# 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:

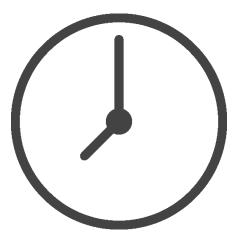
Instead of focusing on getting the most emails as possible we decided to narrow down to retrieving quality email addresses. These include people who are more likely to attend the gala and donate to WTWY.

- 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

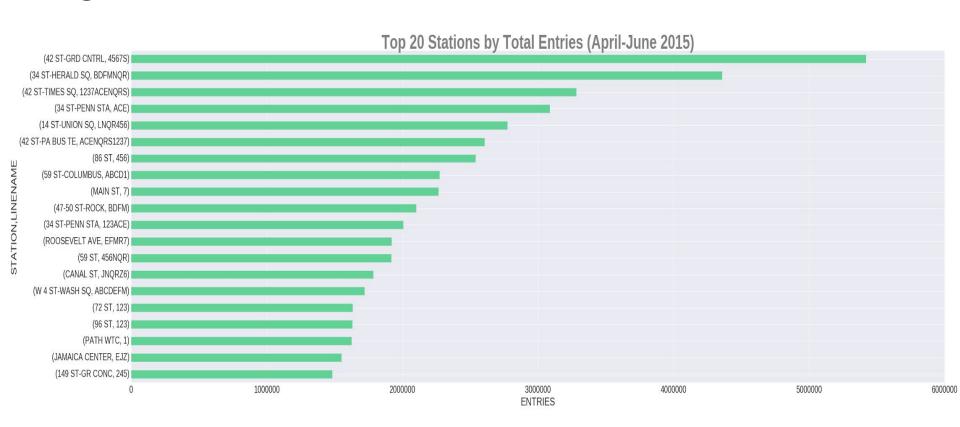
Matched top stations and neighborhoods

### 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

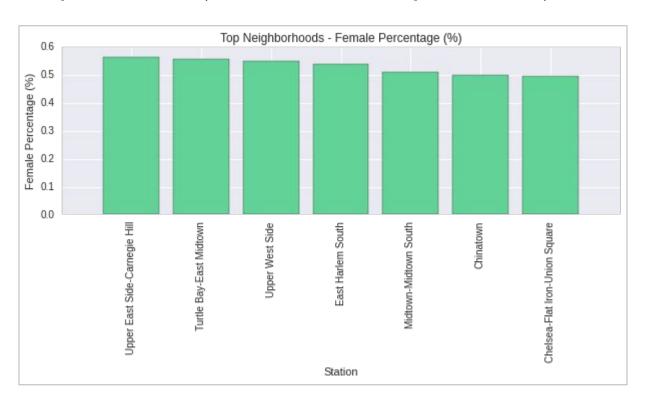


# Female Population

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)

