

ANALYSIS of NYC Yellow Taxi data

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4/24/2016

NYC Yellow Taxi Data

This dataset includes trip records from all trips completed in yellow taxis in NYC in 2014.

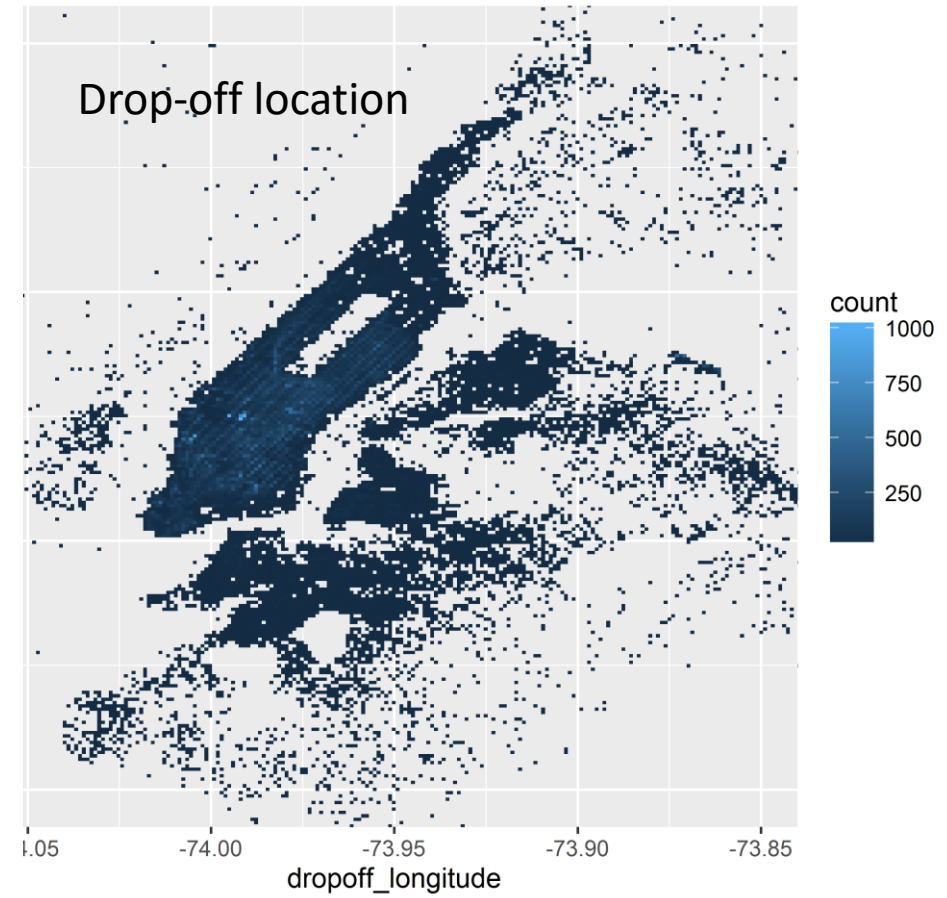
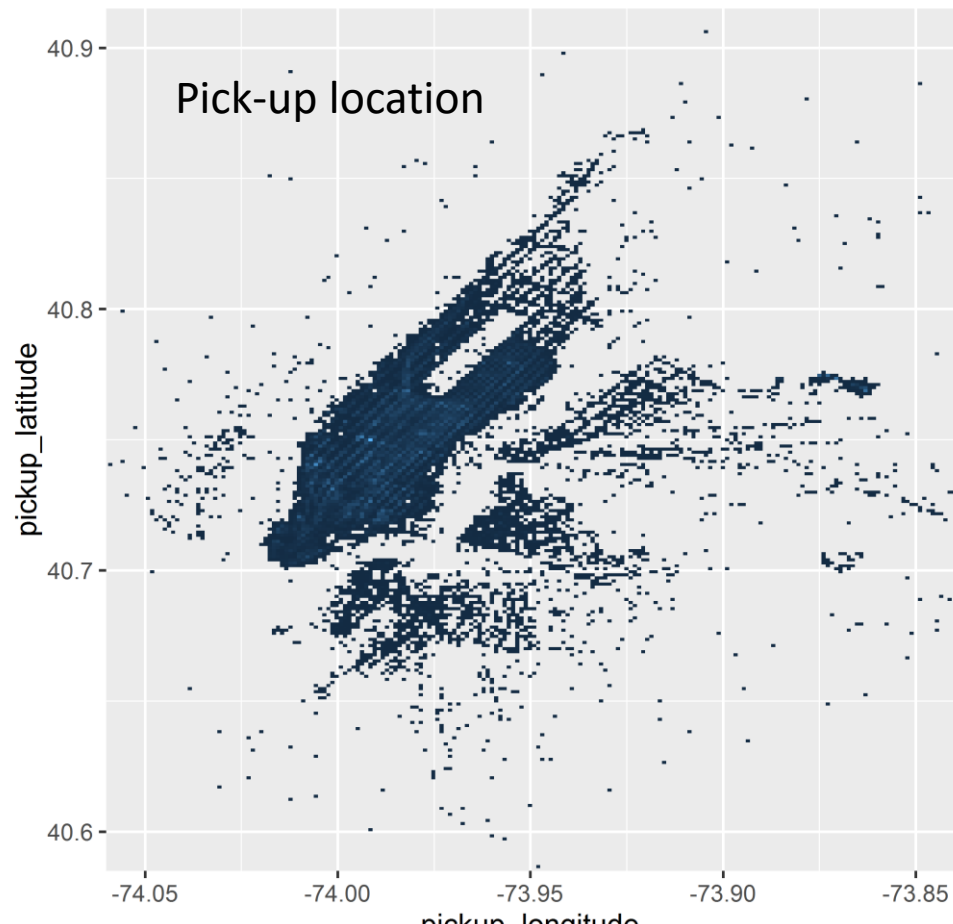
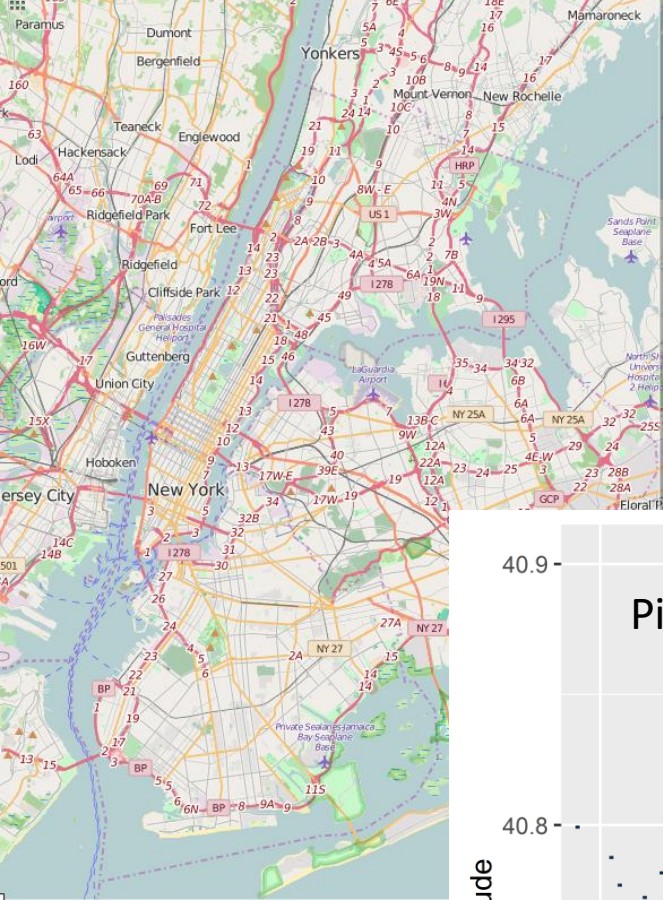
Records include fields capturing:

