**MSCA COVID-19 Hackathon Project**

**Team:** ***MScA Consulting*** (Devanshi Verma, Teja Boggiredy, Oleksiy Anokhin)

**Audience:** A working anti-crisis group the Chicago City and cab drivers’ union

**Objective: inform the audience about the consequences of the COVID-19**

**Research Hypotheses:**

* COVID-19 negatively affected the financial well-being of Chicago cab drivers and their families
* COVID-19 changed the behavior of Chicago cab clients

**Data and source:**

* Taxi trips in Chicago (12/2018 – 06/2019, 12/2019 – 06/2020)
* Taxi trips reported to the City of Chicago in its role as a regulatory agency. To protect privacy but allow for aggregate analyses, the Taxi ID is consistent for any given taxi medallion number but does not show the number, Census Tracts are suppressed in some cases, and times are rounded to the nearest 15 minutes
* For 12/2019 – 06/2020 dataset has 4137294 \* 23 columns

**Topics for exploratory data analysis (before and during COVID):**

* Payments
  + Amount
  + Type (Credit card/Cash)
* Tips
* Rides
  + Total
  + By company
* Mobility
  + Duration of a trip
  + Mileage of a trip
  + Hours of use
* Hotspots
  + Pick up spots
  + Drop off spots

**Results:**

* Ridership dropped significantly (percentage)
* Some companies adapted better (Taxi Affiliation Services vs Flash Cab)
* The average duration of a trip increased by 3 minutes
* The average mileage of a trip increased by 1 mile
* The distribution of rides by hour changed and become more condensed

**Conclusions and recommendations:**

* Companies should develop more flexible pricing models during COVID