

Uber Supply- Demand Gap Assignment

Objective

- Identify the root cause of the problem (i.e. cancellation and non-availability of cars)
- Recommend ways to resolve the supply-demand gap.

Problem Statement

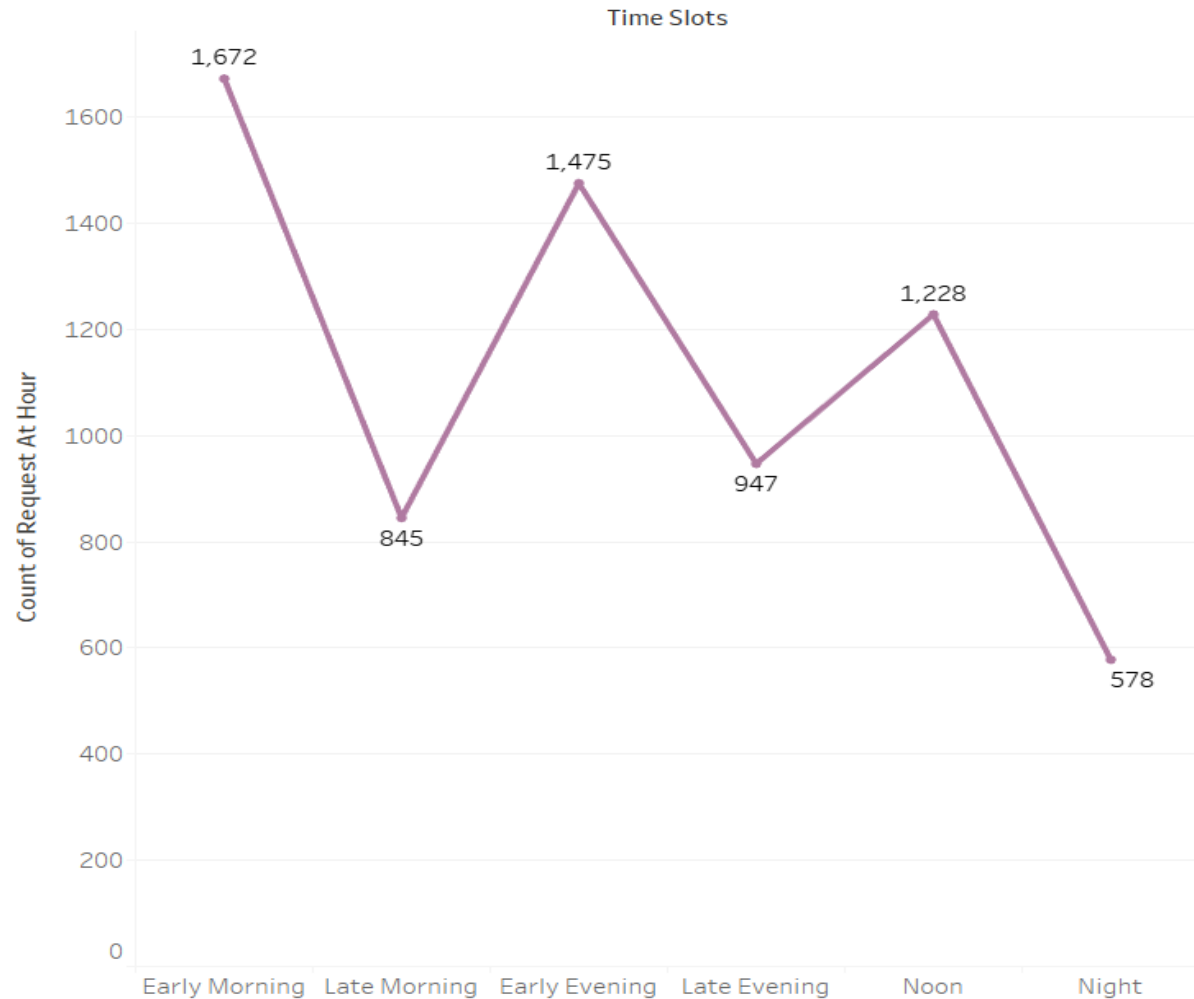
- Uber is a cab-aggregator. Uber is facing driver cancellation and non-availability of cars leading to loss of potential revenue.

