



MTA Station Volume Analysis

WTWY



JMB Partners , 2019

Objectives



How?

Determine:

- Best subway locations to collect email addresses
- Best days of week
- Best times of day

Examine:

- MTA turnstile data
- Ridership patterns
- Additional actionable insights

Methodology

Time Period: April-June 2019 (3 months)

Clean for quality

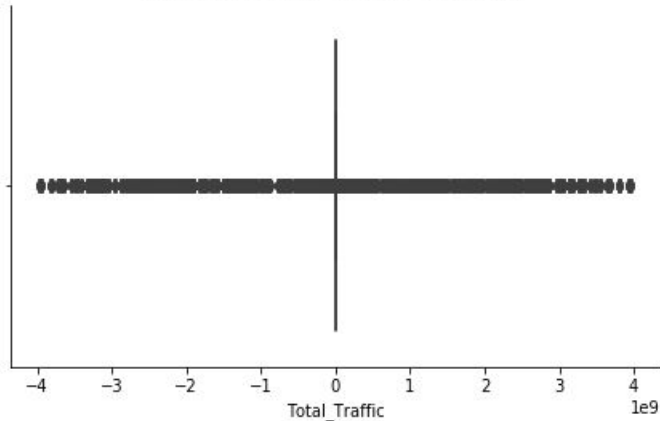
Identify unique stations

Find top 5 stations by total traffic volume

