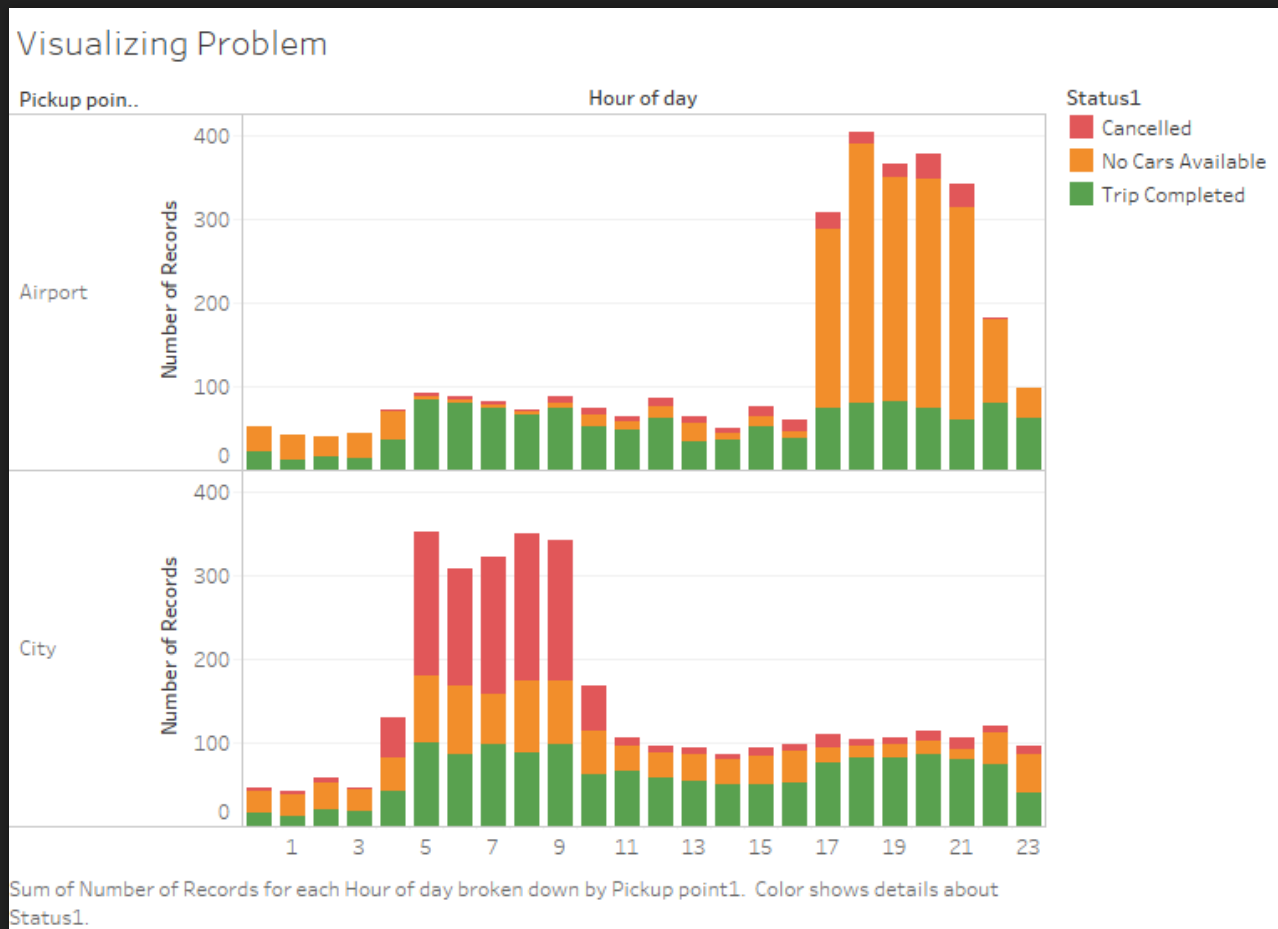# Uber Supply-Demand Gap Presentation and Recommendations

