

# Optimizing Street Team Placement

WomenTechWomenYes

## The Team

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# Project Objective:

Optimize the Placement Of  
Street-Teams



WTWY Fills Gala Space!

# Overview

By exploring the MTA subway data, we aim to discover which subway stations are most optimal for WTWY to utilize for their promotional activities.

We aim to help WTWY:

- Increase reach and awareness
- Generate more fundraising income
- Fill gala event space

# Data Sources

Several Datasets were used for this analysis:

- Publicly available **MTA data** between April 27 and June 21, 2019.
- Publicly available **NYC housing sales data** within 2017.
- Female-to-male ratio data from the **2010 US Census**.



# Optimal Placement Strategy

## 1. Locate Top Stations

This will be the overall TOP 10 subway stations that have the highest average foot traffic for the teams to patrol.

## 2. Days of Week Analysis

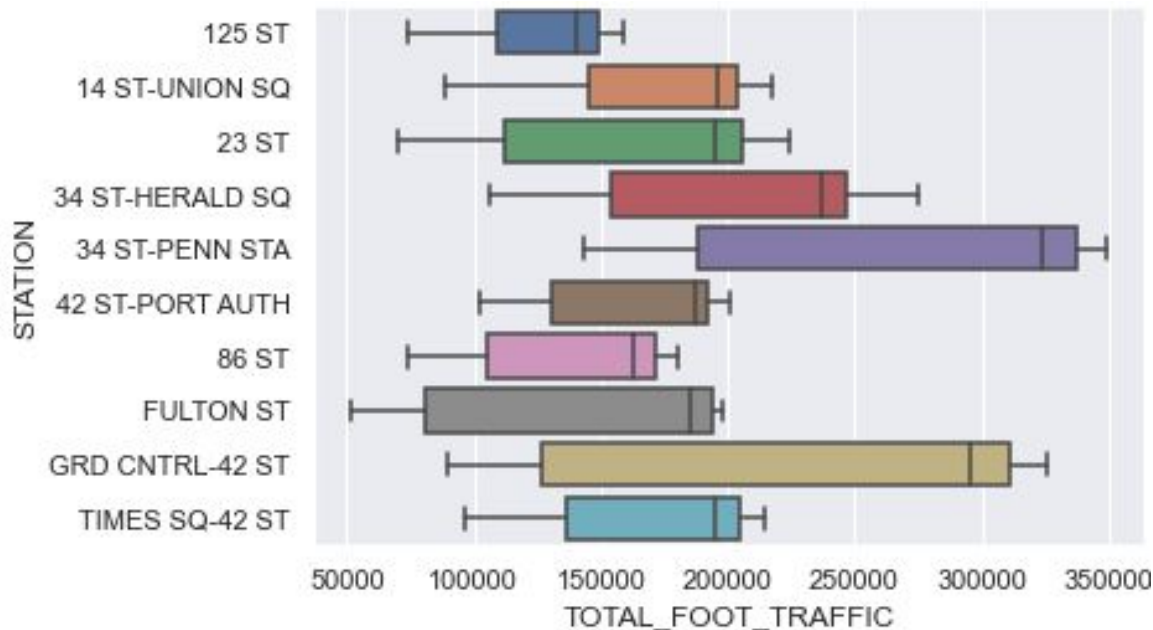
What is the optimal day or days of the week where foot traffic is highest?

## 3. Supplemental Information

Wealth and percentage of females in an area can be additional targeting factors.

# 1. Locate Top Stations

1. 34 ST-PENN STA
2. GRD CNTRL- 42 ST
3. 34 ST-HERALD SQ
4. TIMES SQ-42 ST
5. 14 ST-UNION SQ
6. 23 ST
7. 42 ST-PORT AUTH
8. FULTON ST
9. 86 ST
10. 125 ST