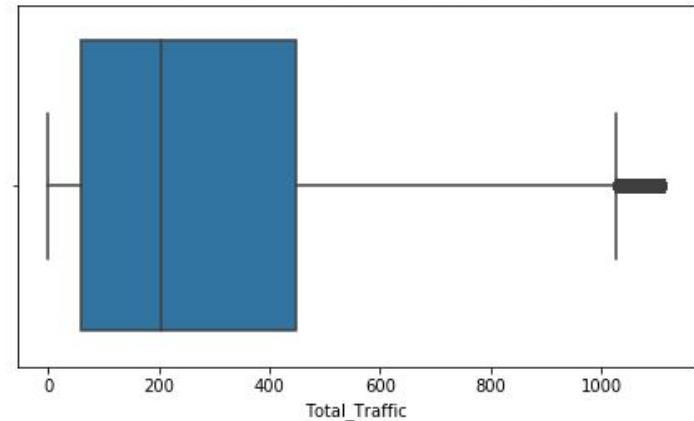
Weekday volume vs. weekend volume

Traffic volume by time

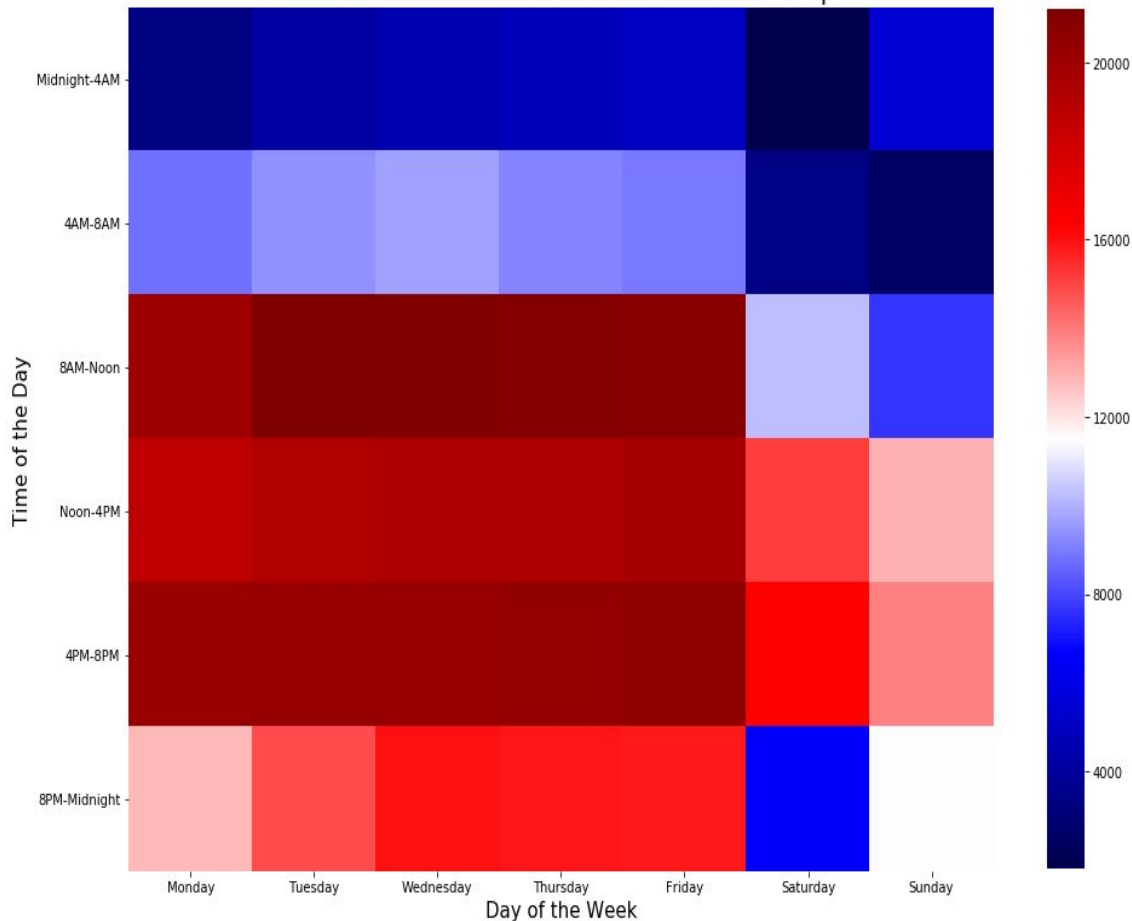
Initial
Box Plot of Total Traffic



Post-clean
Box Plot of Total Traffic



DAY OF THE WEEK vs TIME OF DAY Heat Map



Where do we focus?

- Weekdays
- 8 a.m - 8 p.m.

Additional factors to consider:

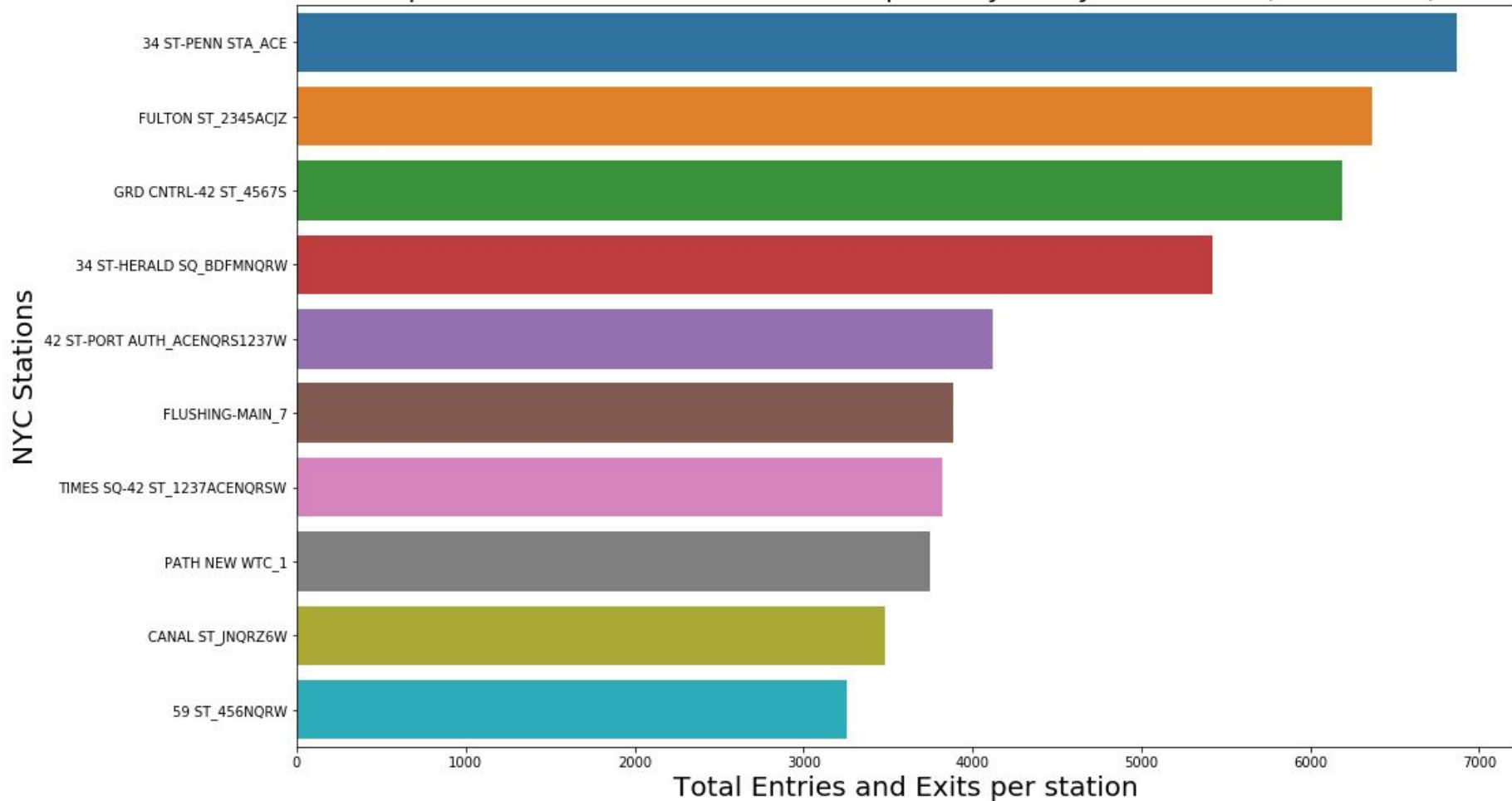
- Neighborhood demographics
- Proximity of tech companies

