

Uber Supply-Demand Gap

Business Objective

- Analyzing and identifying the root cause of the problem (i.e. cancellation and non-availability of cars)
- Recommend ways to improve the situation.
- Possible hypotheses of the problem(s)

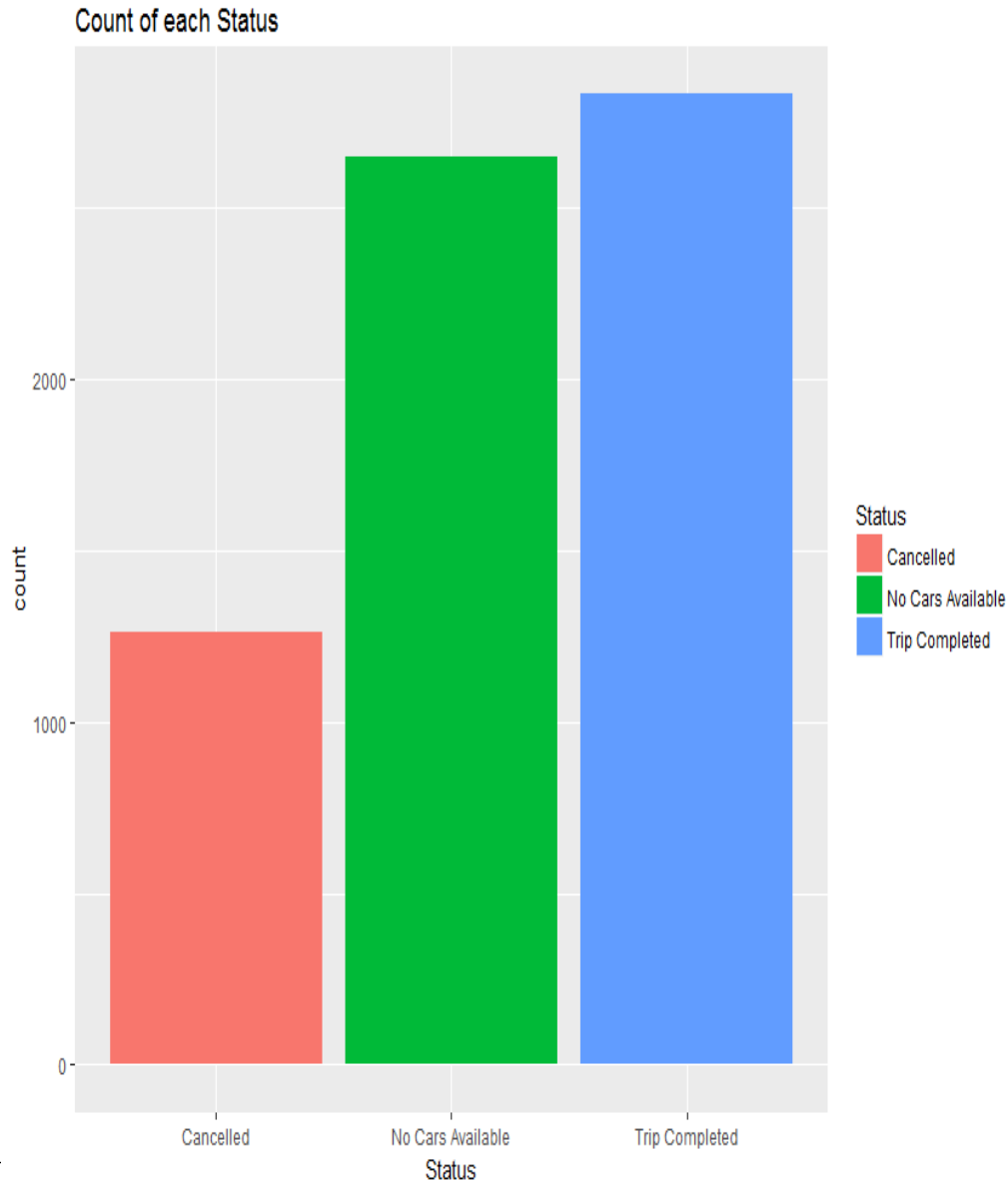
Problems faced by customers- Impact on Uber Business

If drivers cancel the request of riders or if cars are unavailable, Uber loses out on its revenue.