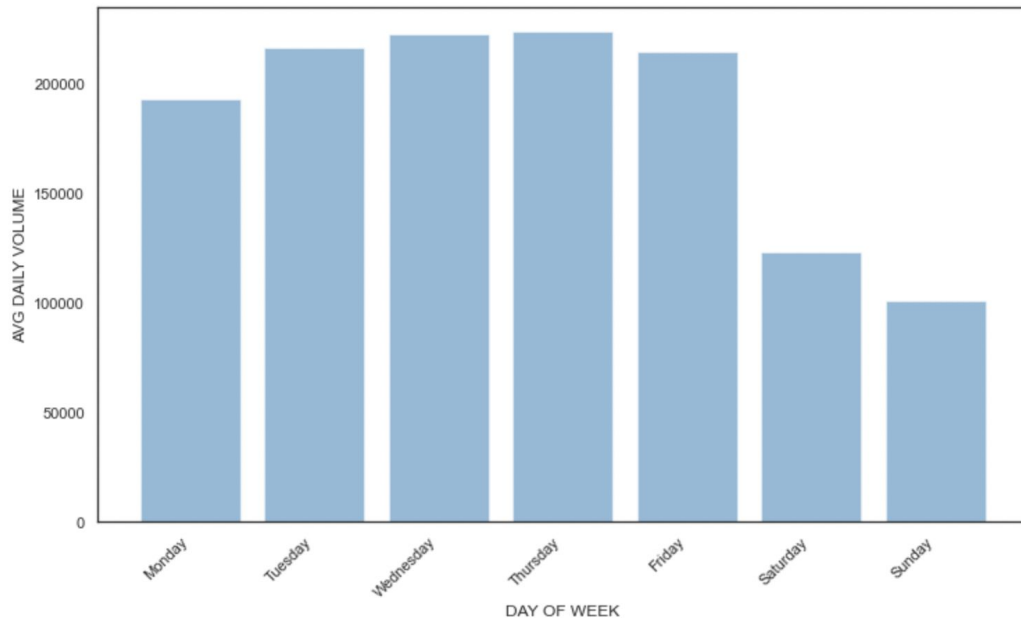
## 2. Days of Week Analysis

### Findings from Top 10 Subway Stations By Day of Week

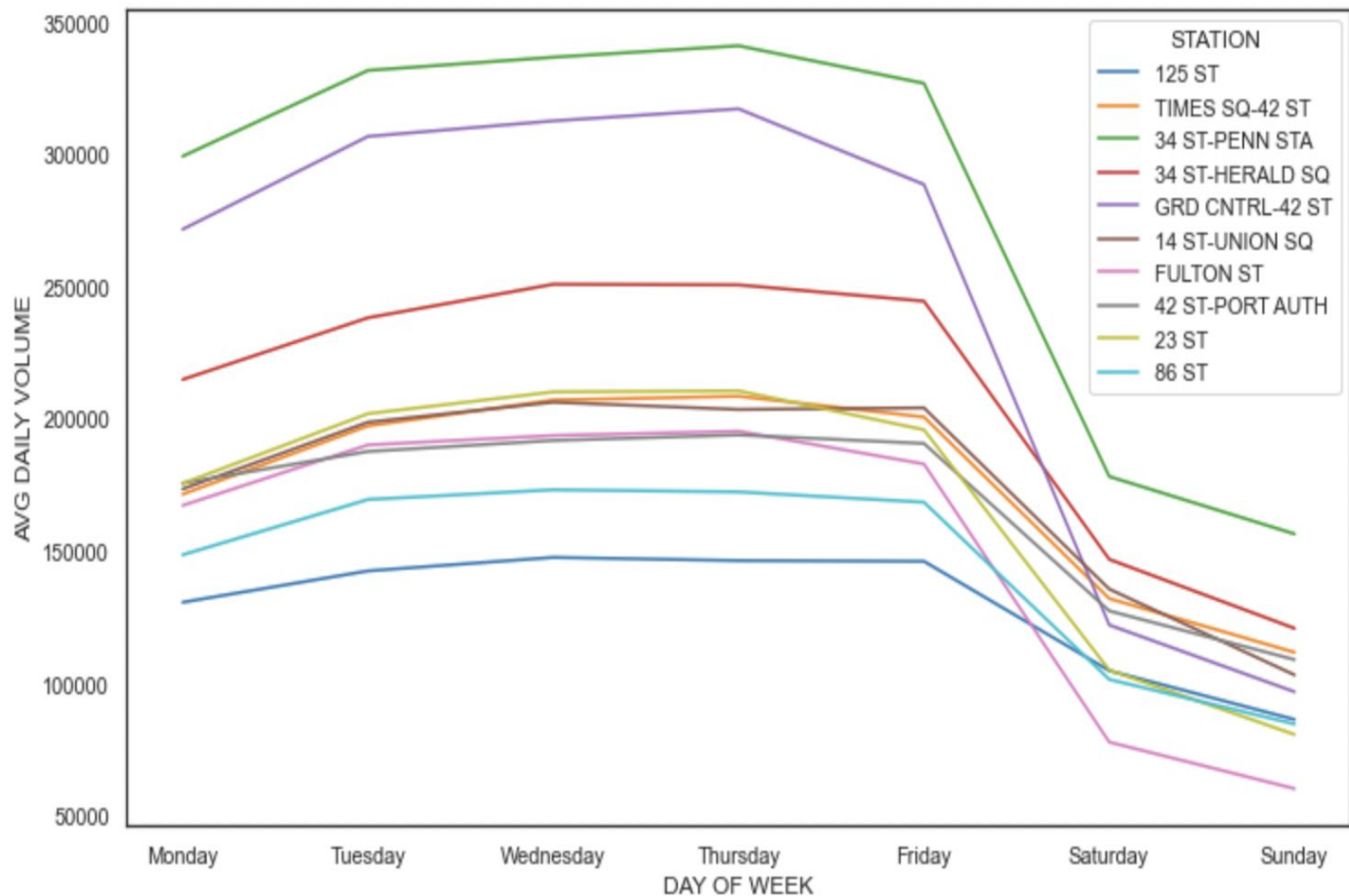
We found the busiest days of the week, with the largest average amount of daily volume are:

#### Highest to Lowest:

- Thursday
- Wednesday
- Tuesday
- Friday



# TOP 10 INDIVIDUAL SUBWAY STATIONS BY DAY OF WEEK





### 3. Supplemental Info

Additional layers of data were added for **Female/Male Ratio** and **Median Housing prices**.

- Higher wealth households to be more likely to donate
- Areas with more females more likely to support WTWY

Station	Average Daily Traffic	Female/Male Ratio	Median House Prices
34 ST-PENN STA	281,539.07	-	-
GRD CNTRL-42 ST	245,196.07	-	-
34 ST-HERALD SQ	209,646.02	0.98	1,007,500.00
TIMES SQ-42 ST	175,694.62	0.74	1,175,000.00
14 ST-UNION SQ	175,128.36	1.06	1,225,000.00
23 ST	168,679.93	1.06	1,433,727.75
42 ST-PORT AUTH	168,149.46	-	-
FULTON ST	152,617.16	1.14	901,216.67
86 ST	145,609.79	1.13	778,750.00
125 ST	129,362.48	1.09	846,666.67

# Analysis Summary

## Trend 1: Station

There are particular stations that are busier than others

### Client Relevance:

- WTWY has the best chance of reaching out to potential Gala-Goers if their patrol teams target higher traffic locations

## Trend 2: Day of Week

Foot traffic is heavier on particular days of the week

### Client Relevance:

- WTWY can optimize their effort if they have teams out between Tuesday through Thursday

## Trend 3: Wealth and Gender

There are particular, personal attributes to target when optimizing street-team placement

### Client Relevance:

- Potential Gala-Goers or Donors of WTWY are more likely to be of these SES and gender -- based on general company description

# Score Chart

STATION	Traffic	Median House Price	Women to Men Ratio
34 ST-PENN STATION	<u>10</u>	4	1.03
GRAND CENTRAL-42 ST	8	4	1.03
23 ST	4	<u>7</u>	1.06
14 ST-UNION SQ	4	6	1.06
34 ST-HERALD SQ	6	4	0.98
42 ST-PORT AUTHORITY	4	4	1.03
TIMES SQ-42 ST	4	5	0.74
FULTON ST	4	3	<u>1.14</u>
86 ST	4	1	1.13
125 ST	2	2	1.09

# Score Chart

STATION	Rank	Score
34 ST-PENN STATION	1	41.2
GRAND CENTRAL-42 ST	2	32.96
23 ST	3	29.68
14 ST-UNION SQ	4	25.44
34 ST-HERALD SQ	5	23.52
42 ST-PORT AUTHORITY	6	16.48
TIMES SQ-42 ST	7	14.8
FULTON ST	8	13.68
86 ST	9	4.52
125 ST	10	4.36

# Project outcome:

We believe WTWY will fill their gala if they optimize marketing at:

**#1 Station: 34 ST-PENN STA**

**Score: 41.2**

**#1 Day: Thursday**

# Next Steps

## Opportunities for Future Work

- Use outcome data to optimize towards better performing stations
- Get information from WTWY about the demographics of their members and donors
- Layer on additional datasets such as distance to tech companies or relevant demographics

