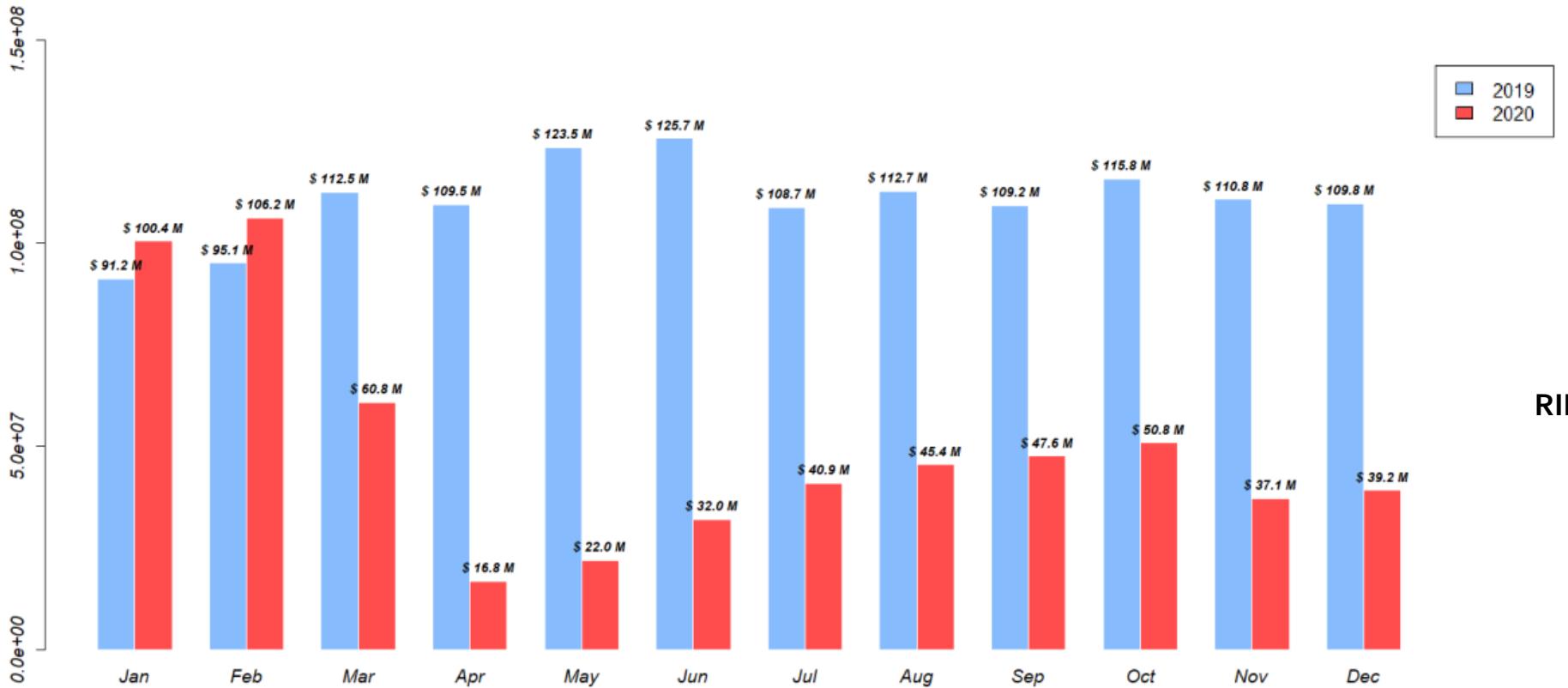


RIDE-SHARE MILES



TAXI MILES

# Monthly Ride-share and Taxi Total Fares



RIDE-SHARE FARES

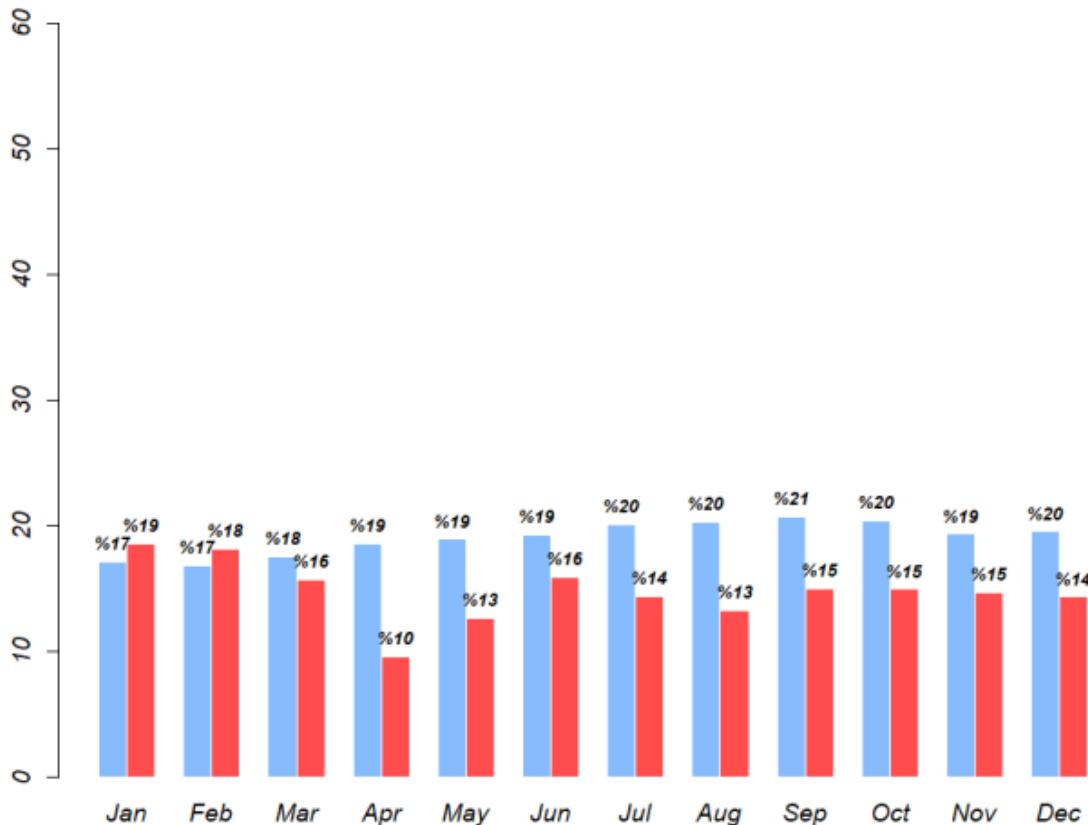


TAXI FARES

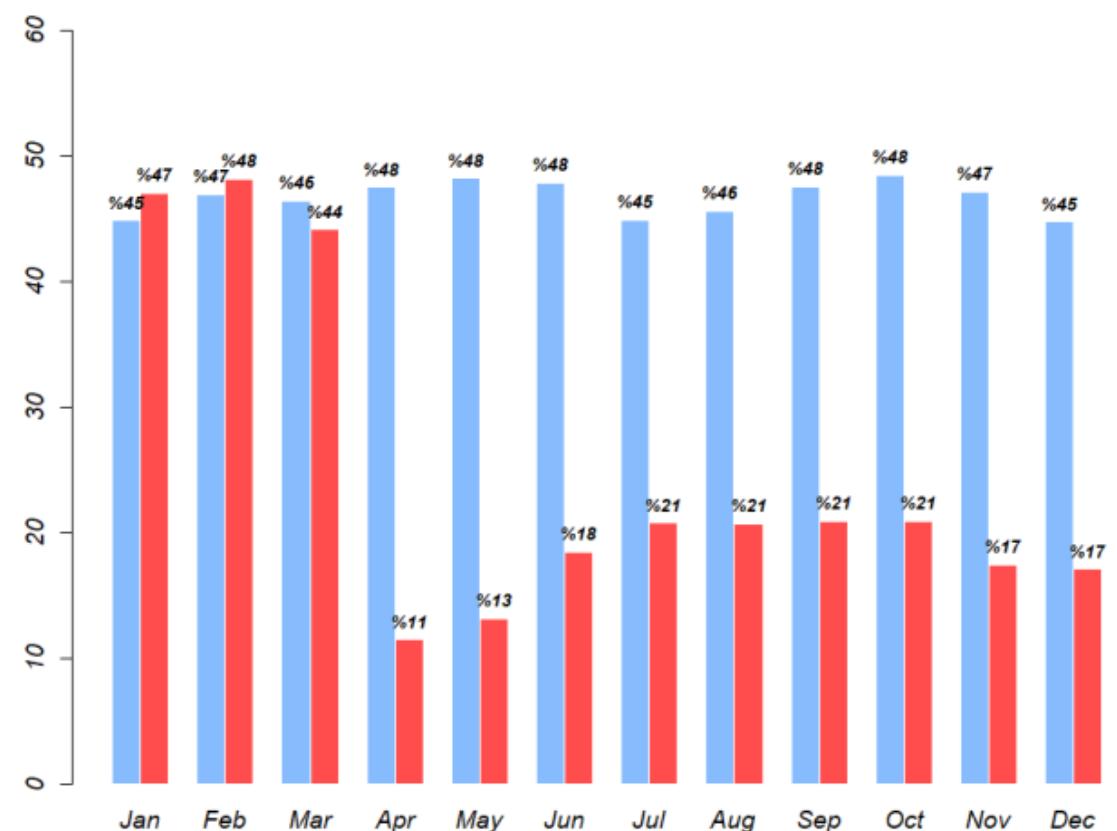
# Monthly Ride-share and Taxi Tippers Percentage