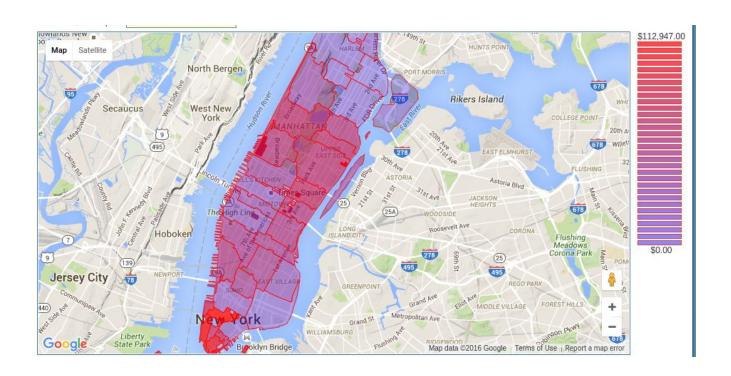


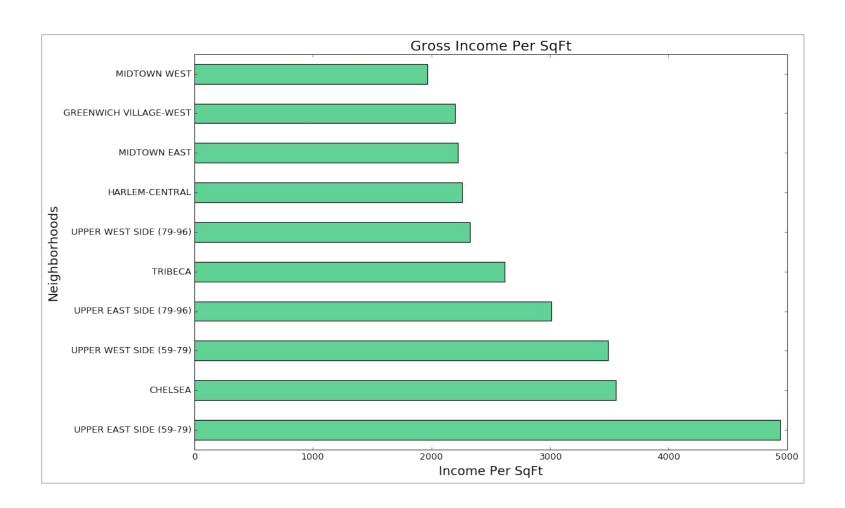
# High Income Neighbors

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.



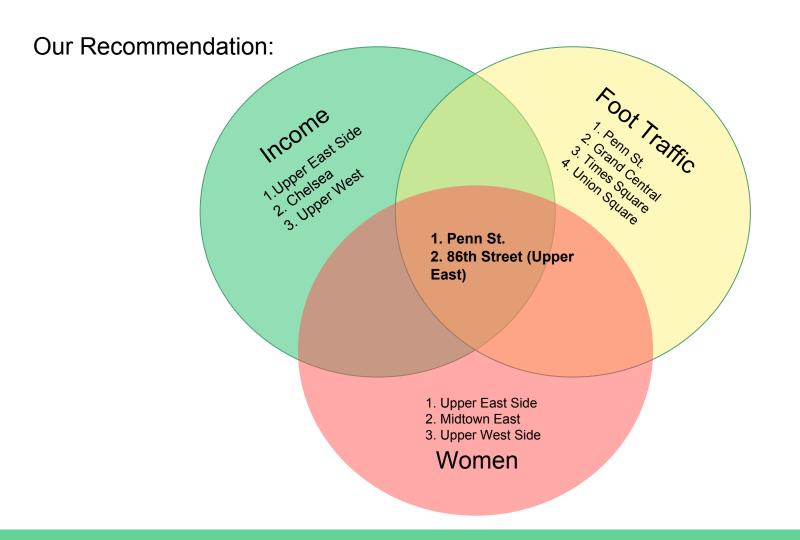
### Household income



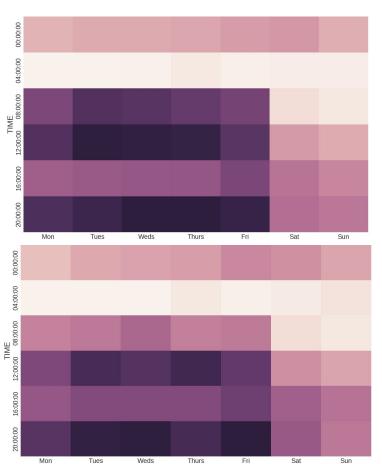


# **Top Stations**

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.

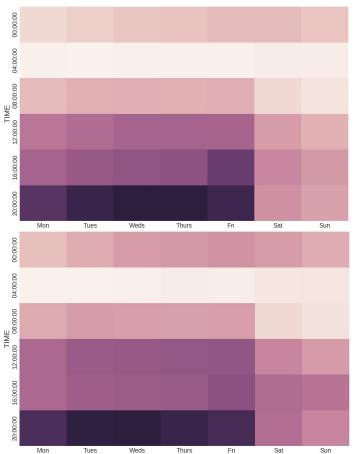


Entries Exits



Penn Station

86th Station



### Time series





**Thurs** 

Fri

Sat

Sun

86 St Station

Mon

Tues

Wed

## Best Places & Times to Deploy Street Teams

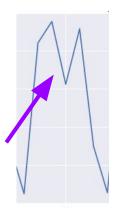
#### Where:

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 nontourist station neighborhoods as originally stated in our problem statement

# Thank you!

### Data Sources

- MTA Turnstile Data
- US Census Data
- City of New York Data