Approach

- Analyze and Identify the gap between supply and demand of requests.

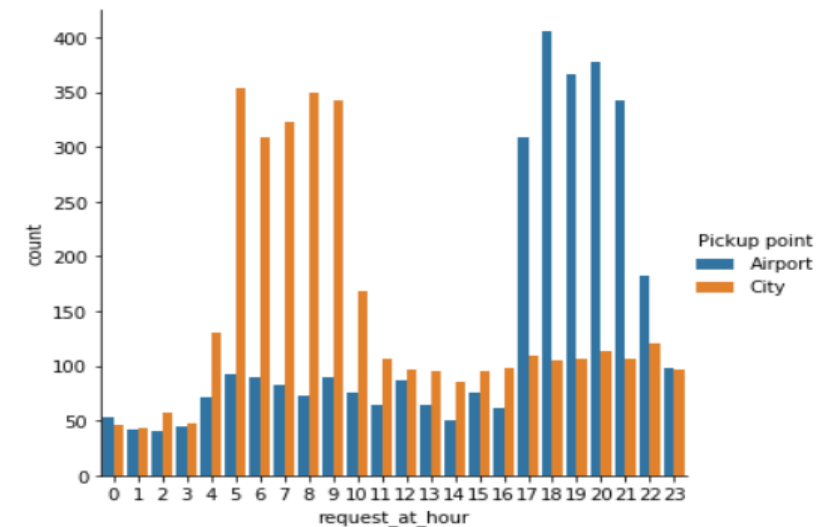
Uber Supply- Demand Gap

Demand Pattern in a day



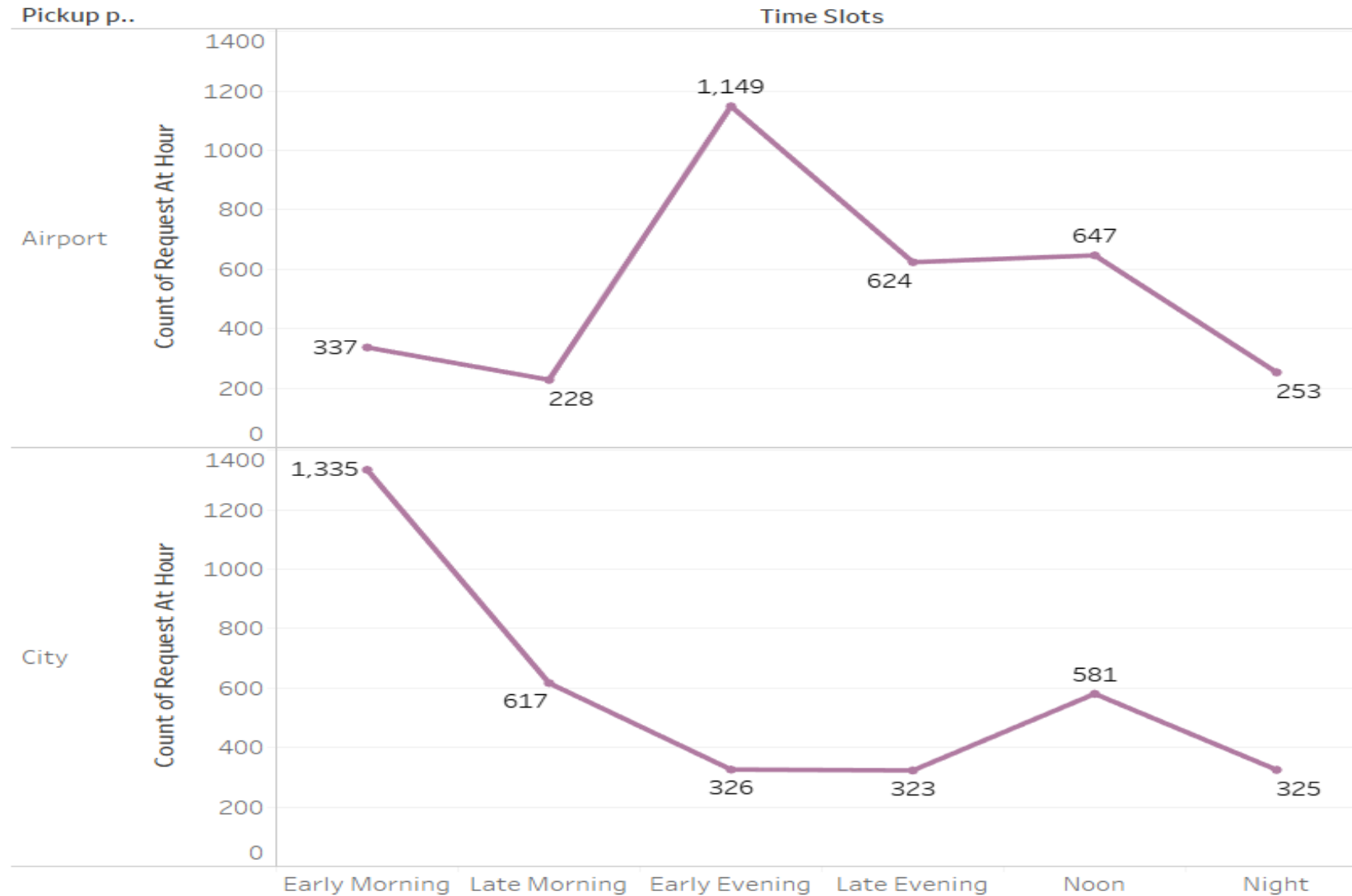
Time Slots:

- Early Morning : 5 AM – 9AM
- Late Morning : 9AM – 12 PM
- Noon : 12 PM – 6PM
- Early Evening : 6PM – 9PM
- Late Evening : 9PM- 12 PM
- Night : 12 AM – 5 AM



Uber Supply- Demand Gap

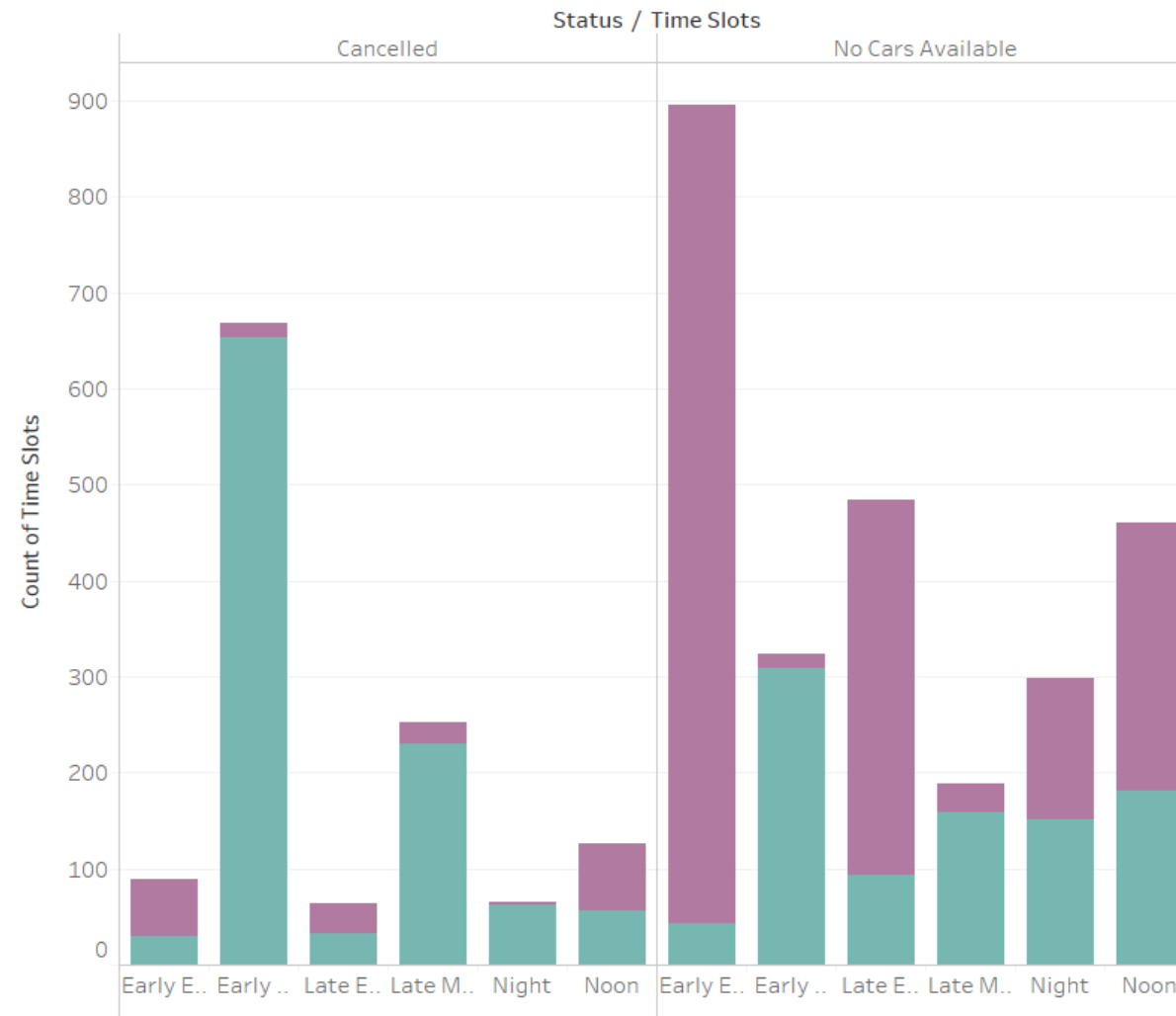
Requests at time at City and Airport



Uber Supply- Demand Gap

Major Issues for Uber

Frequency of Cancellation/ Non-availability