Based on the analysis done on ride-booking data provided for 5 days.
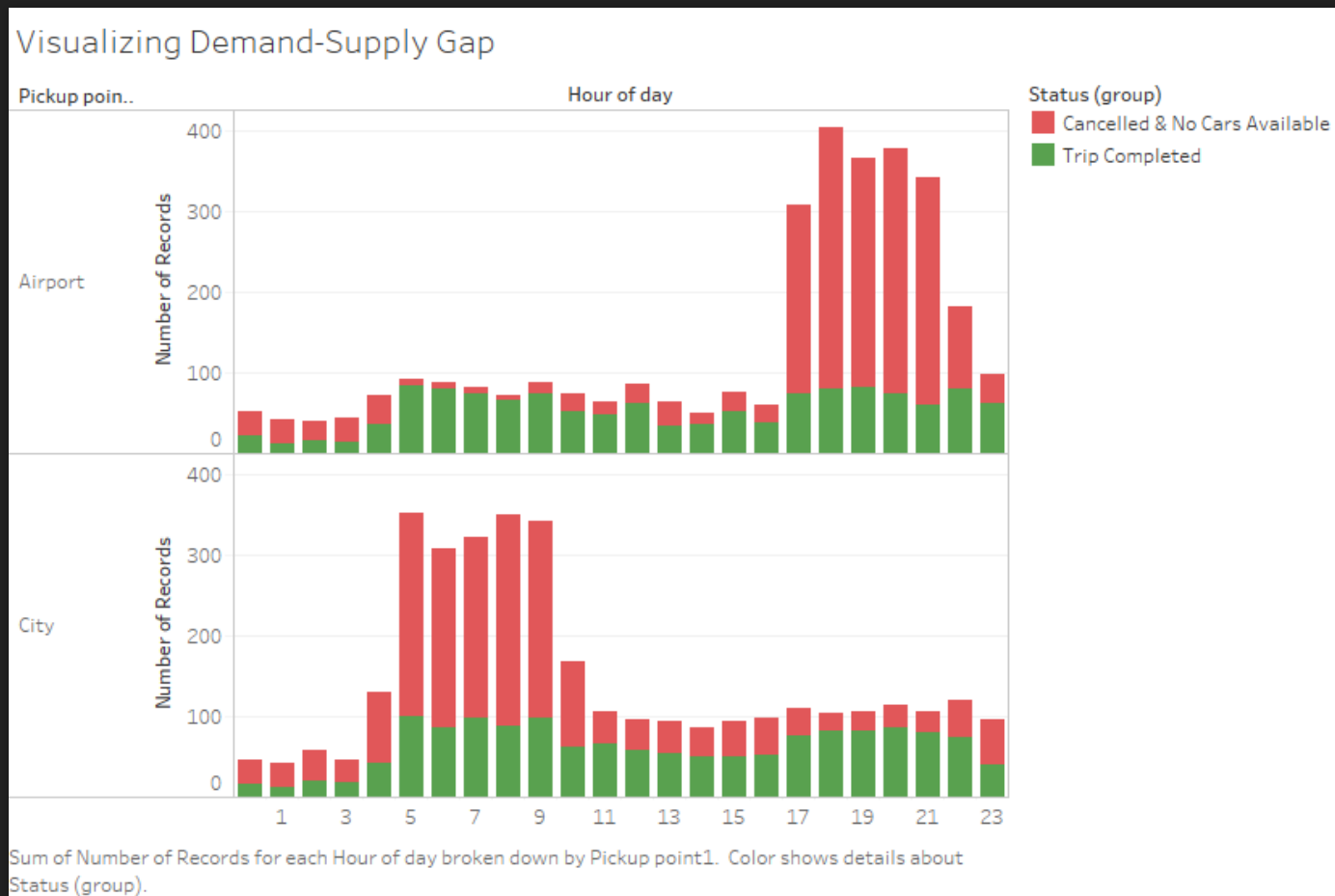
Uber

Problem Visualization

Visualizing Problem

Pickup poin..   Hour of day   Status1
                                                                 ■ Cancelled
                                                                 ■ No Cars Available
                                                                 ■ Trip Completed

Sum of Number of Records for each Hour of day broken down by Pickup point1. Color shows details about Status1.