- ☐ pick-up and drop-off **dates/times**
- ☐ pick-up and drop-off **locations**
- ☐ trip distances
- ☐ itemized **fares**
- ☐ rate types
- ☐ payment types
- ☐ **passenger** counts

#The trip data was not created by the TLC, and TLC makes no representations as to the #accuracy of these data.

Only 3 days dataset was used in this study. It is a challenge to handle such huge dataset in a PC

Where is the flow

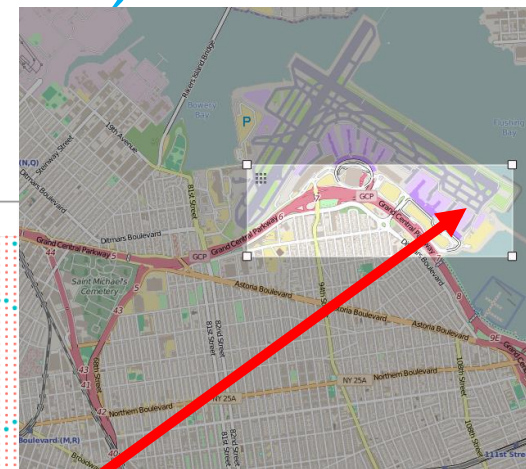
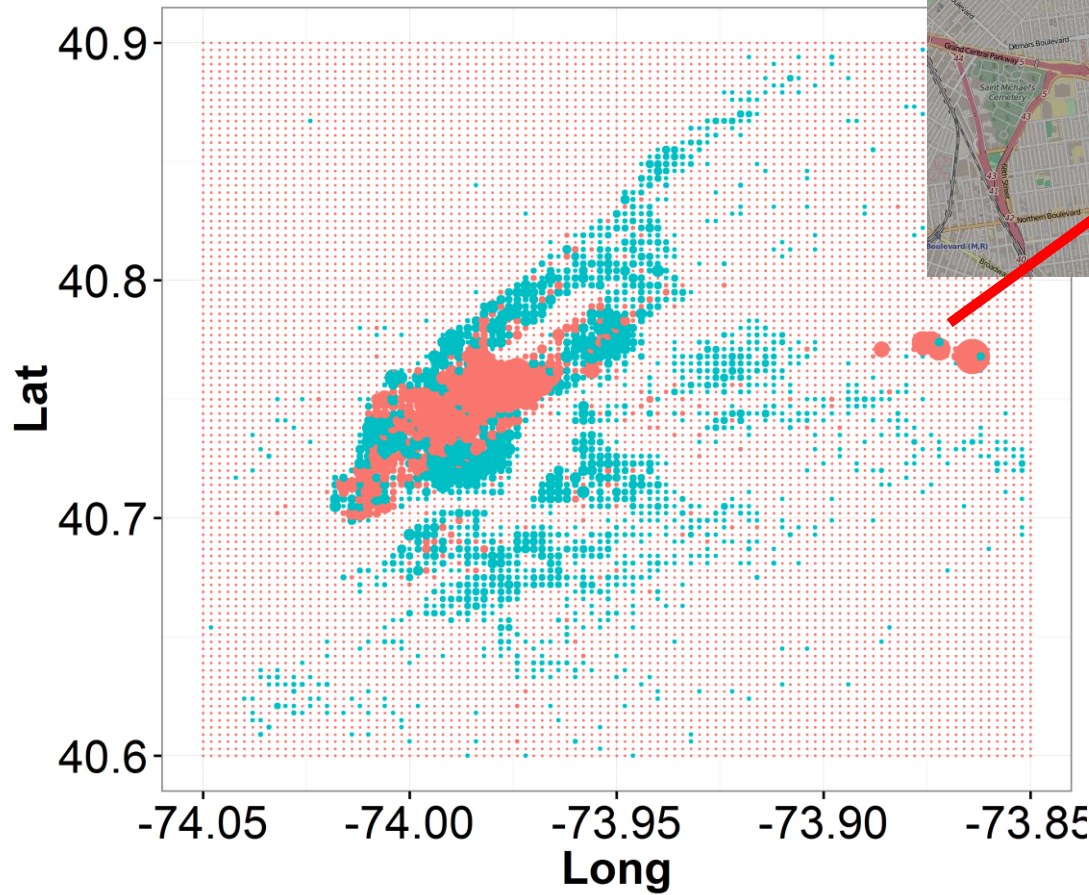
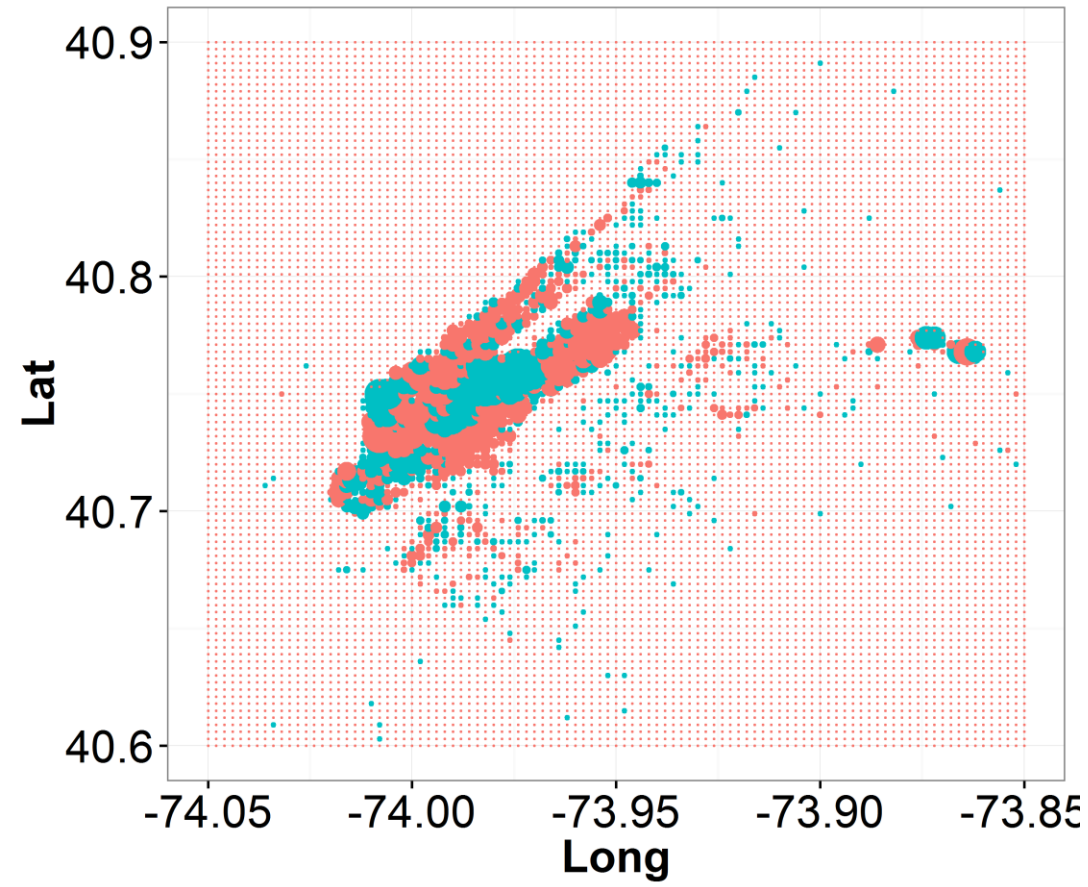