Data- 6745 Trip Requests

- Data used is from 11-15 July, 2016
- Only the trips **to and from the airport** are being considered.
 - 3238 trip requests are made from Airport to City
 - 3507 trip requests are made from City to Airport
- Status of trips is Cancelled ,No Cars Available and Trip Completed
- Data has been divided into time slots:
 - Early Morning(04:00-09:59 A.M)
 - Day Time (10:00 A.M-04:50 P.M)
 - Late Evening (05:00 P.M-11:59 P.M)
 - Late Night(12 Midnight-03:59 A.M)

Status of Trips



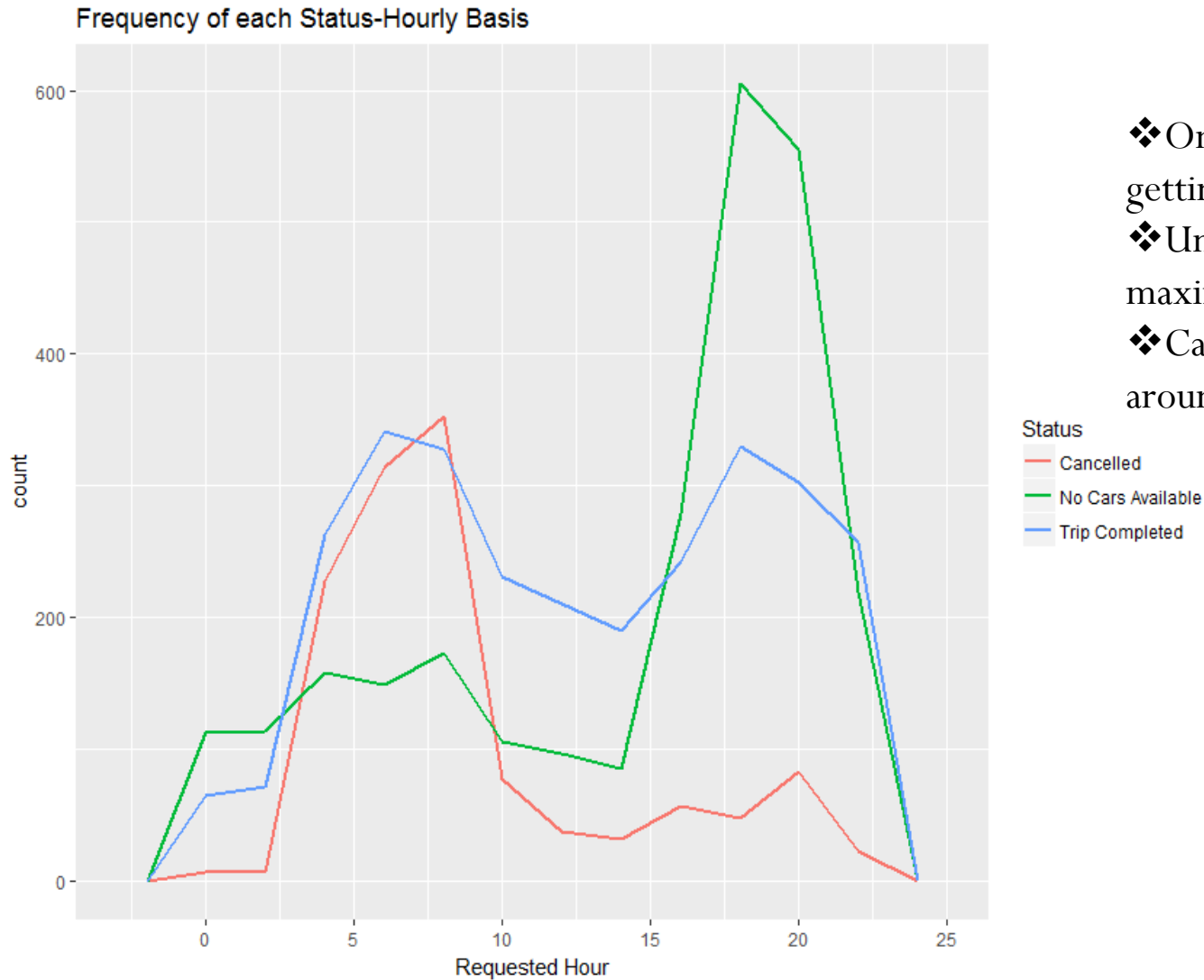
❖ Number of cars cancelled - **1264**

❖ Number of No Cars Available- **2650**

❖ Number of Trip Completed -**2831**

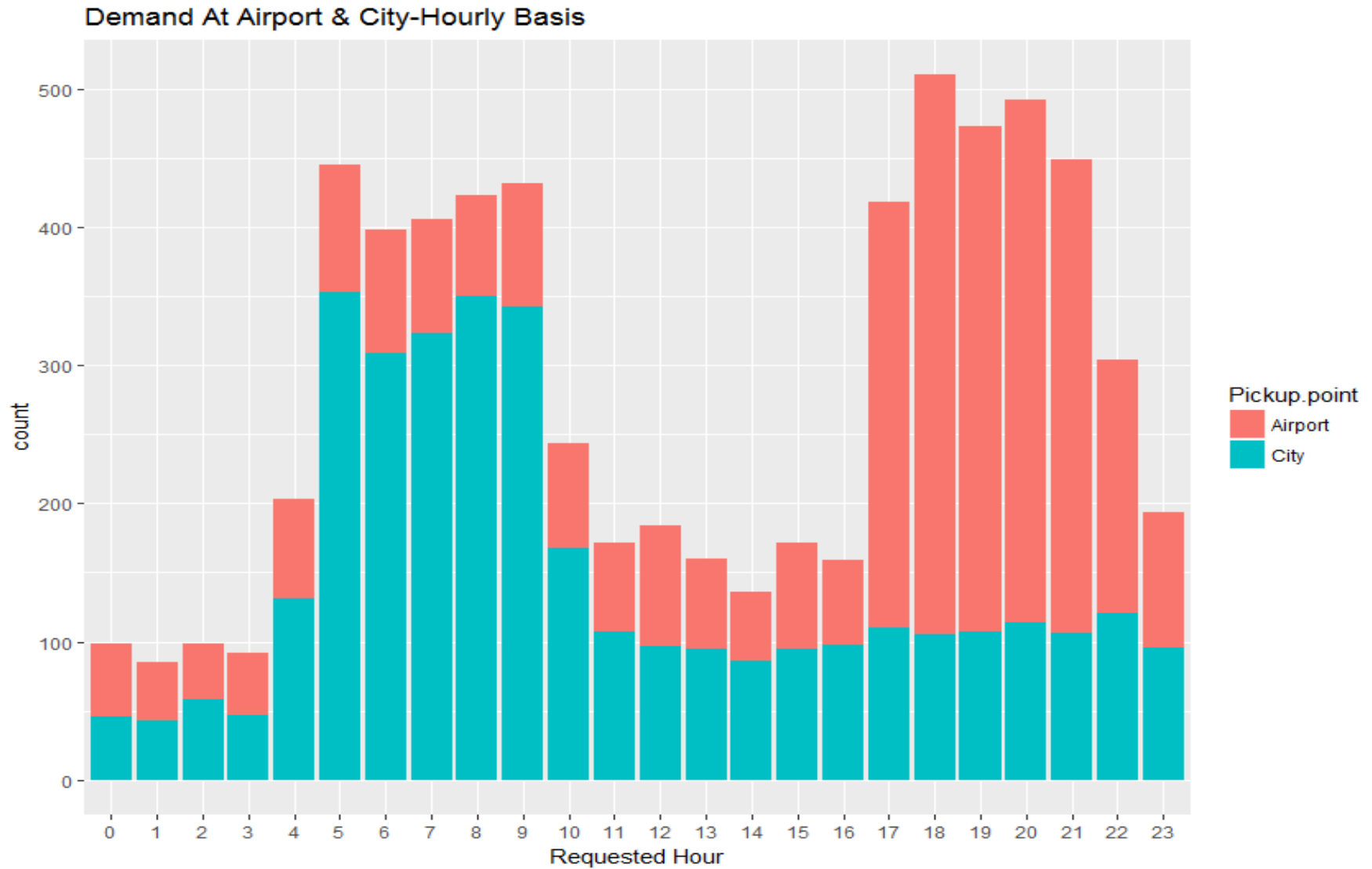
As 68% of requests are not being addressed, it is majorly impacting the UBER business

