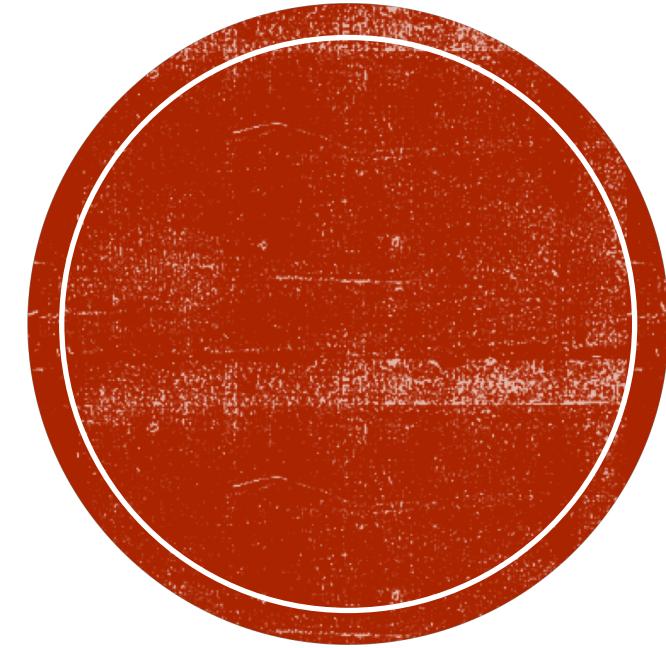


# **UBER SUPPLY DEMAND GAP**

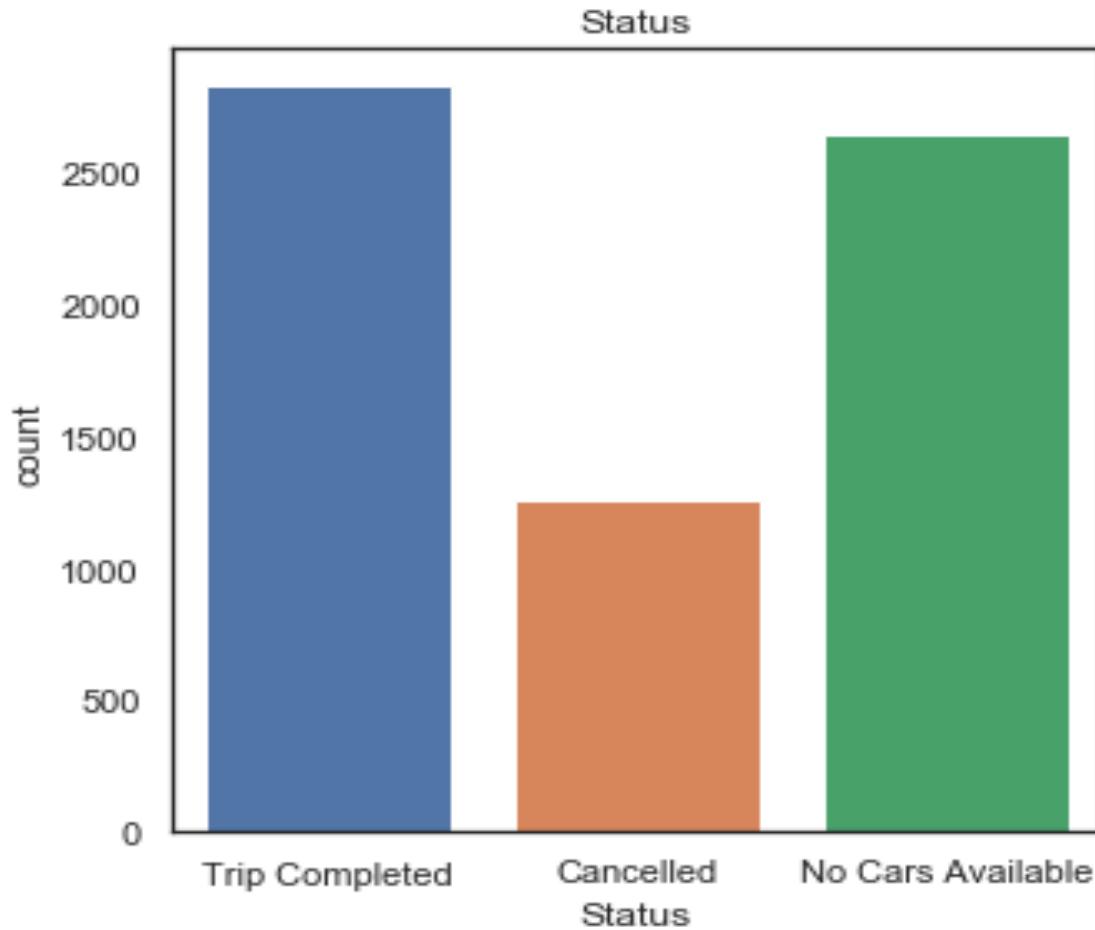


# PROBLEM STATEMENT

- Uber faces problem with matching the supply and demand especially for to and from Airport requests.
- The issue is due to cancellation of requests to airport or unavailability of cars from airport.
- This impacts both the users and the revenue of Uber.
- The aim of analysis is to identify the root cause of the problem (i.e. cancellation and non-availability of cars) and recommend ways to improve the situation.



# FREQUENCY



The adjacent plot shows the frequency of requests that get cancelled or show 'no cars available'.