Friday Activity

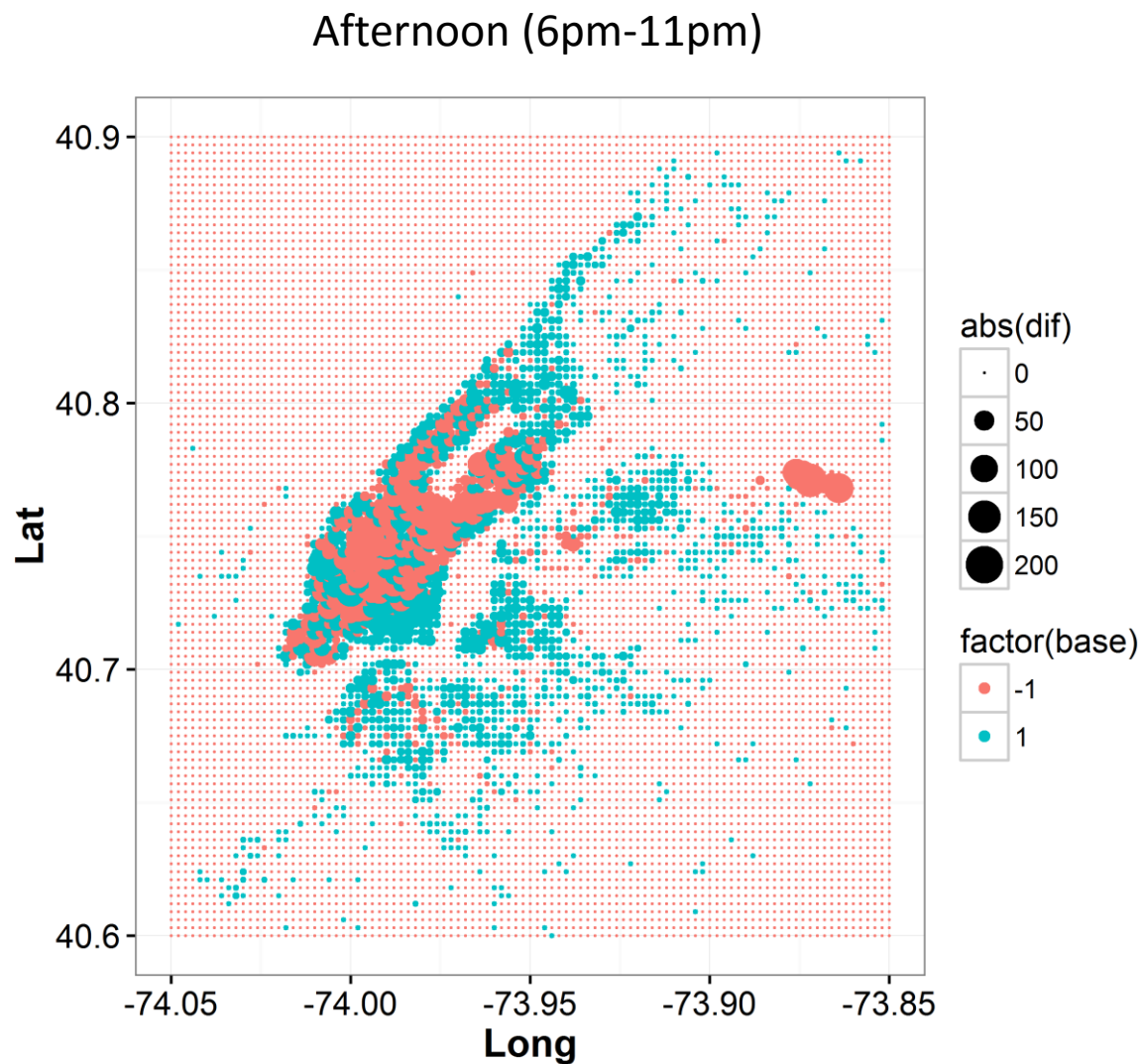
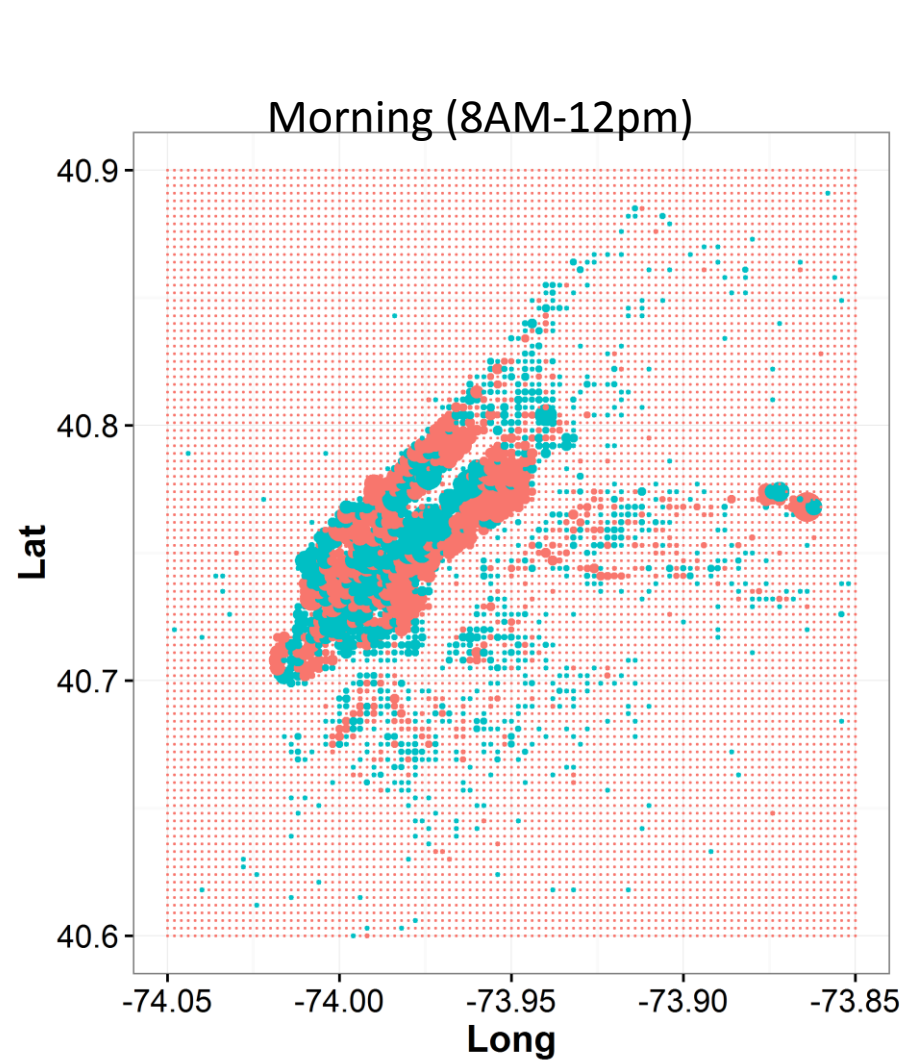
(net flow: red more pickup, blue more drop off)