Frequency of Requests

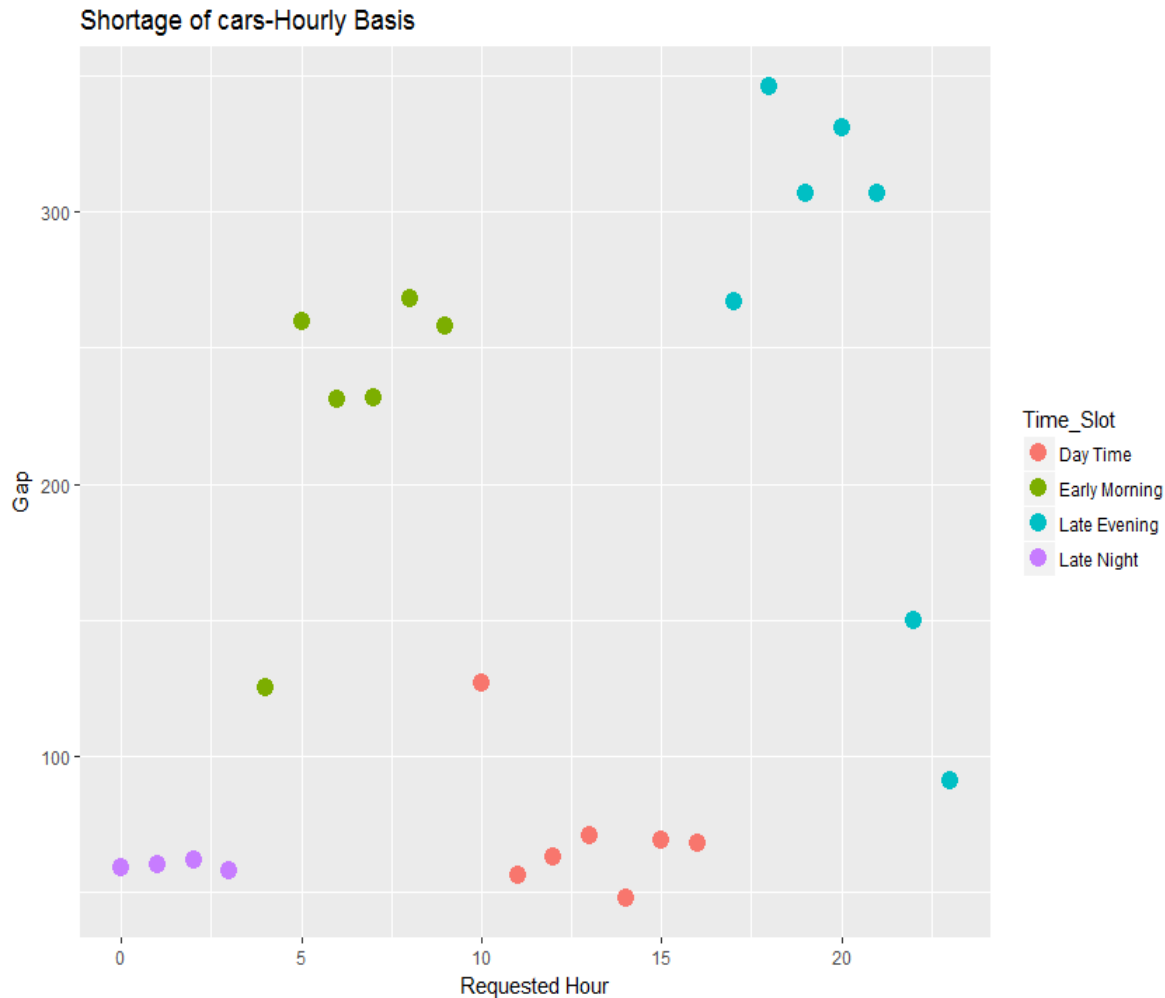


- ❖ Only 42% of the requests are getting completed
- ❖ Unavailability of cars is maximum at around 7 P.M.
- ❖ Cancellation is maximum at around 9 A.M

