Project 1: Benson

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How can WTWY optimize the placement of the street teams to gather the most email addresses?

# Initial Assumptions

Preferred Email Addresses:

Instead of focusing on getting the most emails as possible we decided to narrow down to retrieving quality email addresses. These include people who are more likely to attend the gala and donate to WTWY.

- Women and people in tech
- People who earn a higher income on average
- Use income as a proxy for the ability to give and size of donations
- New York adult residents

What is the Best Timeframe?

As the WTWY prepares for its summer gala, we thought it would be appropriate to target riders of the MTA from May to June.

By focusing on specific weeks from May to June from the previous year, we will have a good approximation of the expected foot traffic.
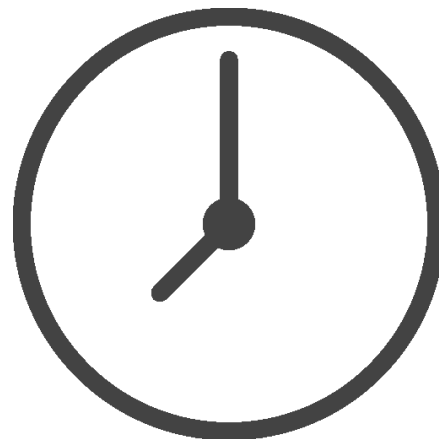
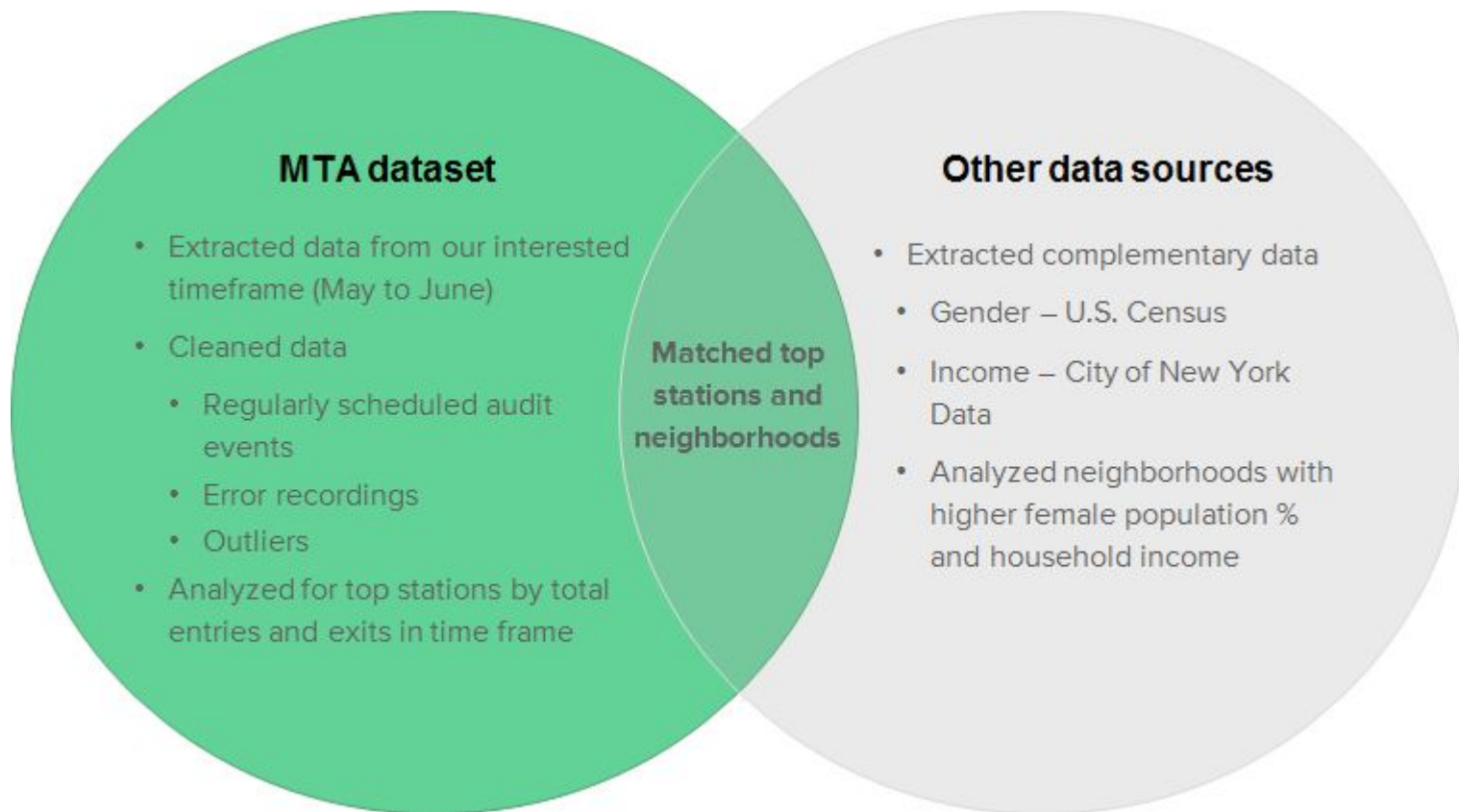# Solution

