

WTWY

WomenTechWomenYes:

Annual Gala

MTA Subway Strategy Report

Doug Lee

Justin Blinder

Problem

WTWY has an upcoming annual gala event, and needs to increase participation.

They need to use MTA Turnstile data in order to optimize commuter engagement strategy.

31076	H019	R294	00-06-01	MORGAN AV	L	BMT	05/21/2017	08:00:00	REGULAR	704354	409685	05/21/2017 08:00:00	2017-05-21 08:00:00	H019 R294 00-06-01	MORGAN AV L	1
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Samantha is a software developer and lives in Brooklyn, NY. She works for a startup on 42nd St. and Park Ave.— her days at the office are long. Two years ago, Samantha started a feminist network security meetup in Bushwick with her roommate. She likes tacos, cats, and well-executed puns.

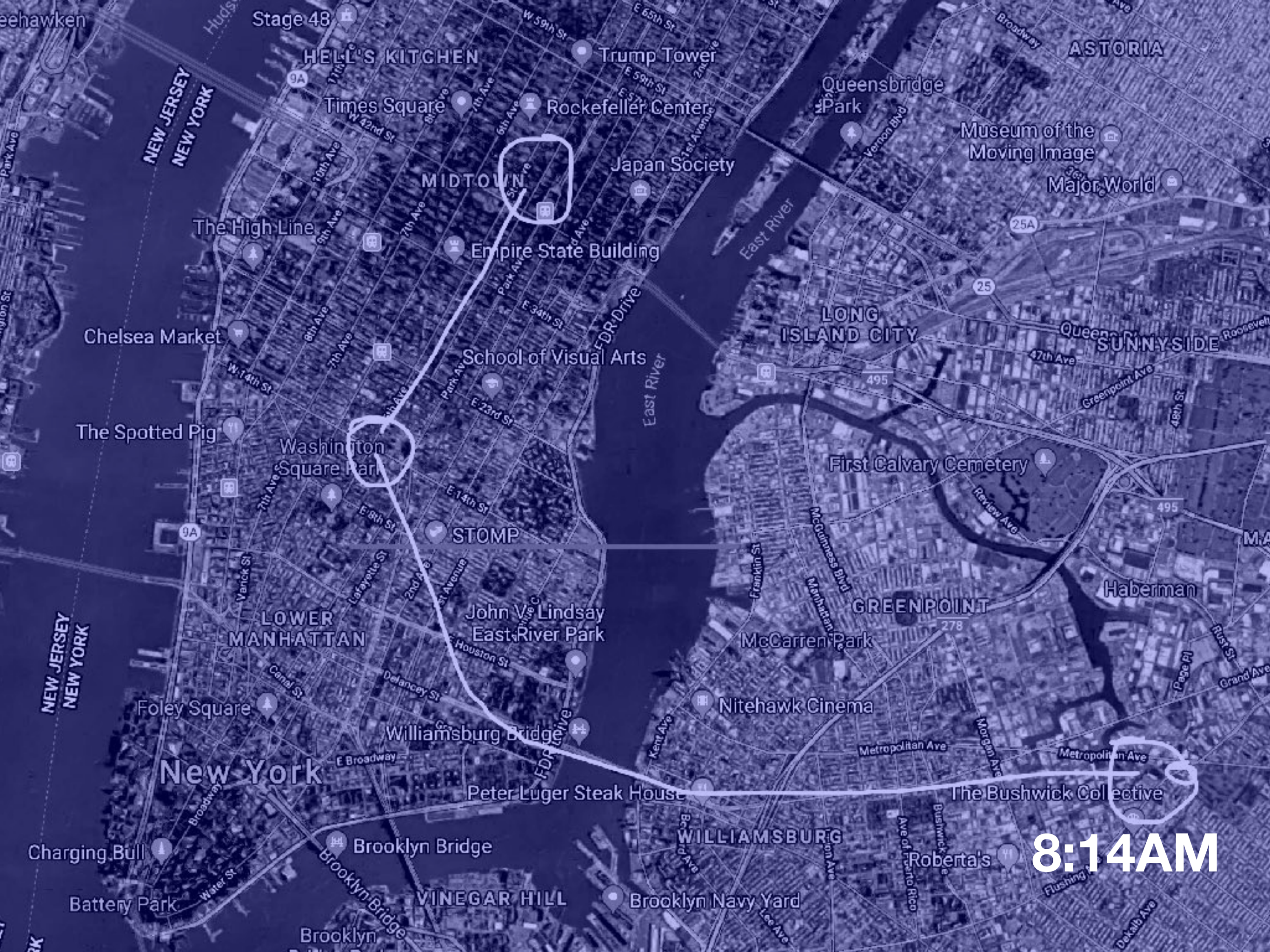
SUBWAY

Morgan Avenue
Subway Station

L

Enter with MetroCard at all times
or see agent at Morgan Avenue &
Harrison Place

7:47AM



Stage 48

HELL'S KITCHEN

Trump Tower

ASTORIA