**Trip Completed : 2831**

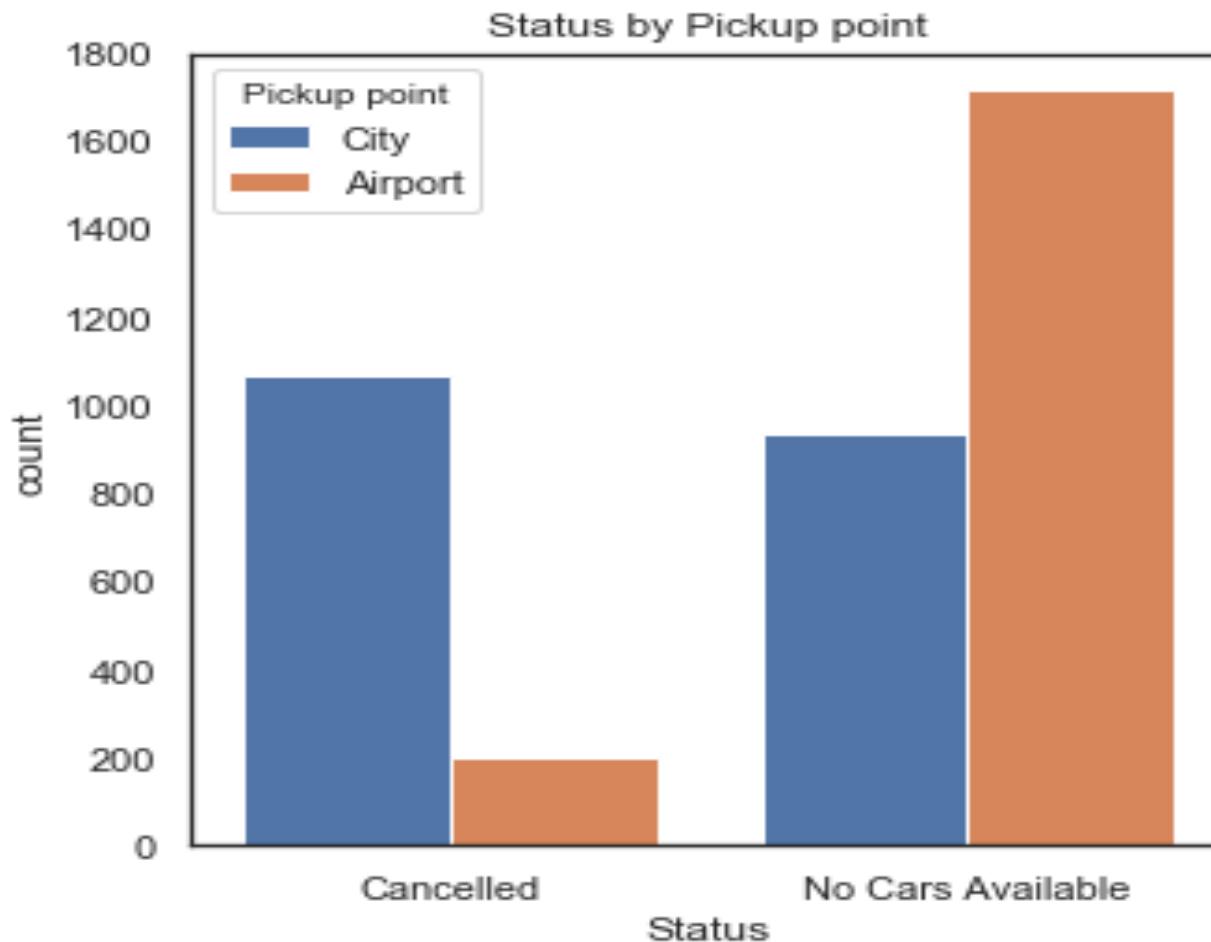
**No Cars Available : 2650**

**Cancelled : 1264**

**Total : 6745**



# MOST PROBLEMATIC TYPES OF REQUESTS

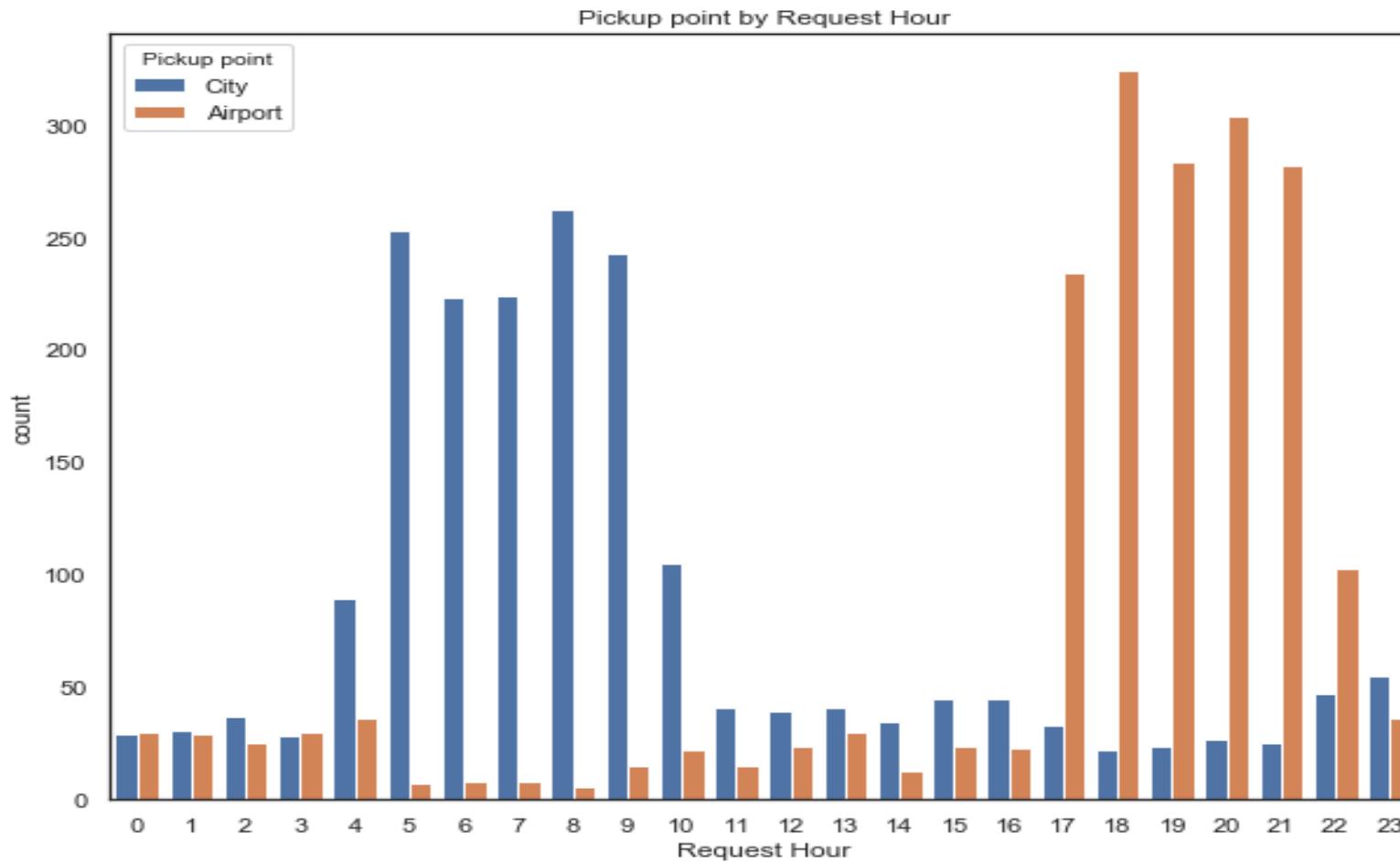


Cab cancellations are more when the request is from city to airport.

No cars available are more when the request is from airport to city.



