UBER CASE STUDY

SUBMISSION

Submitted By:

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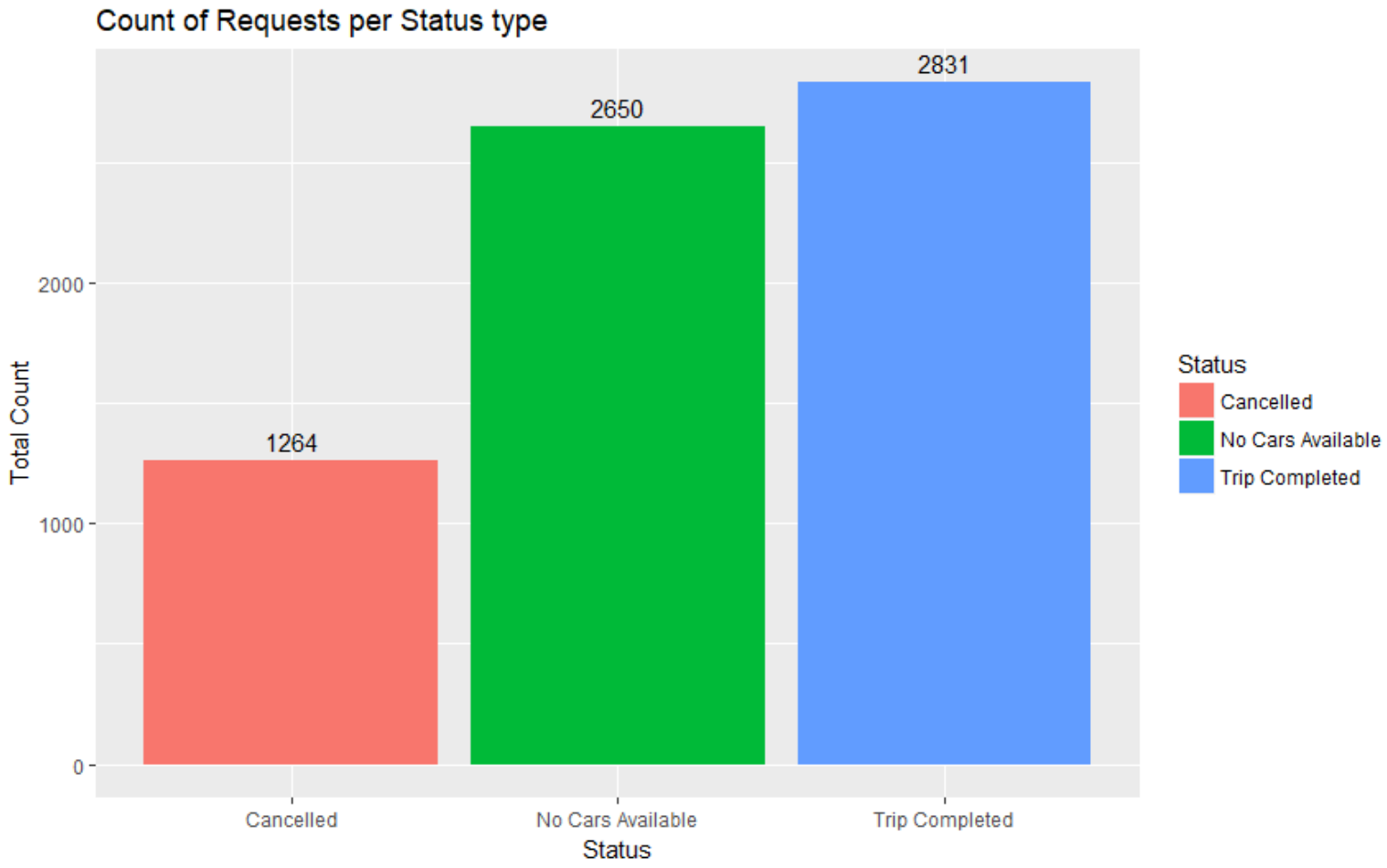
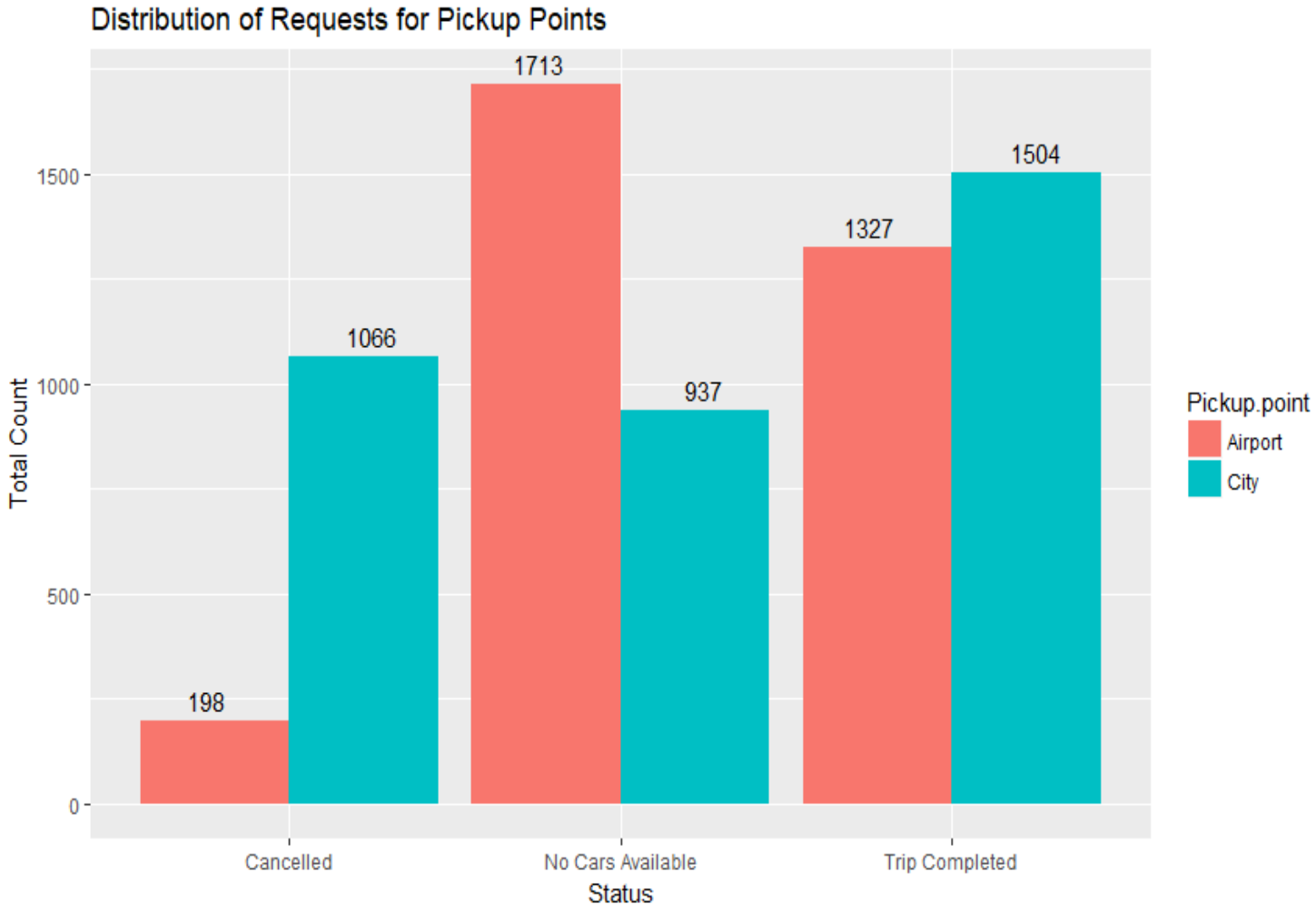
Analyse Uber Request Patterns