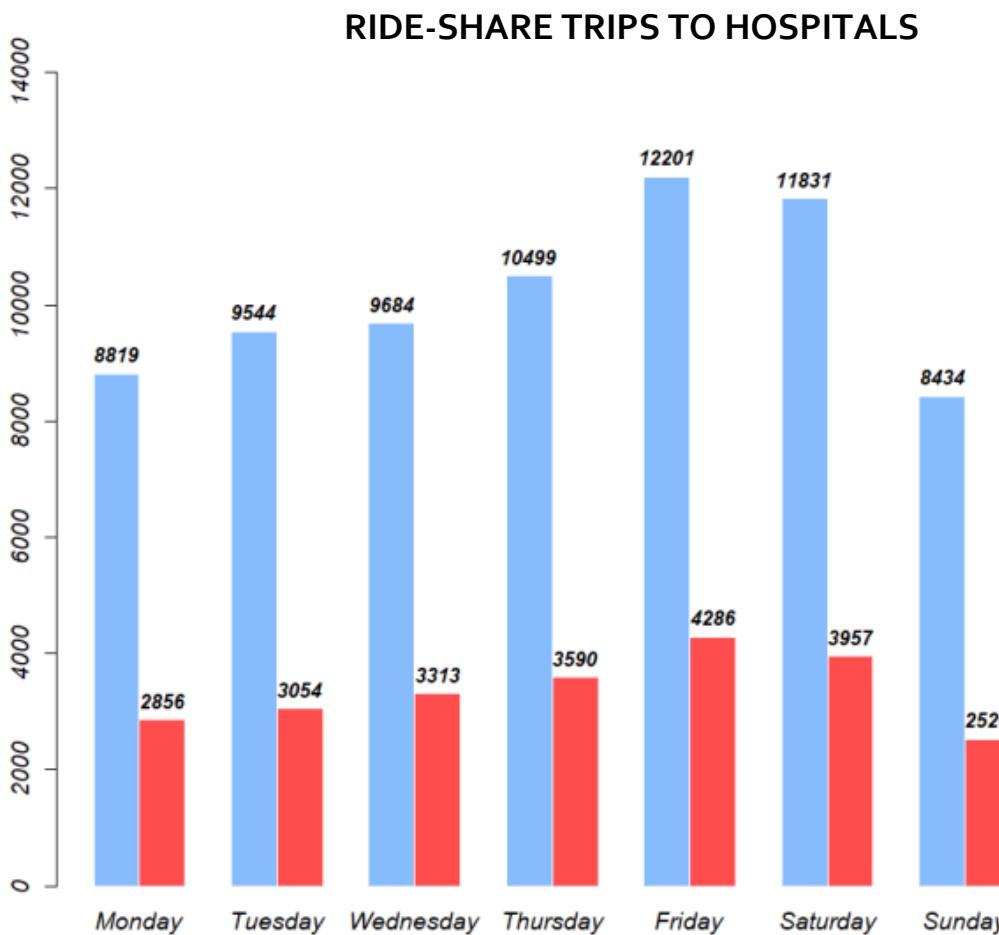
RIDE-SHARE TIPPERS



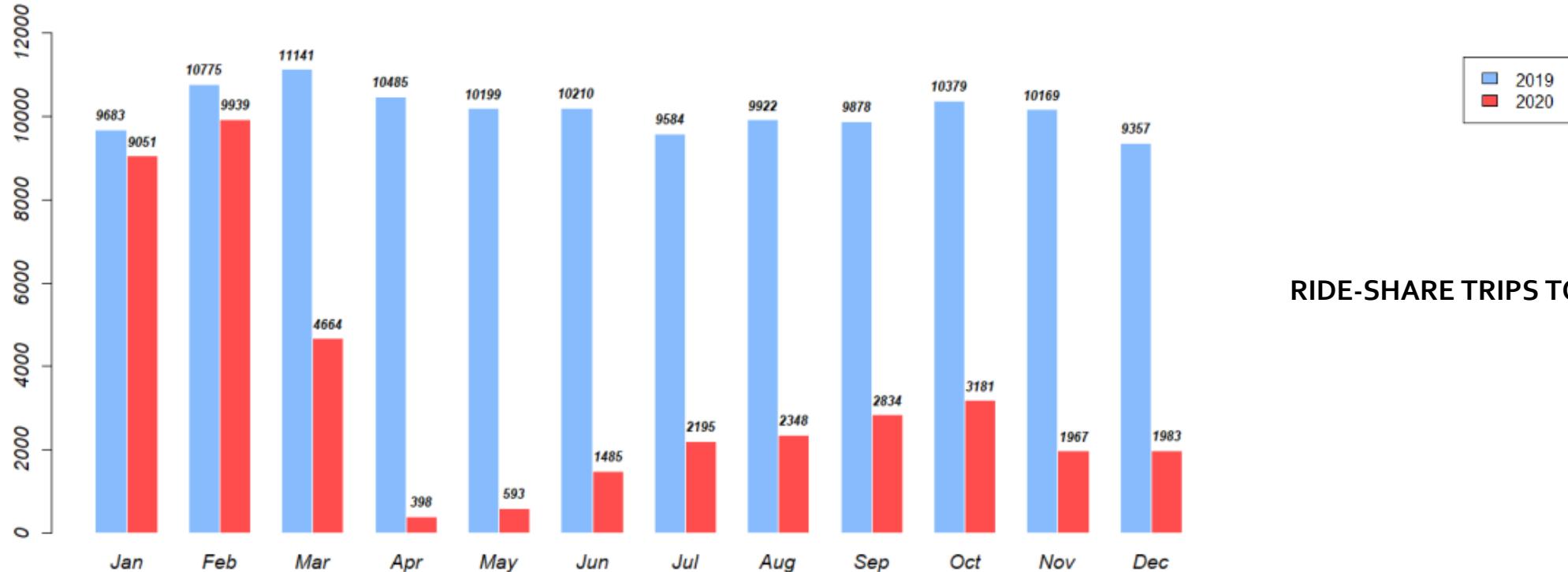
TAXI TIPPERS



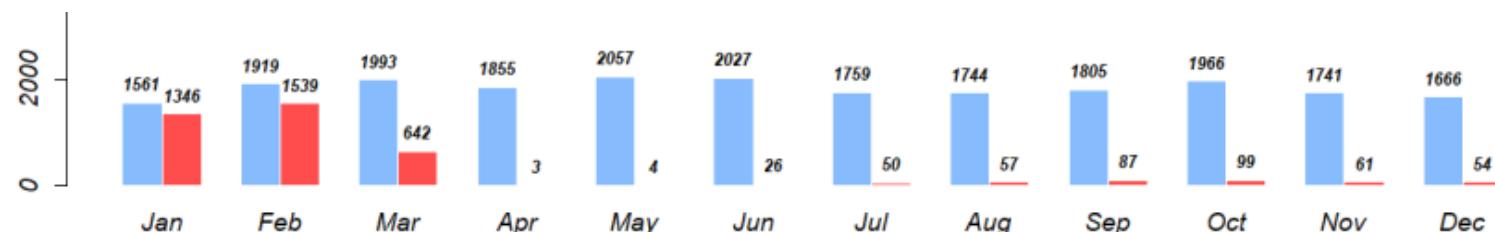
# Daily Average Ride-share and Taxi Trips To Hospitals



# Daily Average Ride-share and