Morning (8AM-12pm)

Afternoon (6pm-11pm)



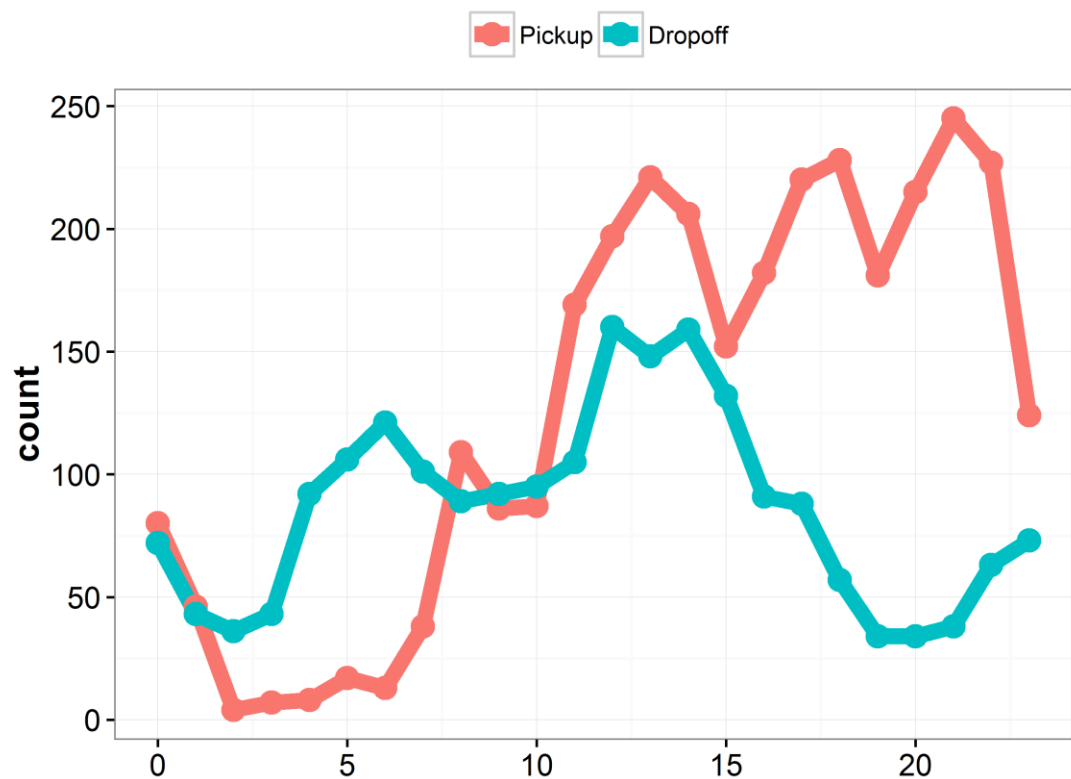
Saturday Activity (net flow: from red to blue)



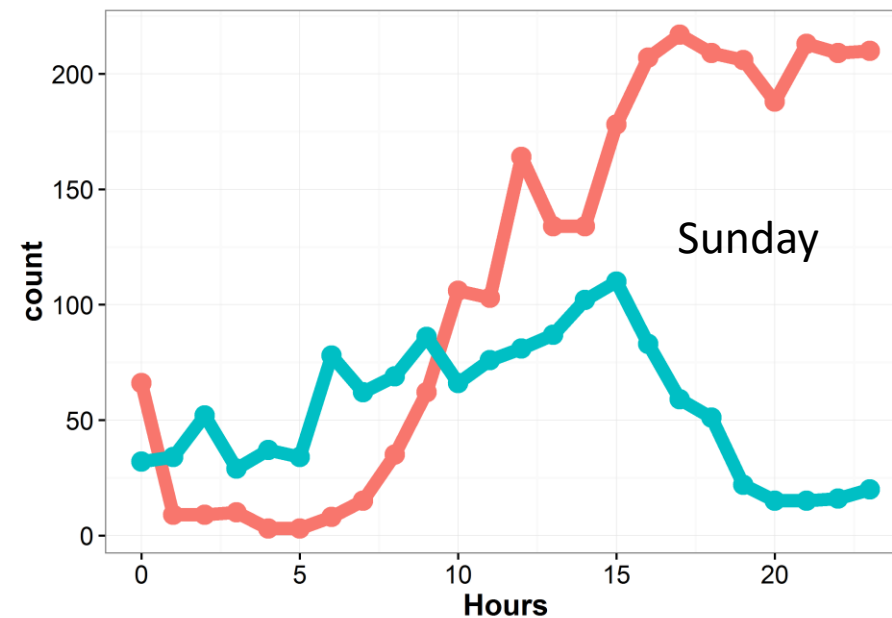
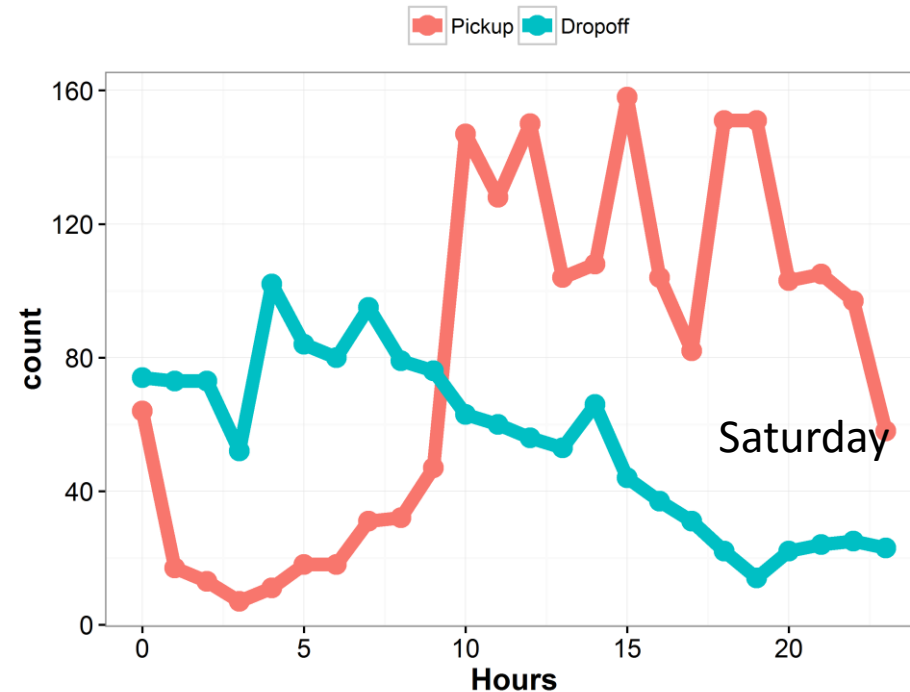
Taxi at LaGuardia Airport