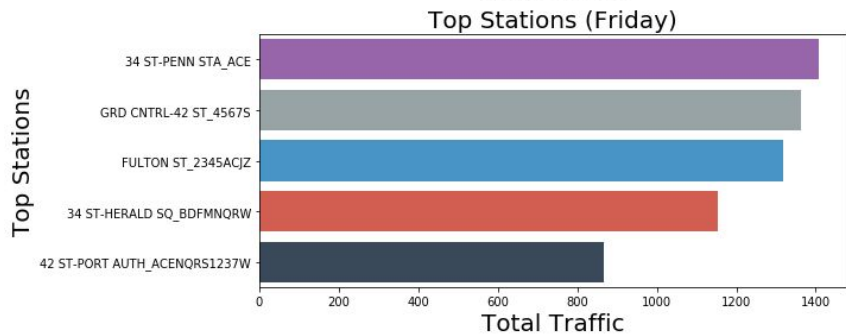
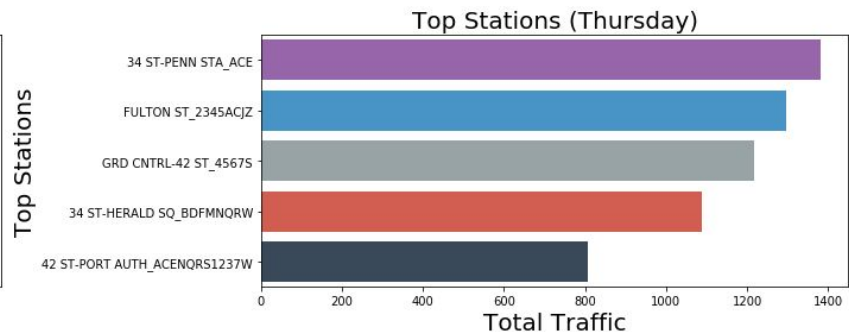
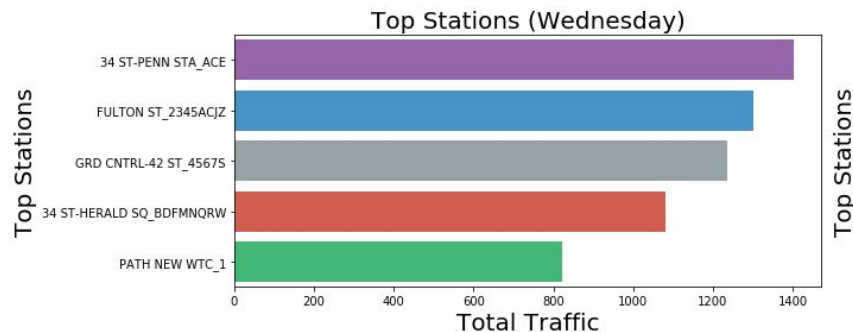
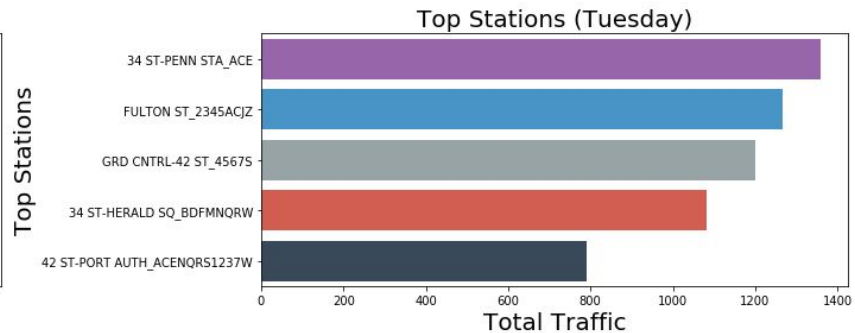
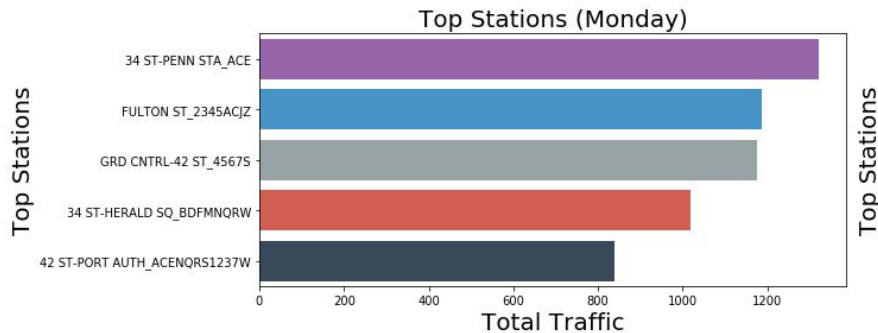