Taxi Trips To Hospitals

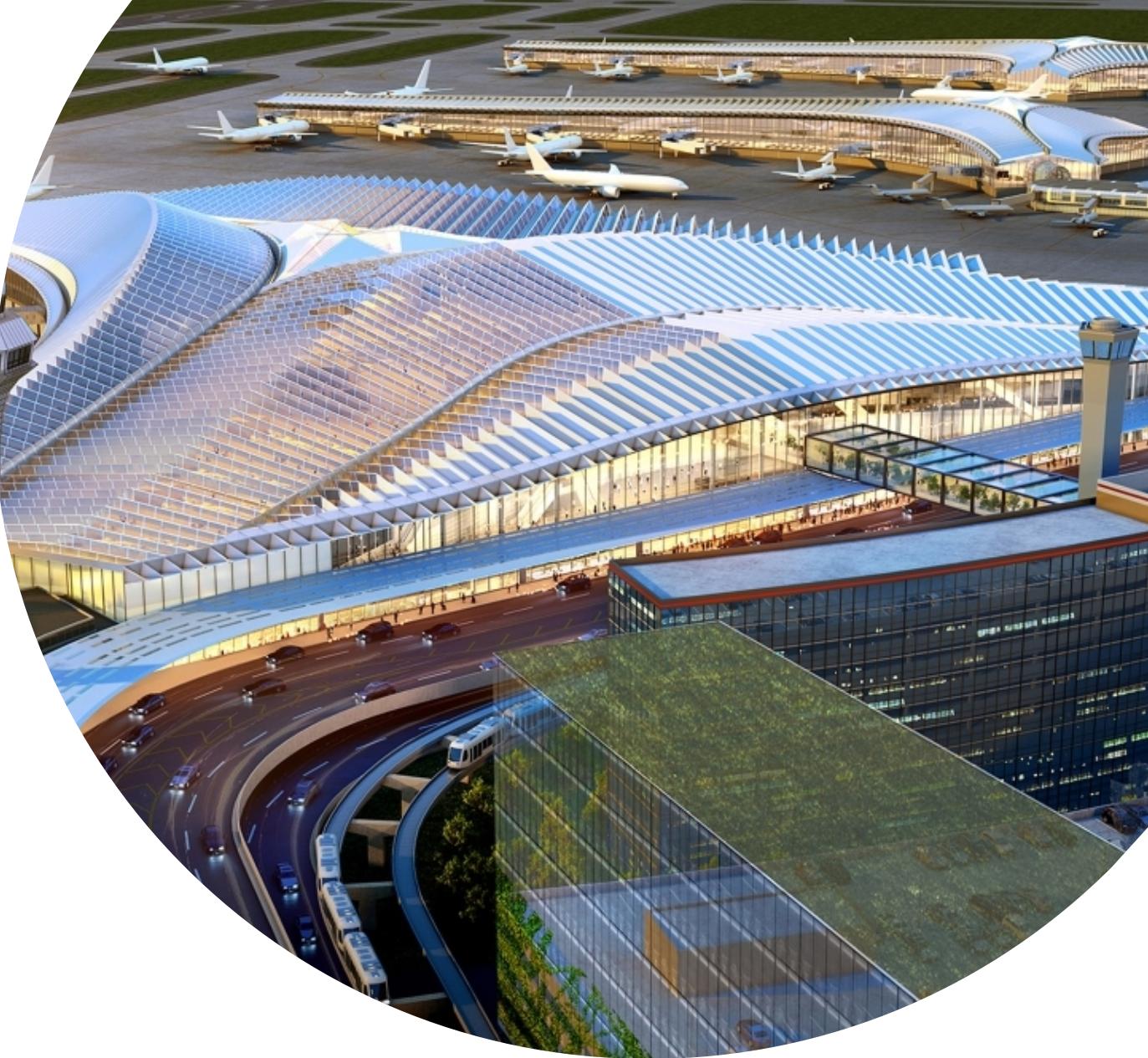


RIDE-SHARE TRIPS TO HOSPITALS



TAXI TRIPS TO HOSPITALS

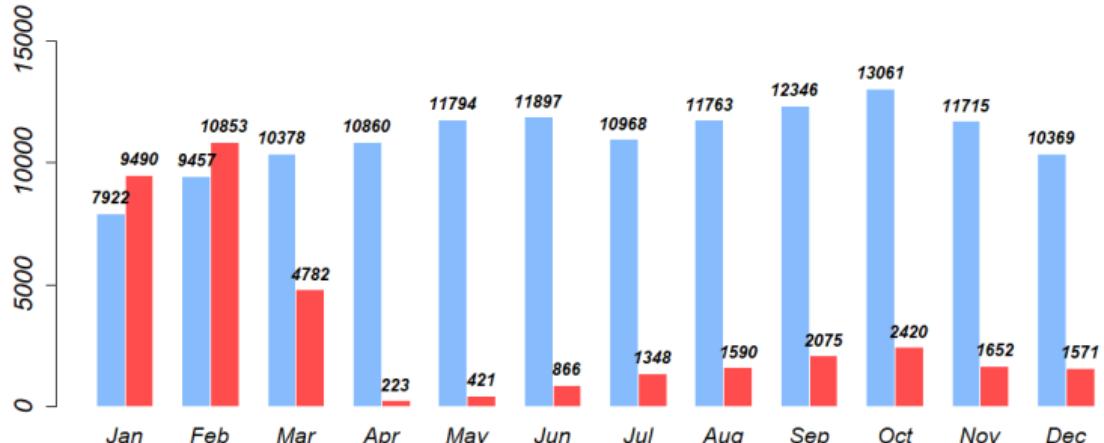
- O'Hare and Midway airports
- Taxi and Ride-share rides to and from each airport



