

# **UBER SUPPLY-DEMAND GAP**

## **CASE STUDY**

**SUBMITTED BY:**  
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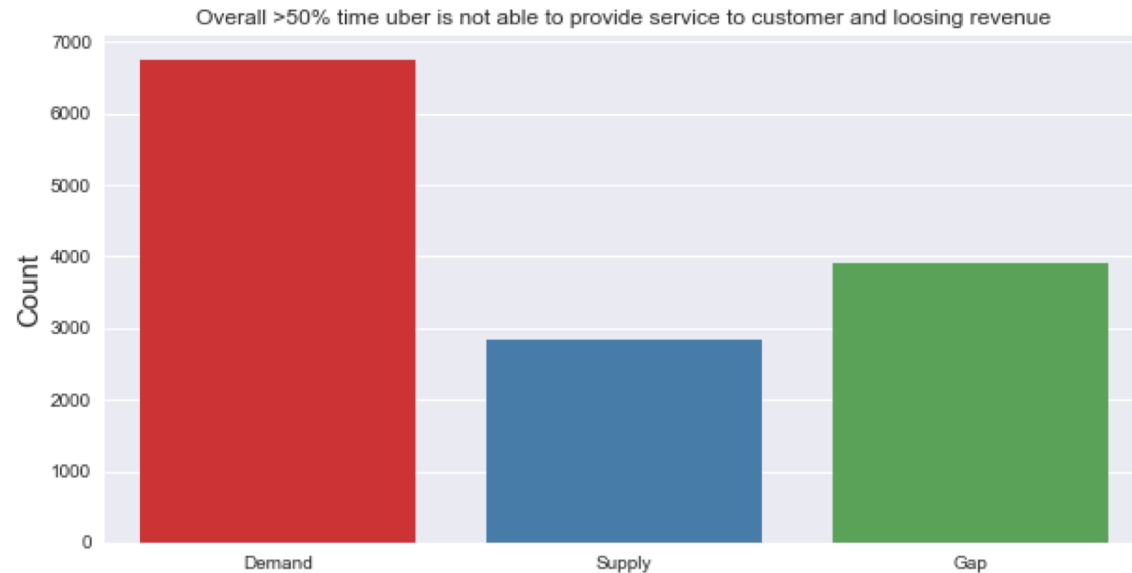
MARKET : Cab-Aggregation

SCENARIO : Travel requests to and from Airport

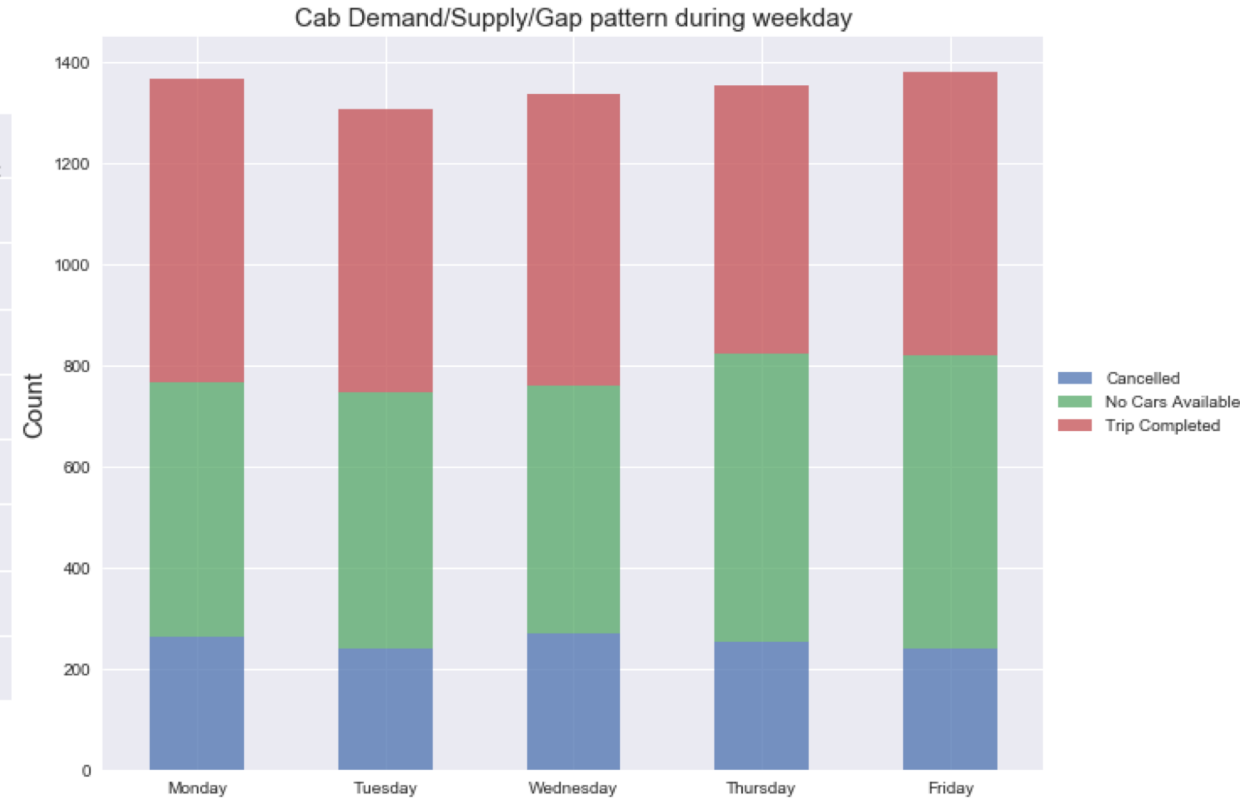
OBJECTIVE : Identify state of marketplace for the scenario affecting revenue generation. Identify root-cause, suggest hypothesis and recommendation.