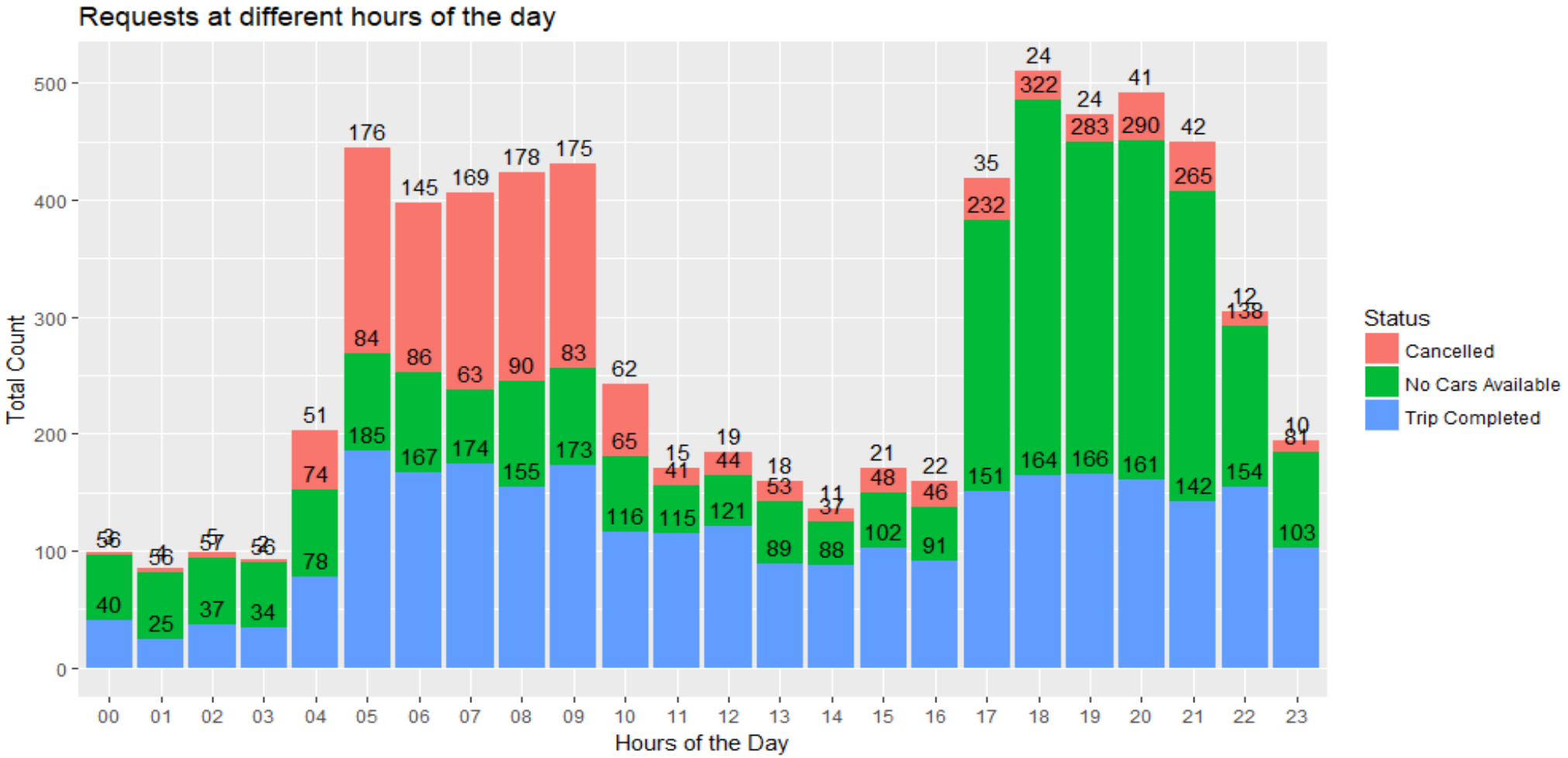


- We see that there are high number of requests which fall in “No cars available” category as compared to the cancelled requests.



- Here we can see that the **“No cars available”** requests are quite high at the **Airport**.
- Whereas in the **City**, there are higher number of **Cancelled** requests.