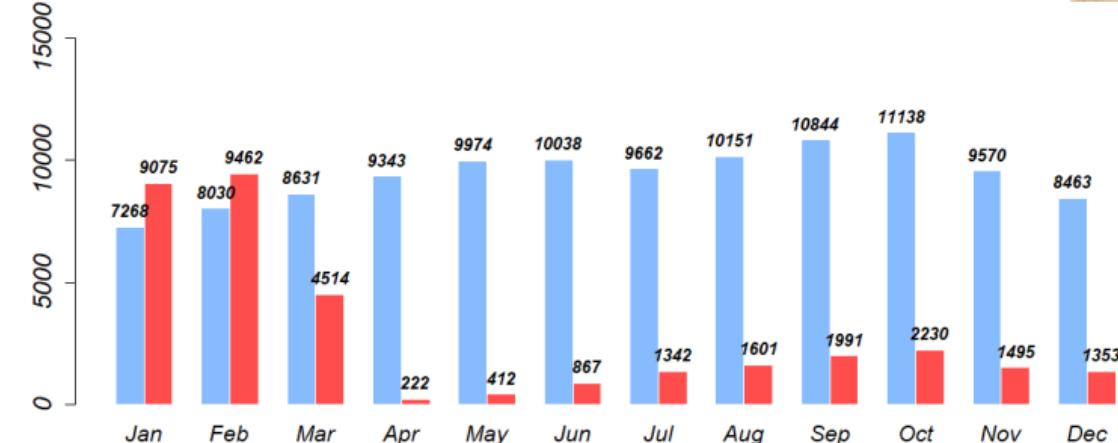
# O'Hare Airport Daily Average Ride-share and Taxi Trips