ANALYSIS:

- Identify state of market-place
- Root-cause of the problem
- Possible hypothesis of the problem
- Recommendation for improvement



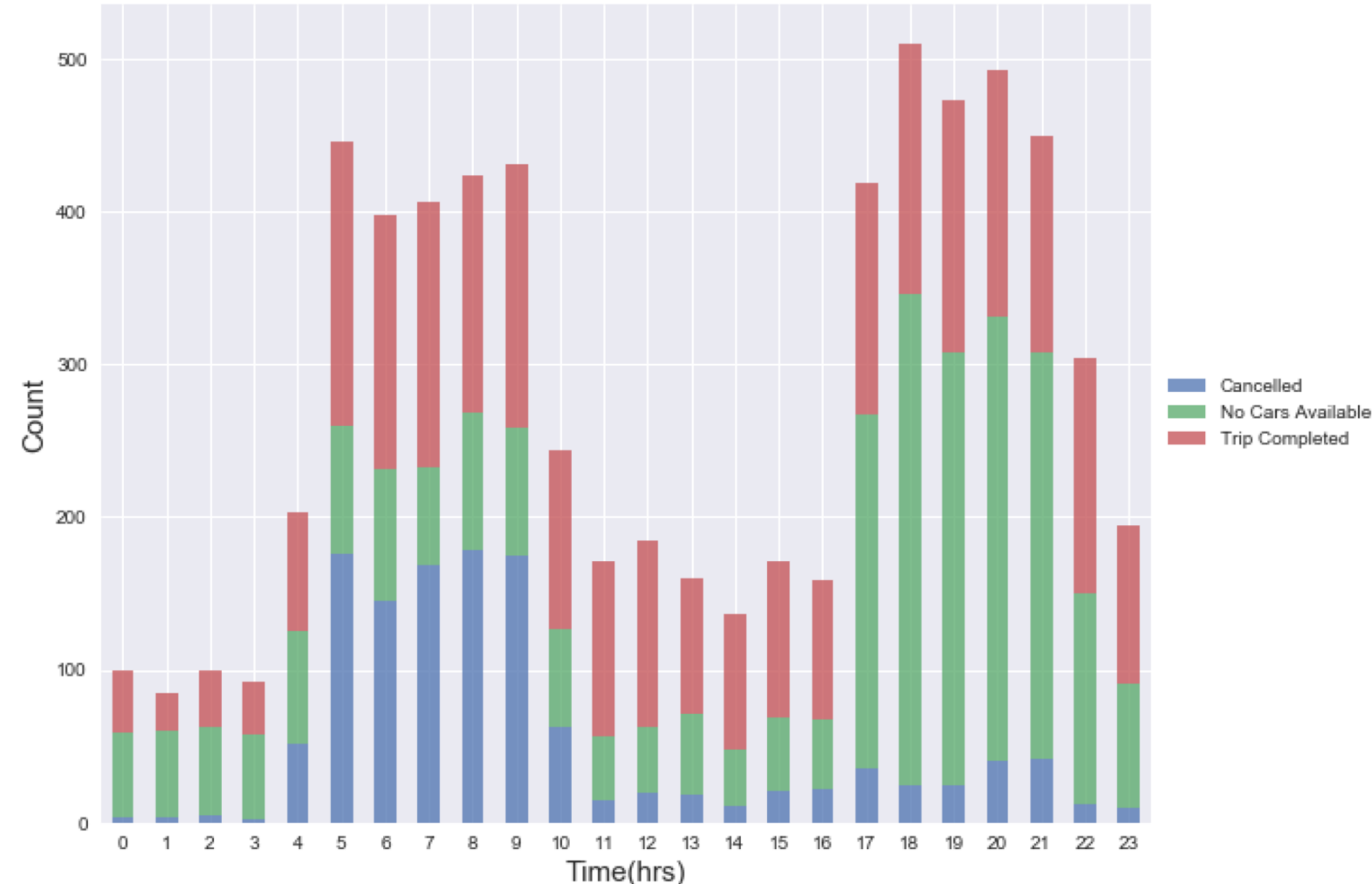
- A clear supply gap of more than 50% exists in the market place
- Gap consists of cancellation and unavailability denoted by "Cancelled" and "No Cars Available"
- "No Cars Available" is a greater gap than "Cancelled"