Results

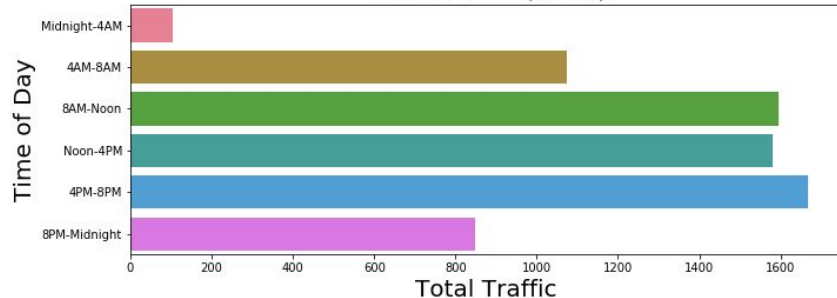
1. Top NYC unique stations
2. Top 5 stations per day of the week (Monday - Friday)
3. Most popular times per station

Top NYC Stations for the months of April, May, and June of 2019 (WEEKDAYS)

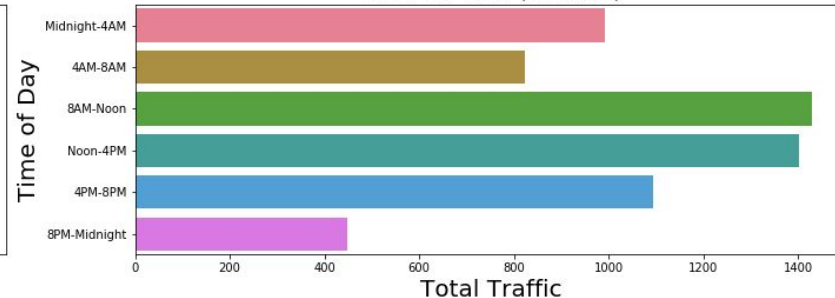




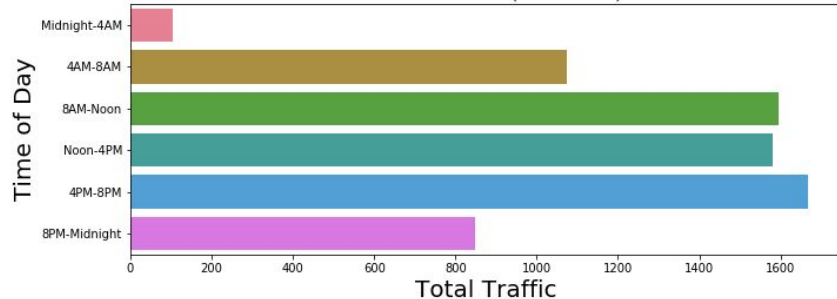
TIME OF DAY (PENN)



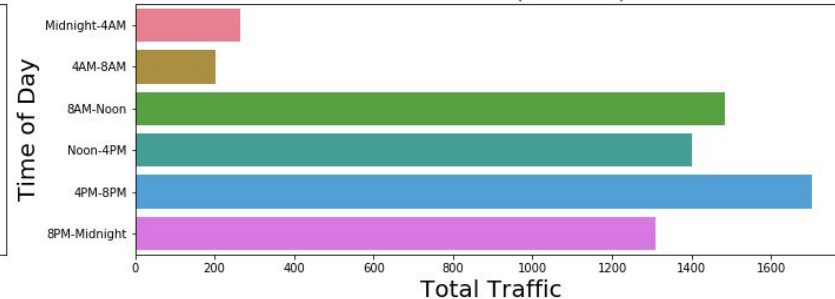
TIME OF DAY (GRAND)



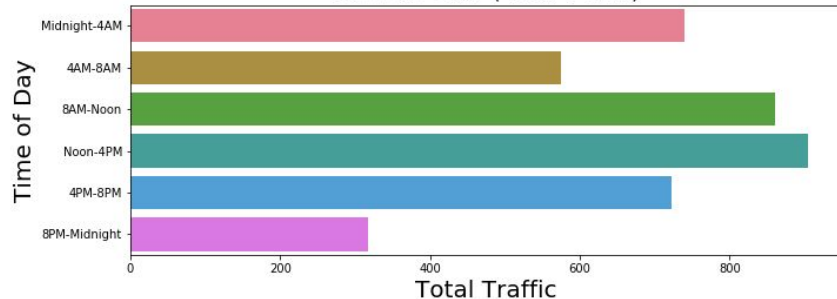
TIME OF DAY (HERALD)



TIME OF DAY (FULTON)



TIME OF DAY (42ST PORT)





Conclusions & Insights

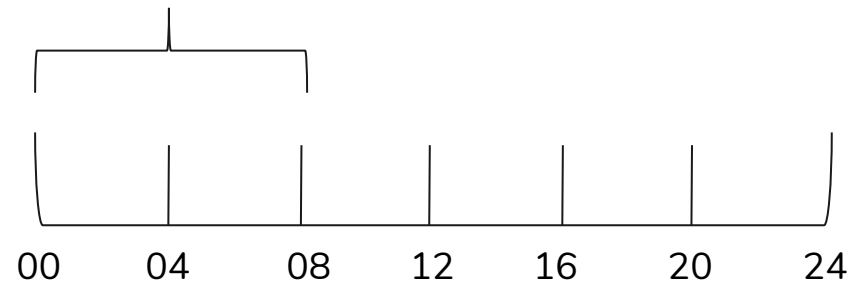
Highest Volume Stations:

- 34th St. & Herald Square
- 34th St. & Penn Station (ACE)
- 42nd St. / Port Authority
- Fulton St.
- Grand Central & 42nd St.