Target..

1. High foot traffic stations

   where there are is a..

2. High percentage of women

   in..

3. High Income neighborhoods

Methods

MTA dataset

- Extracted data from our interested timeframe (May to June)
- Cleaned data
  - Regularly scheduled audit events
  - Error recordings
  - Outliers
- Analyzed for top stations by total entries and exits in time frame

Matched top stations and neighborhoods

Other data sources

- Extracted complementary data
  - Gender – U.S. Census
  - Income – City of New York Data
  - Analyzed neighborhoods with higher female population % and household income

Highest Ranked Stations Based on Turnstile Entries

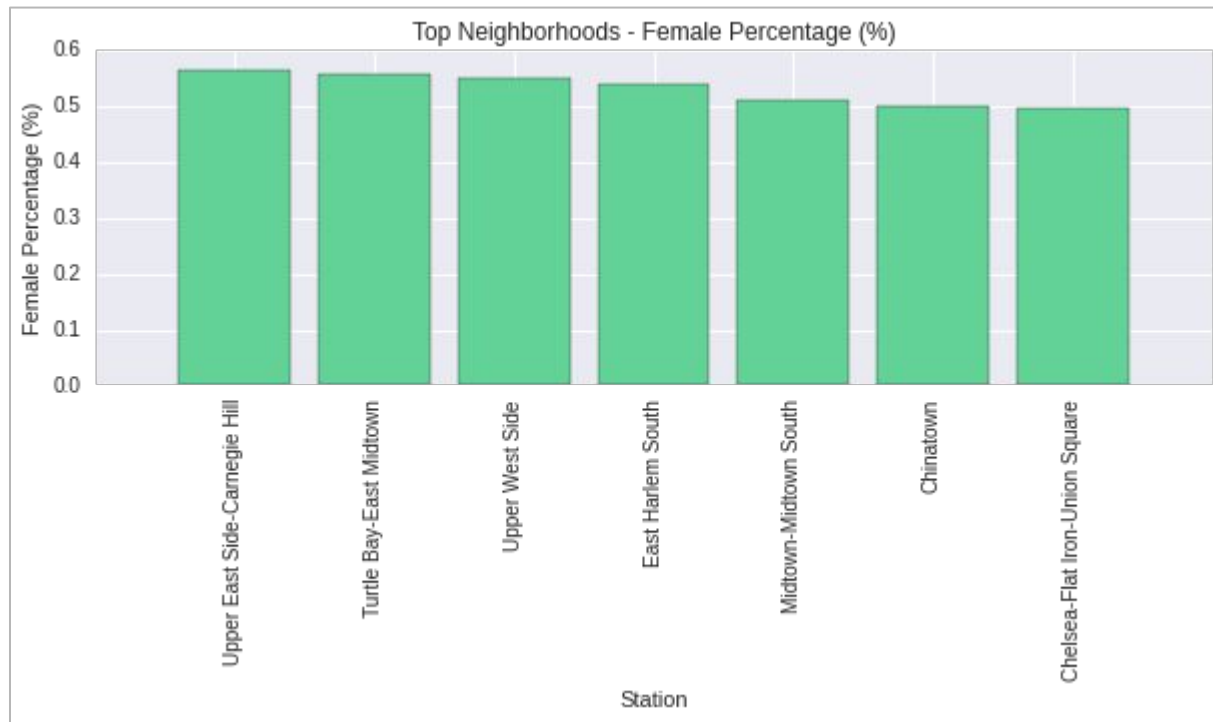Top 20 Stations by Total Entries (April-June 2015)
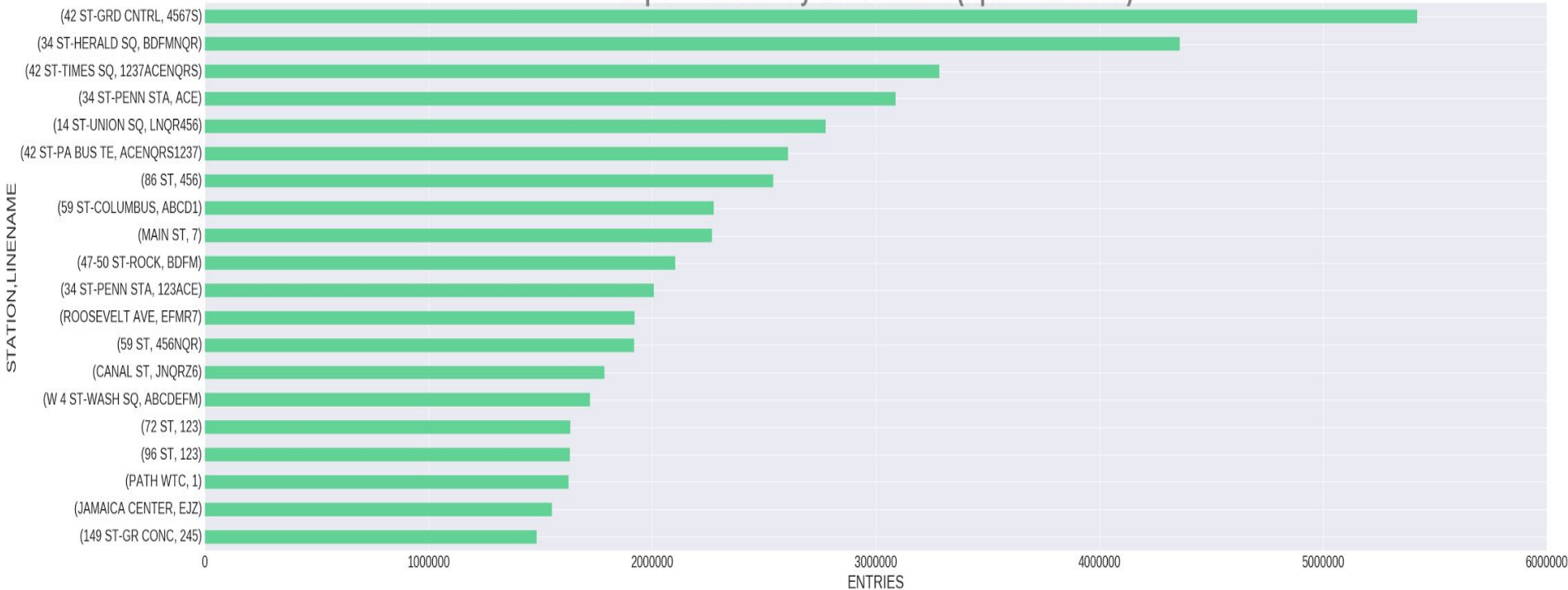
Female Population