# TIME SLOTS OF PROBLEMATIC REQUESTS

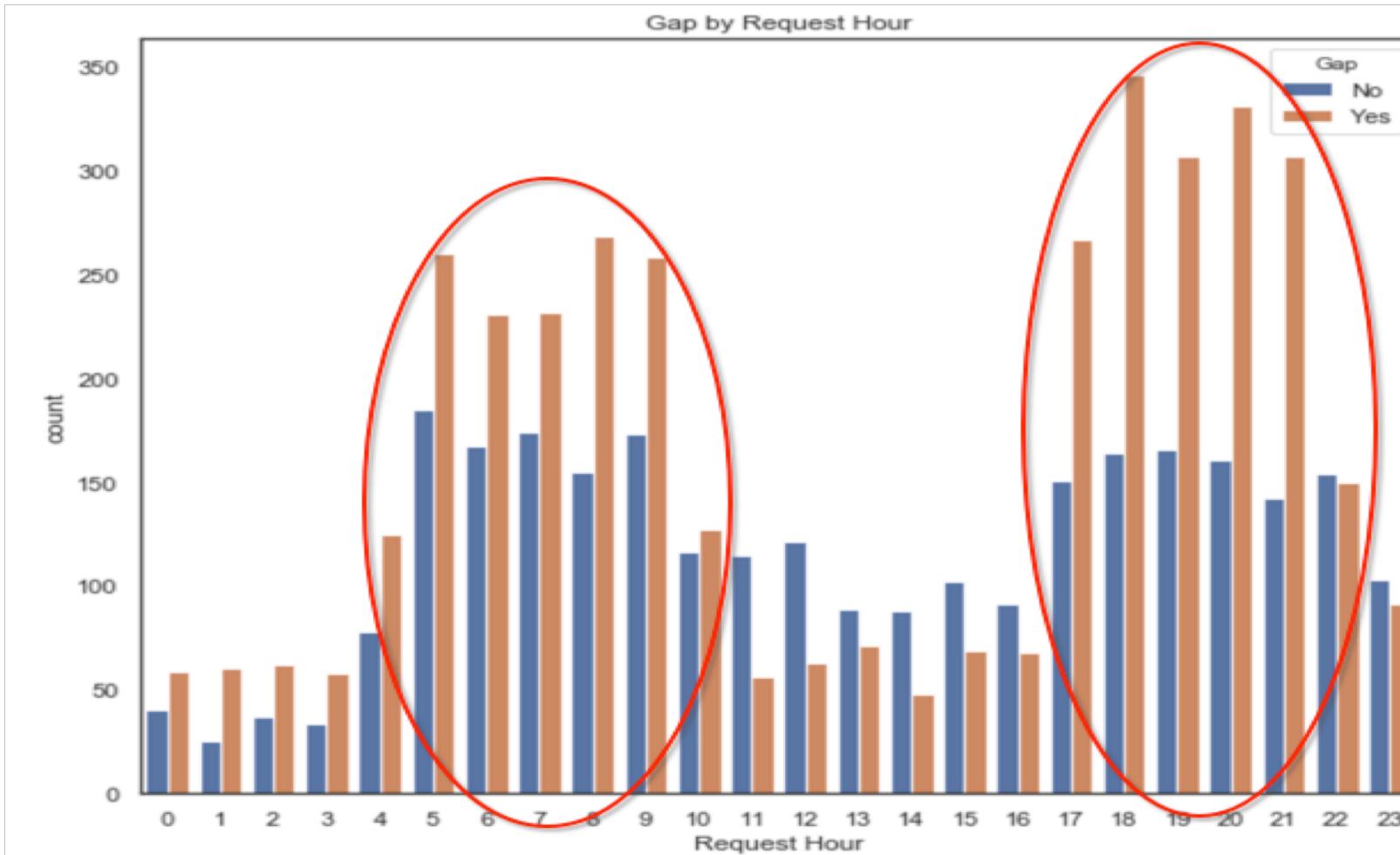


Cab cancellations to airport  
are more in the time slot 4 AM  
to 10 AM.

No cars available from airport  
