

WTWY NYC Gala 2017



Creating awareness and support for women in technology

Overview

- WTWY is throwing their annual gala in early summer of 2017
- Fundraising goal of \$50,000 for girl's coding camp scholarship fund
- Street teams will collect email addresses to send out tickets
- WTWY wants to identify and target potential major donors
- We are considering major donors to be those who give \$1,000 or more in a year

Understanding the problem

Subway Stations

- Identify high traffic stations
- Days and times
- Diminishing returns on riders

Commuters

- Working individuals
- Work week only

Income

- NYC is extremely dense
- > \$200k year

Project objective:
Use data analytics to
provide WTWY with **station,**
weekday, and time frame
recommendations

Wrangling the data

MTA Turnstiles

Accessed historical subway turnstile data from May and June 2016

Using the Google Maps API, paired subway stations with their zip codes

ACS

Accessed American Community Survey data from 2015 to identify zip codes with:

- Commute to work by public transportation > 68%
- Household income > \$200k

Challenges overcome

Erratic turnstile data

- Apply absolute value for “negative” rates
- Label differences in total traffic greater than 10,000 per 4 hour window

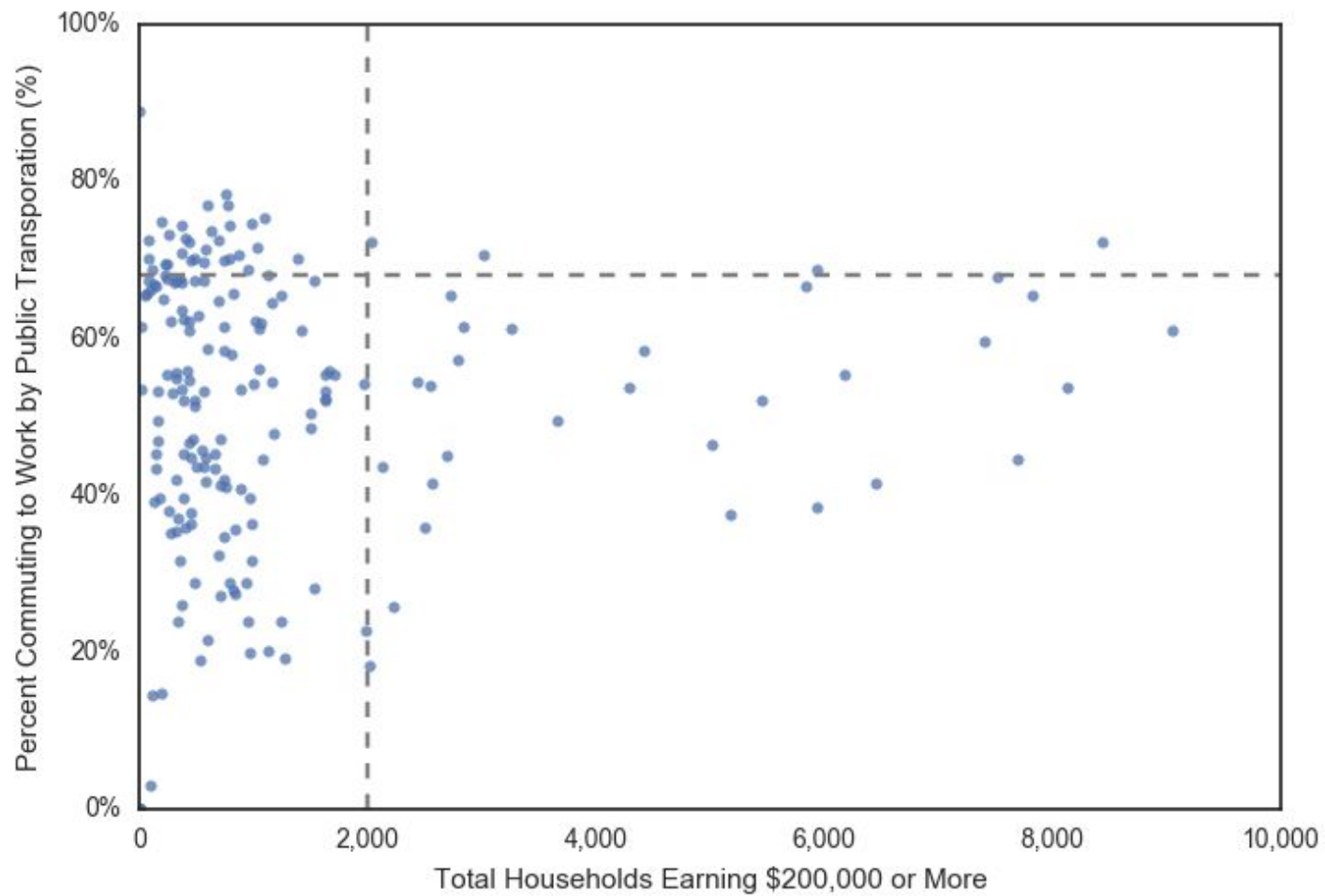
Missing zip codes

- Modified existing code for Google Maps API
- Searched using station names from turnstile data

Formatting/null values

- Missing commuter data was assumed to be zero

Exploring the data



Zip Codes

10024

- Upper West Side, Manhattan
- Museum of Natural History

11201

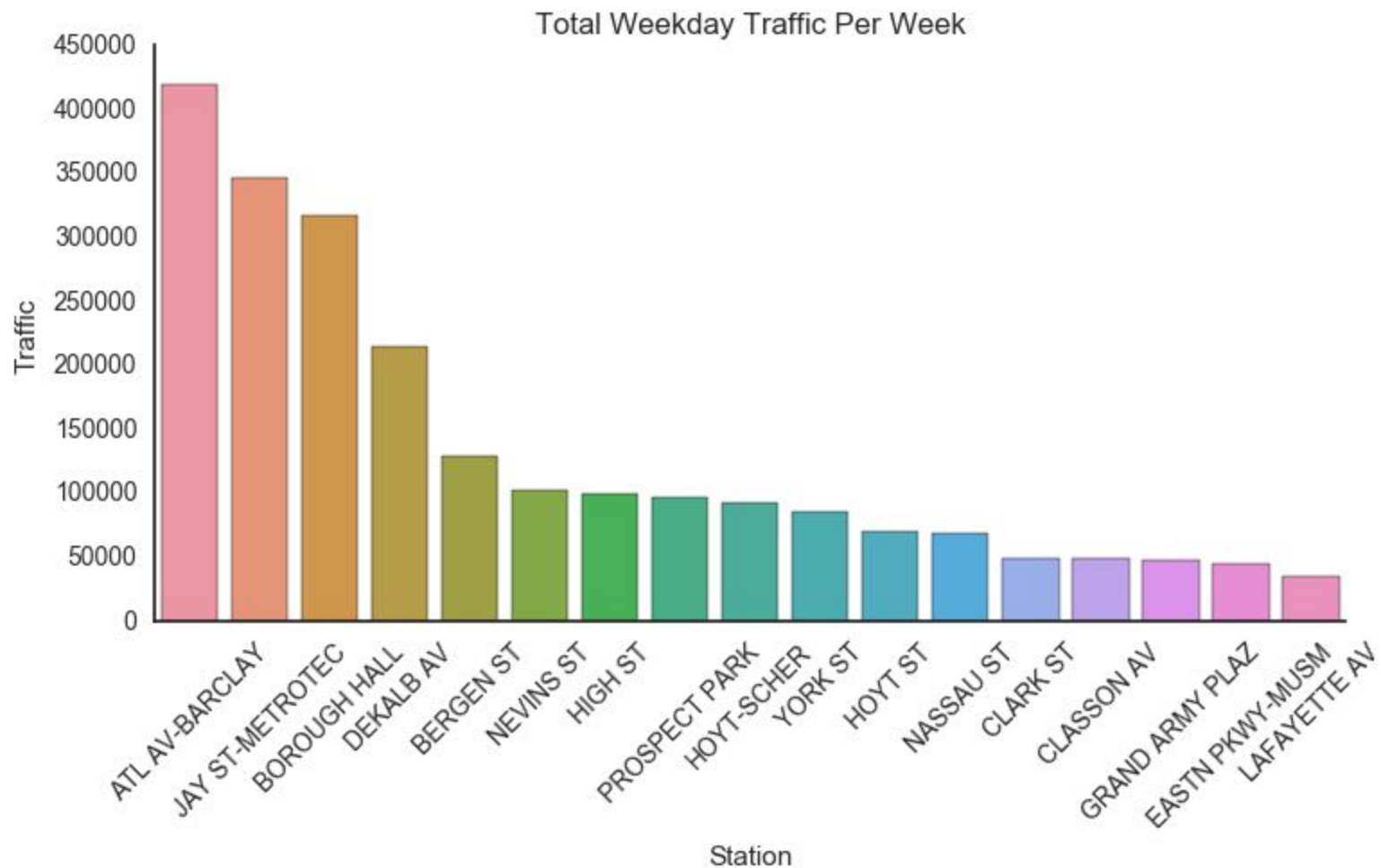
- Brooklyn Heights, Brooklyn
- OneMetro Tech Center