The WTWY organization is, obviously, a women's organization. We would assume that women would be more likely to donate and attend the gala.
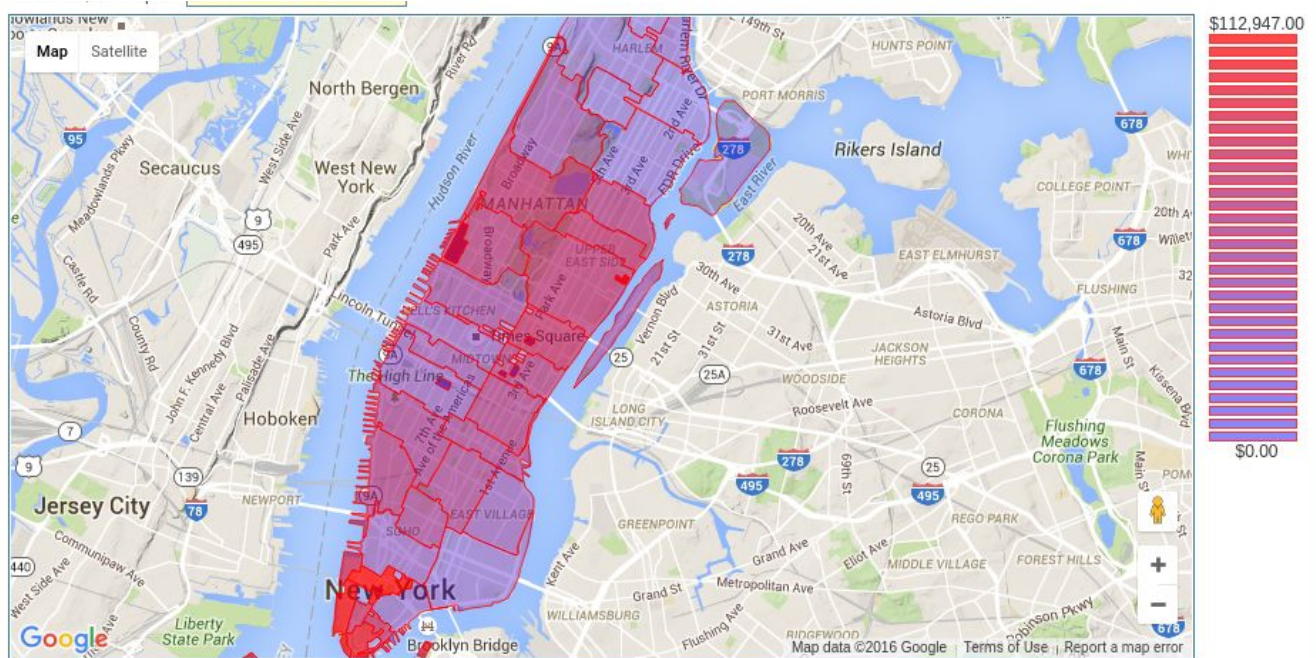
Female Population (% of total Population)