Demand at Airport & City



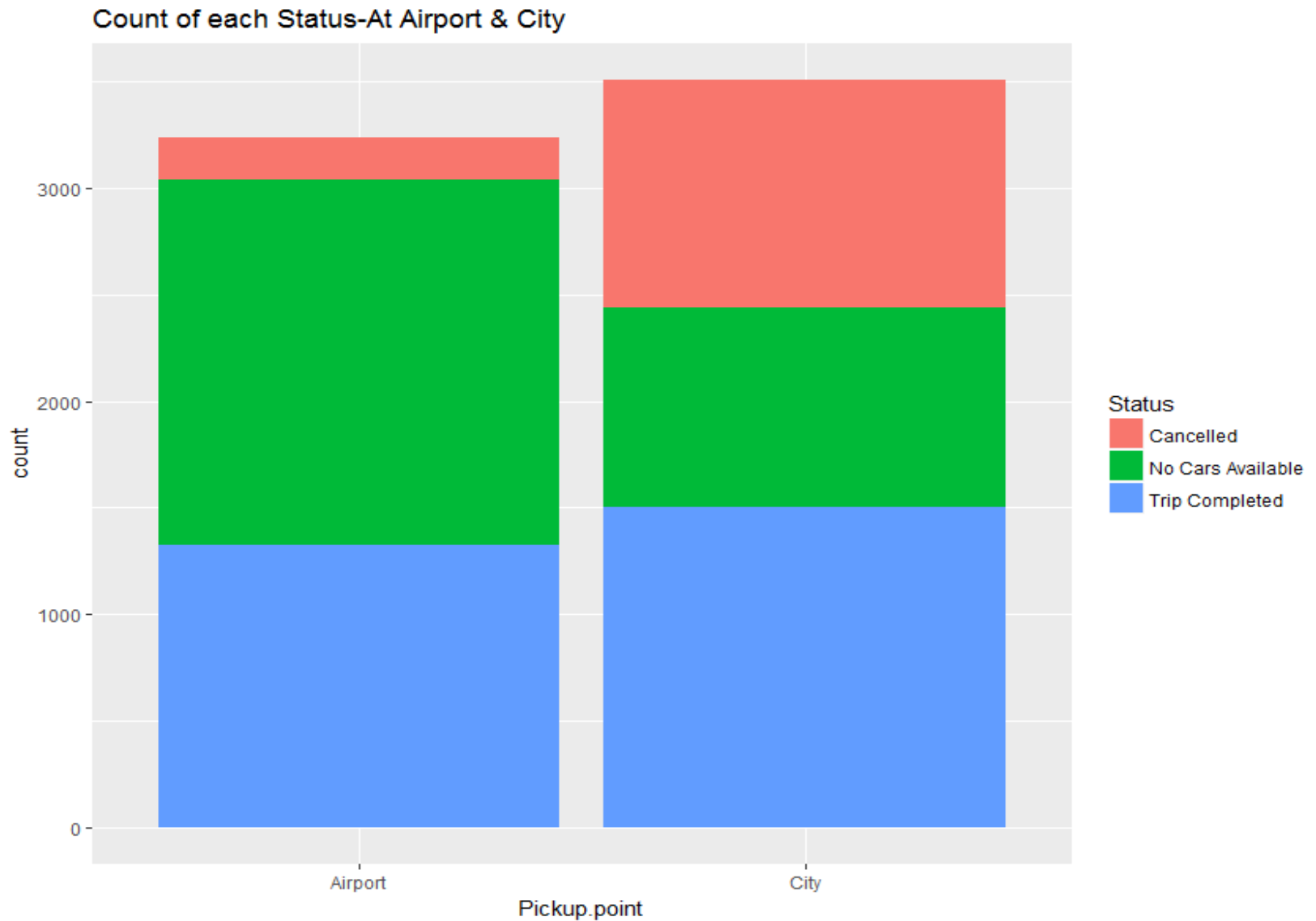
Gap b/w Supply and Demand