- Airport to City – ‘No Cars Available’ is bigger problem then ‘Cancelled’.
- City to Airport – ‘Cancelled’ and ‘No Cars Available’ both the problems are relatively equal. Also, ‘Trip Completed’ is high as compared to “Airport to City”
- Cab Request Status doesn’t have significant difference in weekday’s and behavior is nearly same on all days

# Marketplace pattern during 24 hours of the day

Cab Demand/Supply/Gap pattern during 24 hours of the day



➤ Peak Hours of demand surge

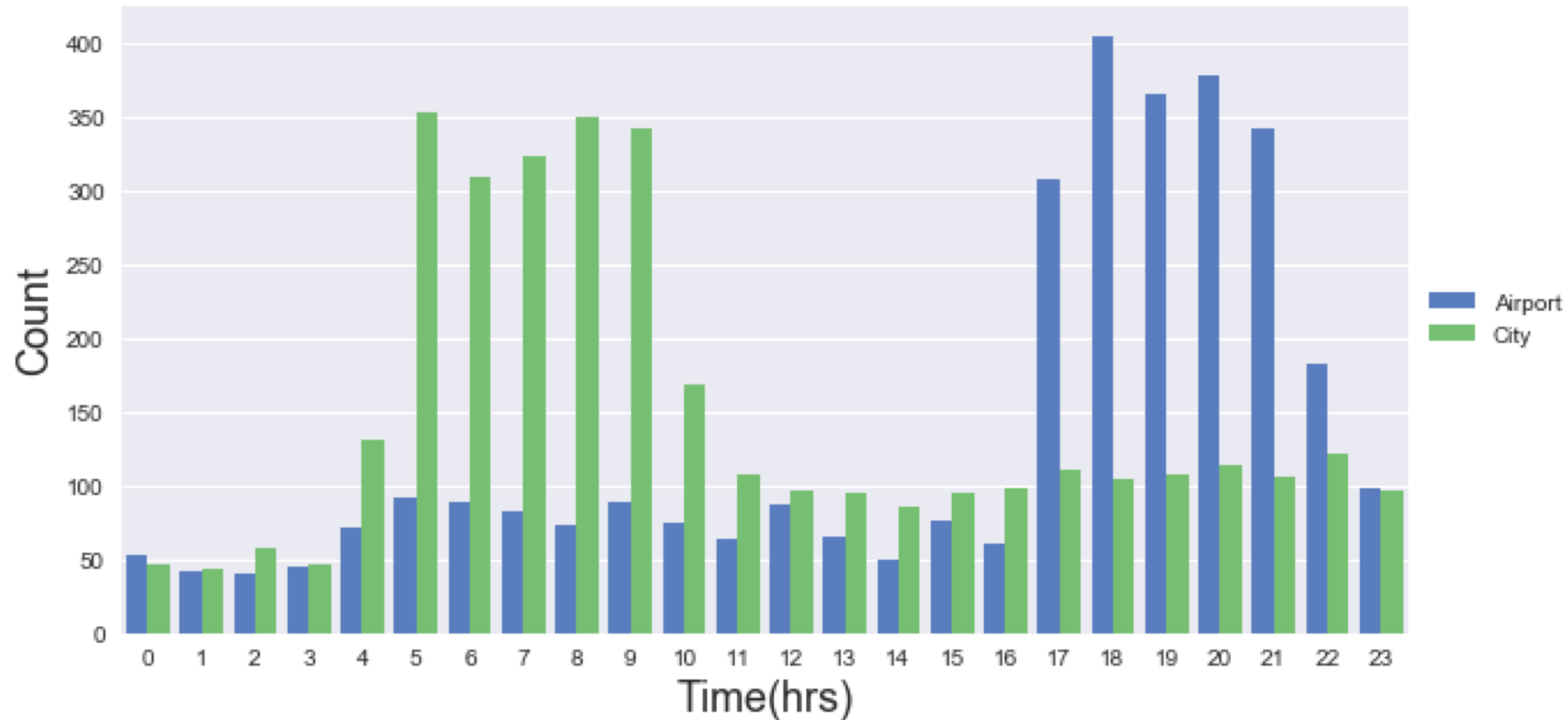
➤ 5AM to 10AM | Morning Peak Hours

✓ Bigger problem is booking status 'Cancelled' as compared to 'No Cars Available'