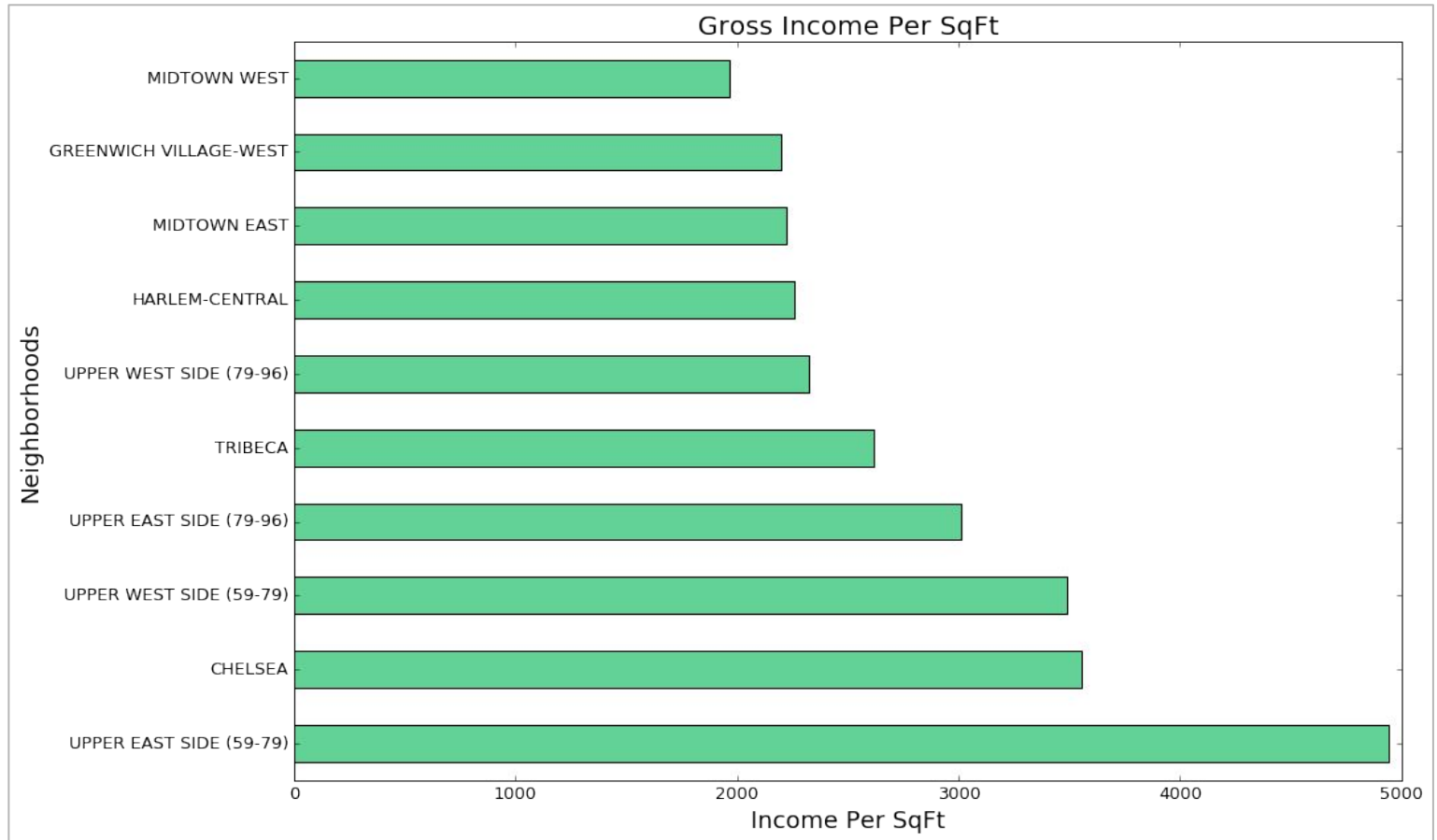Top Neighborhoods - Female Percentage (%)

High Income Neighbors

In order to gather "Quality" email addresses we decided to target high income neighborhoods. Our assumption is that people who make more money would be more likely to donate.

Household income

http://zipatlas.com/us/ny/new-york/zip-code-comparison/median-household-income.htm

Gross Income Per SqFt

Neighborhood	Income Per SqFt (approx.)
UPPER EAST SIDE (59-79)	4950
CHELSEA	3550
UPPER WEST SIDE (59-79)	3500
UPPER EAST SIDE (79-96)	3000
TRIBECA	2600
UPPER WEST SIDE (79-96)	2320
HARLEM-CENTRAL	2250
MIDTOWN EAST	2220
GREENWICH VILLAGE-WEST	2200
MIDTOWN WEST	1950