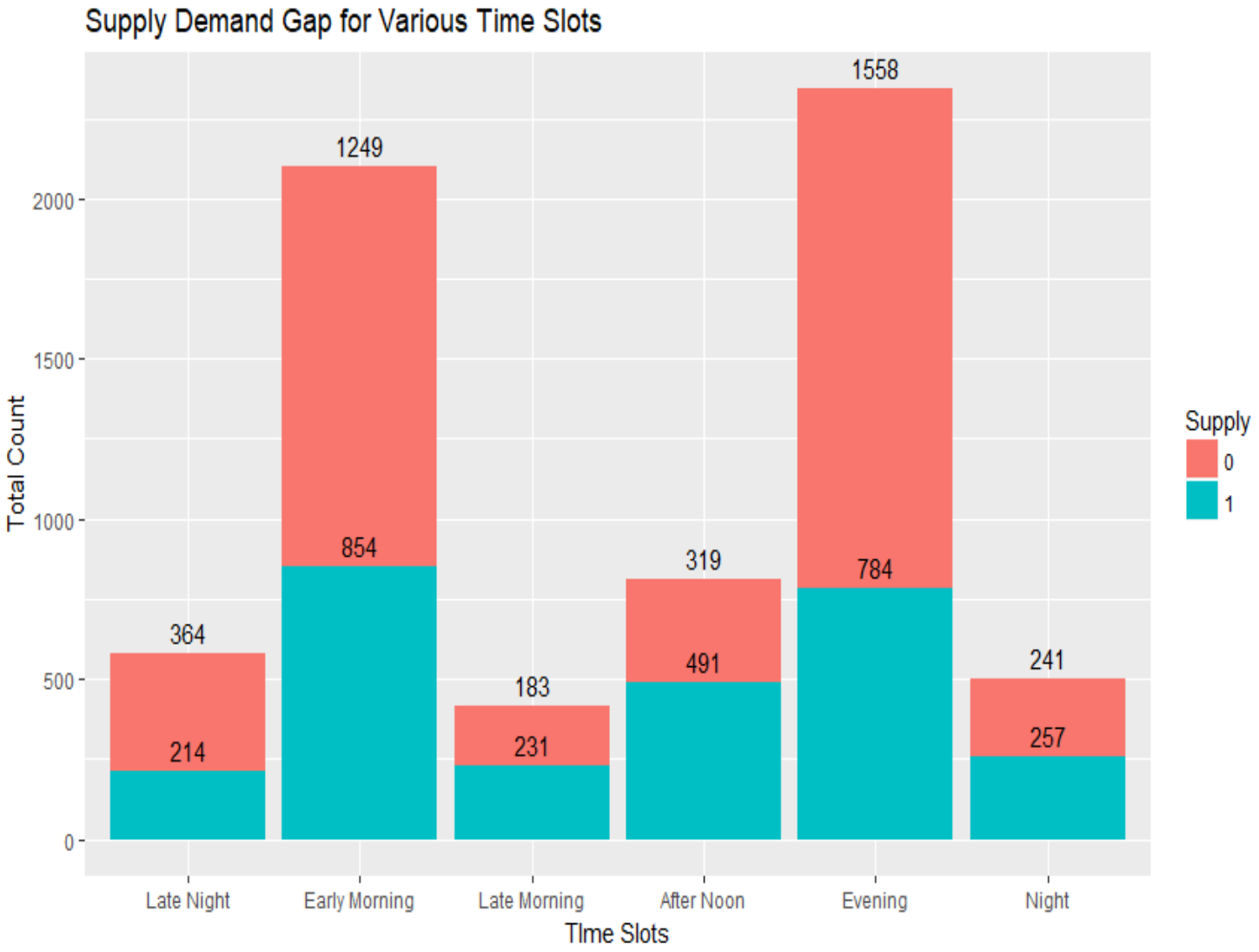
This is an interesting finding.



Here we can observe the different time slots from the request patterns:

1. From Morning 05 to 09 hours, we can see an increase in the number of requests, as well as an increased number of cancellation.
2. In the Evening from 17 to 21 hours, again there is a spike in the requests, but also there is an increase number o “No cars available”.
3. While the other time of the day, the requests are quite consistent and uniform.