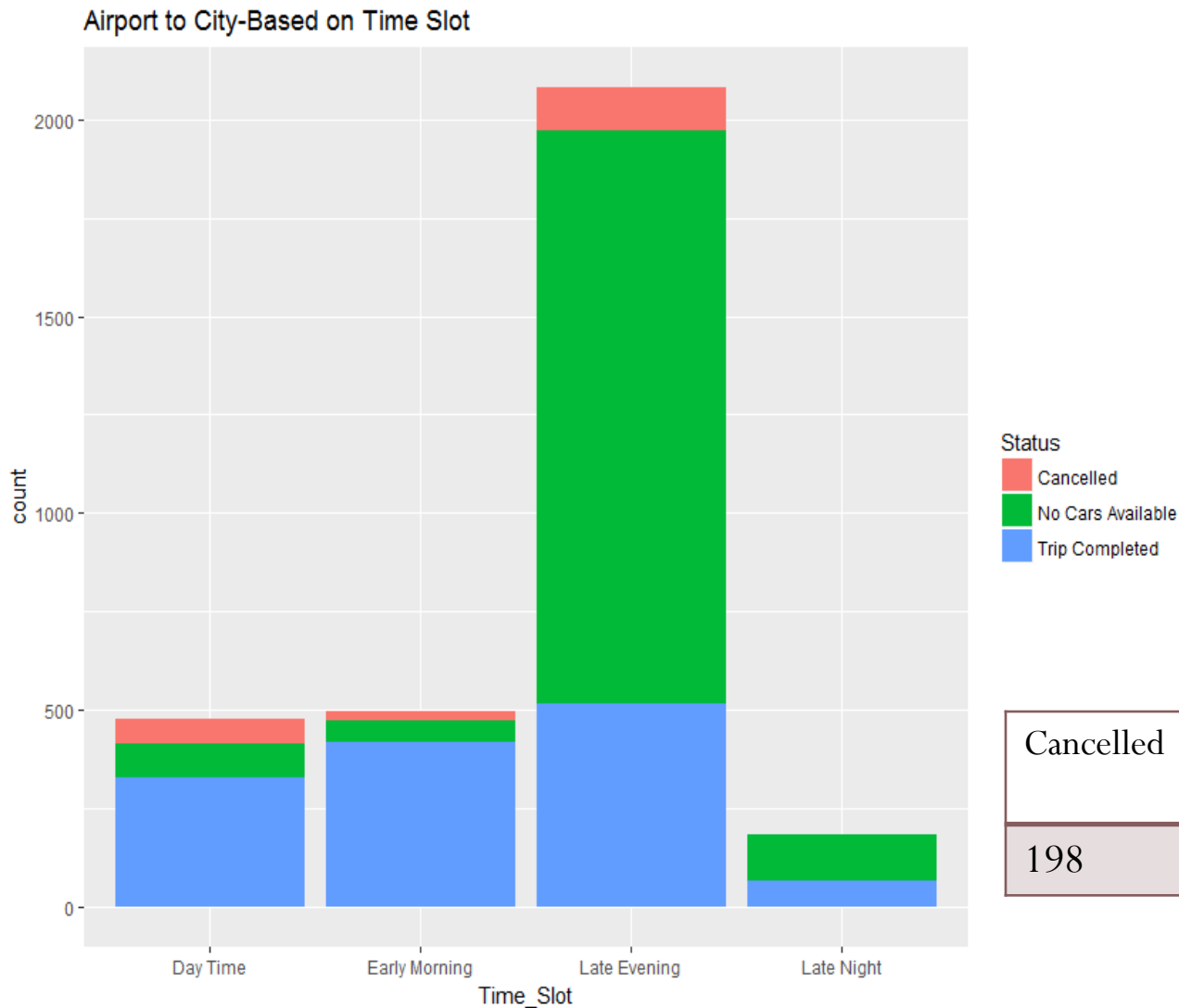
The gap is highest for
Late Evening Time Slot
followed by **Early**
Morning Time Slot