Upon observing plots, we conclude:

- Uber is facing '**No Car Available**' issue at Airport in evening and night (**5pm to 12am**).
- Uber is facing cab '**Cancelled**' issue in City during early morning and morning (**4am to 10am**)
- Uber is facing '**No Car Available**' issue in City during early morning and morning (**4am to 10am**)

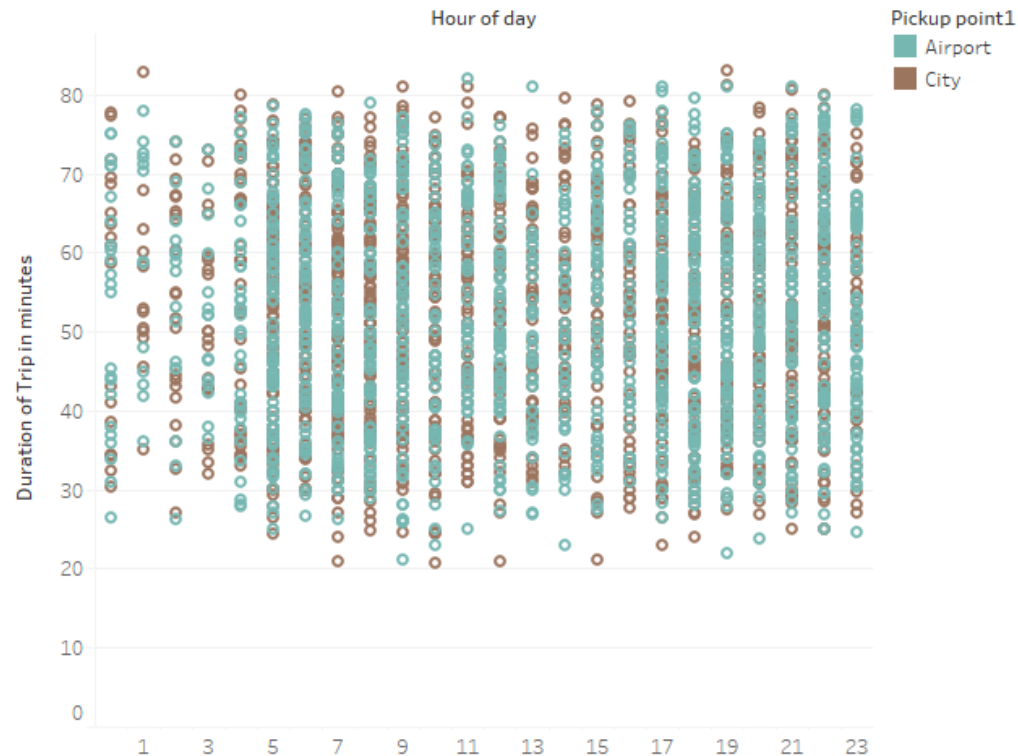# Visualizing Demand-Supply Gap

Upon observing plots, we conclude:

- Uber is facing high demand supply gap at Airport during **evening and night (5pm to 12am)**
- Uber is facing high demand supply gap in City during **early morning and morning (4am to 10am)**