are more in the time slot 5 PM  
to 10 PM.



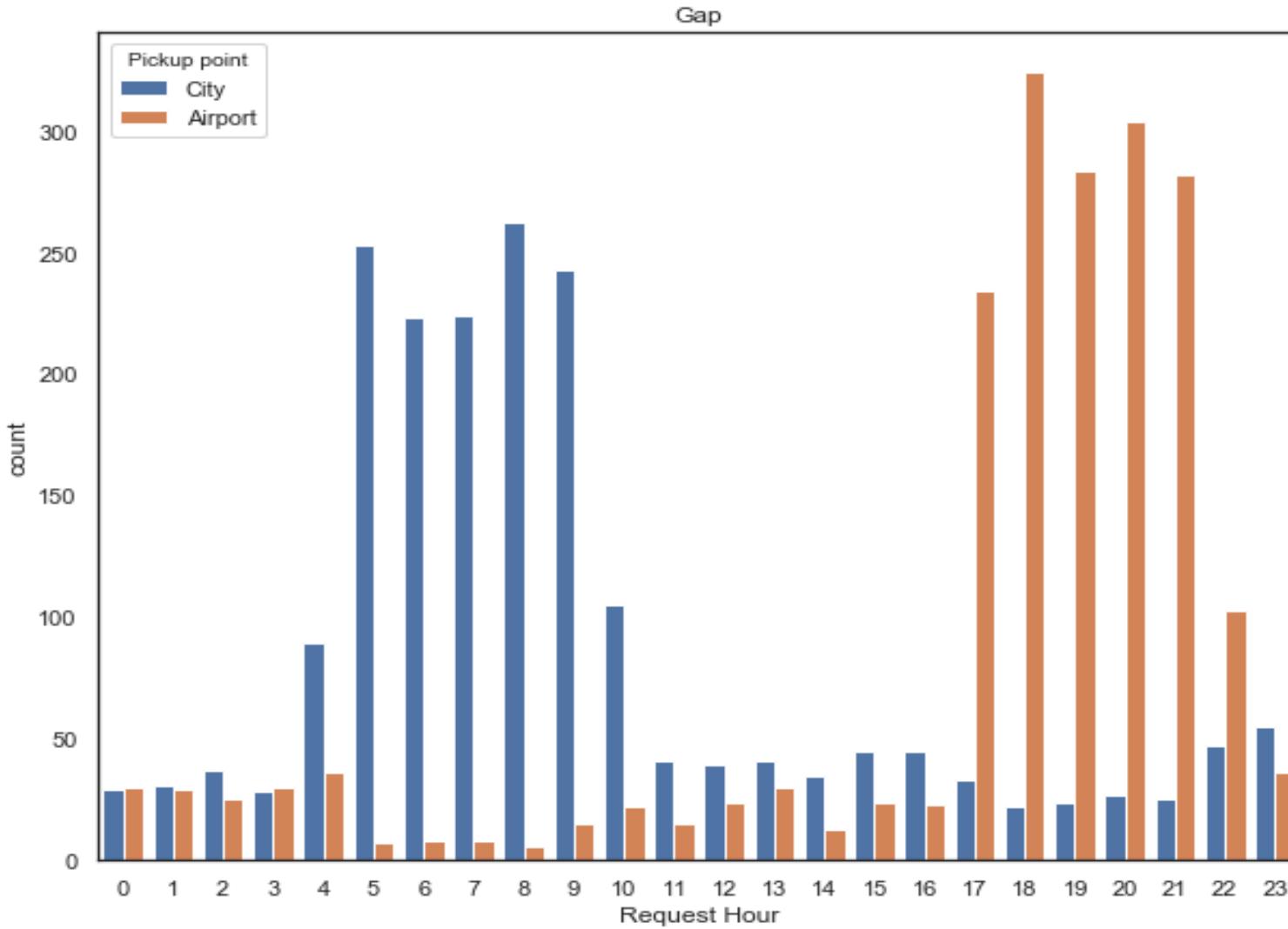
# TIME SLOTS OF THE HIGHEST GAP



Clearly, the highest gap exists in time slots 4 AM to 10 AM and 5 PM to 10 PM.