2019  
2020

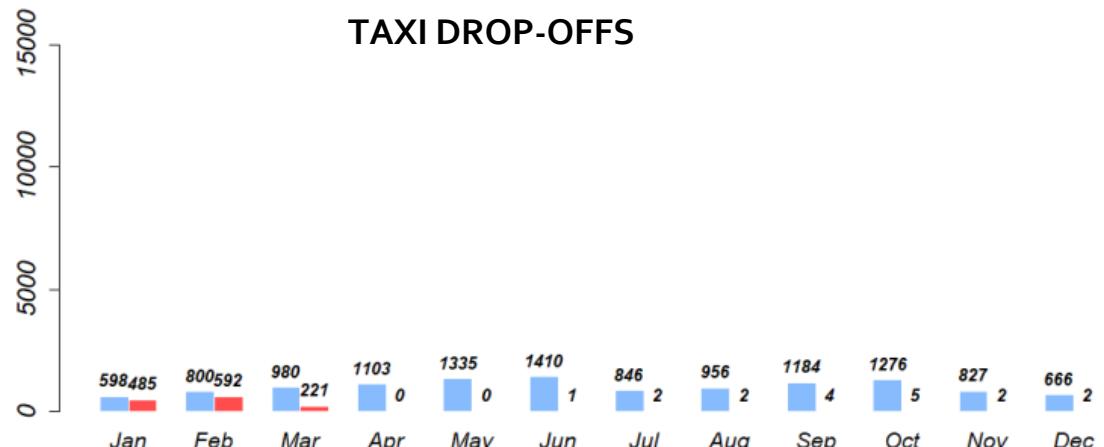
## RIDE-SHARE DROP-OFFS



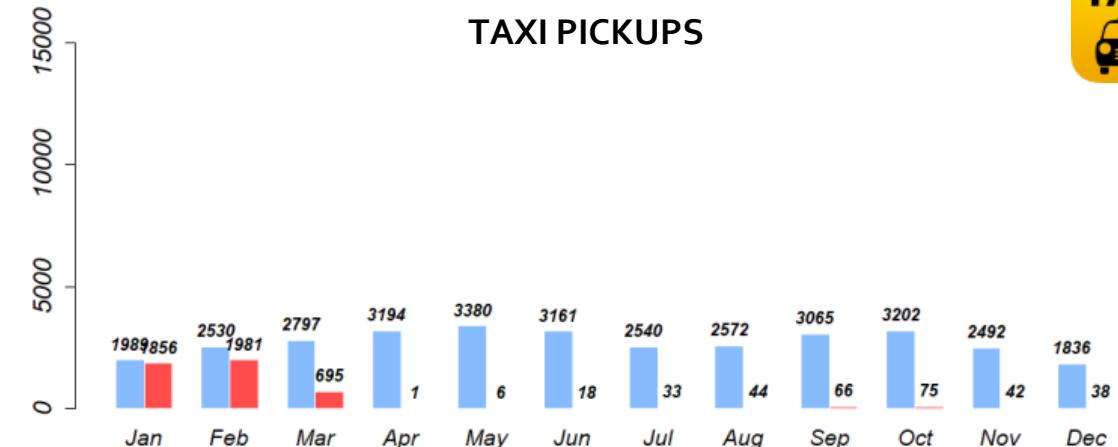
## RIDE-SHARE PICKUPS



## TAXI DROP-OFFS



## TAXI PICKUPS

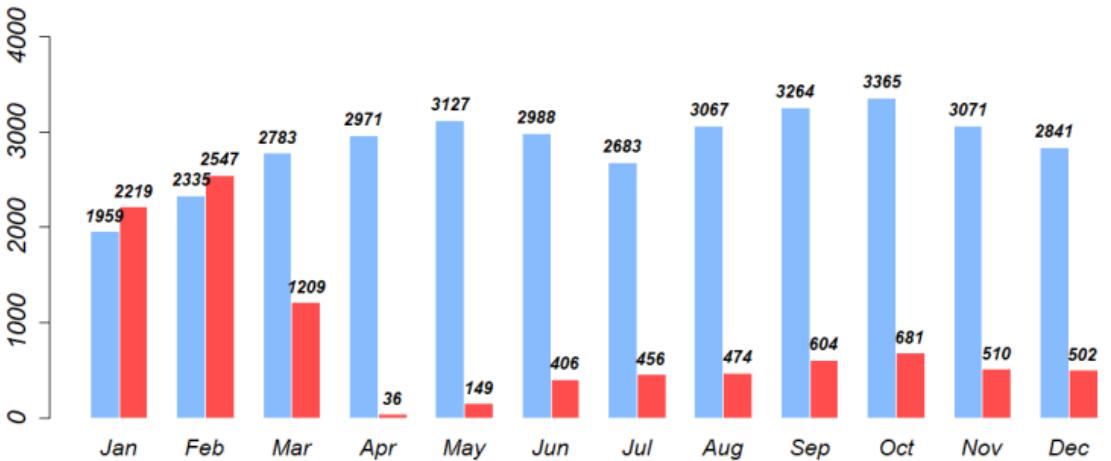


# Midway Airport Daily Average Ride-share and Taxi Trips

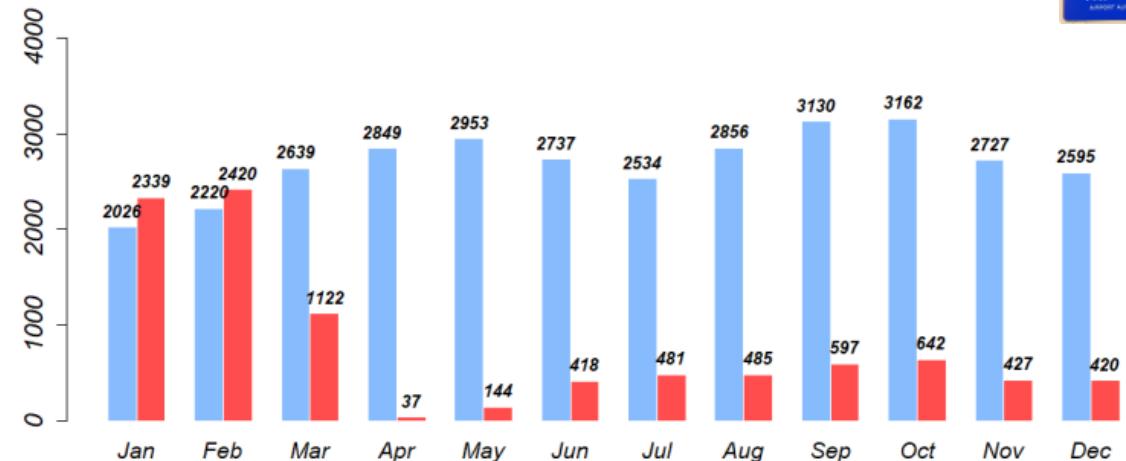
2019  
2020



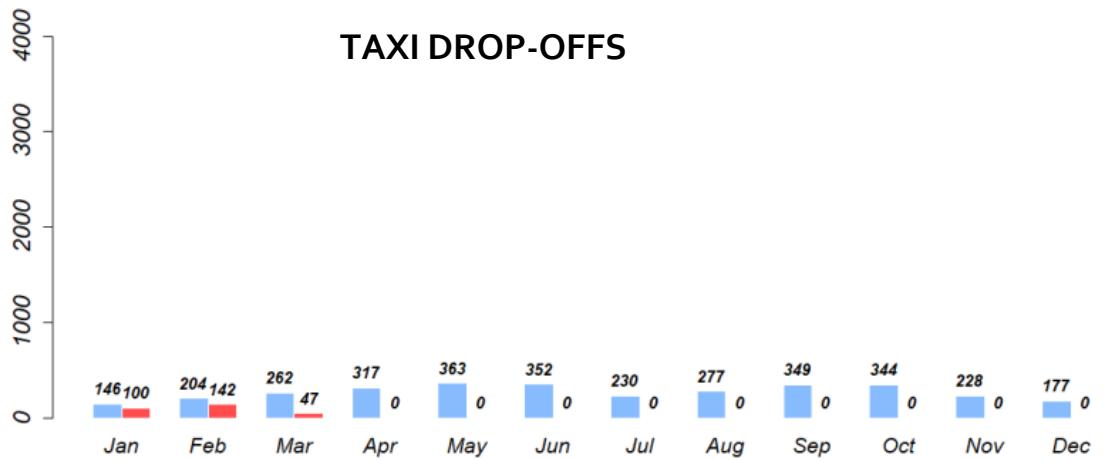
## RIDE-SHARE DROP-OFFS



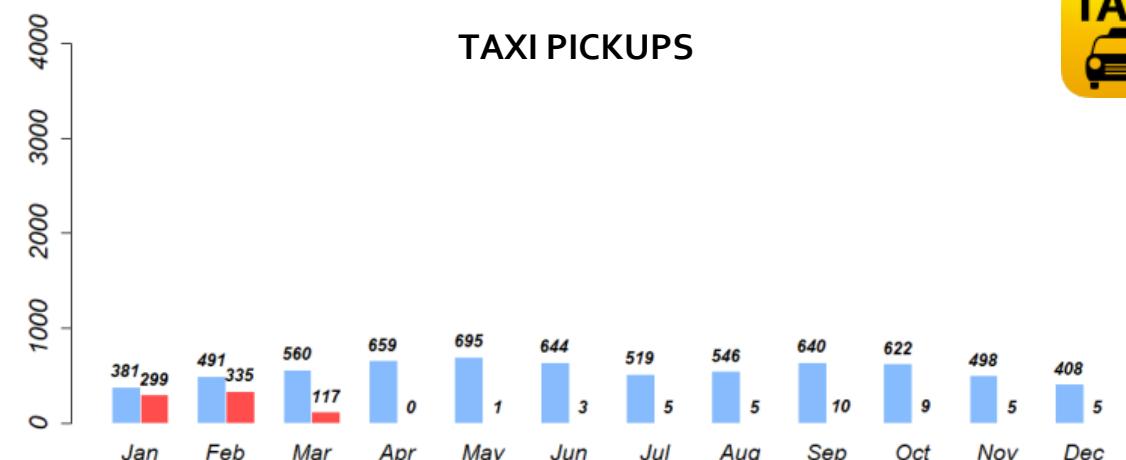
## RIDE-SHARE PICKUPS



## TAXI DROP-OFFS



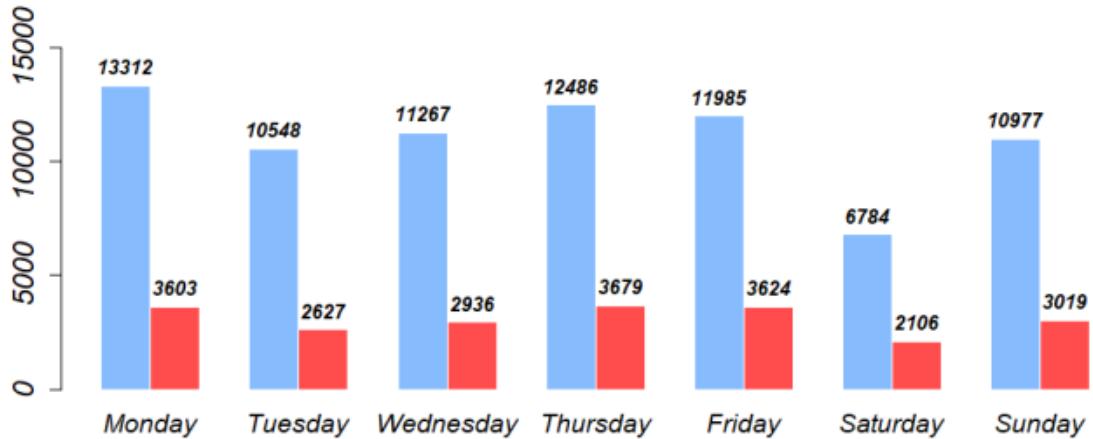
## TAXI PICKUPS



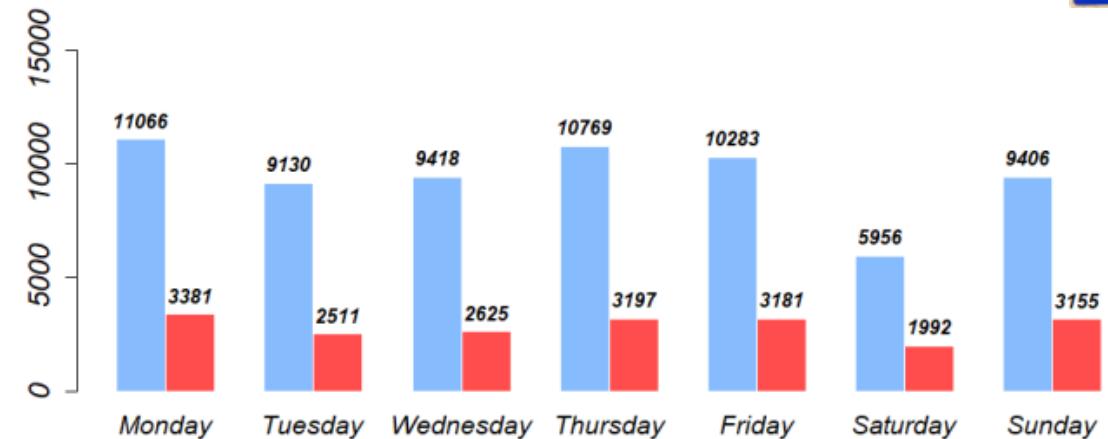
# O'Hare Airport Daily Average Trips

2019  