Problem Identification – Supply Demand Gap

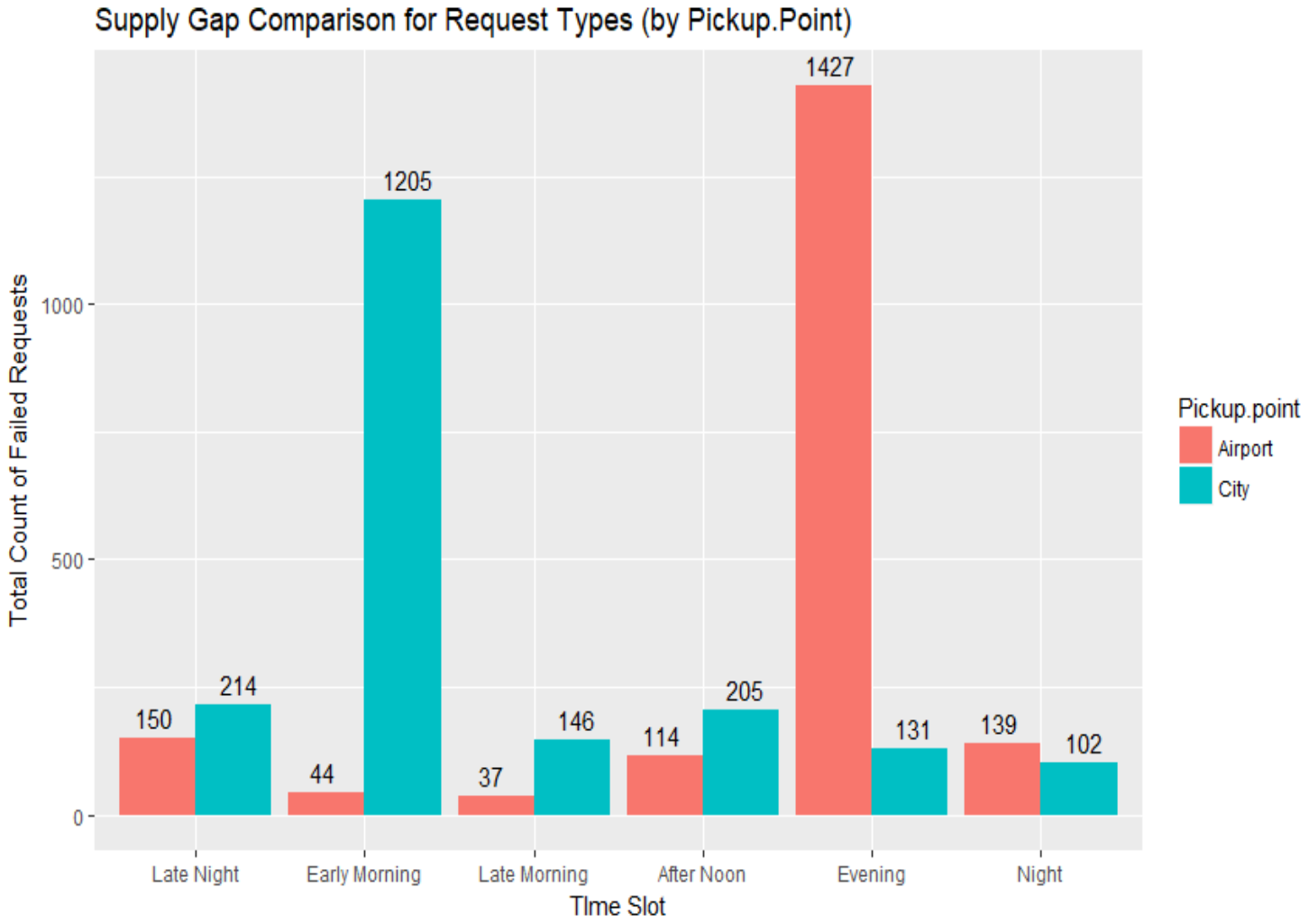


From the previous plot we saw that there were few time slots where there was a increased demands in the requests. Based on the visual patterns we have to divided the hours of a day into 6 different time slots.

We can also define the supply and demand as:
Demand = *No of trips Requested*
Supply = *No of trips successfully completed*

- In the plot shown, Supply as 1 denotes that trip completed, whereas 0 means either the trip was “Cancelled” or “No cars available”
- From the plot at left we can clearly see that there is a huge supply demand gap at 2 timeslots i.e. at Early Morning and Evening.