Times Square

Rockefeller Center

Queensbridge Park

Museum of the Moving Image

Major World

MIDTOWN

Japan Society

Empire State Building

The High Line

Chelsea Market

School of Visual Arts

LONG ISLAND CITY

SUNNYSIDE

The Spotted Pig

Washington Square Park

First Calvary Cemetery

STOMP

John V. Lindsay East River Park

LOWER MANHATTAN

GREENPOINT

Haberman

Foley Square

Nitehawk Cinema

New York

Williamsburg Bridge

Peter Luger Steak House

The Bushwick Collective

Charging Bull

Brooklyn Bridge

WILLIAMSBURG

8:14AM

Battery Park

VINEGAR HILL

Brooklyn Navy Yard



8:21AM



8:44AM

**Samantha would love
WomenTechWomenYes — *if* she were
to hear about them...**

Key Questions

How can we consider the trajectories of people's journeys, as well as the frequency of their travels, through specific stations and beyond?

What are the key variables to focus in on?

Process

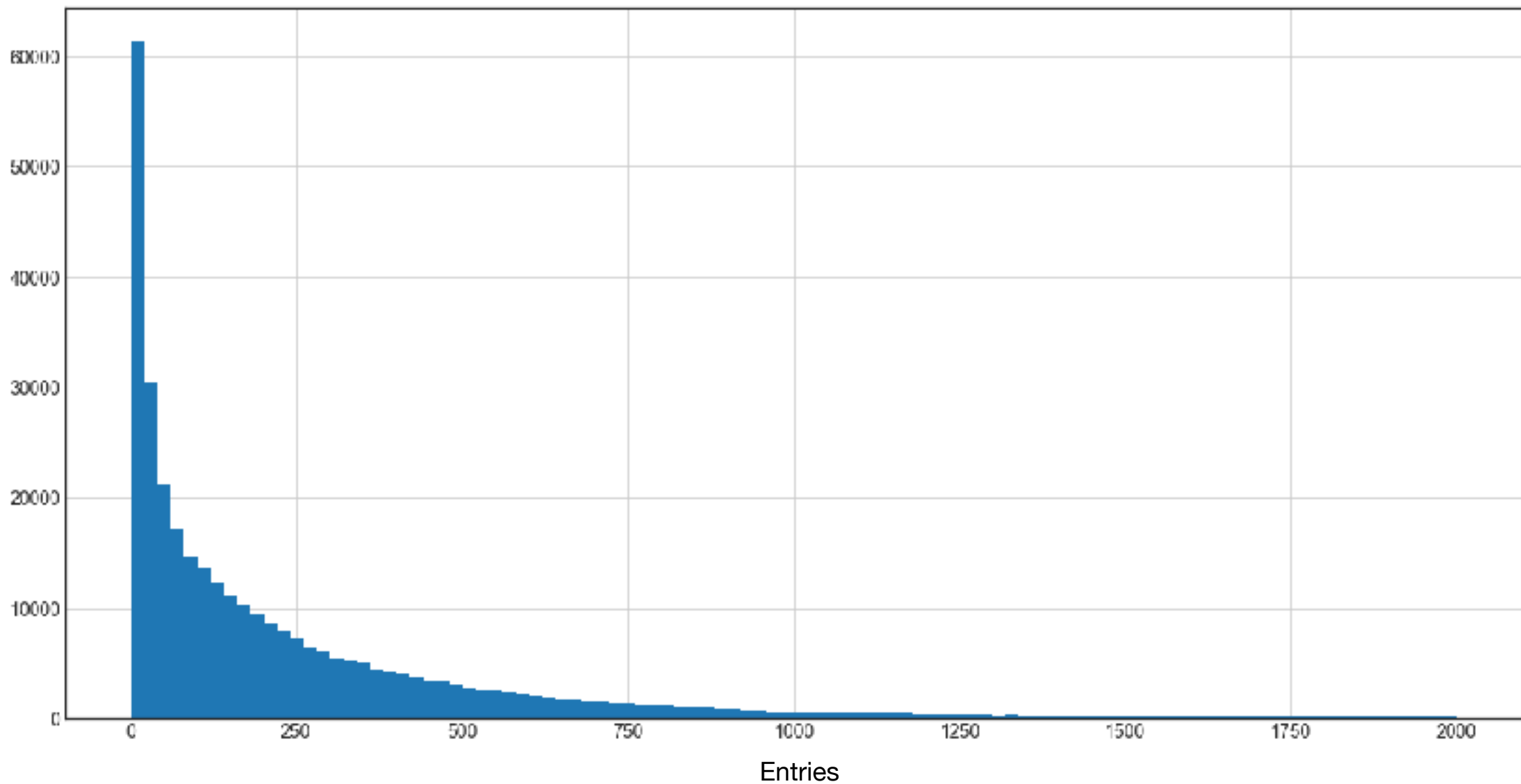
Primary Dataset: MTA Turnstile Data
April - May 2017