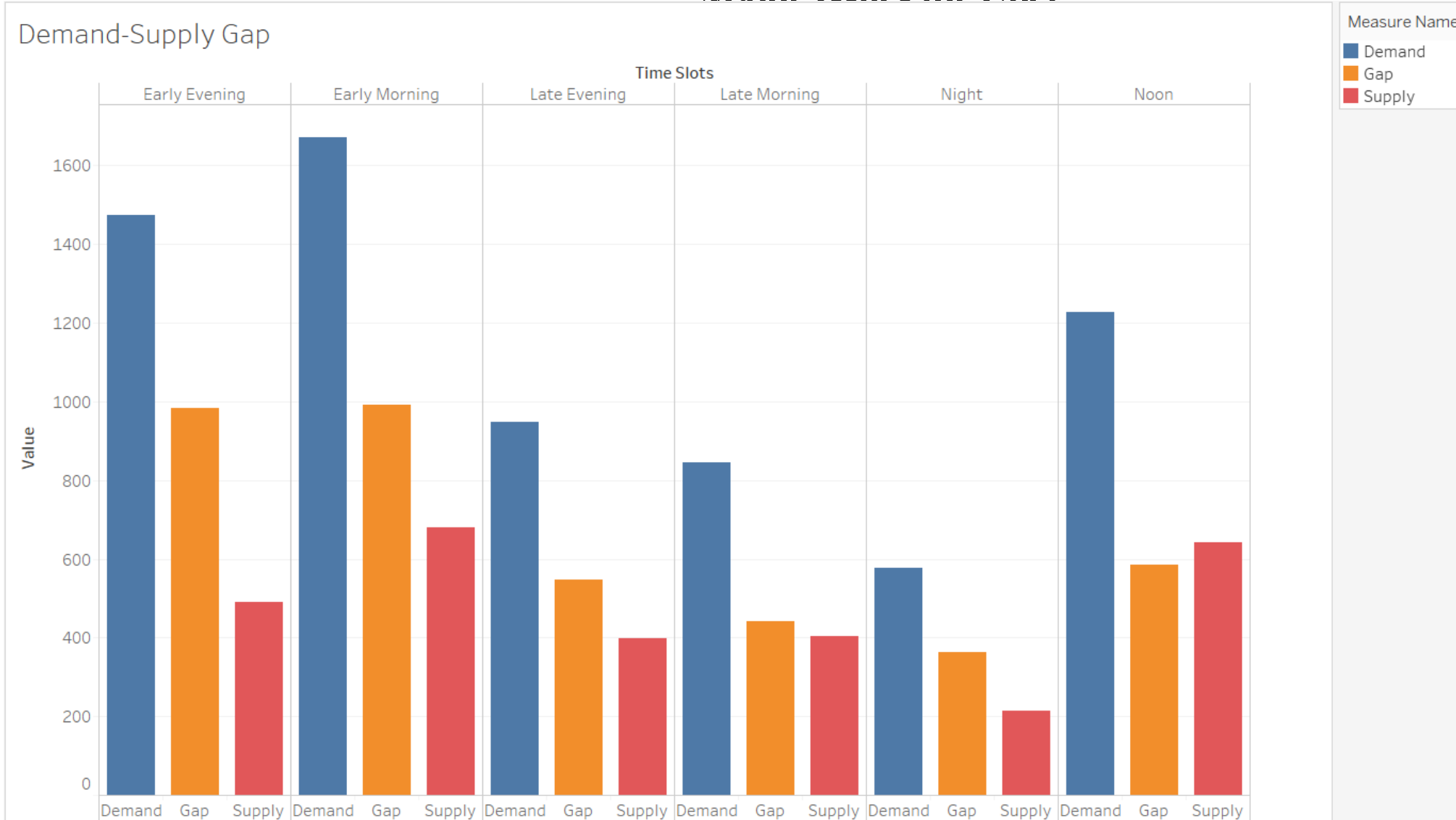


Pickup point

Airport

City

Major Issues for Uber

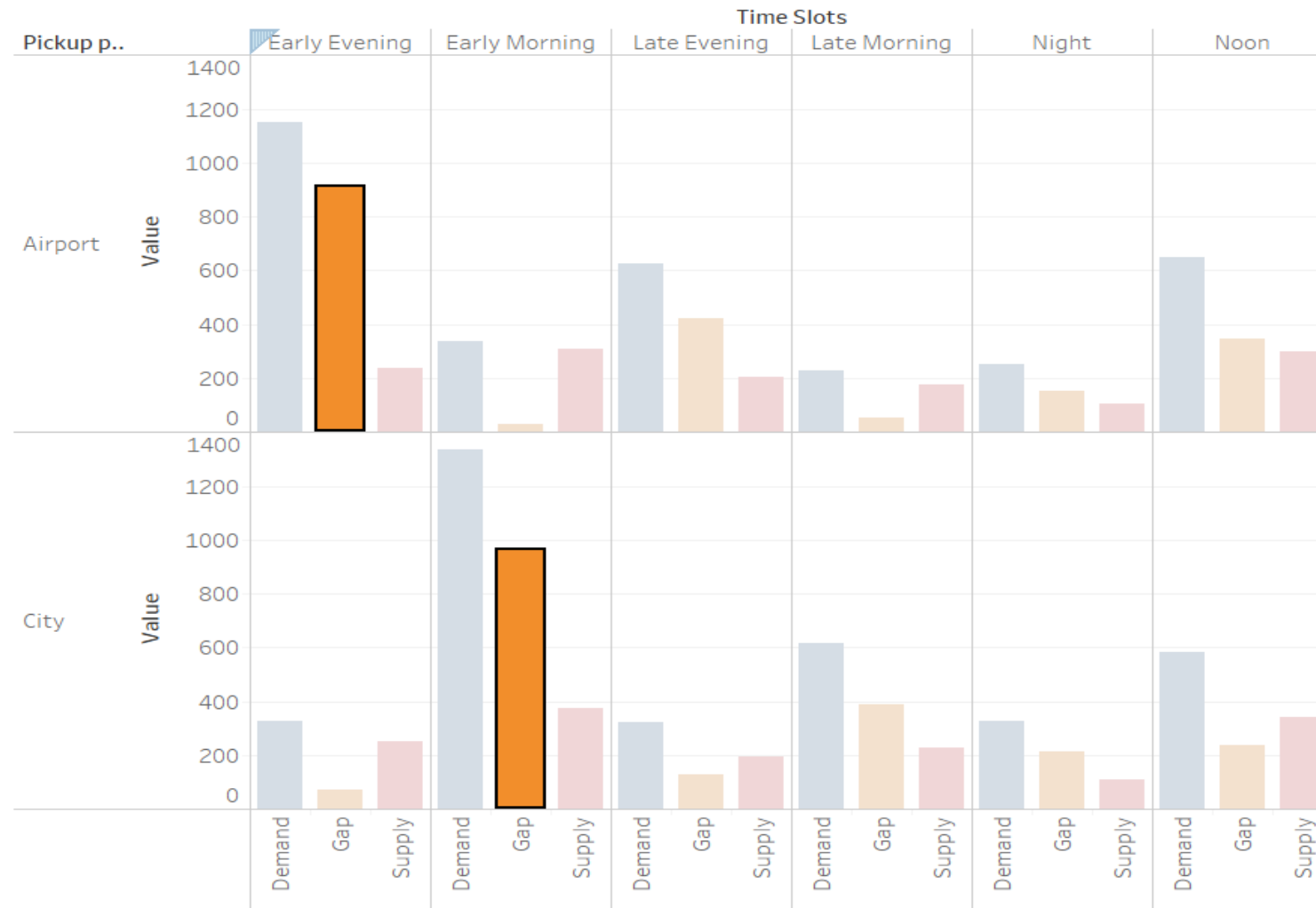


Highest Time gap exists in early morning slot