Supply Demand Gap by Pickup Points



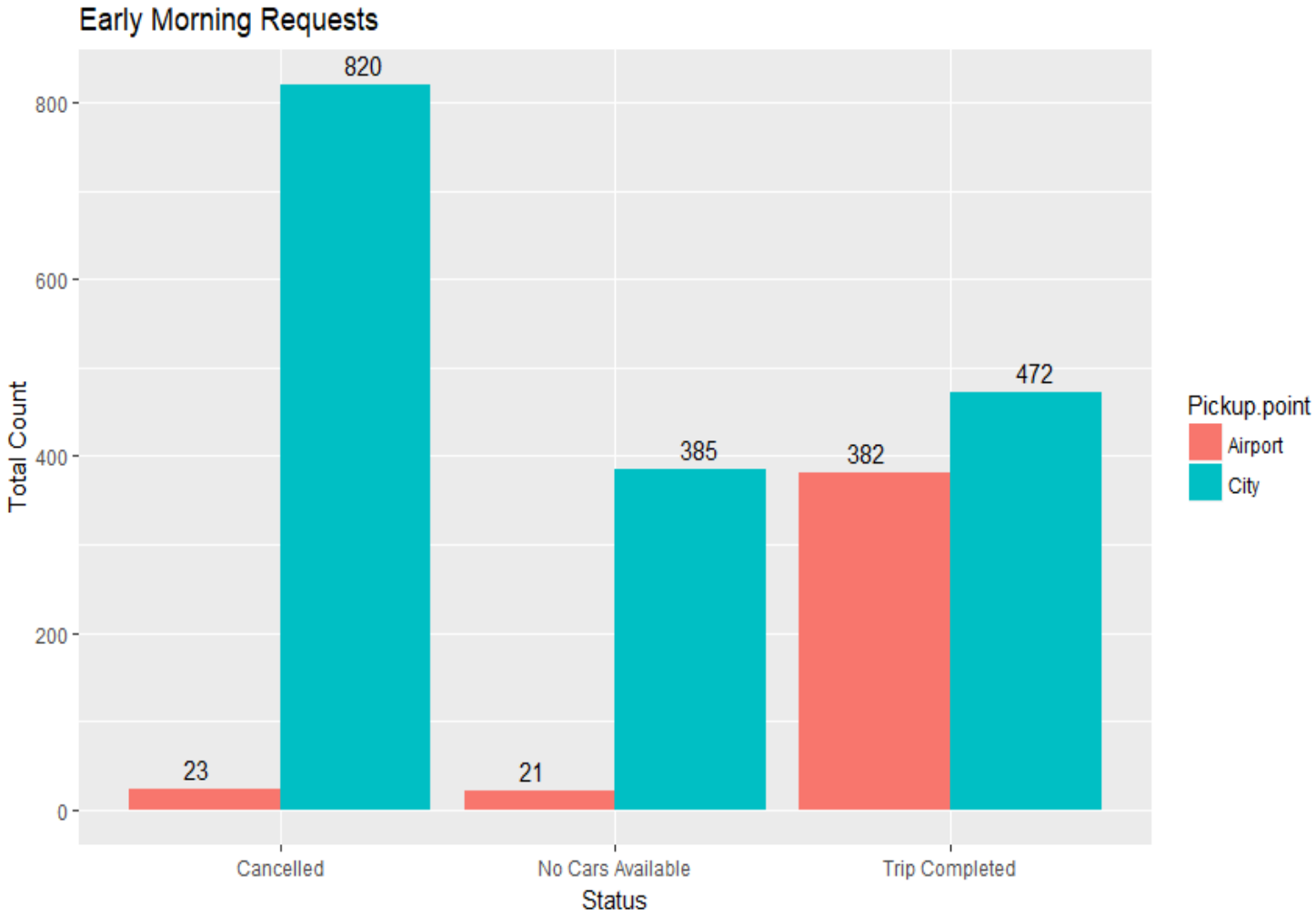
On comparing the Supply Gap by types of request we observe the following:

- High supply gap at City is during Early Morning.
- High Supply gap at Airport is during Evening hours.

We can clearly see that the most severe issue is during the **Evening** hours at **Airport**.
1427 requests could not be supplied as opposed to 1205 in the morning.