Top Stations

Our top stations were chosen based on a combination of all of our findings. By using 3 different sets of criteria, we were able to narrow down our stations choices.
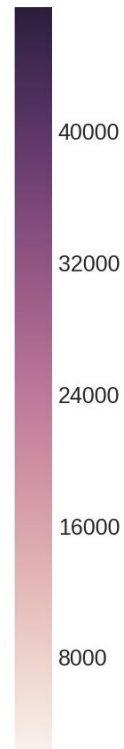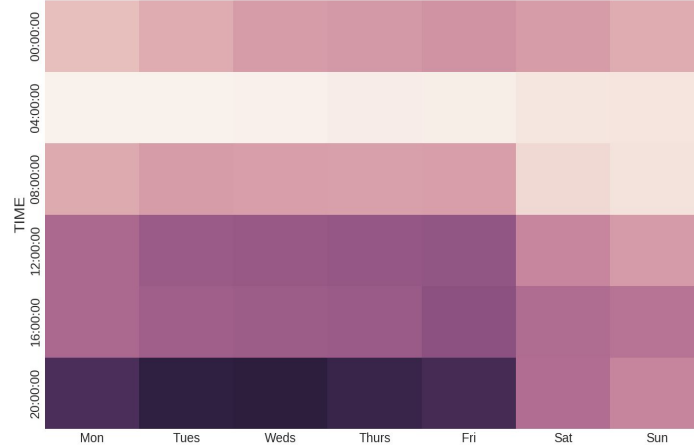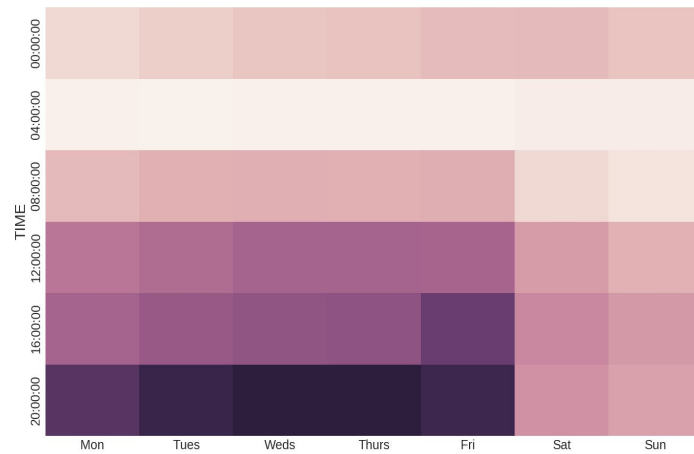
Our Recommendation:
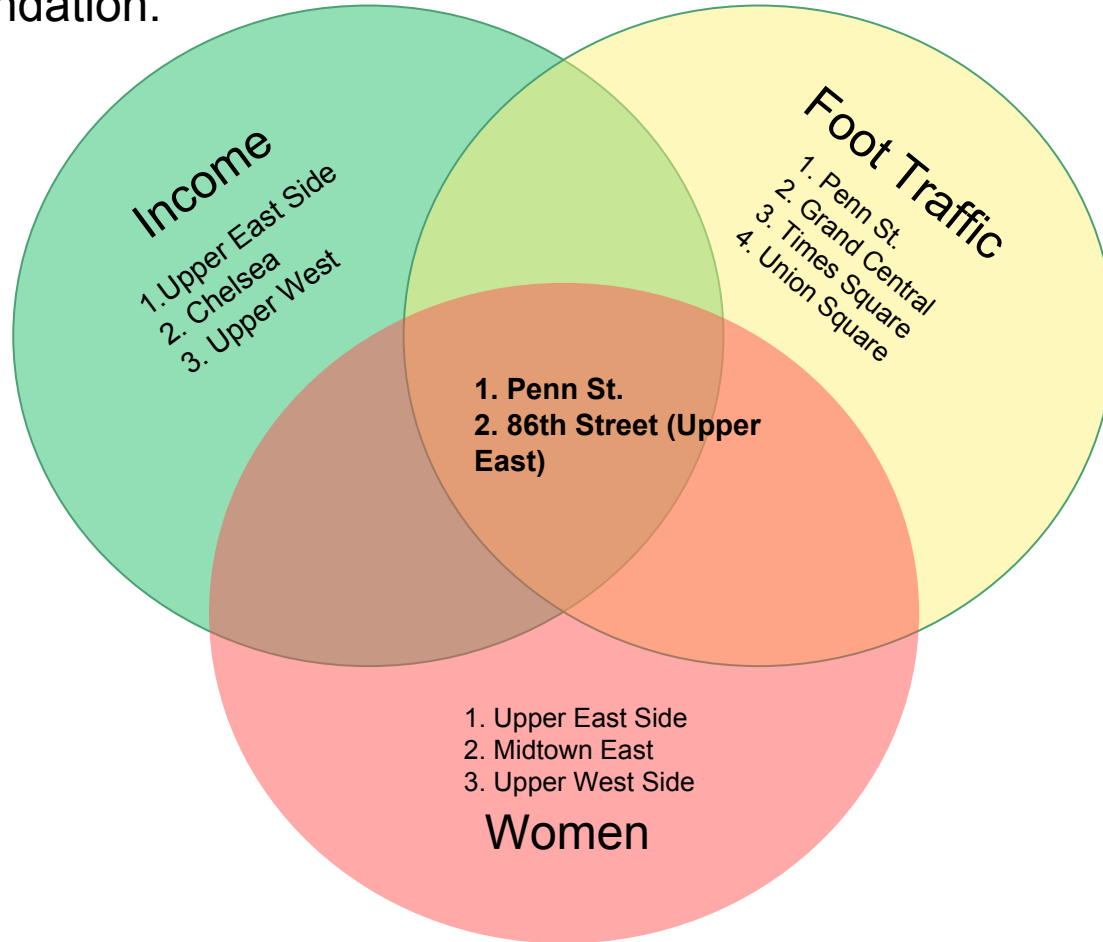
Entries
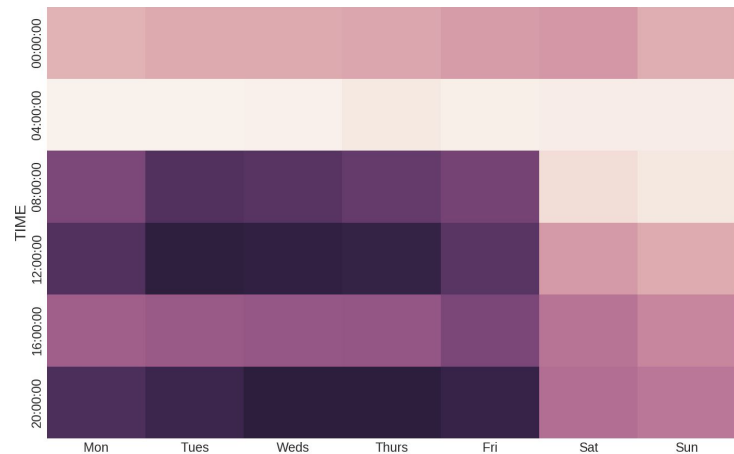
Exits