# TYPES OF REQUESTS WITH HIGH GAP

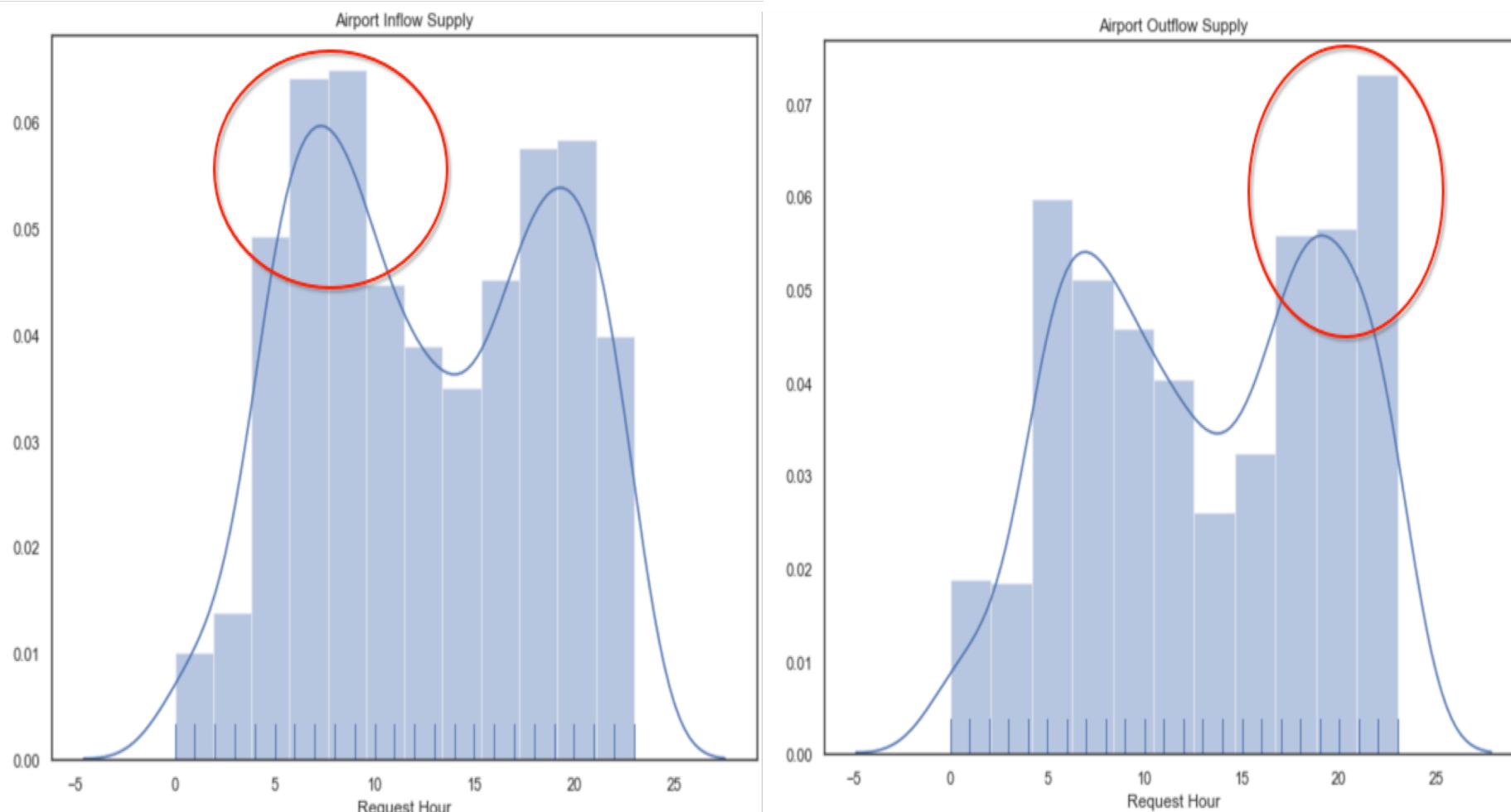


In the time slot 4 AM to 10 AM, supply-demand gap is high for requests to airport from city.

In the time slot 5 PM to 10 PM, supply-demand gap is high for request to city from airport.