11217

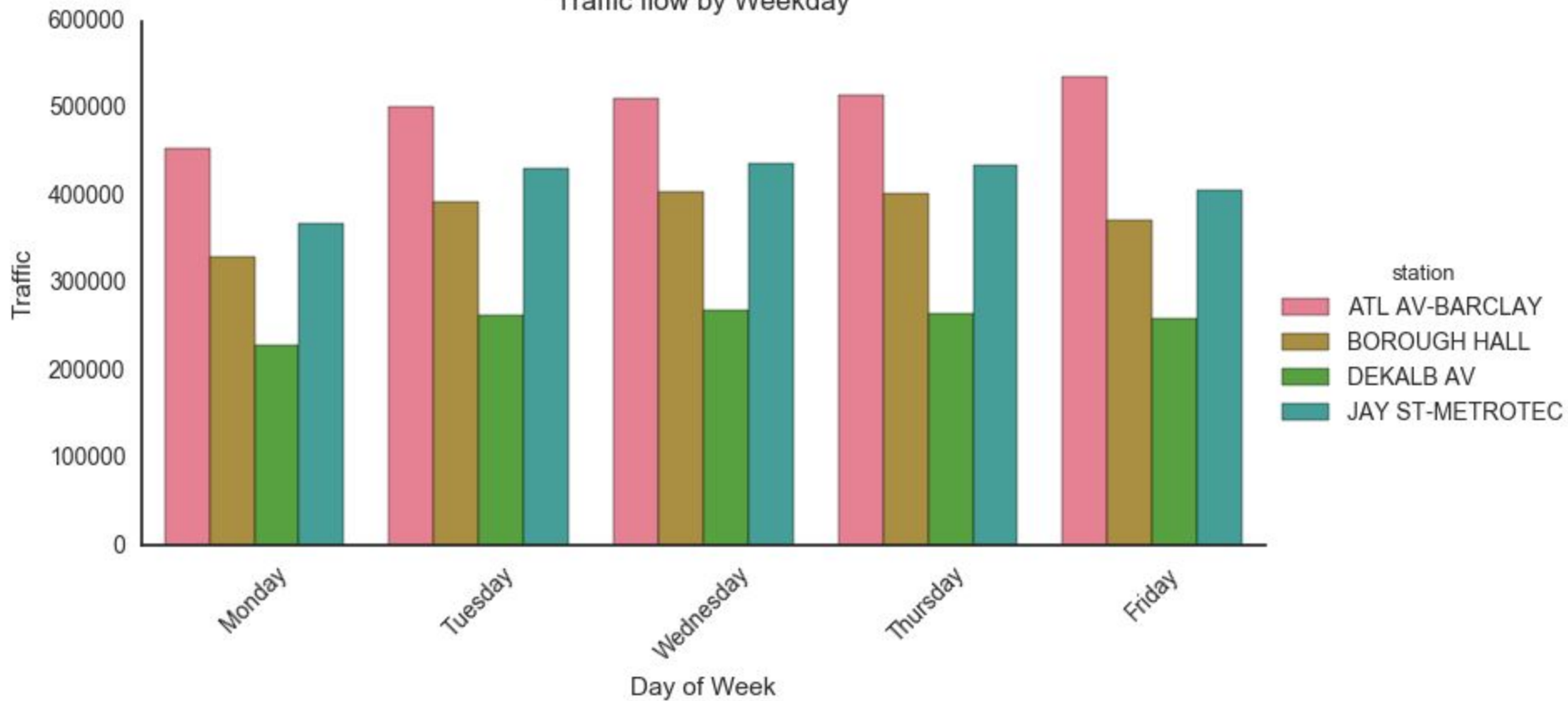
- Boerum Hill, Brooklyn
- Barclays Center