- more people leaving at morning and arrive at evening
- More people take taxi from airport

Passenger pickup and dropoff at LaGuardia Airport

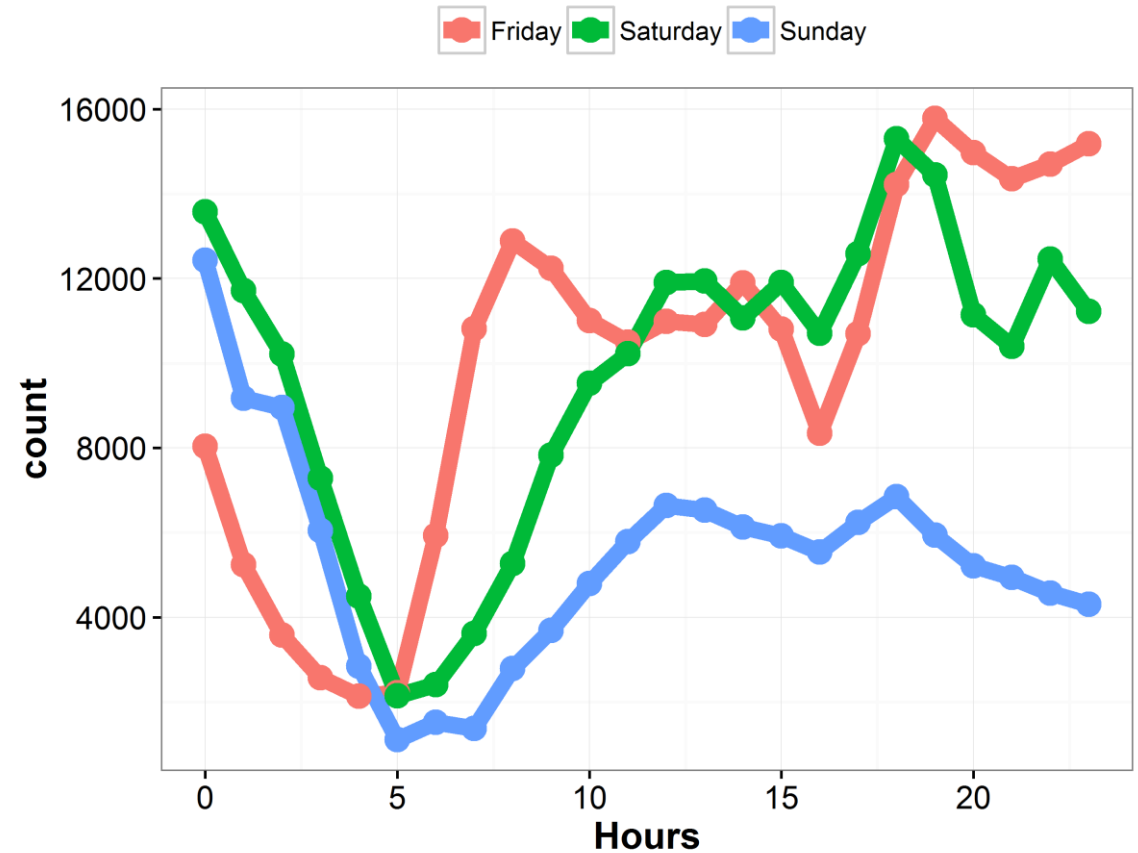
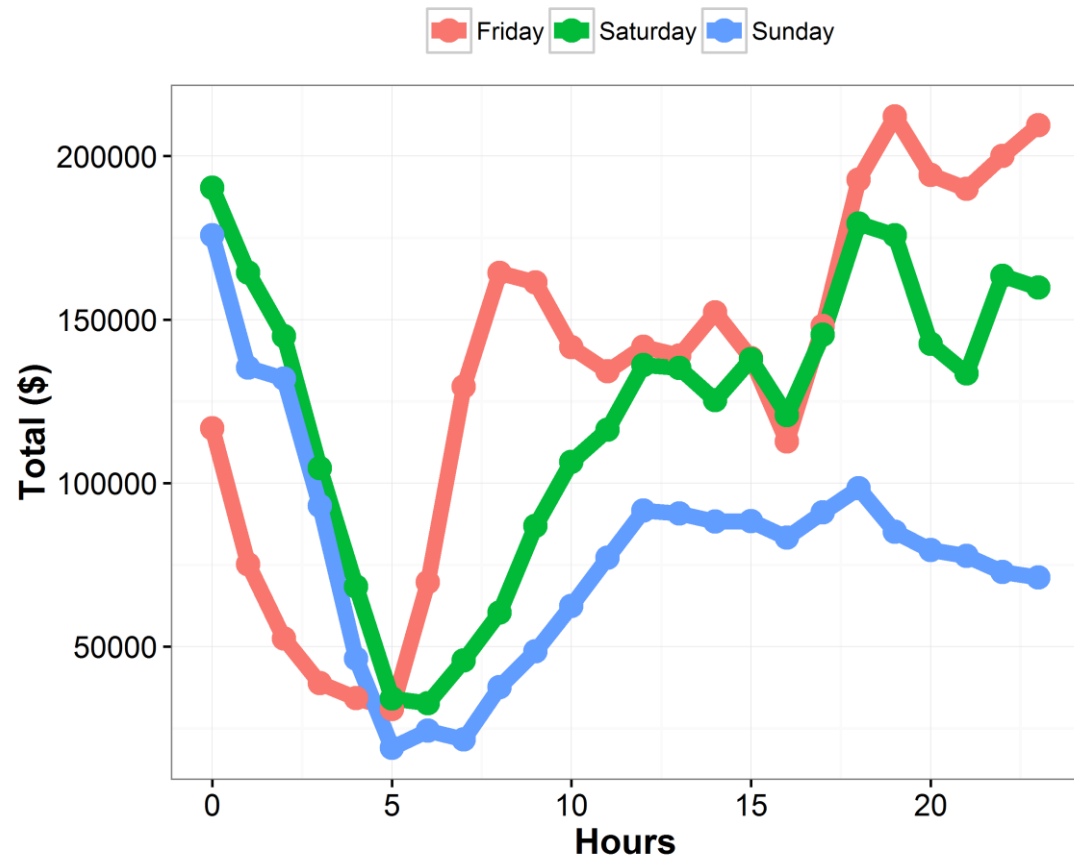