Uber Supply- Demand Gap

Major Issues for Uber

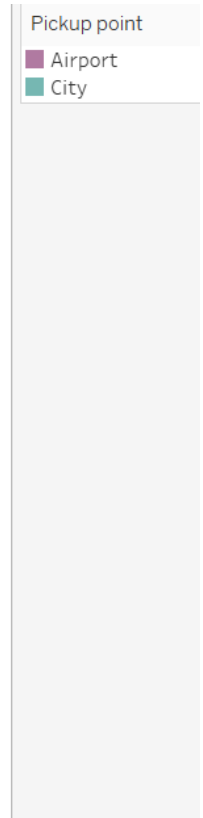
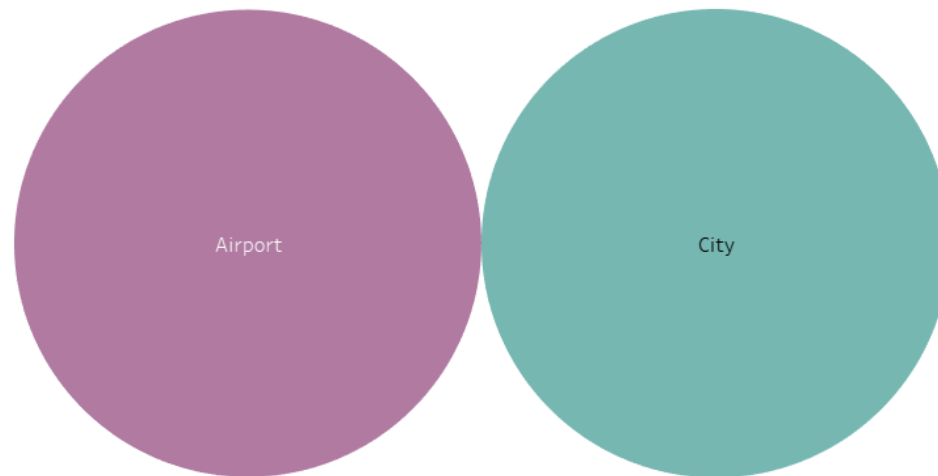
Demand-Supply Gap Time wise