Variables to consider:

- * Volume**
- * Location Area**
- * Time of Day**
- * Weekday vs Weekend**
- * Potential Noise/ Inconsistencies**

Process

Data Processing - Visualizing all the data



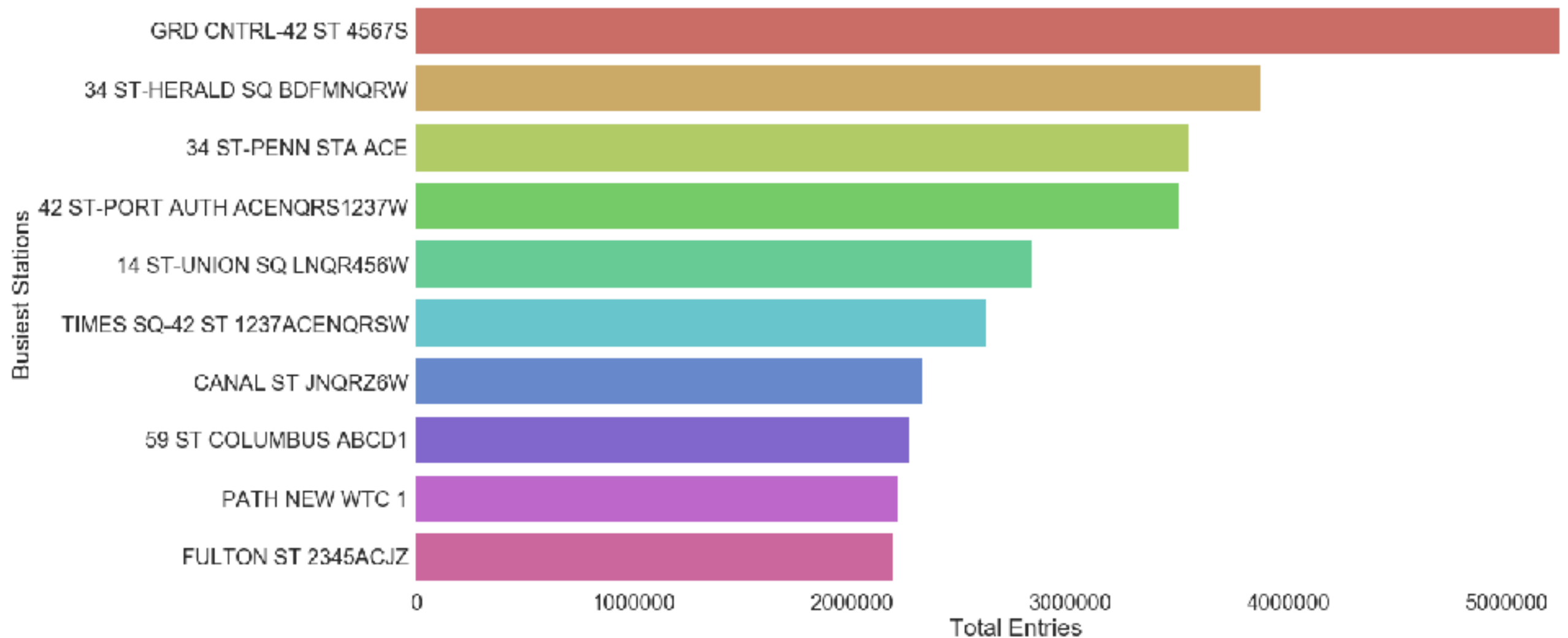
Process

Classifying variables