Passenger pickup and dropoff at LaGuardia Airport



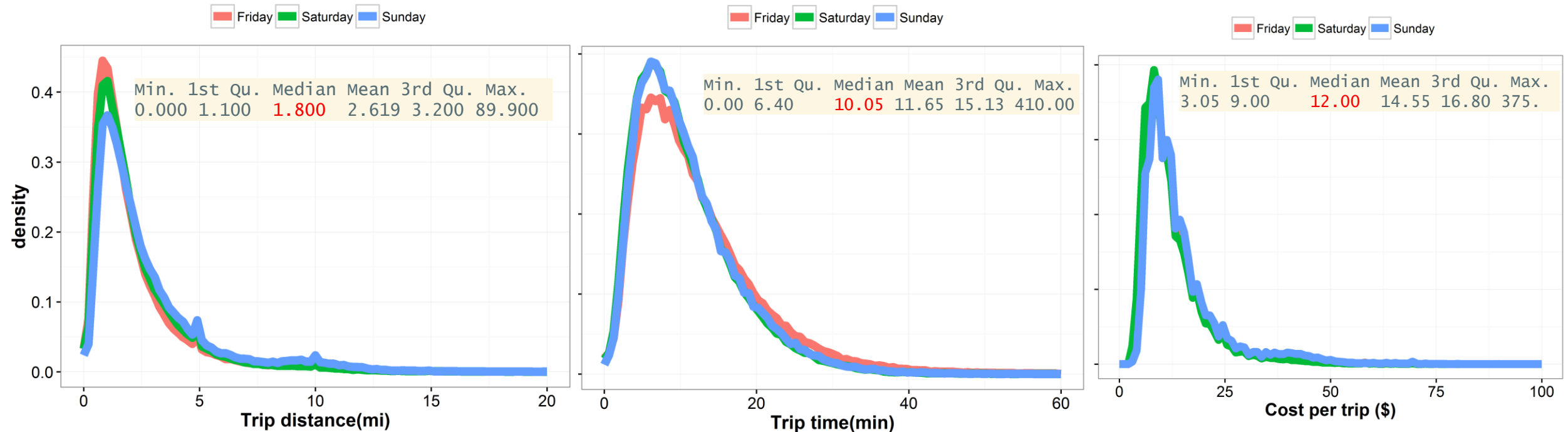
Time dependence

- ❑ There is minimum activity at 5AM for both workday and weekend
- ❑ There is peak right at 8AM for work day, but no such rush hour on weekend
- ❑ There is weak activity (local minimum) at 4pm (difficult time to find a taxi)



