Maximizing Outreach for the Annual WYWY Gala: Canvassing MTA Stations

Exploratory Analysis
Prepared for WomenTechWomenYes
July 9, 2018
B-Team Consulting

Business Objectives

WTWY is throwing their annual gala in early summer of 2019

WTWY wants to optimize the effectiveness of their street team work, which contributes a significant portion of their fundraising efforts

WTWY has partnerted with B-Team Consulting to use MTA subway data to optimize the placement of their street teams to gather the most signatures, ideally from those who will attend the gala and contribute to their cause

Executive Summary

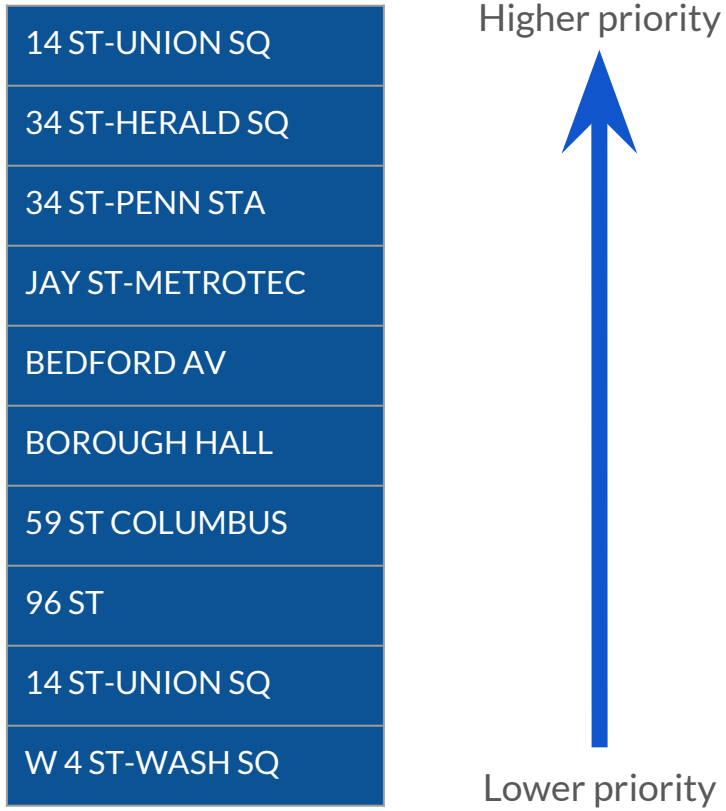
Canvass at MTA stations ***with***:

1. High ridership in April-June
2. High proportions of information workers living in the same zip code as the station

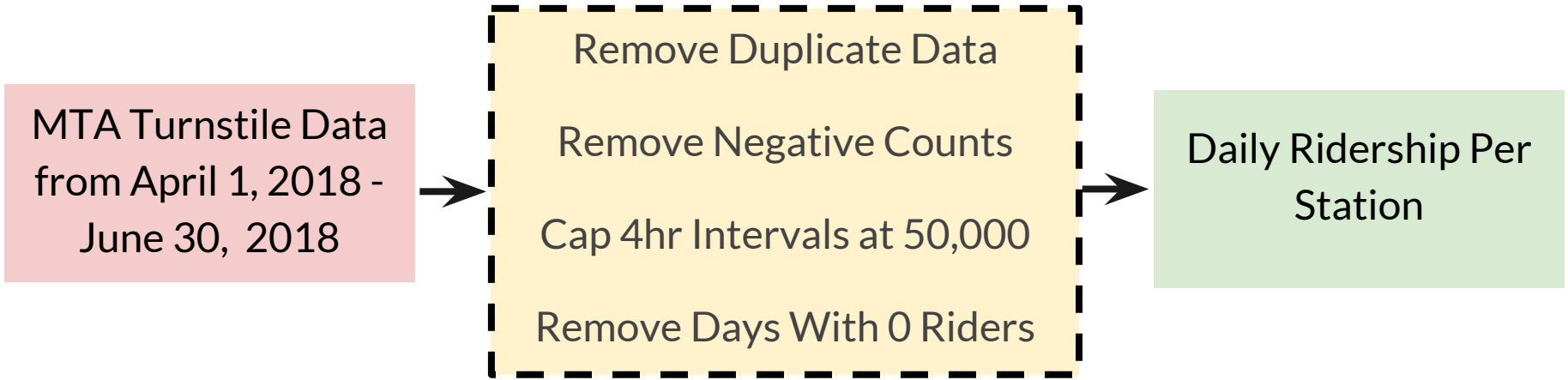
Canvass at MTA stations ***when***:

1. Tues-Thurs
2. All Spring weeks equally good

Top 10 Stations to Canvass

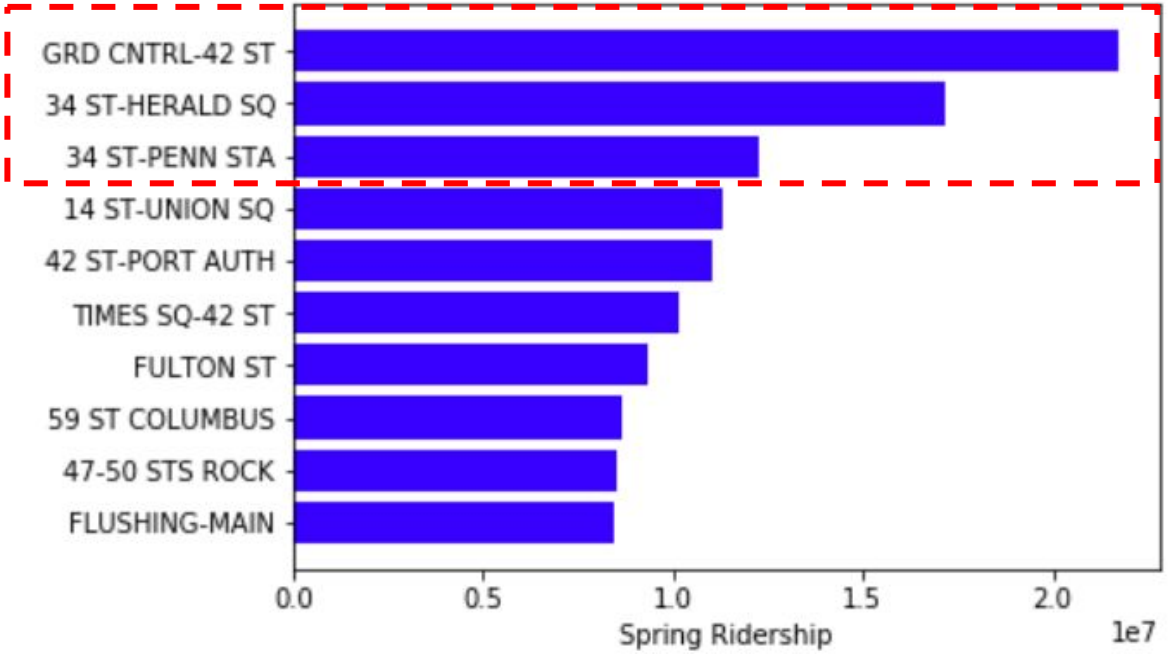


MTA Turnstile Data was Cleaned Prior to Analysis



~5% of total data

Top 10 MTA Stations Based on Spring Ridership



Results for Spring Ridership Largely Match Annual Data

The Ten Busiest Subway Stations 2016

Station and Subway Lines
1. Times Sq-42 St N Q R W S 1 2 3 7 / 42 St A C E
2. Grand Central-42 St S 4 5 6 7
3. 34 St-Herald Sq B D F M N Q R W
4. 14 St-Union Sq L N Q R W 4 5 6
5. 34 St-Penn Station 1 2 3
6. 34 St-Penn Station A C E
7. Fulton St A C J Z 2 3 4 5
8. 59 St-Columbus Circle A B C D 1
9. Lexington Av N W R / 59 St 4 5 6
9. 86 St 4 5 6