Conclusions & Insights

Time of Day Variance

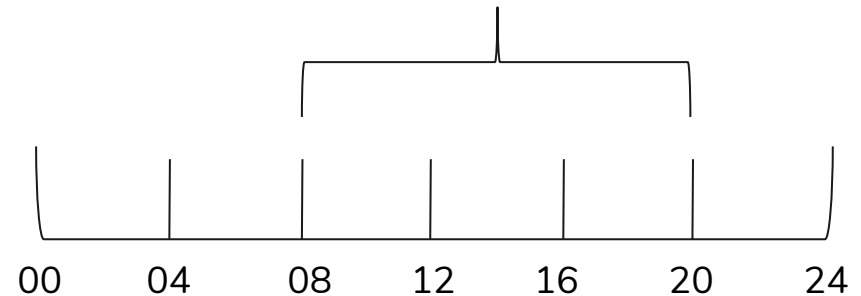
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Conclusions & Insights

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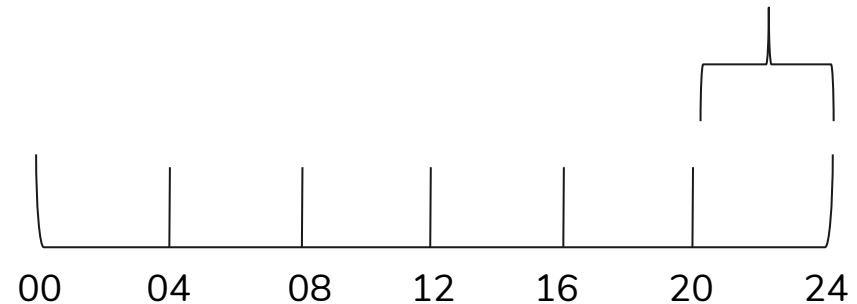
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Conclusions & Insights

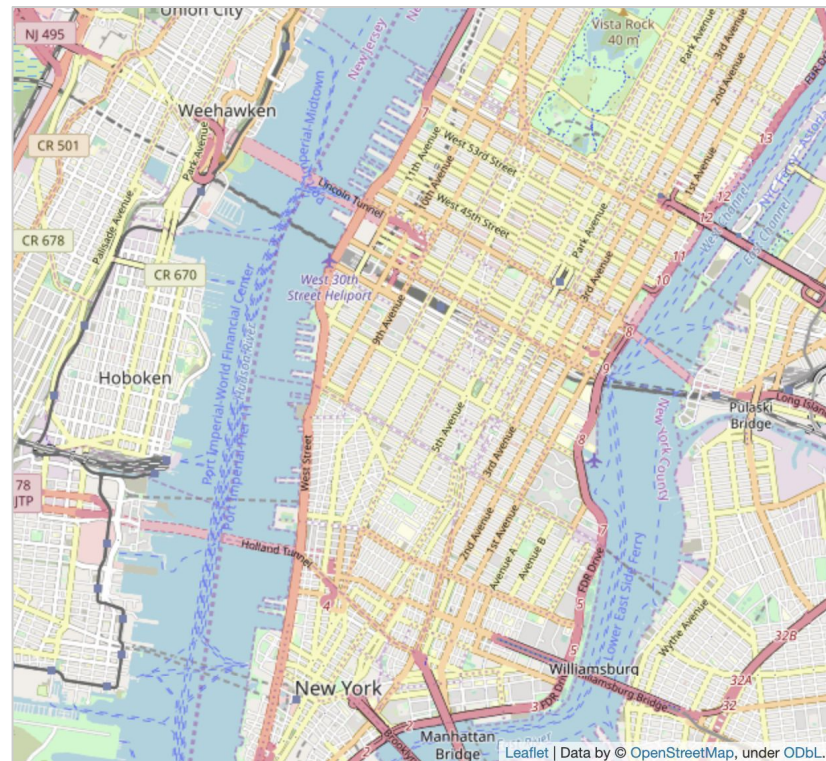
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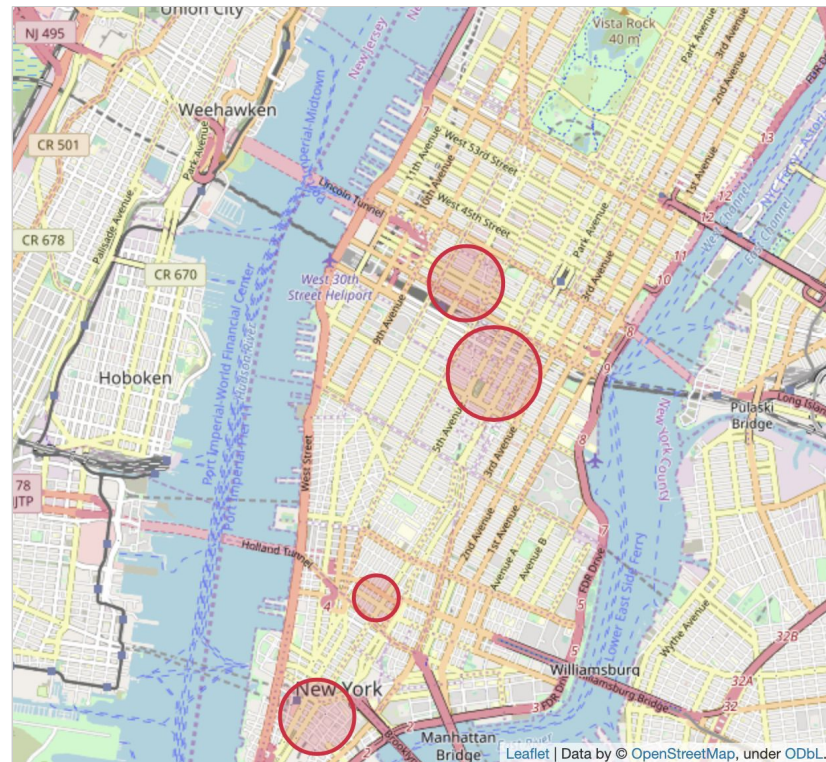
Conclusions & Insights

