

Lunch & Order: YUM

Introduction

We are mobile food business consultants that help our clients maximize their profits by helping them determine the best time and location to place their food stands given their offerings. We are making a proposal to the NYC Food Truck Association (NYFTA) to produce a full analysis and report for its members.

This proposal consists of two components: 1. a report on population trends in the New York area and 2. a dashboard/interactive report that will help food truck proprietors discover the optimal location for their truck in real time.

1. Report

- Analysis Framework

We have done a preliminary analysis of MTA turnstile data to discover changing population trends near New York City subway stations. We also analyze foot traffic patterns of potential customers. If accepted, we will produce a more detailed report analyzing the data at three different levels: (i) seasonal and long term growth, (ii) daily traffic pattern across all stations and (iii) time of day analysis for any particular station.

- Location Analysis

A location analysis will yield recommendations of MTA stations that have experienced the largest year-over-year growth compared on a quarter to quarter basis, e.g., comparing data from Q2 2016 and Q2 2017. Combining this information with the rental heatmap pictured below, we can determine where the top population growths in the city have been. We can additionally combine this data with New Business Application & Food Business density data to determine the best recommendations for food truck placements.

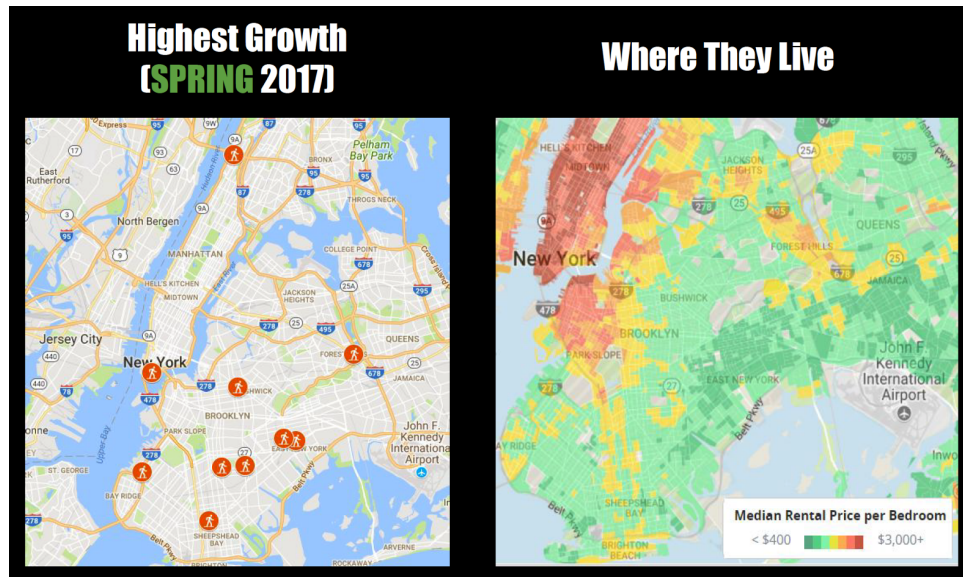


Figure 1 - Map of the highest entry traffic growth stations (L) map of rental prices in the NYC (R)

2. Dashboard

The dashboard intends to inform and assist decision making for food truck daily operations. The dashboard would answer questions such as, “Are riders interested in buying my products?” and “How will my business change over the week and within a day?” The below images shows the movement of traffic flows across New York through the day. As exits are more important to a food truck proprietor than entrances, such a dashboard will allow food truck proprietors to follow high activity locations as conditions change throughout the day.