Demand=6745
Supply=2831
Gap=3914

Status at Airport & City



Airport-City Request

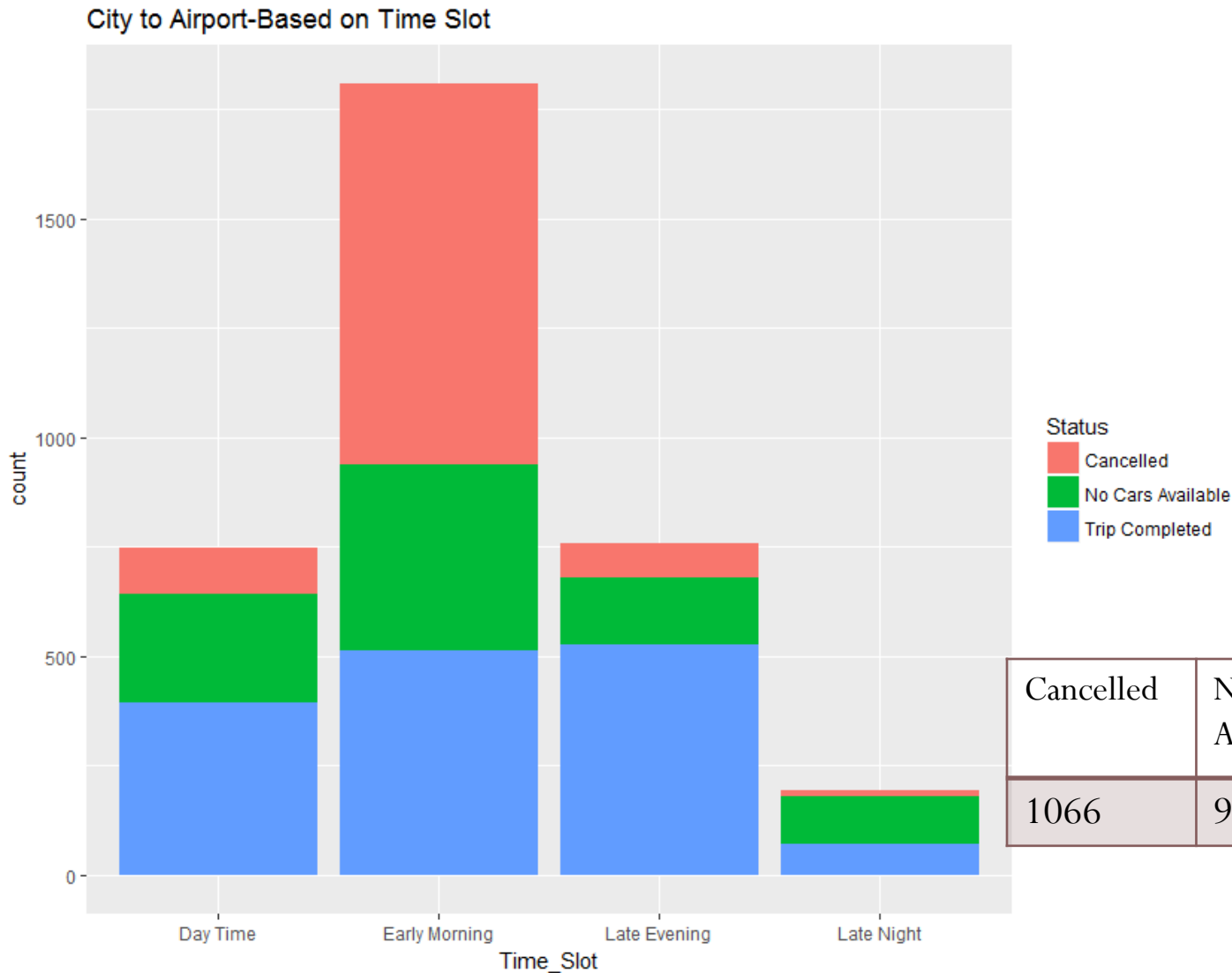


❖ The gap is the most severe in the Late Evening time slot due to unavailability of cars

❖ 59% of Airport-City Requests are not being addressed

Cancelled	No Cars Available	Trip Completed
198	1713	1327

City-Airport Request



❖ The gap is the most severe in the Early Morning time slot due to cancellation of cars by uber drivers