➤ 5PM to 10PM | Evening Peak Hours

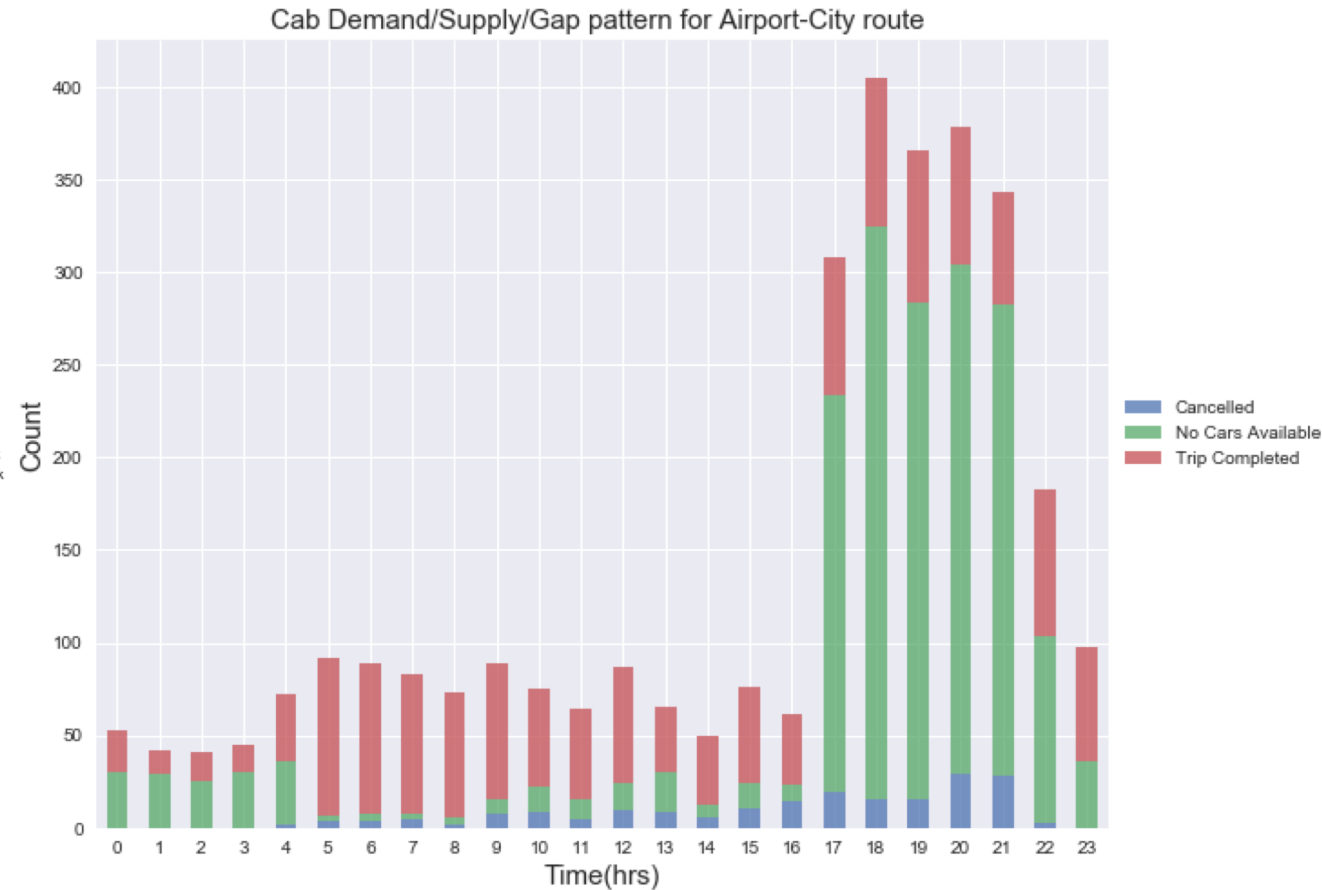
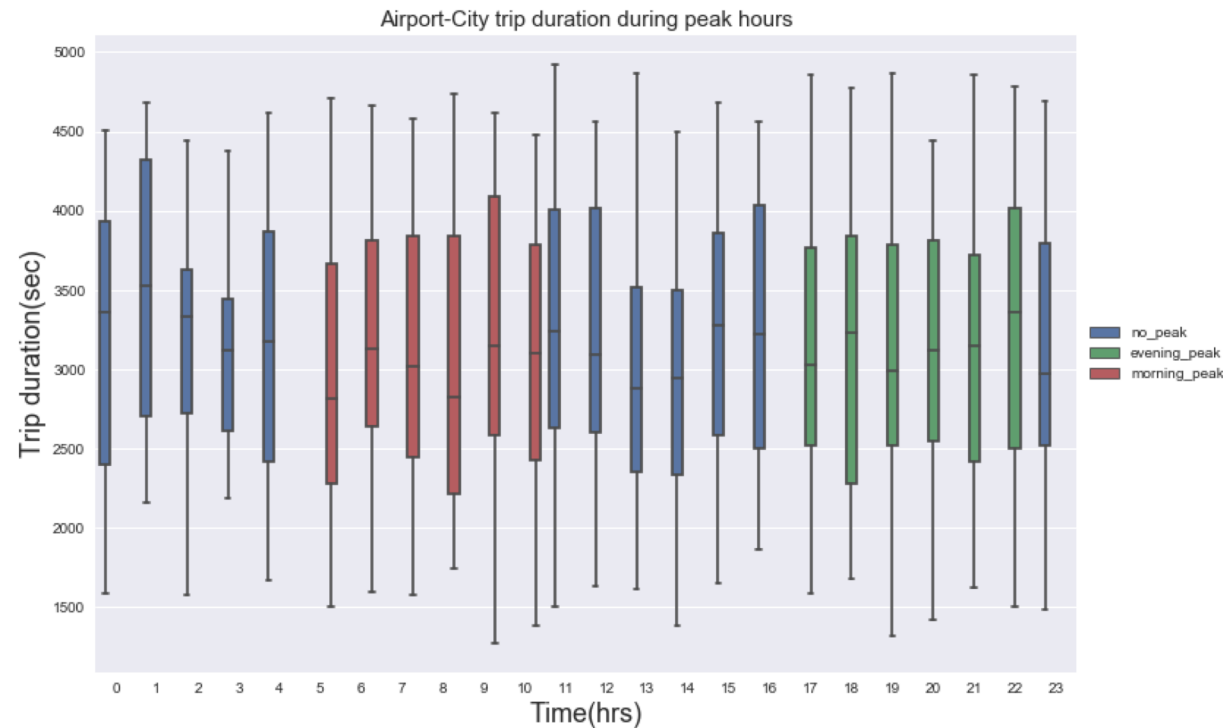
✓ Bigger problem is booking status 'No Cars Available' as compared to 'Cancelled'