2020

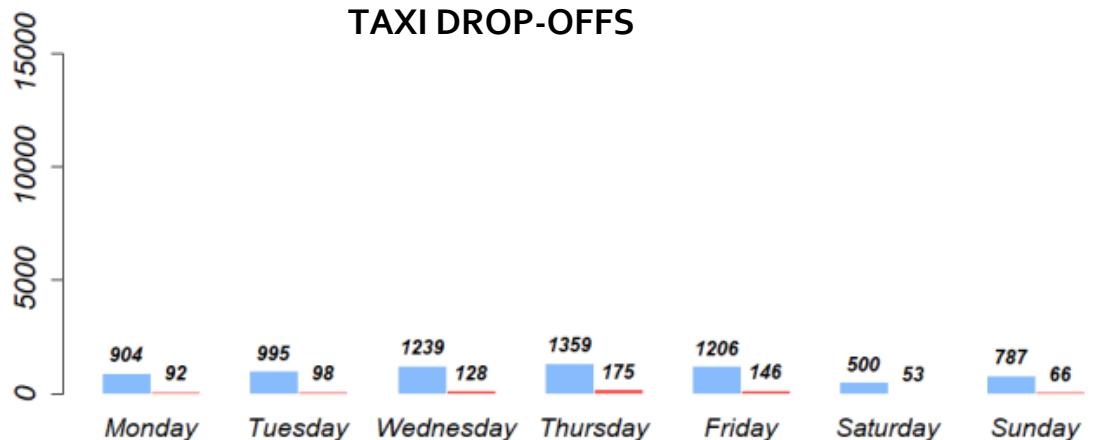
## RIDE-SHARE DROP-OFFS



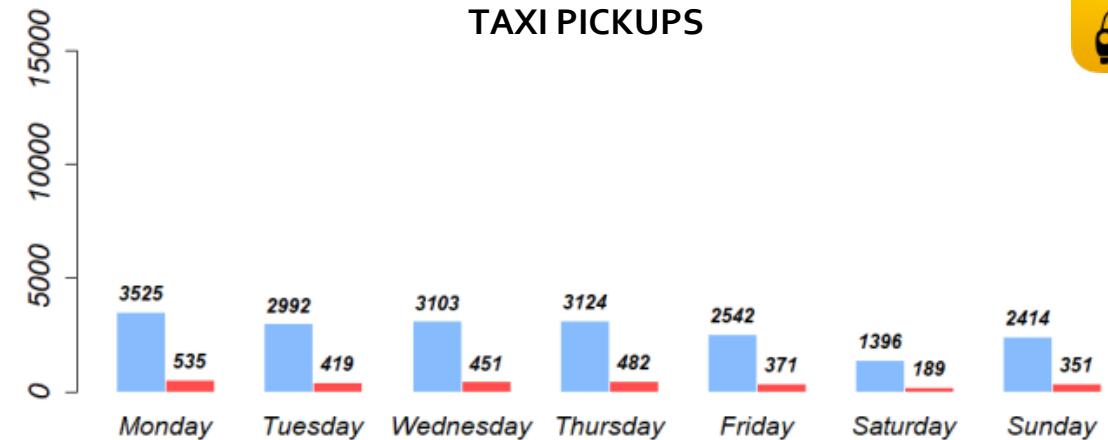
## RIDE-SHARE PICKUPS



## TAXI DROP-OFFS



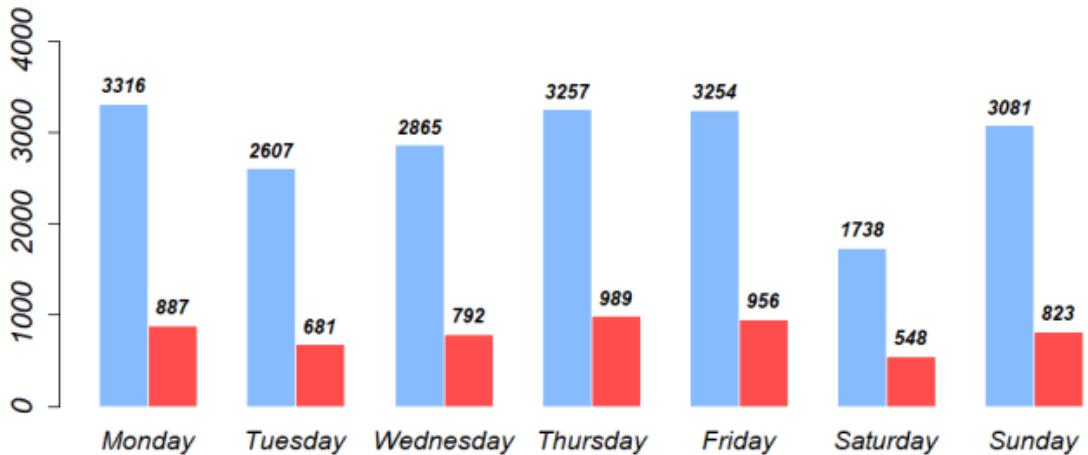
## TAXI PICKUPS



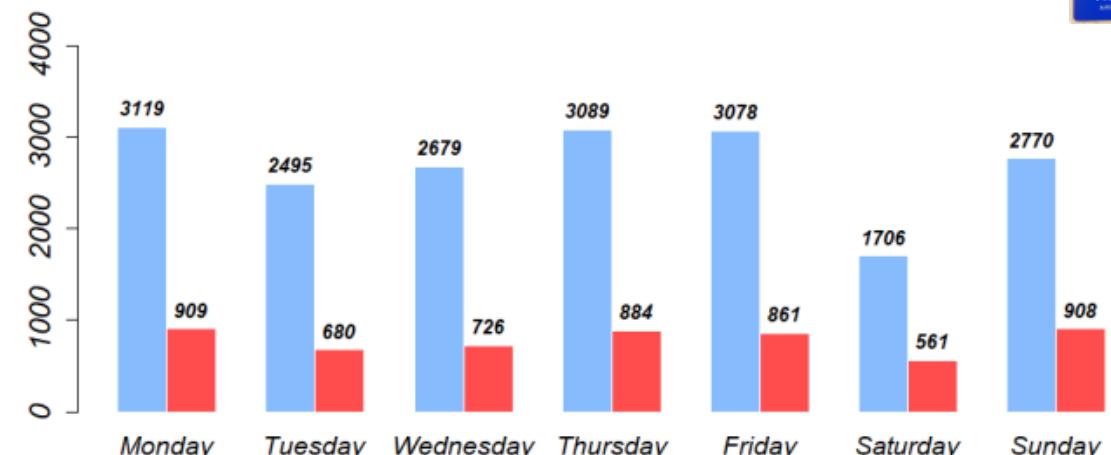
# Midway Airport Daily Average Trips

2019  
2020

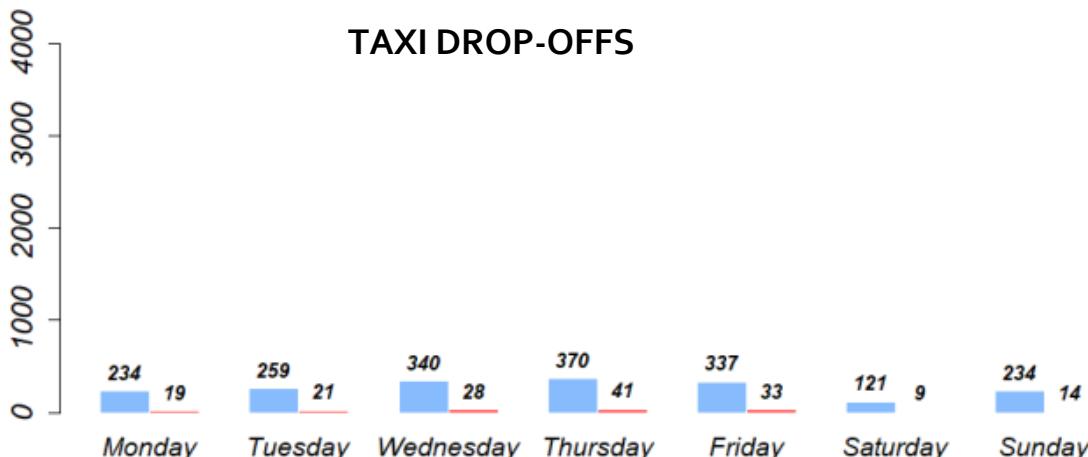
## RIDE-SHARE DROP-OFFS



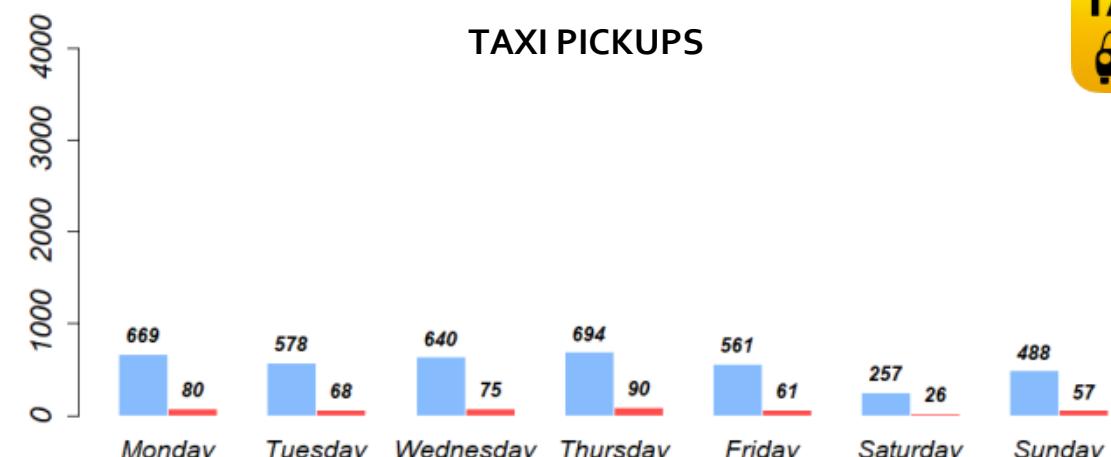
## RIDE-SHARE PICKUPS



## TAXI DROP-OFFS



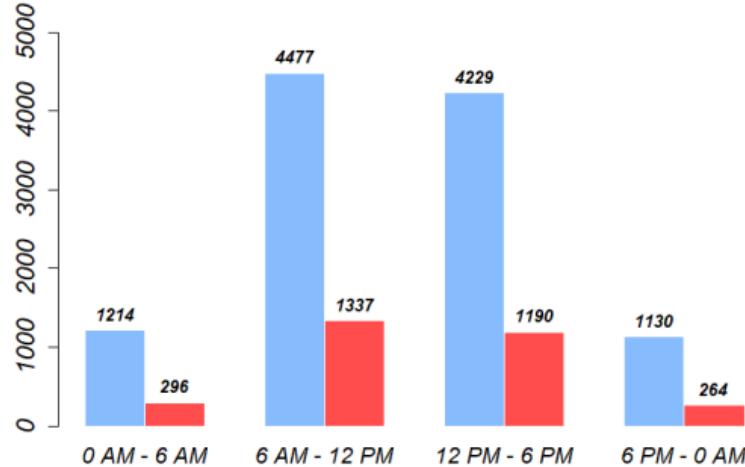
## TAXI PICKUPS



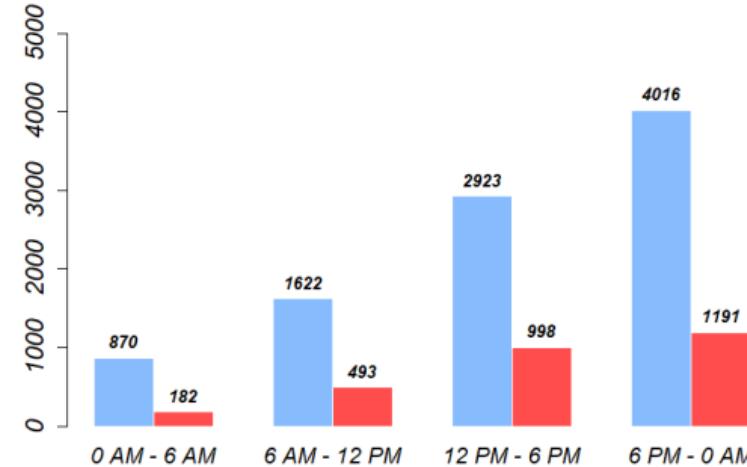
# O'Hare Airport Daily Average Trips

2019  