❖ 57% of City-Airport Requests are not being addressed

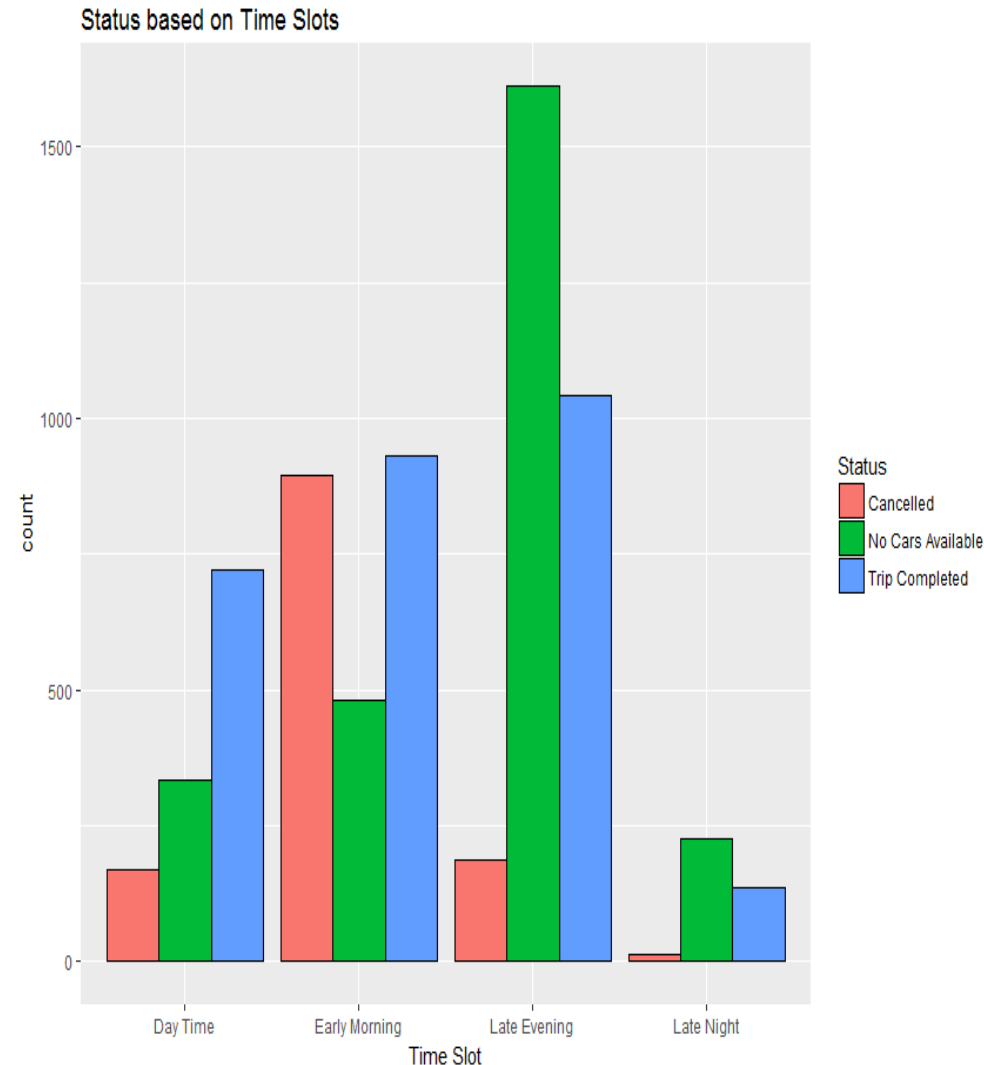
Cancelled	No Cars Available	Trip Completed
1066	937	1504

Reason for Supply-Demand Gap

Between 5-10 A.M most of the requests are getting cancelled in the city may be because in the subsequent duration 11 A.M to 4 P.M

the requests raised from airport to city are less and the drivers will have to wait for more than 5 hours to come back to the city from the airport and the drivers might not wish to come without customer

As there are large number of trips getting cancelled in the city in early morning slot there is a reduction in the number of cars at the airport in late evening slot(5P.M to 11P.M)



Ways to resolve Supply-Demand Gap

- Provide Incentives to drivers for working in Odd hours i.e early morning or late evening slots.
- Deploy extra vehicles at the airport from 5P.M to 11P.M
- Cut the pay if the driver refuses to drop customer at the airport between 5A.M to 10 A.M
- Pay the driver based on source and destination rather than number of trips they do in a day

Conclusion

1. Though the number of requests are slightly higher in the city, the problem is **most severe** at the **airport**.
2. During **Late Evening slot** (05:00 P.M-11:59 P.M), **at the airport** the gap is around **53%** due to **unavailability** of the cars which is severely impacting business
3. The second major impact on business is in **the city** due to **cancellation** of cars by drivers in the **Early Morning**(04:00-09:59 A.M) slot. Around **1066** requests get cancelled

THANK YOU