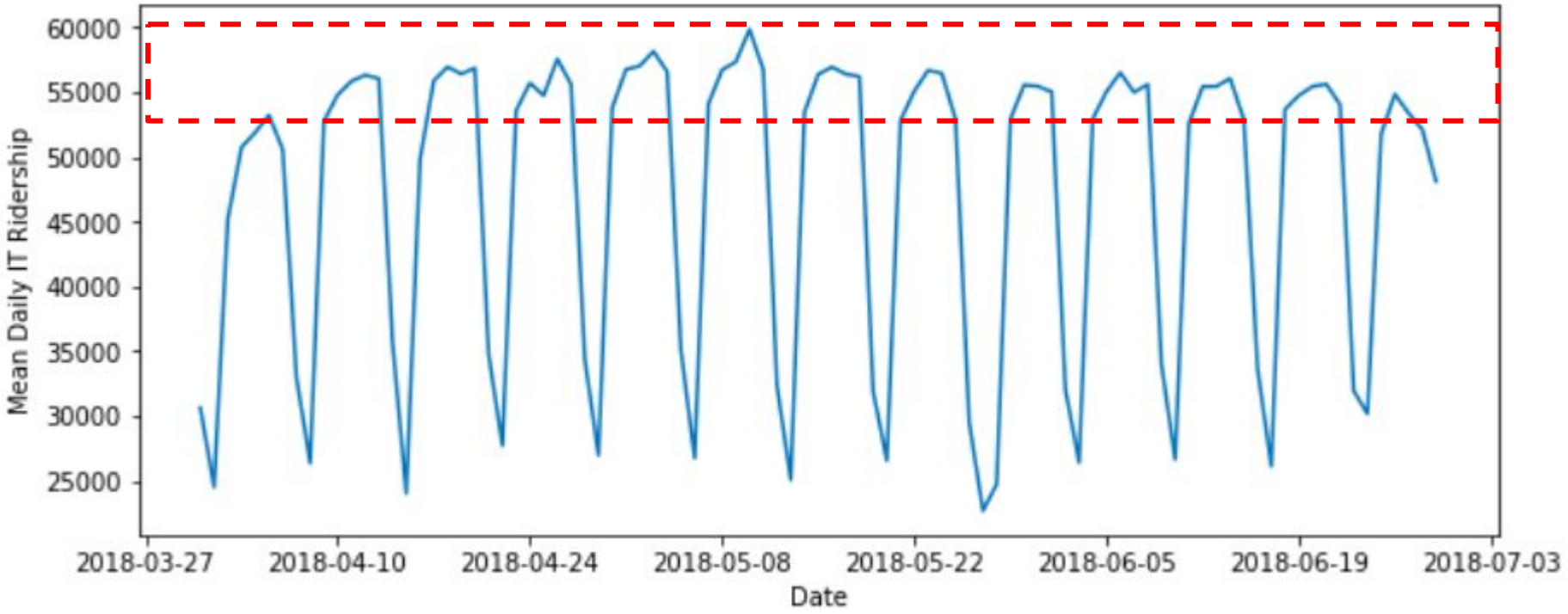
Spring 2017

Grand Central-42 St
34 St-Herald Sq
34 St-Penn Station
14 St-Union Sq
42 St-Port Authority
Times Sq-42 St
Fulton St
59th St Columbus
47-50 Sts Rock
Flushing-Main