Reason For the Supply Demand Gap

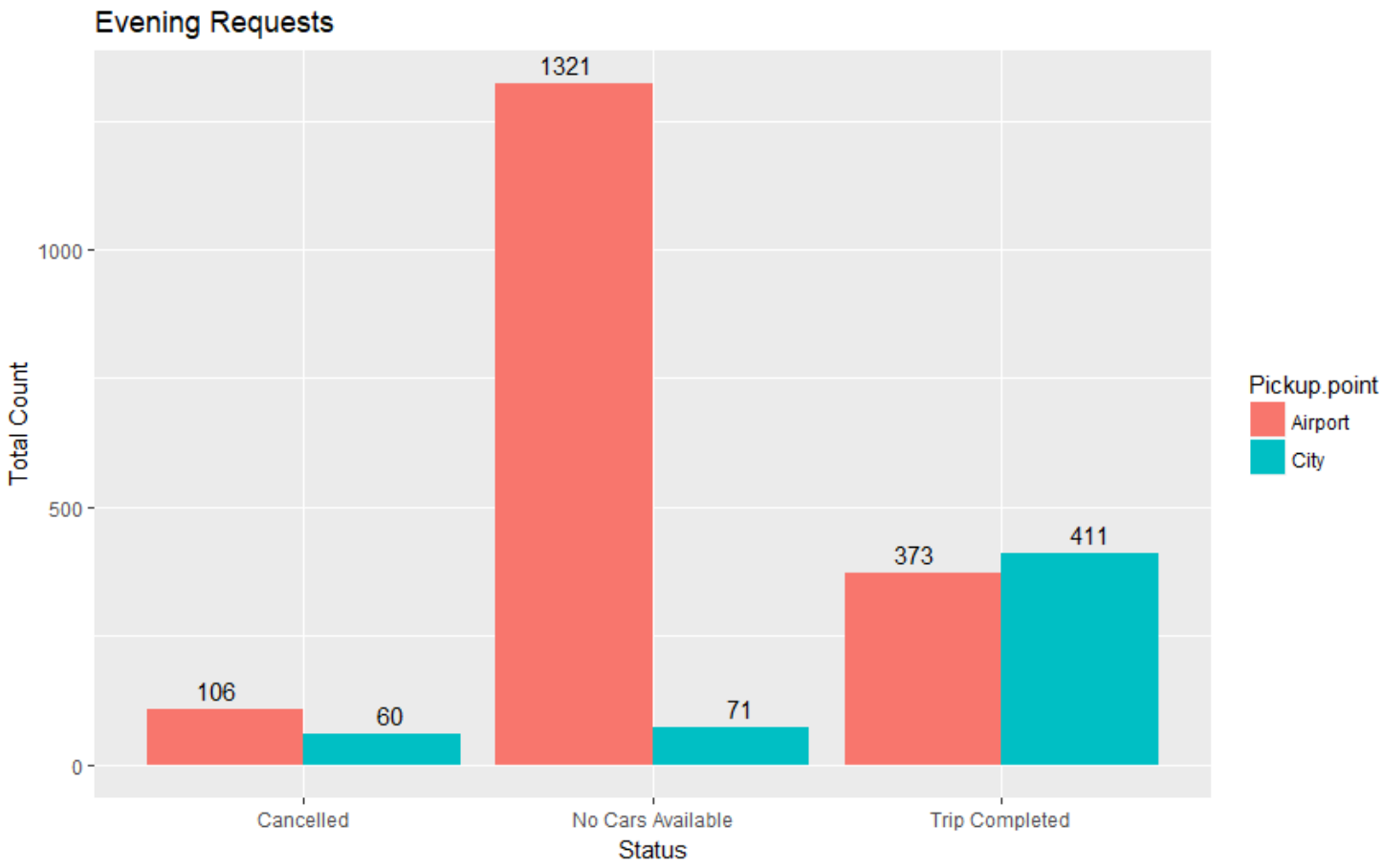
Problem 1. **Supply Gap in the Early Morning**



As seen in the earlier plots as well there are high cancellations of requests in the Early Morning in the city area.