11238

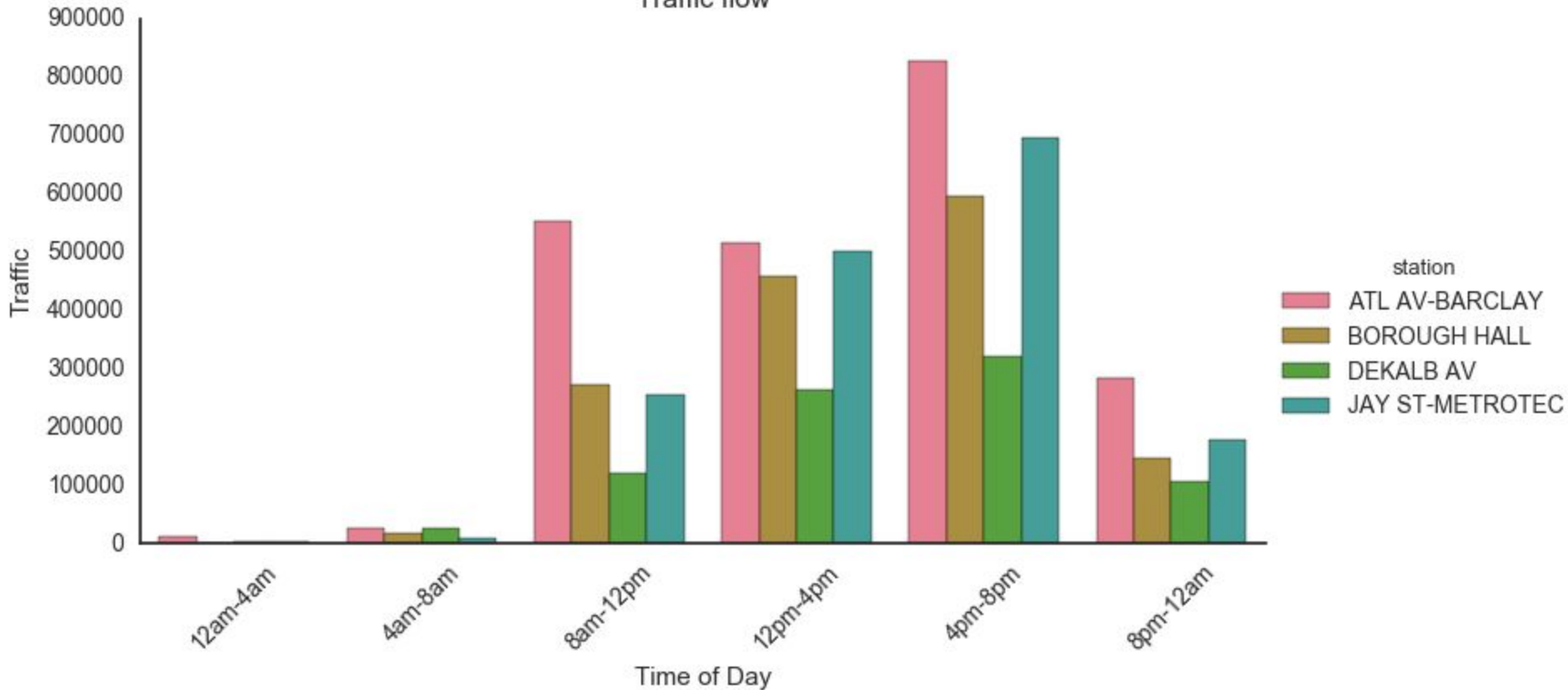
- Prospect Heights, Brooklyn
- Prospect Park