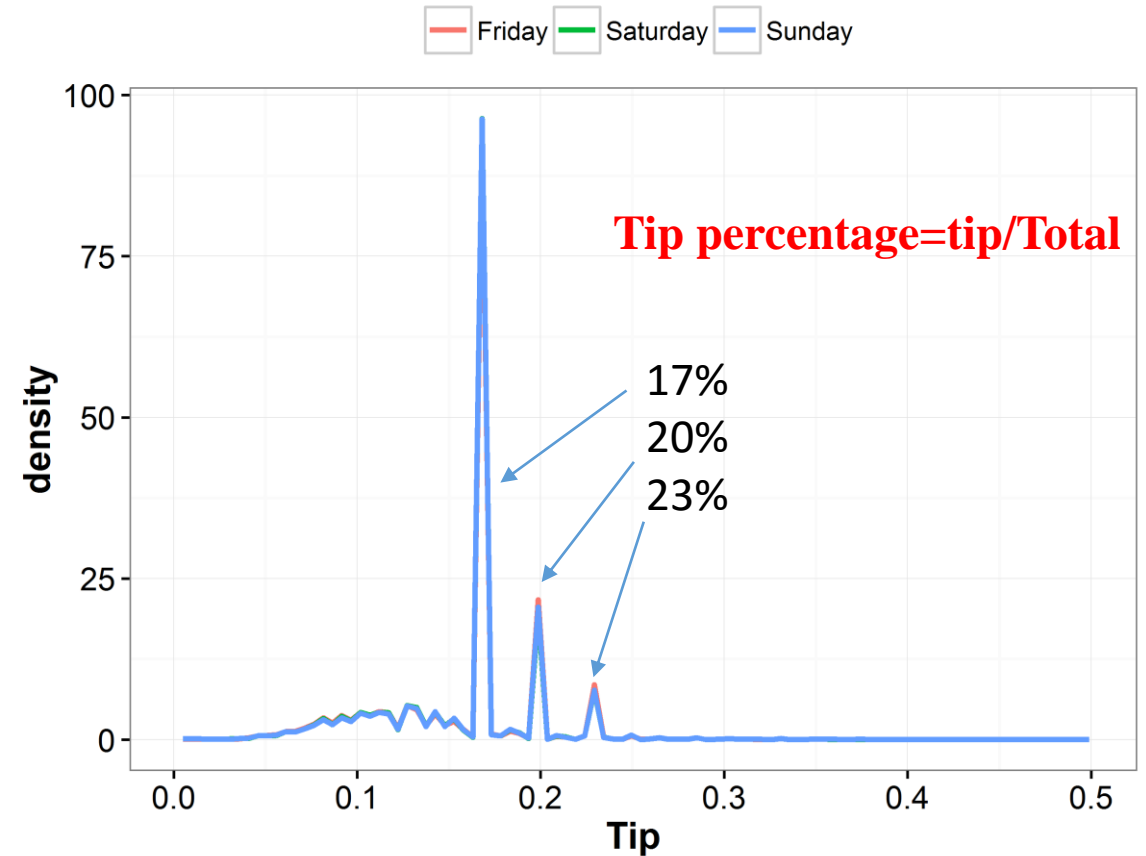
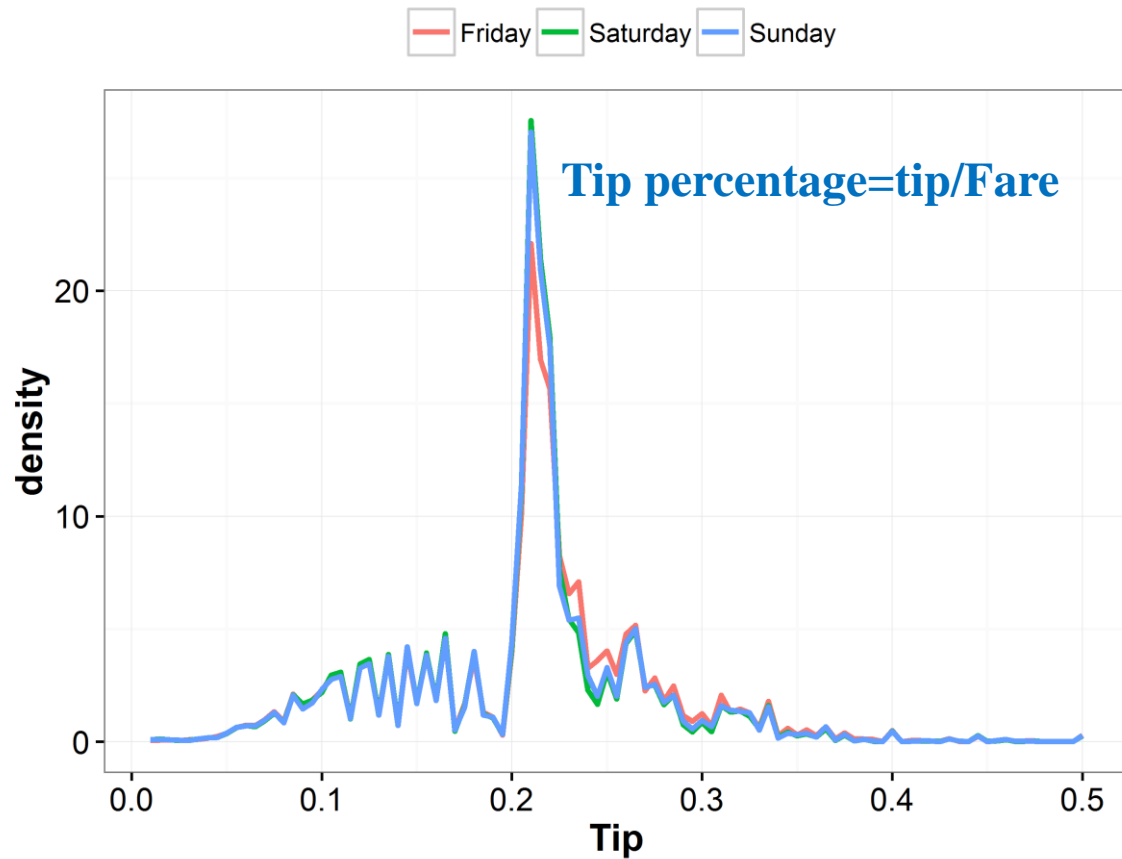
Trips: time, distance and cost

□ There median of trip distance, time and cost are: 1.8mile, 10 minutes and \$12



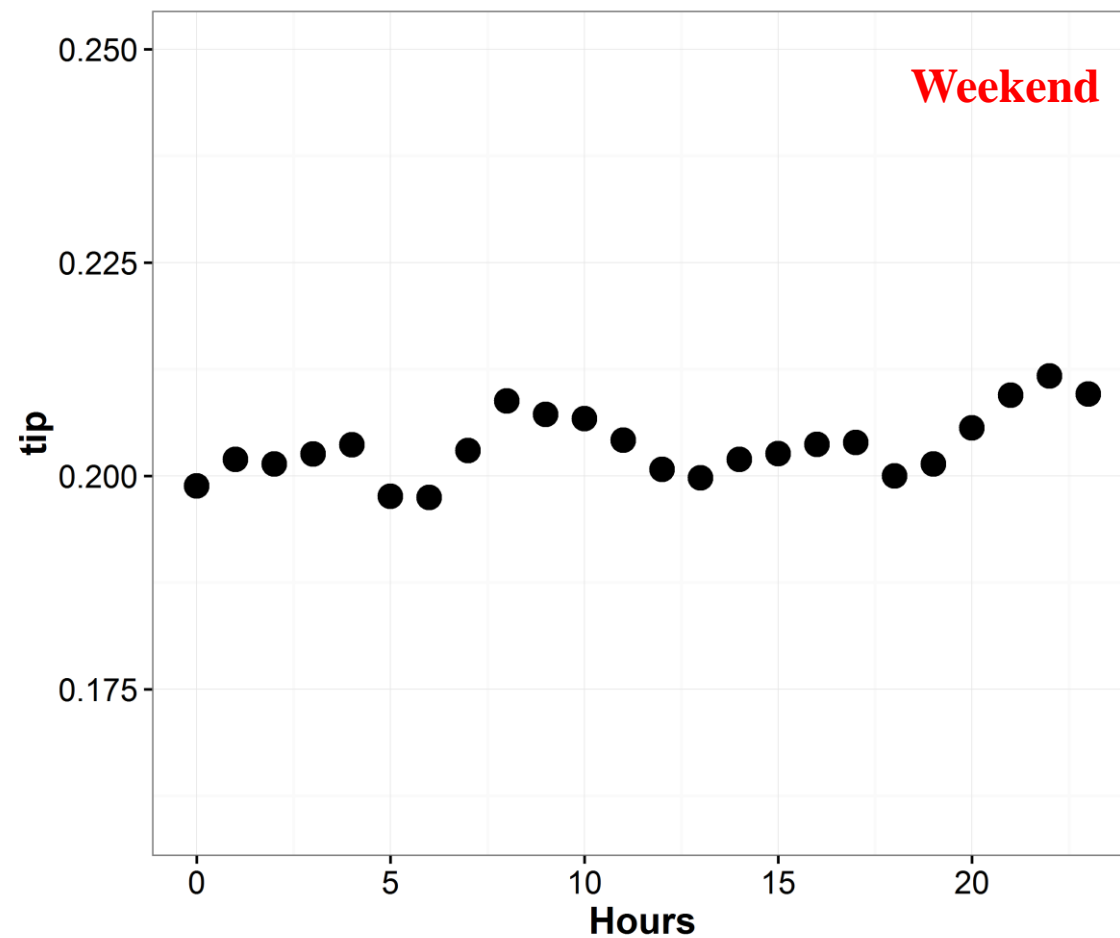
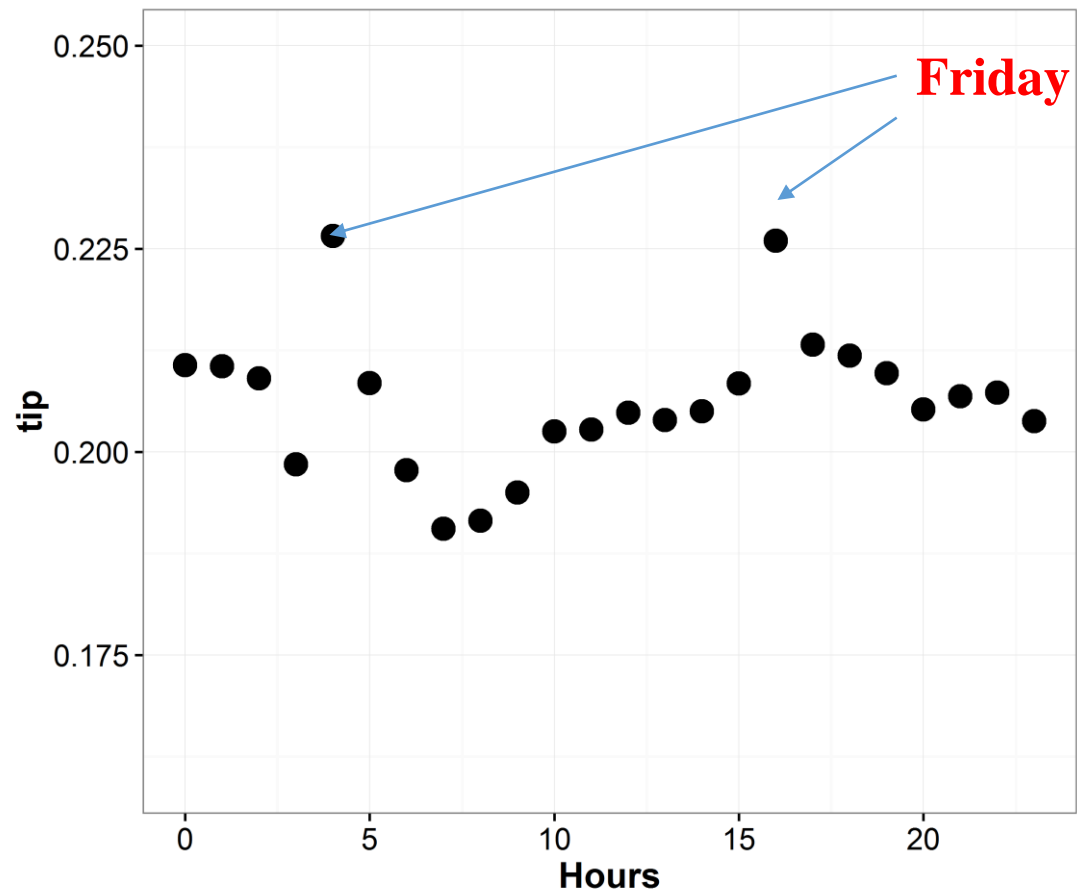
- Many people (36%) don't give tip or missing data there?