Proximity to Tech Centers

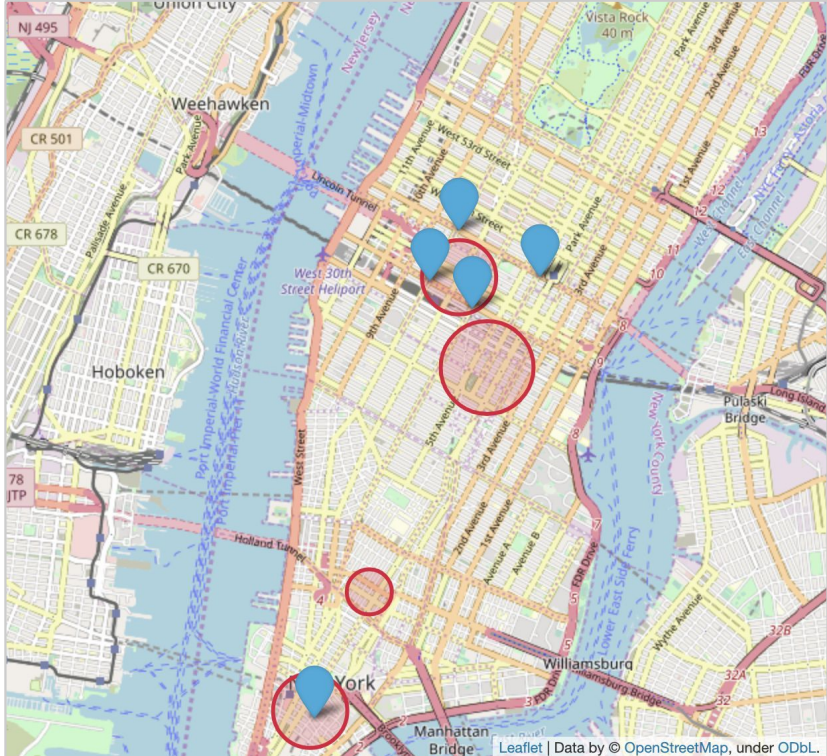


Insights

Proximity to Tech Centers



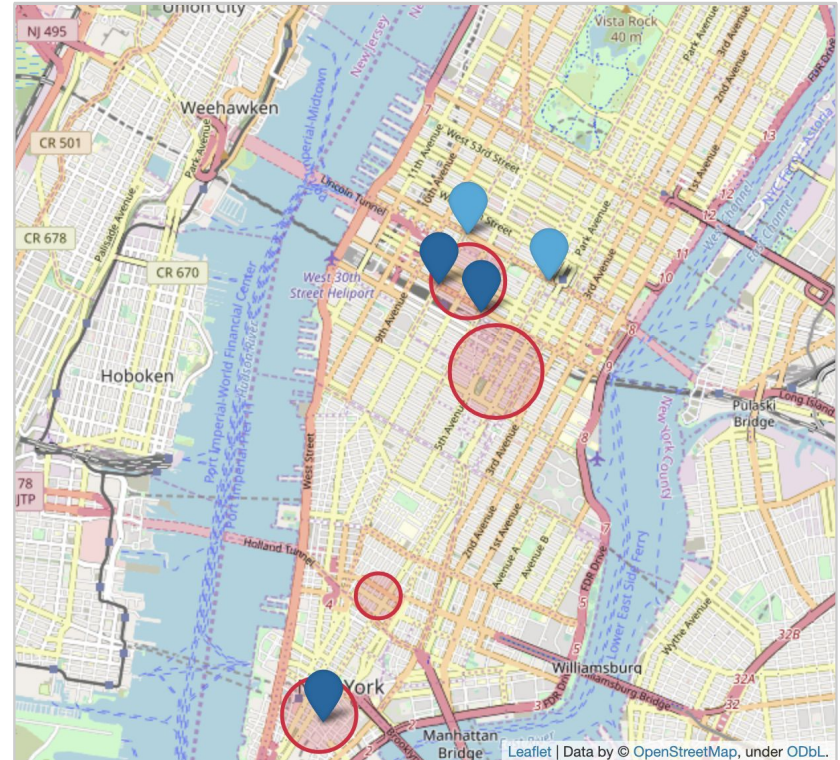
Proximity to Tech Centers



Insights

Proximity to Tech Centers

- 34th St. & Herald Square
- 34th St. & Penn Station