## Cab Request (Demand) pattern from airport/city during 24 hours of the day



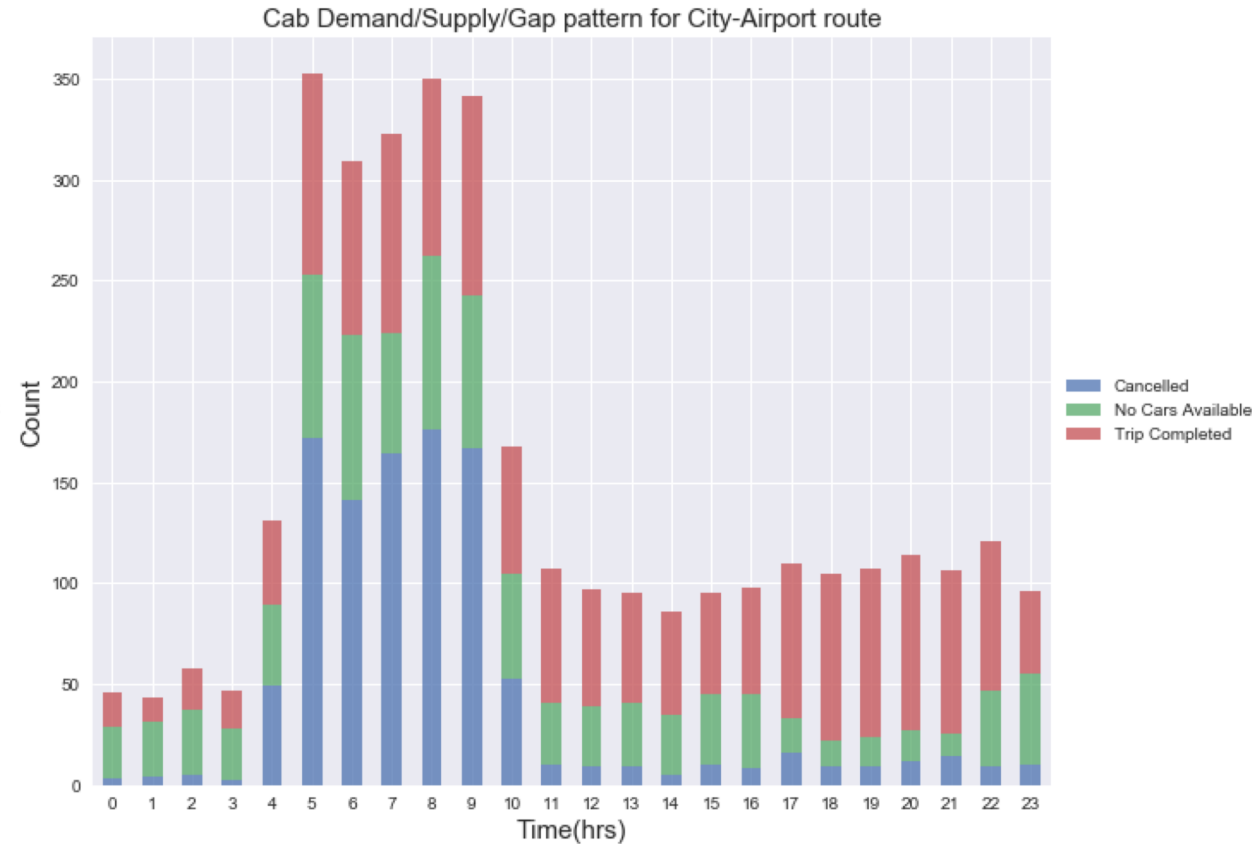
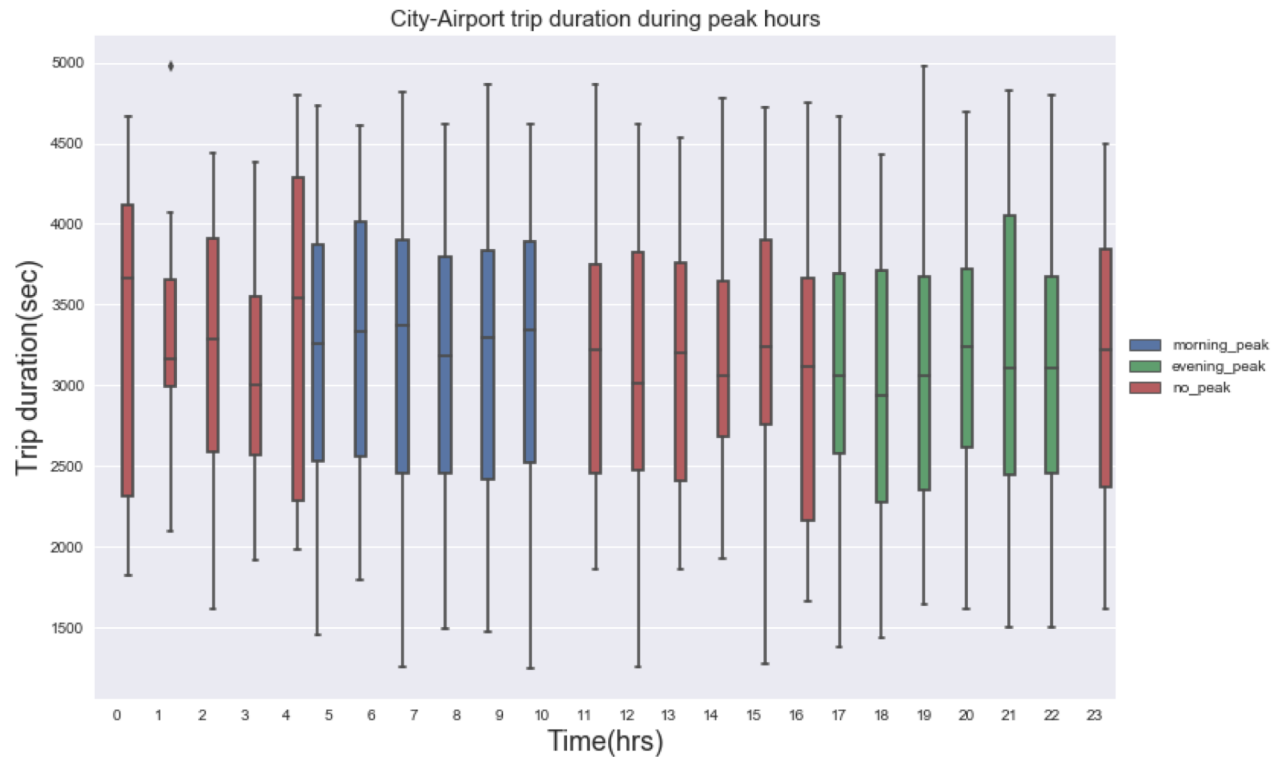
- City to Airport – Huge demand for this route during morning peak hours (5AM-10AM)
- Airport to City – Huge demand for this route during evening peak hours (5PM-10PM)