Penn Station

86th Station
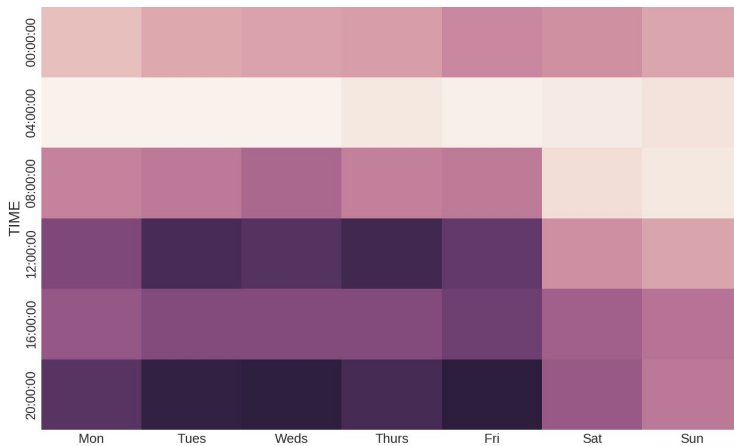
Time series

34 St - Penn Station

86 St Station
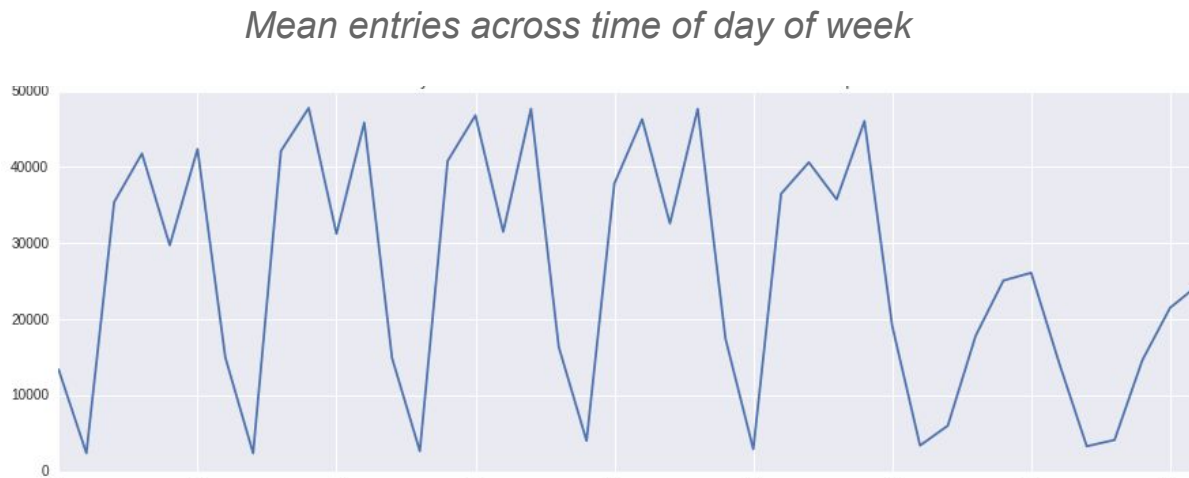
Mon   Tues   Wed   Thurs   Fri   Sat   Sun
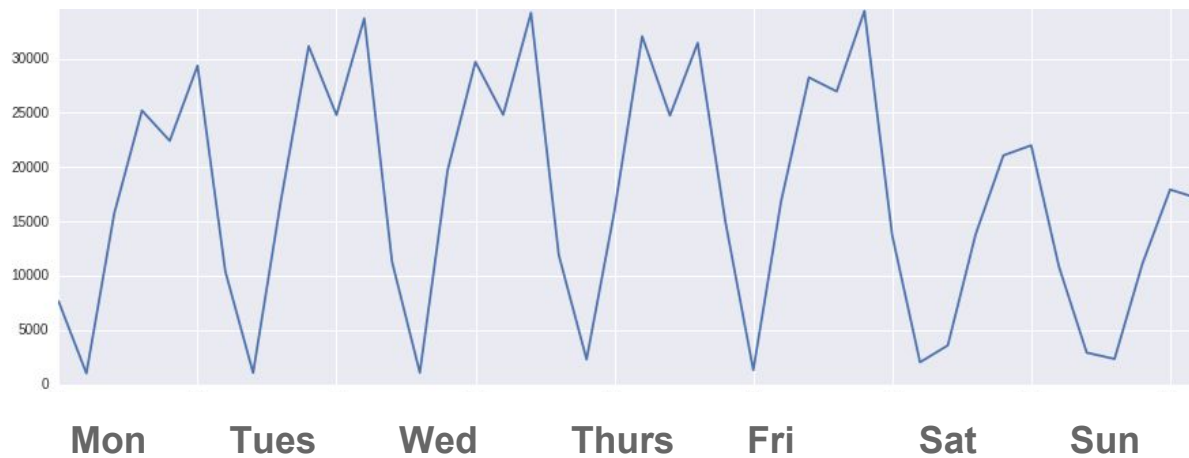
Best Places & Times to Deploy Street Teams

Where:

34-Penn Station and 86 St Station

When:

Tues-Fri

Noon to 4pm -- slight lull between 2 peaks

Further Exploration

- Further refine MTA dataset to each unique station rather than rolled-up stations provided (ex: 86th street)

- Identify data sources and analyze individuals who donate a 'high percentage of their income' rather than just 'high income' individuals

- Further narrow recommendations by including technology-driven and/or non-tourist station neighborhoods as originally stated in our problem statement

Thank you!

Data Sources

- [MTA Turnstile Data](#)

- [US Census Data](#)

- [City of New York Data](#)