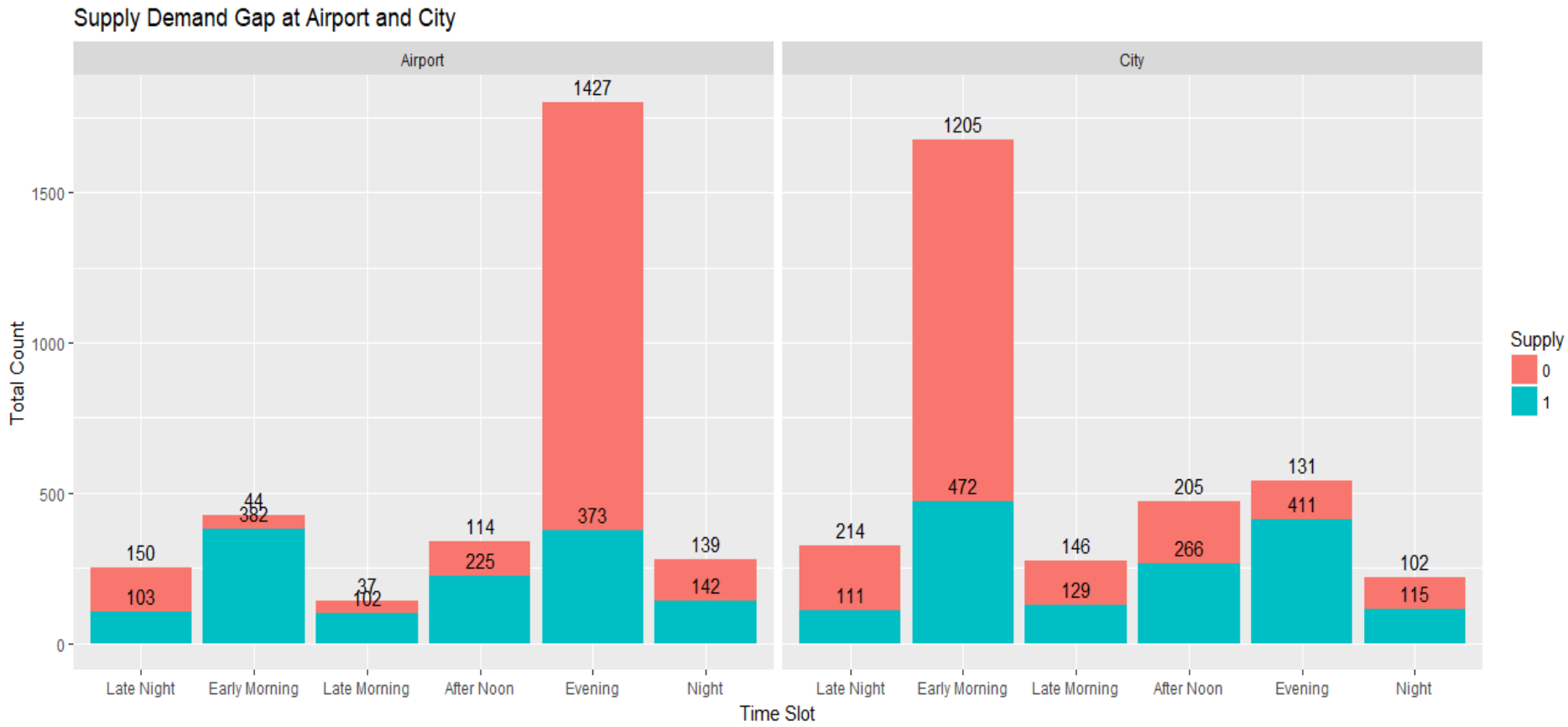
We need to find out why drivers are cancelling the requests at the city in Morning?

Problem 2. **High Gap in the evening**



We can also see high “No cars available” in the Evening at Airport only.

We need to find why is this happening.



- When we see the number of Requests generated in the Morning time period, we can observe that there are very less Requests at Airport as opposed to a Massive Request at City. Hence a Driver going to Airport has to wait longer for a Return trip. Due to this drivers are unwilling to Accept Requests in the morning at City Region. This may be due to a large number of flights departing in the Morning.
- Again due to the above reason and due to less number of requests at the Airport in Morning and Afternoon, there are less number of incoming cabs into the Airport. But in the Evening there is a sudden spike in the Demand of cabs, may be due to a lot of Arriving Flights. But there are not enough cabs to meet the demand.

Recommended Solutions

- To make sure there are less cancellations by the drivers in the morning, Uber can start giving some incentives to the drivers on accepting an Airport Request.
- To make sure that the demand at Airport in the Evening is met, Uber can deploy the Driver partners who start at Night to directly start at the Airport. Seen there is less request in the City Region.