2020

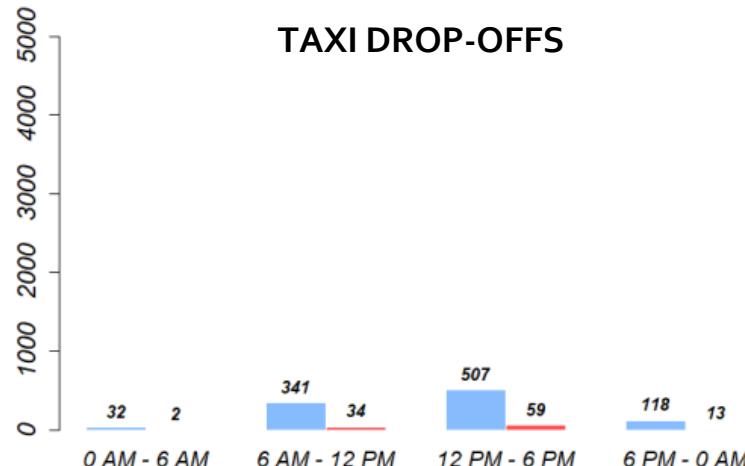
## RIDE-SHARE DROP-OFFS



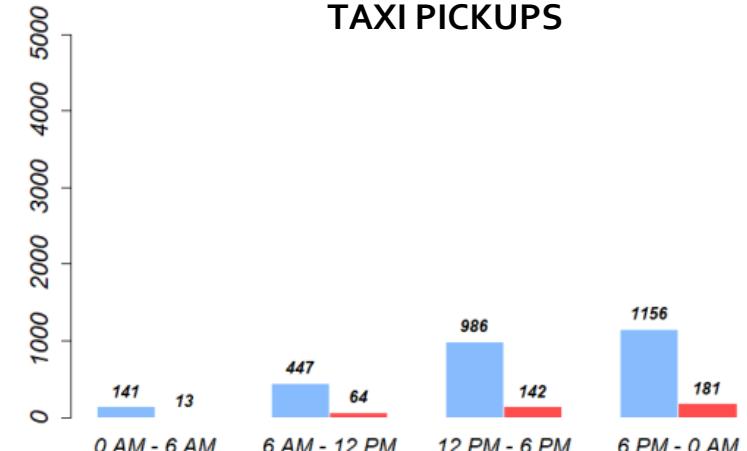
## RIDE-SHARE PICKUPS



## TAXI DROP-OFFS



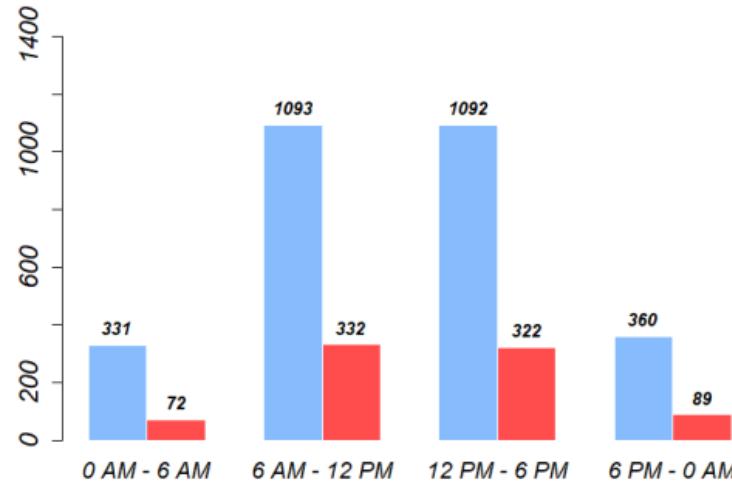
## TAXI PICKUPS



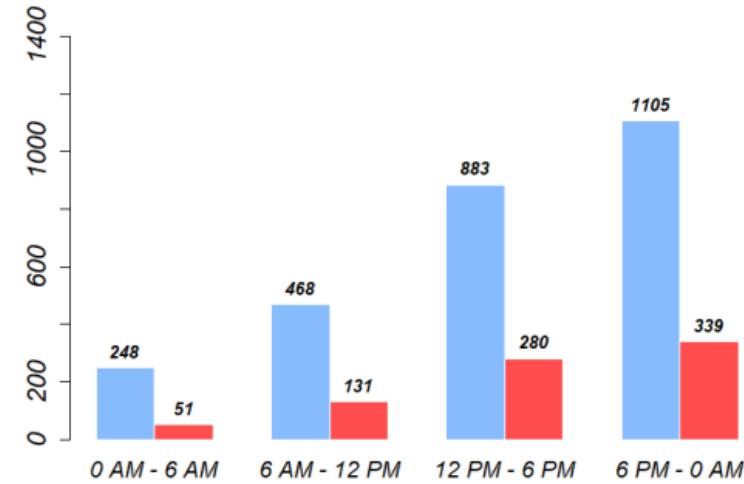
# Midway Airport Daily Average Trips

2019  
2020

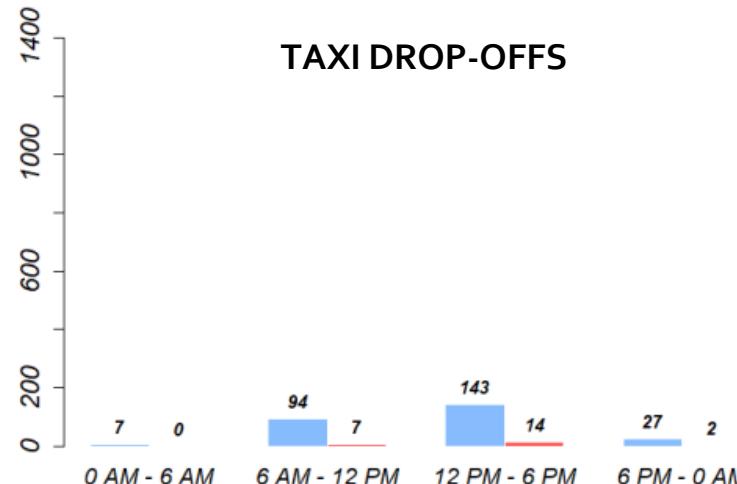
RIDE-SHARE DROP-OFFS



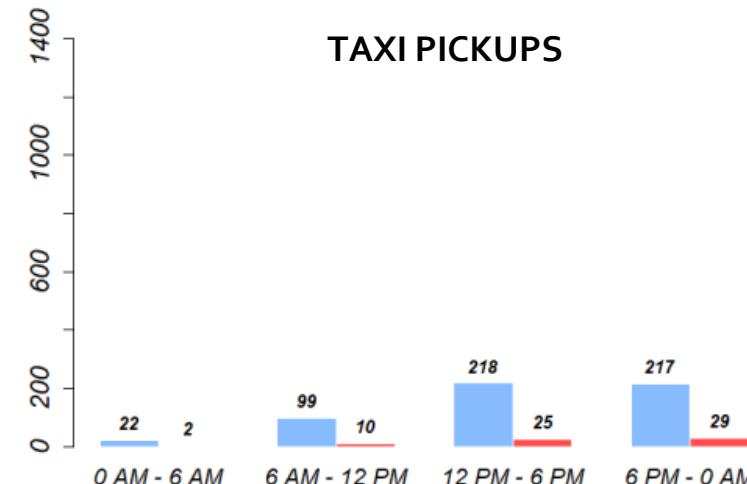
RIDE-SHARE PICKUPS



TAXI DROP-OFFS



TAXI PICKUPS



# Conclusion

- Car crashes decreased during the pandemic
- Monthly hit and run crashes percentage increased
- Crashes percentage decreased during morning rush hours
- Taxi rides decreased drastically
- Ride-share business recovered better than taxis
- People tip less in rideshares
- Tippers percentage decreased in taxis the most
- Rides to and from airports dropped dramatically
- O'Hare rides are 3 times more than Midway's

# Contribution

- Demonstrated transportation services in different times
- Conducted comparisons between digital services and Taxis
- Approached car crashes using multiple factors
- Analyzed airport and hospital trips
- Offered effective ways to understand the impact of COVID19 on transportation networks



# THANK YOU!

---



RAMADANFGANNUD@GMAIL.COM