Traffic flow by Weekday

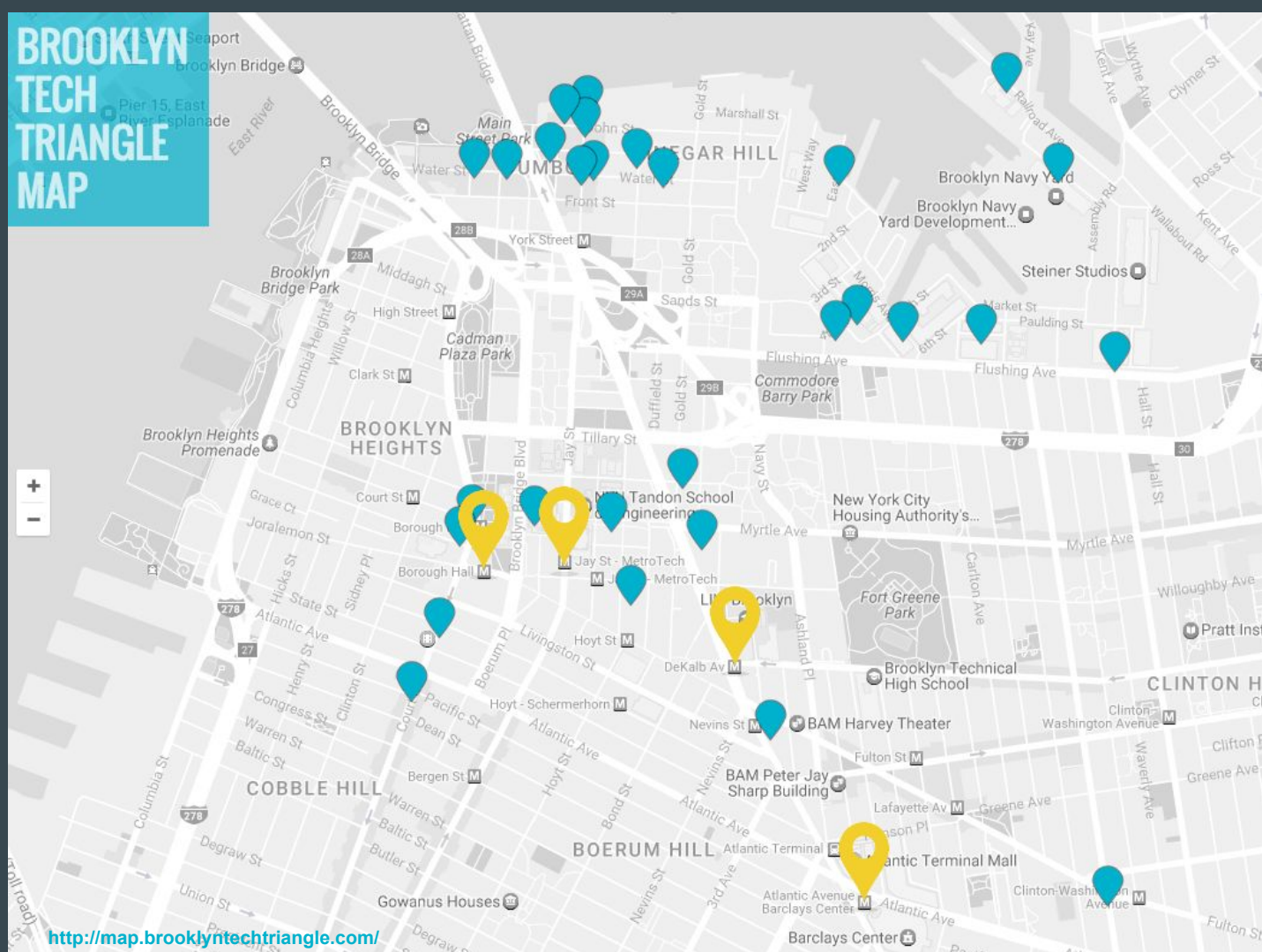


Traffic flow



Recommendation

BROOKLYN TECH TRIANGLE MAP



Proposed Deployment

Jay Street Metrotec

- Noon to 8pm
- One MetroTech Center

Borough Hall

- Noon to 8pm
- Brooklyn Tech Triangle

DeKalb Ave

- Noon to 8pm
- Between Jay St and Barclays Center

Atlantic Ave - Barclays

- Anytime 8am to 8pm
- Barclays Center

Further Research

Expand data to cover multiple years

Analyze occupational data- target STEM

Advertise at subway stations of similar events

Expanding street teams outside of subway stations