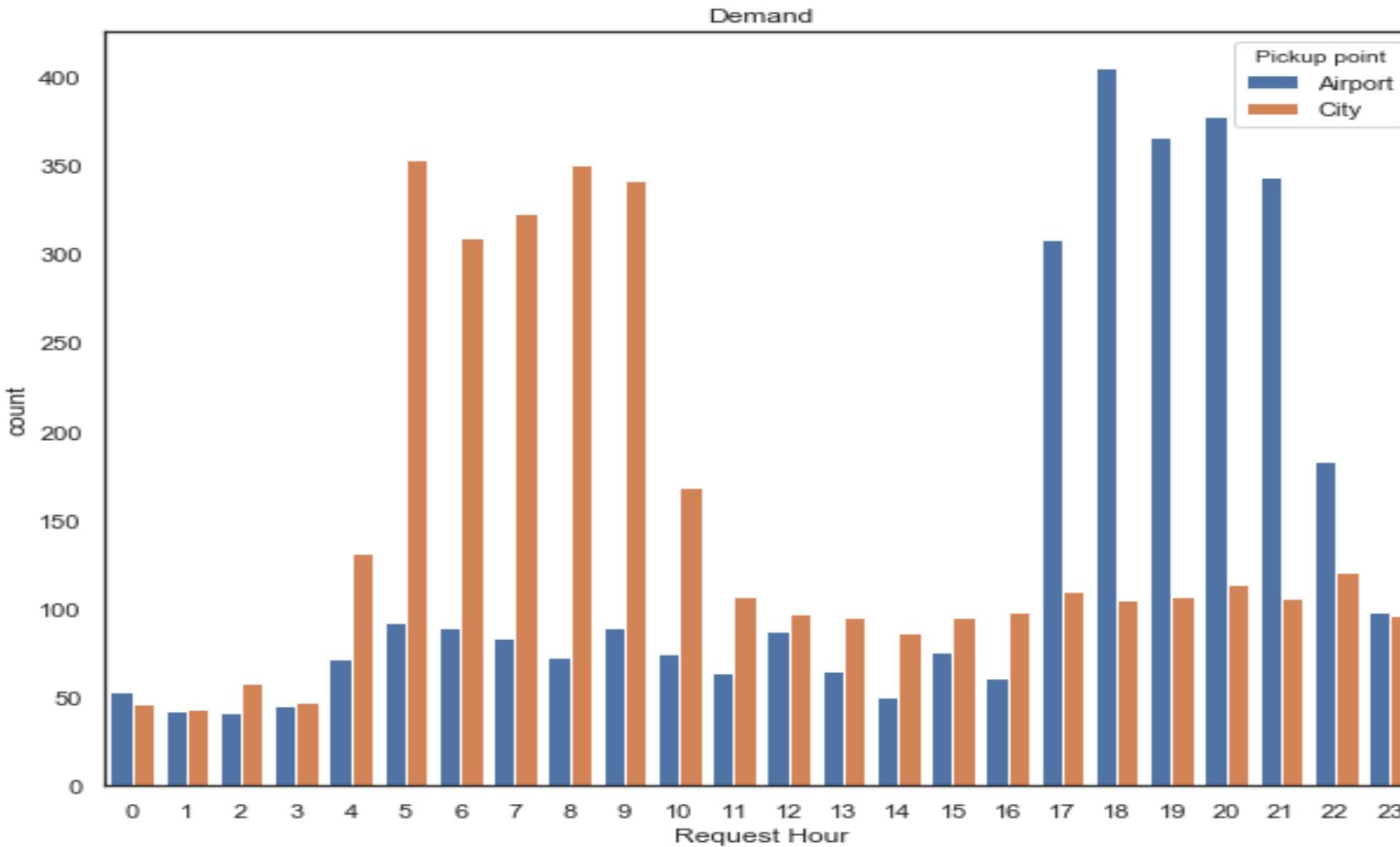
# SUPPLY



The airport inflow and outflow of cabs is relatively high in the mornings (4 AM to 10 AM) and in the nights (5 PM to 10 PM) respectively.



# DEMAND



- The demand for airport going cabs is more in the mornings in the time slot 4 AM to 10 AM.

This could be due to the fact that the departure timings of most airlines fall in this time slot.

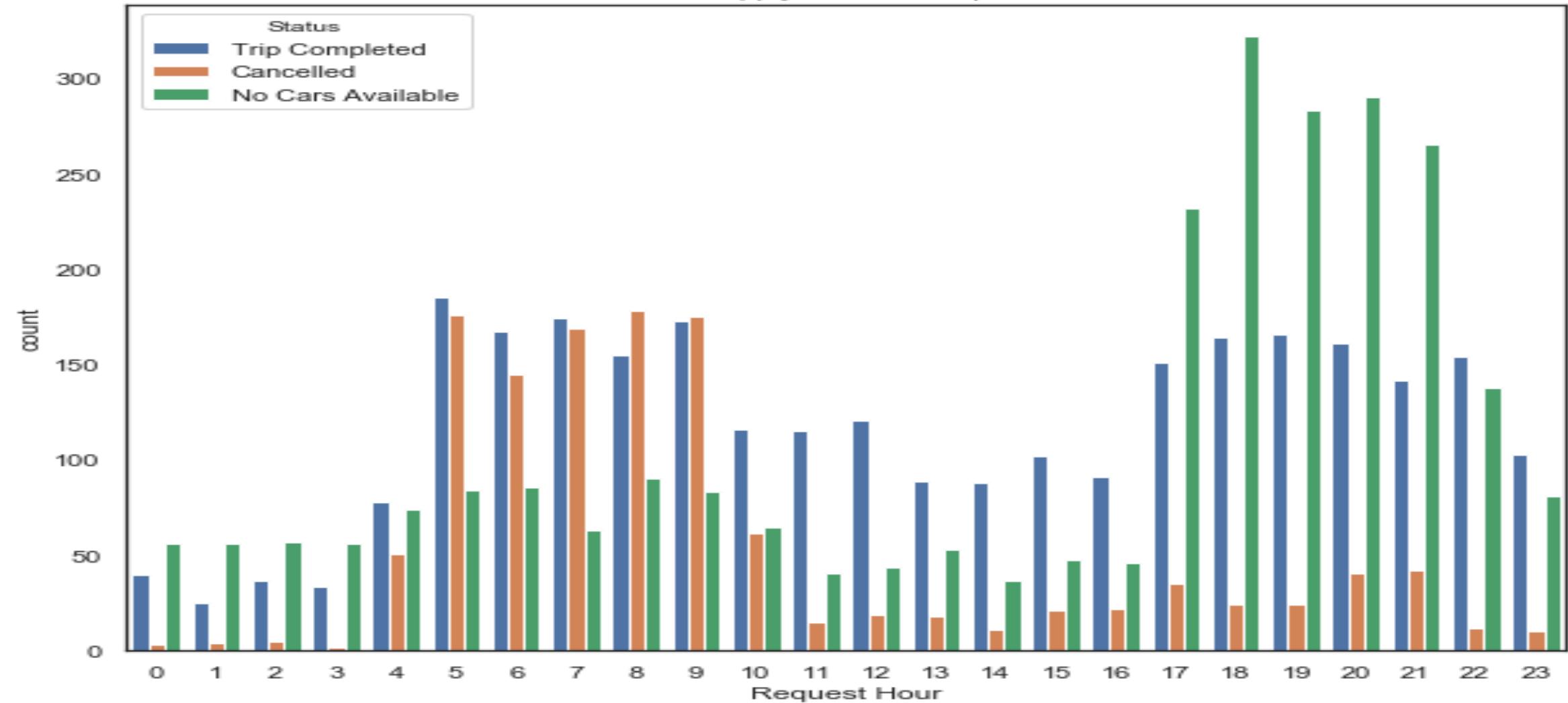
- The demand for city going cabs is more in the nights in the time slot 5 PM to 10 PM.