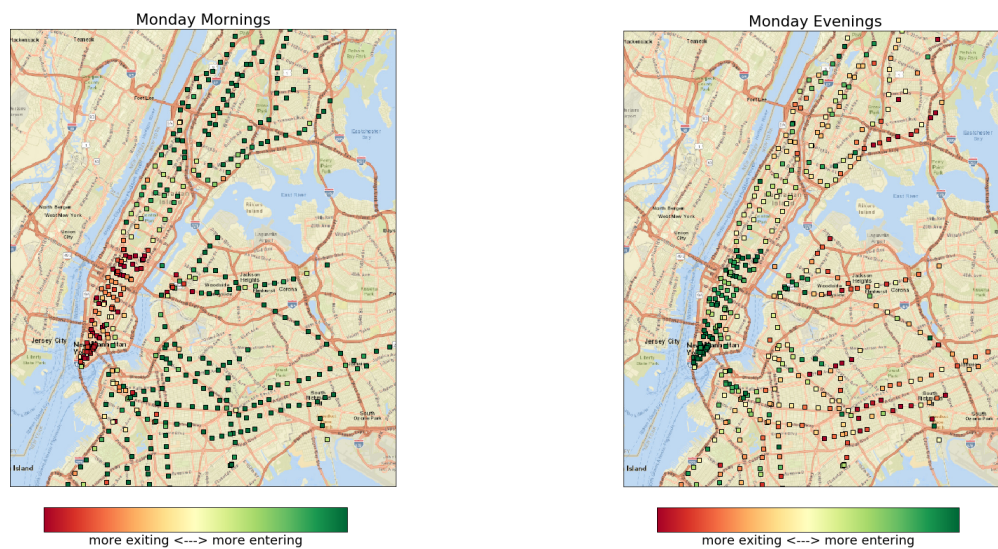


Figure 2 - Comparison of entries and exits at stations on Monday mornings (L) vs evenings (R)

Once a food truck operator identifies a particular station, they can produce a deeper single station analysis to predict foot traffic patterns given historical data. The chart below illustrates the time of day analysis, which provides vendors with information on traffic peak hours and weekday/weekend pattern differences.

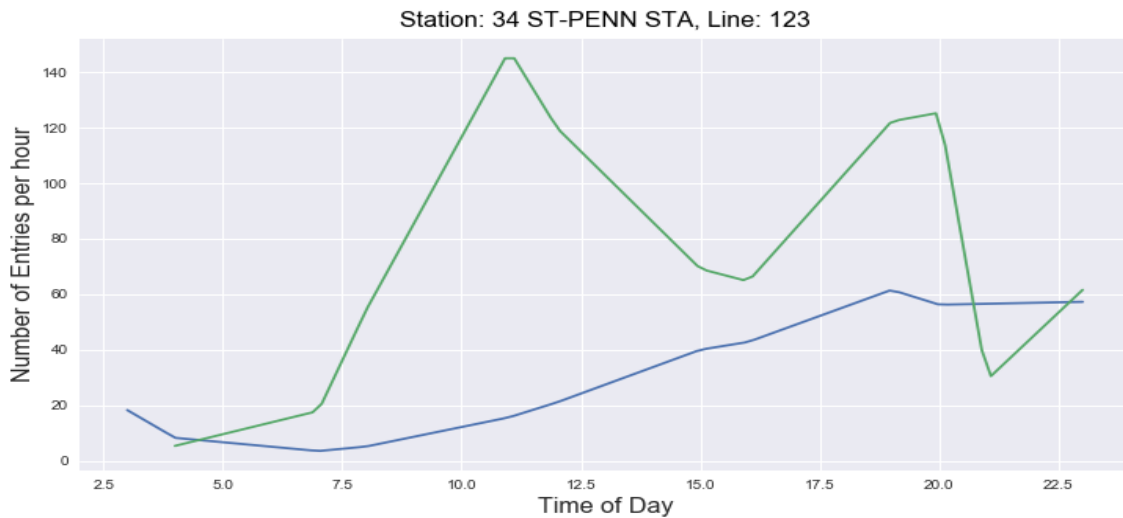


Figure 3 - Time of Day Analysis for Penn Station (Weekday [green] vs. Weekend [blue])

Conclusion

As you can see, there is great potential in a data-based approach to help food truck operators determine their location. Our competitive advantage lies in a data-driven that generate repeatable and verifiable results. Additional data collection will allow us to test the underlying assumptions we have made in this proposal. Lunch & Order will be able to give you and your members profitable insights. You won't regret going with us!