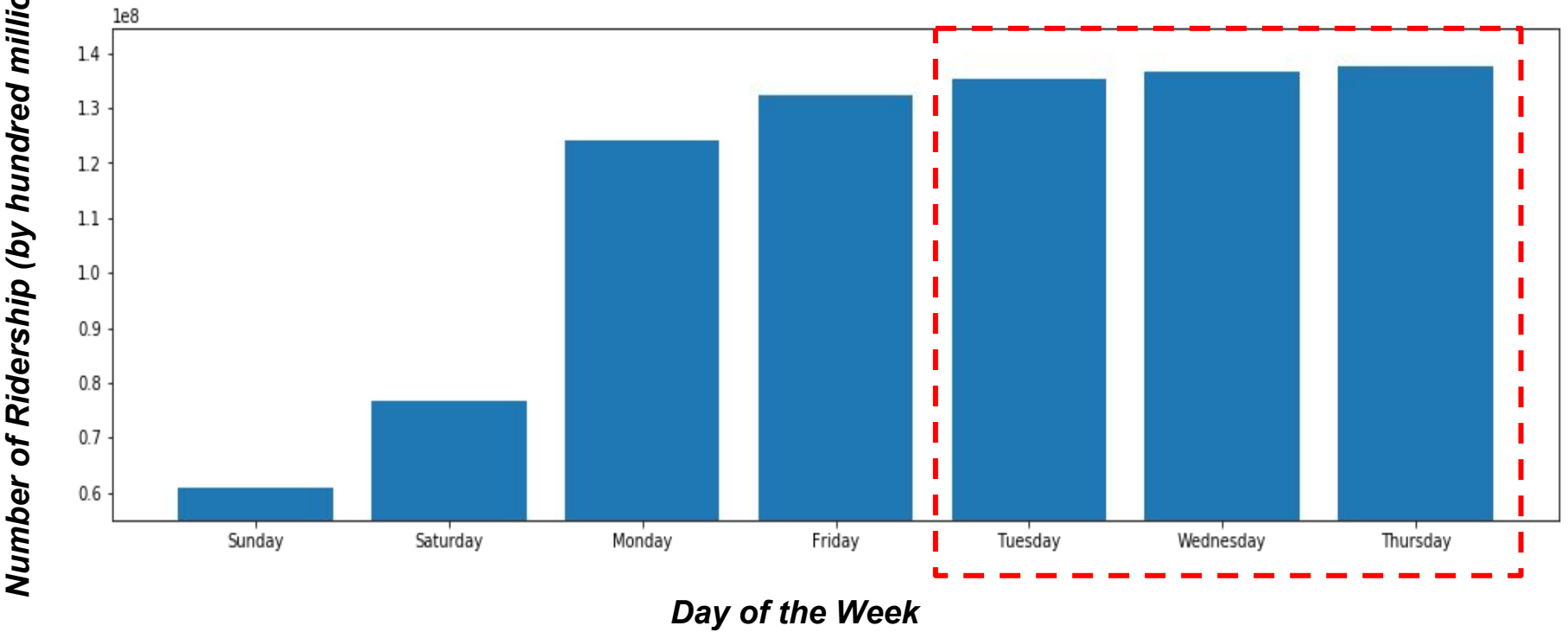
70% match

Match Between Annual & Spring Top 10

Any Week in Spring is Good for Canvassing



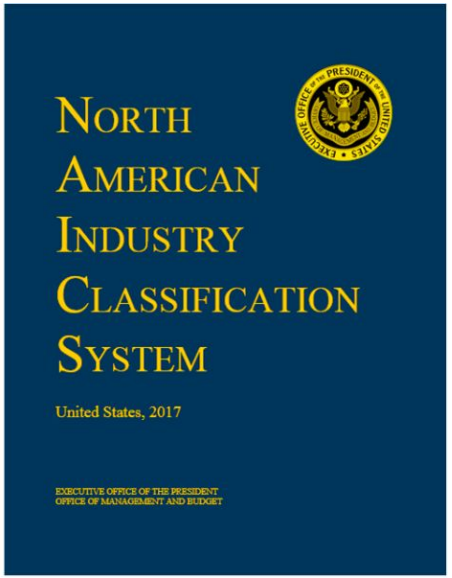
Tues to Thurs are the Best Days of the Week to Canvass; Avoid Weekends



Demographic Data was Overlaid onto Ridership

Currently we used the number of “Information” (IT) workers residing in a given area as a proxy for number of people interested in technology. (Established using U.S. census data and the North American Industrial Classification System)