- Fulton Street





Future Work

Income Analysis

Commuter Flow Analysis



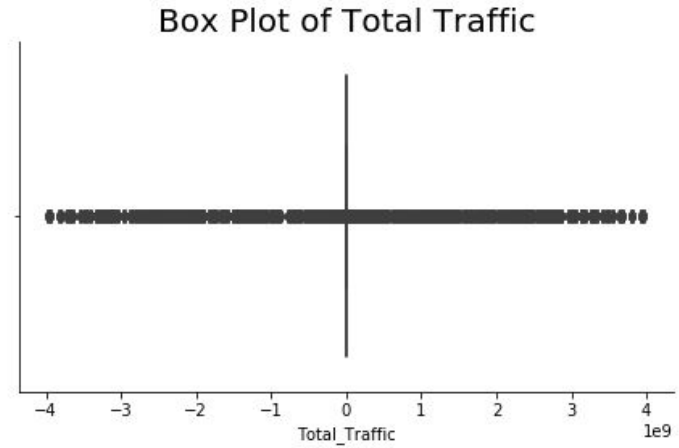
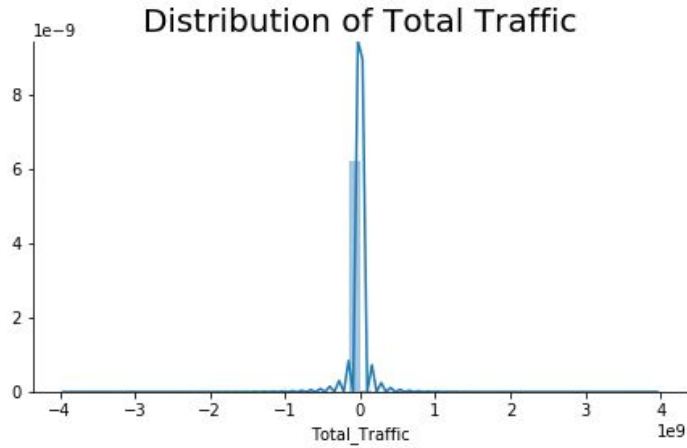
Thank You!

Any Questions?

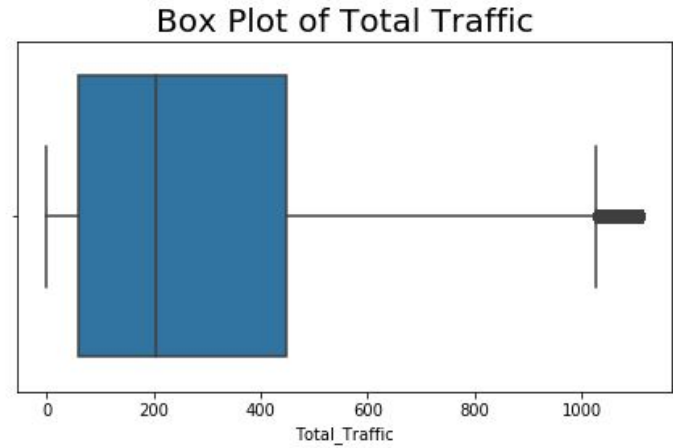
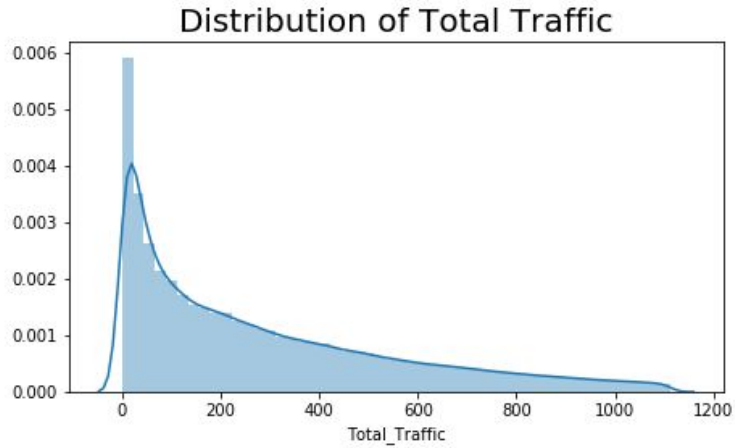