This could be due to the fact that the arrival timings of most airlines fall in this time slot.

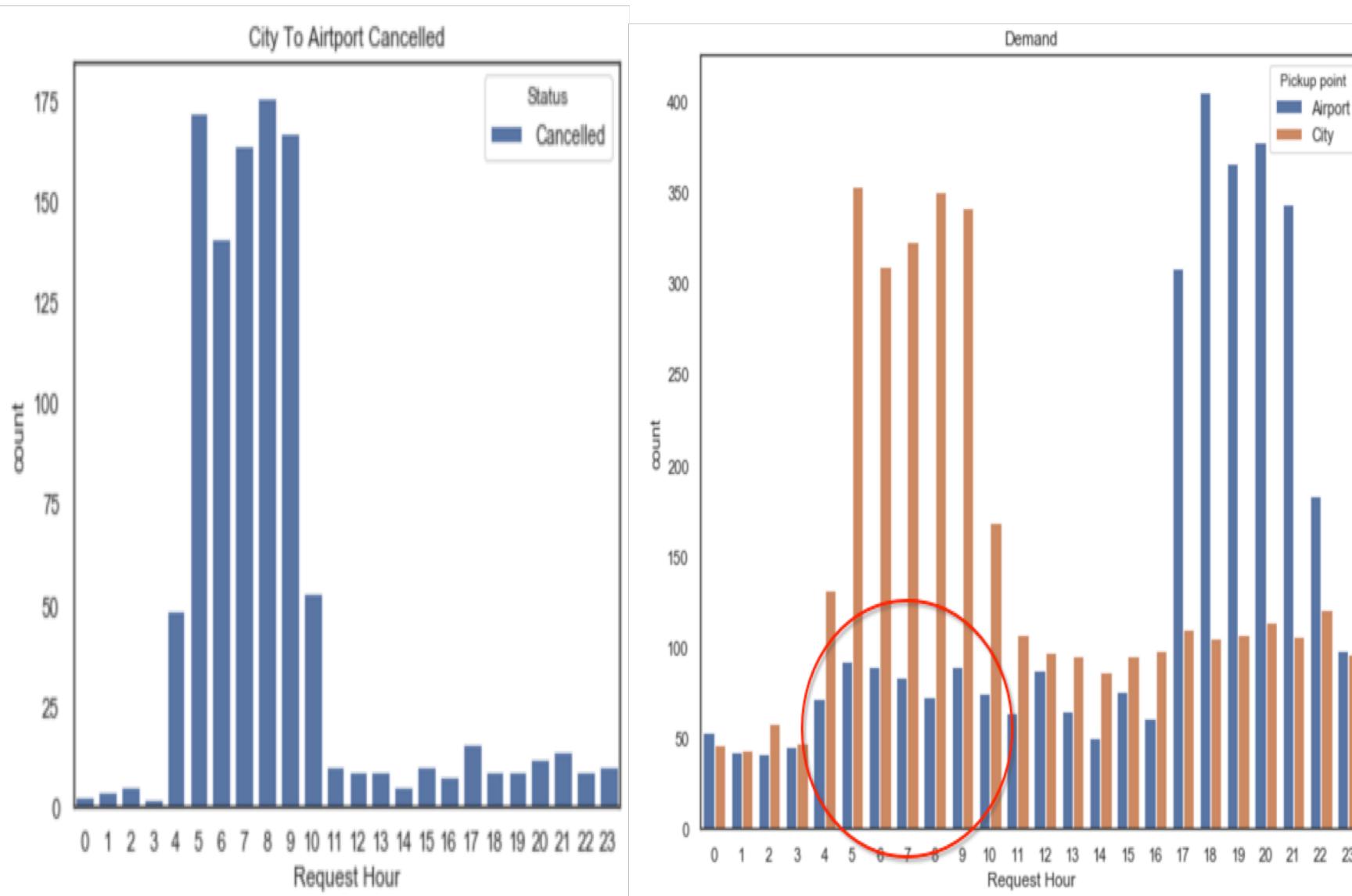


# SUPPLY, DEMAND & GAP

Supply-Demand Gap

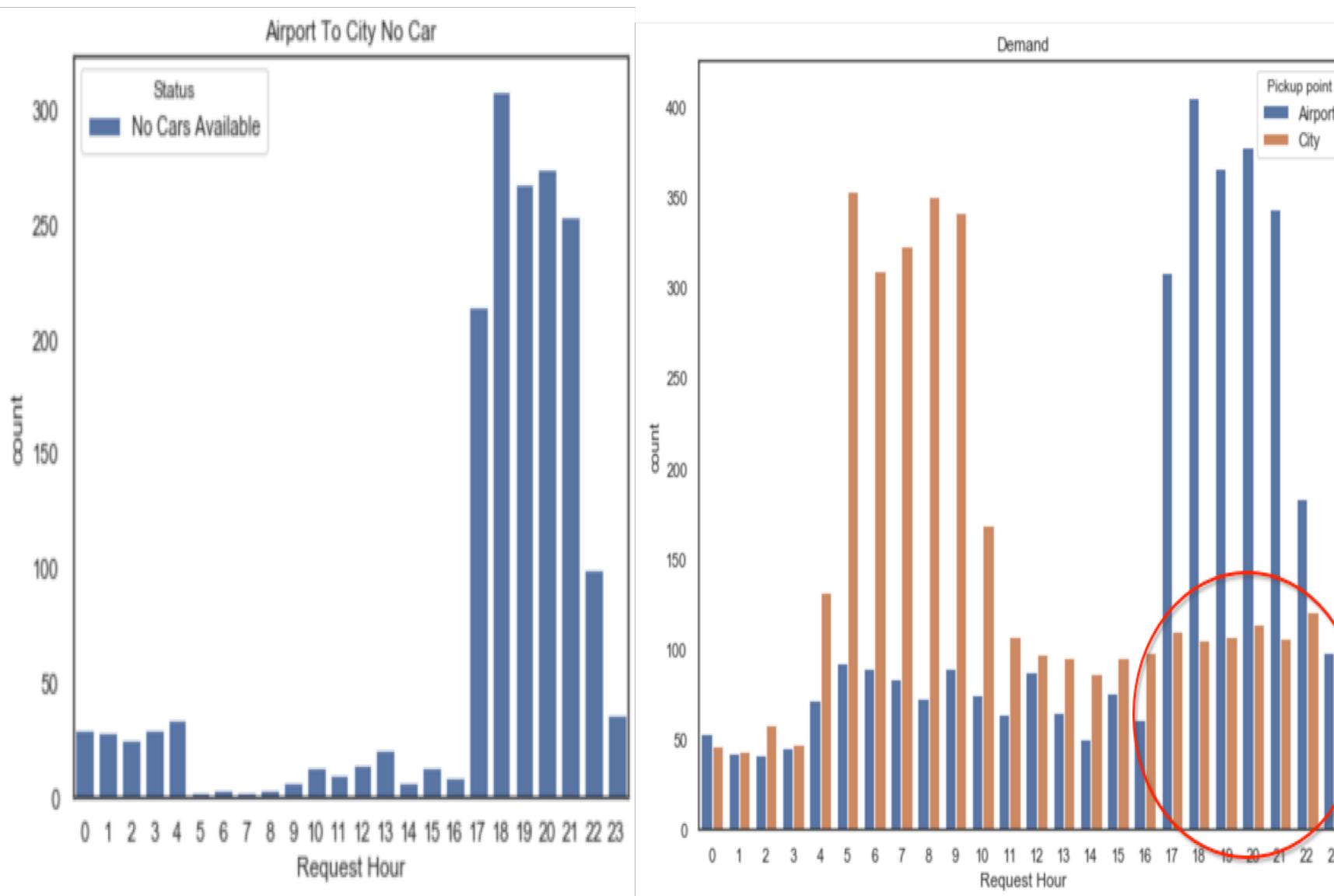


# CANCELLATIONS TO AIRPORT



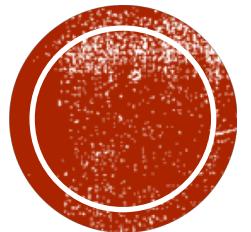
- The adjacent plot shows that the demand for cabs towards city from airport is low from 4AM to 10 AM which could mean that the arrivals at the airport is minimum in this time slot.
- Hence, drivers who go to airport during this time will have to wait a lot of time to get a request to get back into city there by wasting time which could be used to make more money if they are in city causing supply-demand gap.

# NO CARS AVAILABLE FROM AIRPORT



- The adjacent plot shows that the demand for cabs towards airport is low from 5 PM to 10 PM which could mean that the departures at the airport are minimum in this time slot.
- Hence, there is less airport inflow thereby leading to no cars available situation for the passengers coming in flights during this time slot causing the supply-demand gap.





# RECOMMENDED SOLUTIONS



# UBER SELF DRIVE AWAY AIRPORT CARS

- To Airport

- 1) Customer enters flight details and the pickup location in the App a minimum of 3 hours before the boarding time.
- 2) Uber driver will drop the car at the pick up location or user goes to a near by “Uber Shop” and get the car.
- 3) User drives the car to airport and hands it over to Uber ground staff at the airport at a departure platform designated for Uber pickups/drops.
- 4) User is charged accordingly.
- 5) This frees user from the tension of whether he/she gets the cab on time for airport drop and completely driver independent.

- From Airport

- 1) User uses the app to book car at the airport by providing their Flight details.
- 2) The airport ground staff of Uber to drive the car to the arrival platform minutes after the arrival and hand over to the user.
- 3) Users drive the car to the “Uber Shop” or a location which is nearest to their drop location and will be charged accordingly.
- 4) User is charged accordingly.
- 5) This meets the demand of the late night arrival passengers.



# UBER AIRPORT SHUTTLE

- Uber to introduce Airport Shuttle service every 30 minutes from the places where the demand is more for Airport cabs at the identified time slots by analyzing the historical data and finding the hot spots within the city.
- User books a seat in the shuttle service at least 3 hours before the boarding time.
- Shuttle service is a Van that can accommodate up to 7 people with ample space for the luggage.
- Similarly, the same service can be made available during the identified time slots from the airport to meet the demand of late night arrival passengers.