United States™ Census Bureau



Ridership Was Weighted by Percent IT Residents

Daily Total Ridership Per Station

X

% of NYC's Information Tech Workers that are Residents in that Station's Zip Code*

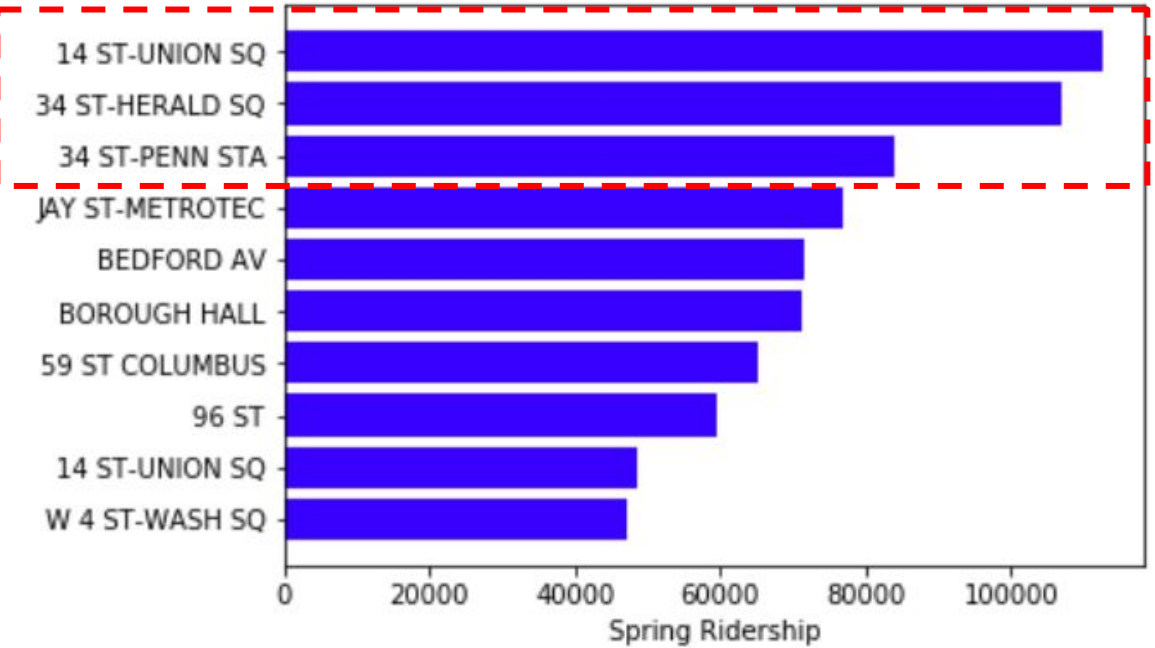
=

Daily IT Ridership Per Station

**Assumption: local residents make up the majority of riders at a station*

**Assumption: IT workers are more likley to support/attend WTWY events*

Weighted Top Ten



Only 4 stations from the unweighted ridership list remain in the top 10 after weighting by IT RIdership

Match Between Total & IT Ridership

Unweighted - Top 10

Grand Central-42 St
34 St-Herald Sq
34 St-Penn Station
14 St-Union Sq
42 St-Port Authority
Times Sq-42 St
Fulton St
59th St Columbus
47-50 Sts Rock
Flushing-Main

Next Steps

Expand demographic data to weight zip codes by:

  - Young populations
  - Wealthy populations
  - Charitable giving
  - Targeting business vs. Residential areas

- Include proximity to top tech startups
- Does WTYW have data on donors, to better understand target demographic?

Thank you! Questions?

Demographic Data: Weighting Method

MTA stations were weighted by their likelihood of containing people working in the Information technology sector.

The “Information” classification from the NAICS, on the 2010 Census was used to estimate the number of technology workers per zip-code.

For each zip-code in NYC the number of tech workers was normalized, relative to the rest of the city’s tech population (est. tech workers in neighborhood/total tech workers in city).

For each zipcode, we multiplied the number of passengers per station (in that zipcode), by the normalized number of tech workers in that zipcode.