Appendix

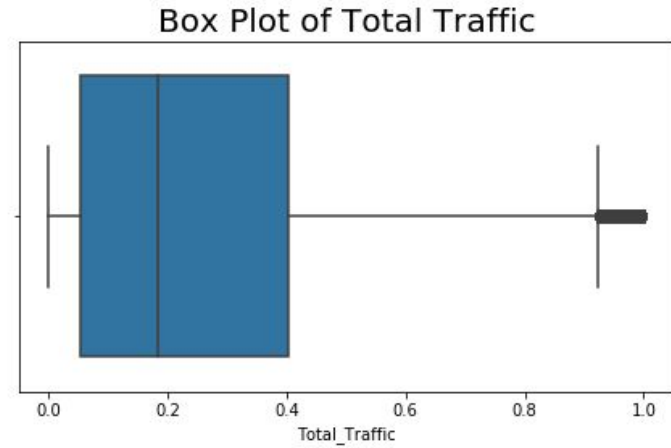
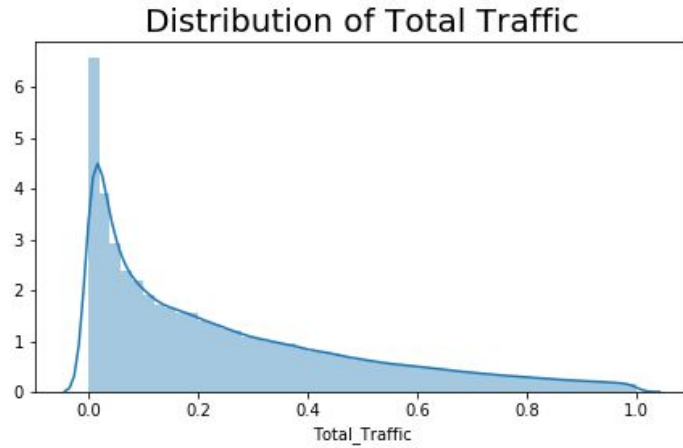
Distribution before Cleaning



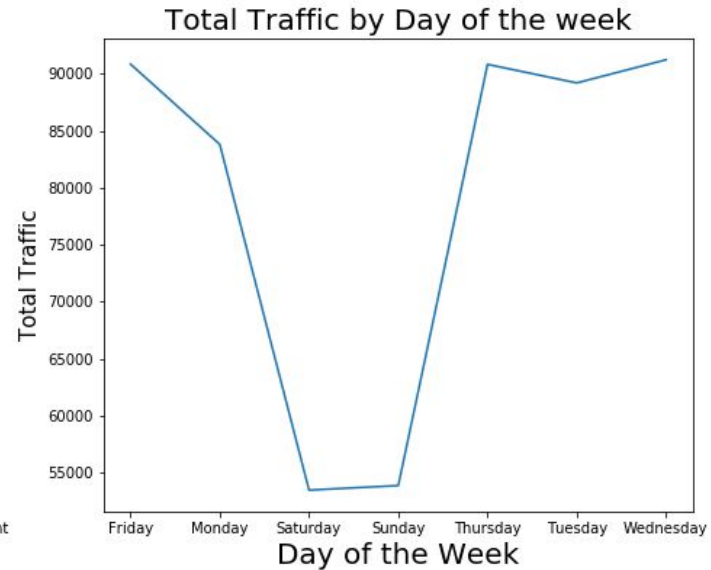
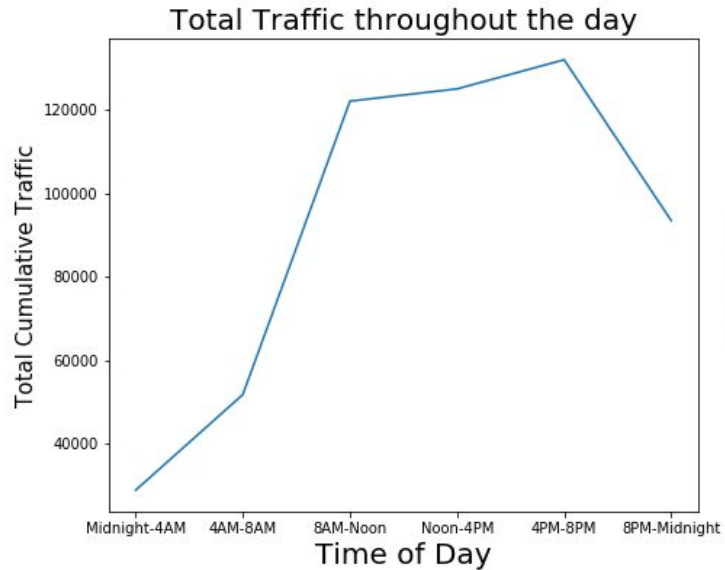
Distribution after cleaning



Distribution after normalization



Total Traffic Trend (Time and Day)



Top 10 Weekend Stations