Measure Names

Demand
Gap
Supply

Average waiting Time

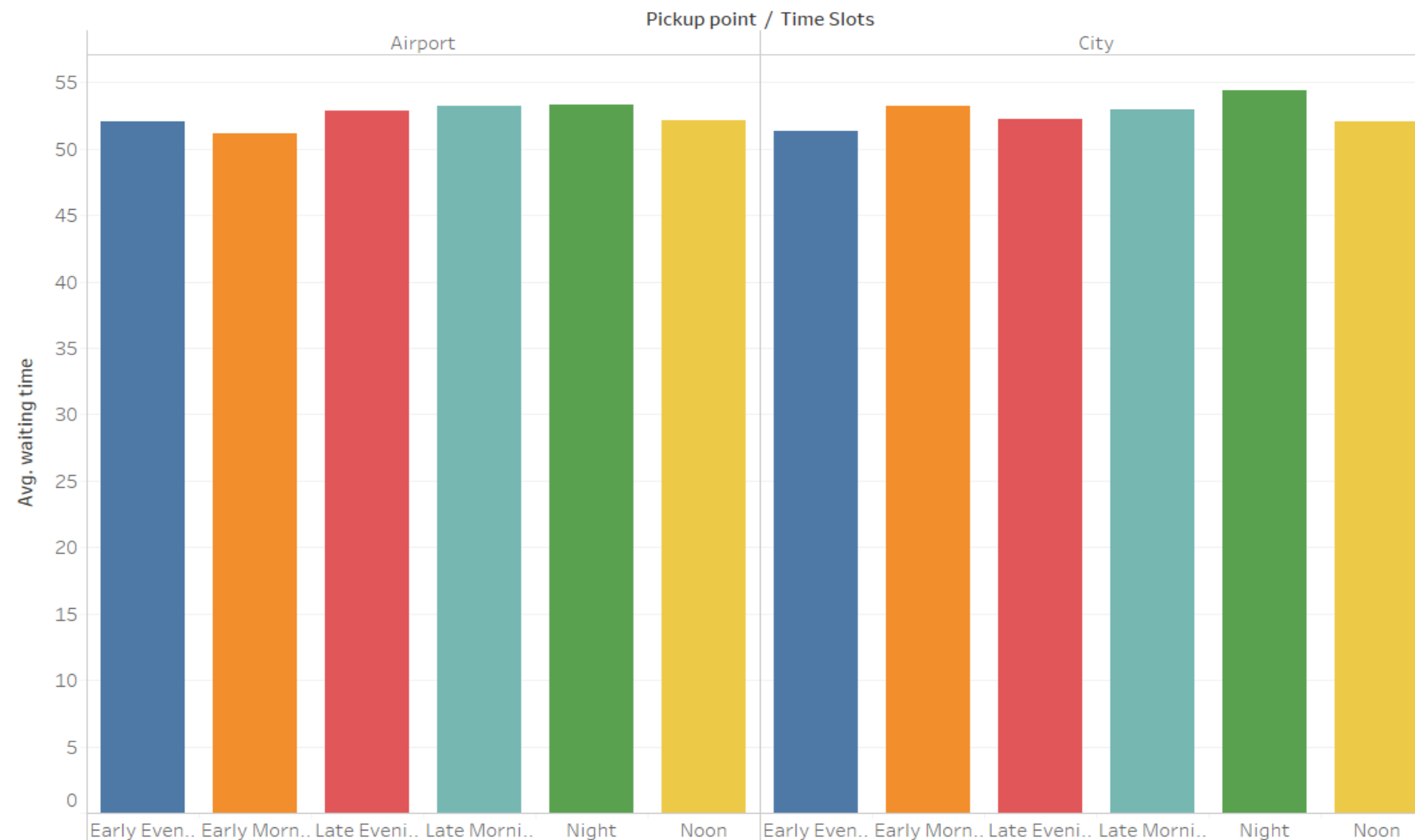


- Firstly, we can observe that average waiting time is almost equal in both city and airport.
- Secondly, we can't be sure of the activity of driver during wait period. He might have taken meal time off, fatigue time off etc.

Uber Supply- Demand Gap

Major Issues for Uber

Avg Waiting time slot wise



Uber Supply- Demand Gap

Analysis

City Pickup Supply-Demand gap

- Many drivers will want to reach home by night and end their day.
- Chances of getting pickup are high as density of population is more in city.
- Trips can be very long and hectic due to traffic during peak hours.

Airport Pickup Supply-Demand gap

- Cabs from city to airport are less during daytime which in turn would decrease the availability of cabs from airport to city during the same time.

Row Labels	Count of Status	Status
Early Evening	984	Cancelled
Early Morning	991	
Late Evening	548	No Cars Available
Late Morning	441	
Night	364	Trip Completed
Noon	586	
Grand Total	3914	

Recommendations

- Daily target for cabs plying to airport should be adjusted accordingly in order to compensate for their loss during drivetime.
- Get more insights into cancellations, both from drivers and customers. Impose fines from both end if reason is found to be invalid
- Uber can tie up with airlines and airports and give direct booking options before even boarding plane. This will help in better management of cabs and reducing waiting period ultimately.
- In the event of shortage of cabs, cabs should be provided incentive to reach that location if viable in order to provide for the shortfall. This is to preserve the mind share of customer.
- Pre booking or Uber share can be managed better to provide evenly supply throughout the day