Marjory people used this formula: **Tip percentage = Tip/Total**

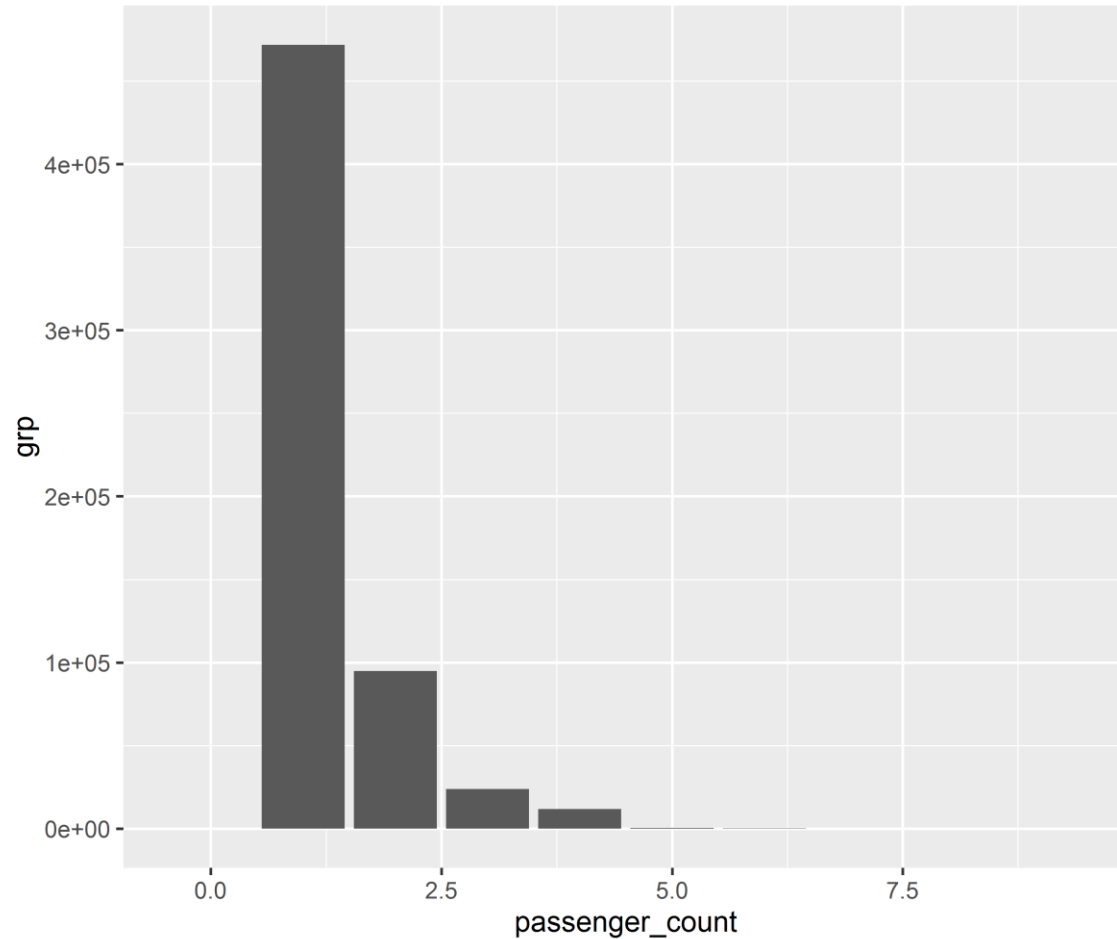


Min. 1st Qu. **Median** Mean 3rd Qu. Max. 0.000125 0.133300 **0.166700** 0.157700 0.166700 0.961000

Tips variation with hours



Payment method and passage number per trip



- Fare Amount
- Surcharge - used during peak times
- MTA Tax
- Tolls
- Tip

Cost increase after 3pm