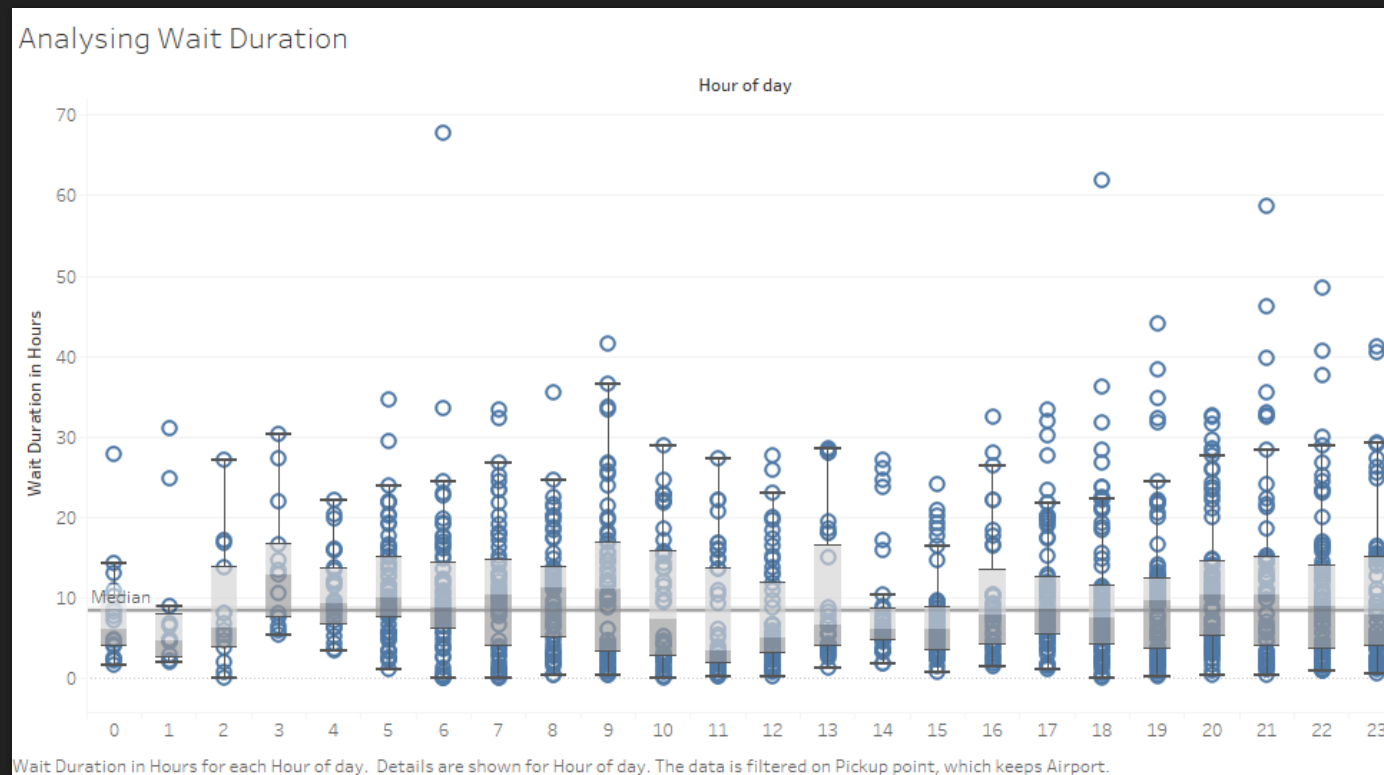# Is traffic & Trip Duration causing issue?

Analysing Trip Duration

Duration of Trip in minutes for each Hour of day. Color shows details about Pickup point1. The data is filtered on Duration of Trip in minutes, which includes values greater than or equal to 0.01.

Upon observing plots, we conclude:

- Even though Trip frequency is varying, the Trip duration is not varying much throughout the day.
- Thus, **Trip Duration and traffic are NOT causing problems faced by Uber**.

Is Driver Wait Duration causing issue?

Analysing Wait Duration

Wait Duration in Hours for each Hour of day. Details are shown for Hour of day. The data is filtered on Pickup point, which keeps Airport.

Upon observing plots, we conclude:

- We have comparatively high wait time at Airport during **early-morning, morning and also during evening, night**.
- Cab drivers may not prefer to take bookings in city and travel instead of taking booking for the airport and keep waiting there.
- Thus, **Driver Wait Duration could be causing problems faced by Uber**.

Solution to the problem

- For addressing **early morning and morning 'Cancelled' rides for Airport**
  - A penalty for driver canceling Airport booking thrice a day
  - Provide incentive to drivers for Airport Rides / Airport Wait Duration

- For addressing **'No Car Available' issue at Airport in evening and night**
  - Airport Rides can be given a weight of 1.5 ride count
  - Exempt drivers with Airport Rides (in evening and night) from daily minimum rides

- For addressing **'No Car Available' issue in City during early morning and morning**
  - Provide incentive to drivers for Airport Rides / Airport Wait Duration