## Airport – City demand supply analysis during day



- Demand surge during Evening Peak hours (5PM-10PM) .
- On this route bigger problem is ‘No Cars Available’ as compared to ‘Cancelled’.
- Trip duration for this route is relatively high during evening peak hours.

## City – Airport demand supply analysis during day



- Demand surge during Morning peak hours (5AM-10AM) .
- On this route bigger problem is cab 'Cancelled' as compared to 'No Cars Available'.
- Trip duration for this route is relatively high during Morning peak hours.



# Conclusions

- A clear gap of more than 50% exists in the marketplace
- Demand surge peak times are Morning Peak Time (5 – 10 AM) and Evening Peak Hours (5 - 10 PM)
- City to Airport
  - Demand peaks during Morning Peak time
  - Bigger problem is 'Cancelled' as compared to 'No Cars Available'
  - Trip duration is more during morning peak time
- Airport to City
  - Demand peaks during Evening Peak time
  - Bigger problem is 'No Cars Available' as compared to 'Cancelled'
  - Trip duration is more during Evening Peak Time.

# Root Cause

- City to Airport – “Cancelled” more than “No Cars Available”
  - Commute time is more on this route in the morning peak hours, when the demand is more.
  - Cancellation may be more, as drivers can earn within the city as office commute requests will also be higher during same time. They avoid driving all the way to airport in high commute time.
  - Also, the driver avoids taking trip to airport as he feels that he will have a longer wait time due to flight patterns
- Airport to City – “No Cars Available” more than “Cancelled”
  - Due to flight pattern in afternoon; it is possible that there is not much inflow of cabs.
  - Also, If more drivers avoid going to airport, it already creates a supply gap. Also, during evening peak hours drivers can earn by office commutes, rather than travelling to airport.
  - Between 5-10 PM, most drivers may also choose to finish their work hours, and not be available.

# Recommendation

- Drivers should be incentivized for airport trips
- Vice versa, drivers should be penalized for cancelling the trips
- Increasing incentive for airport trips to compensate for longer wait time at airport
- Uber should focus on onboarding more cab drivers near airport area, for meeting the supply gap at airport
- Providing a feature of “Advance Booking” for airport pick/drop may also help bridging this gap