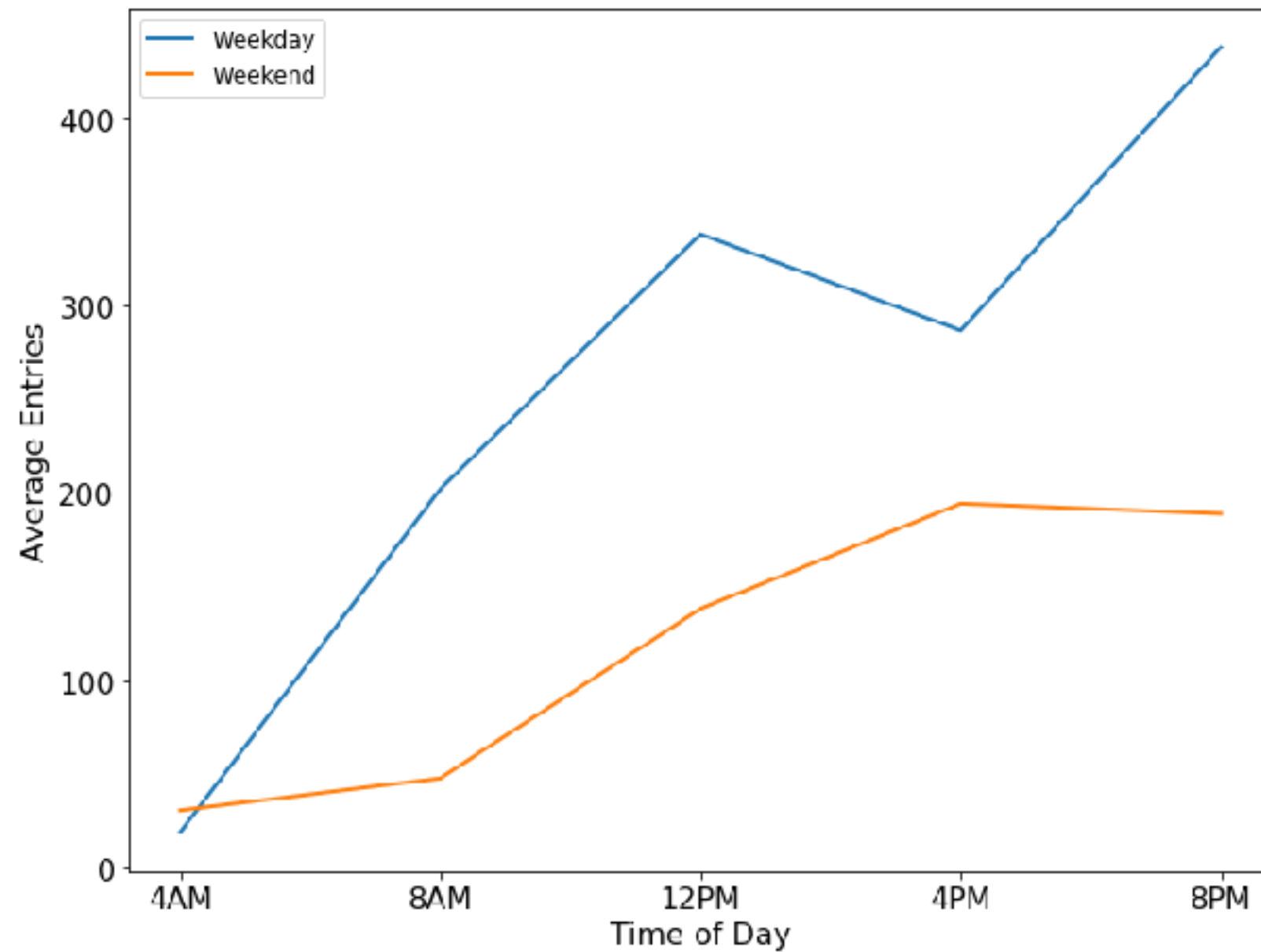
Analysis

Top Stations - Volume



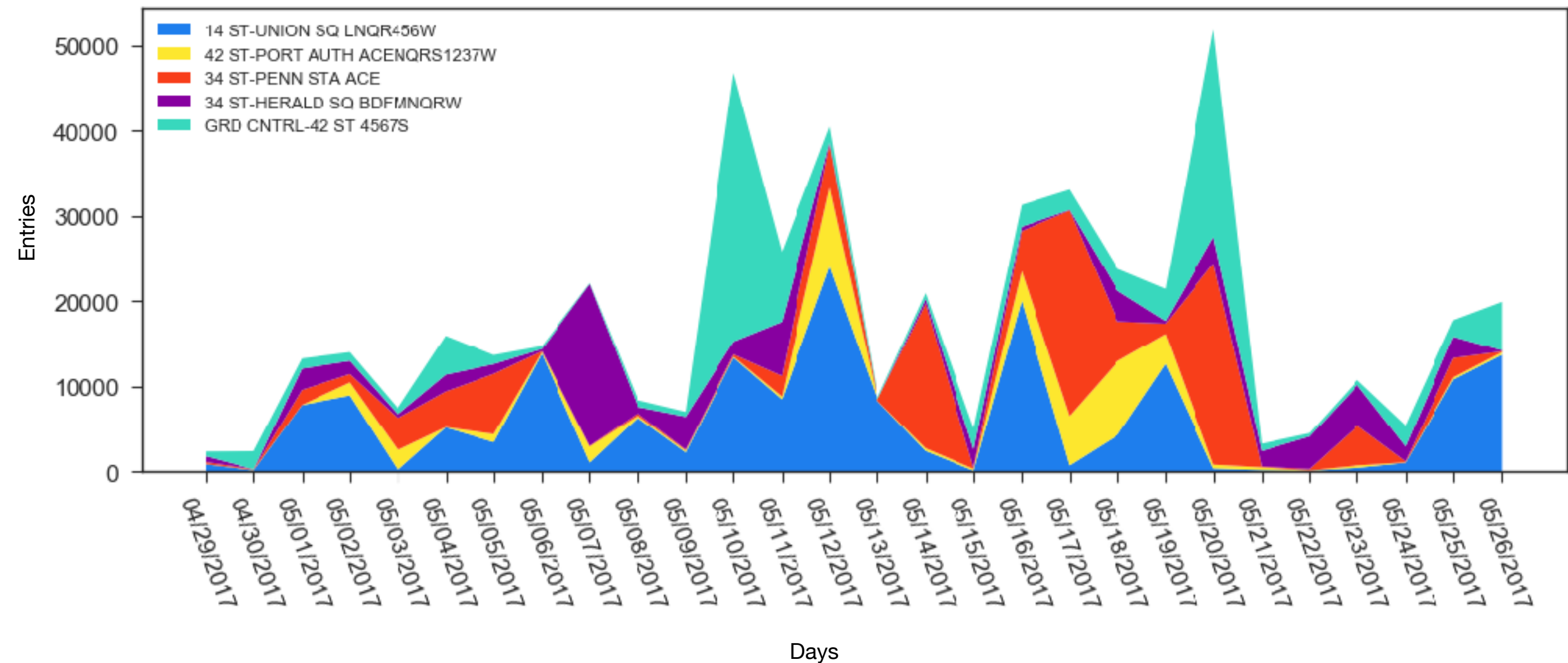
Analysis

Weekend vs. Weekday



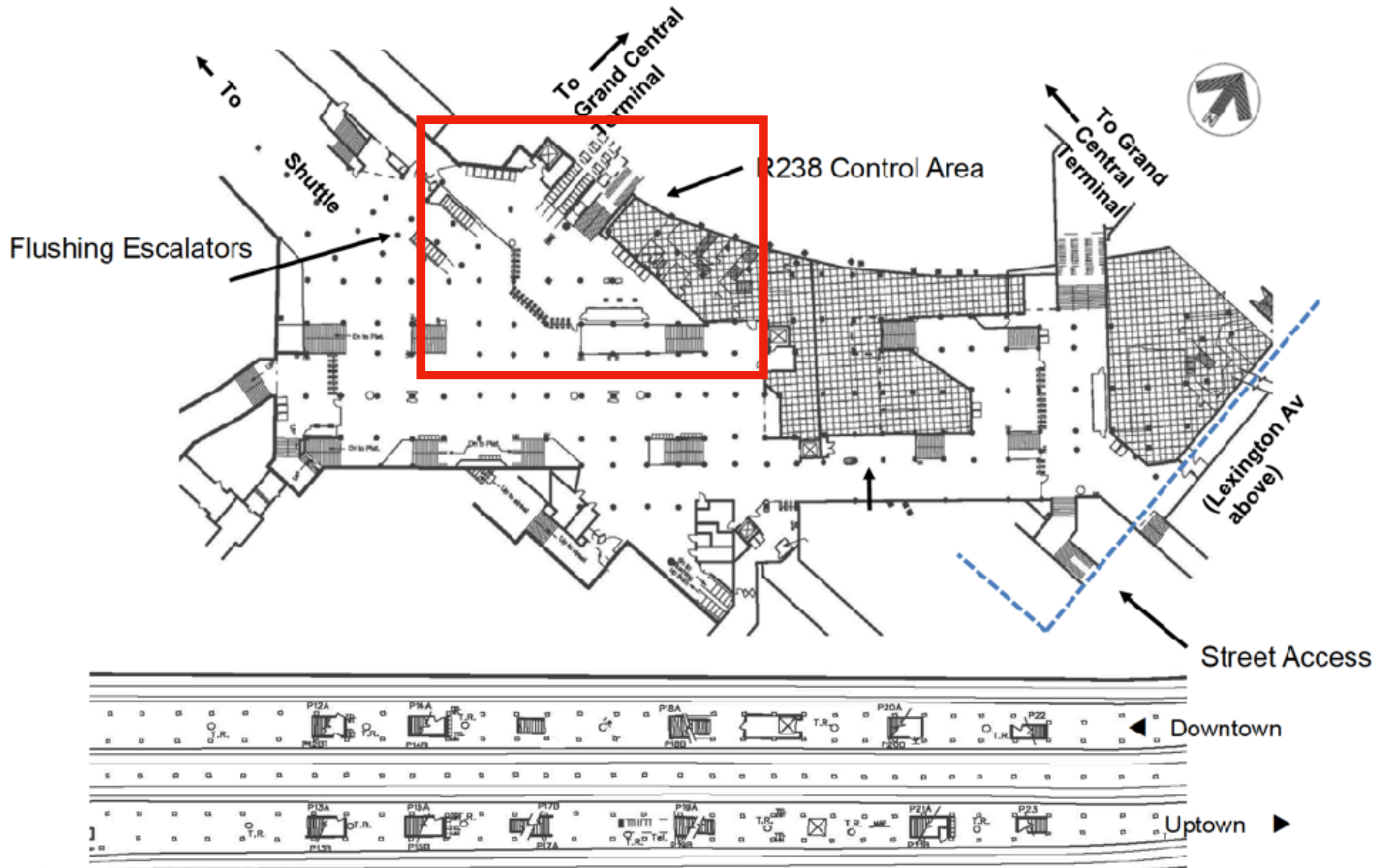
Analysis

Monthly Entries Across Top 5 Stations



Case Study: Grand Central Station

Grand Central 4567S



Grand Central 4567S

**Add staircase to/from Grand Central
Terminal (Kenneth Cole stair)**



**How can we use this data and analyses
to better engage with commuters like
Samantha?**

Proposal 1: Location

In 2016, over 5.5 million people took the NYC subway on an average weekday*

Since our data ultimately represents people, and our goal is to increase interpersonal interactions, we feel that certain demographic data could be too noisy to reach our goals

Instead, we focused on infrastructure and the rhythms of city flow

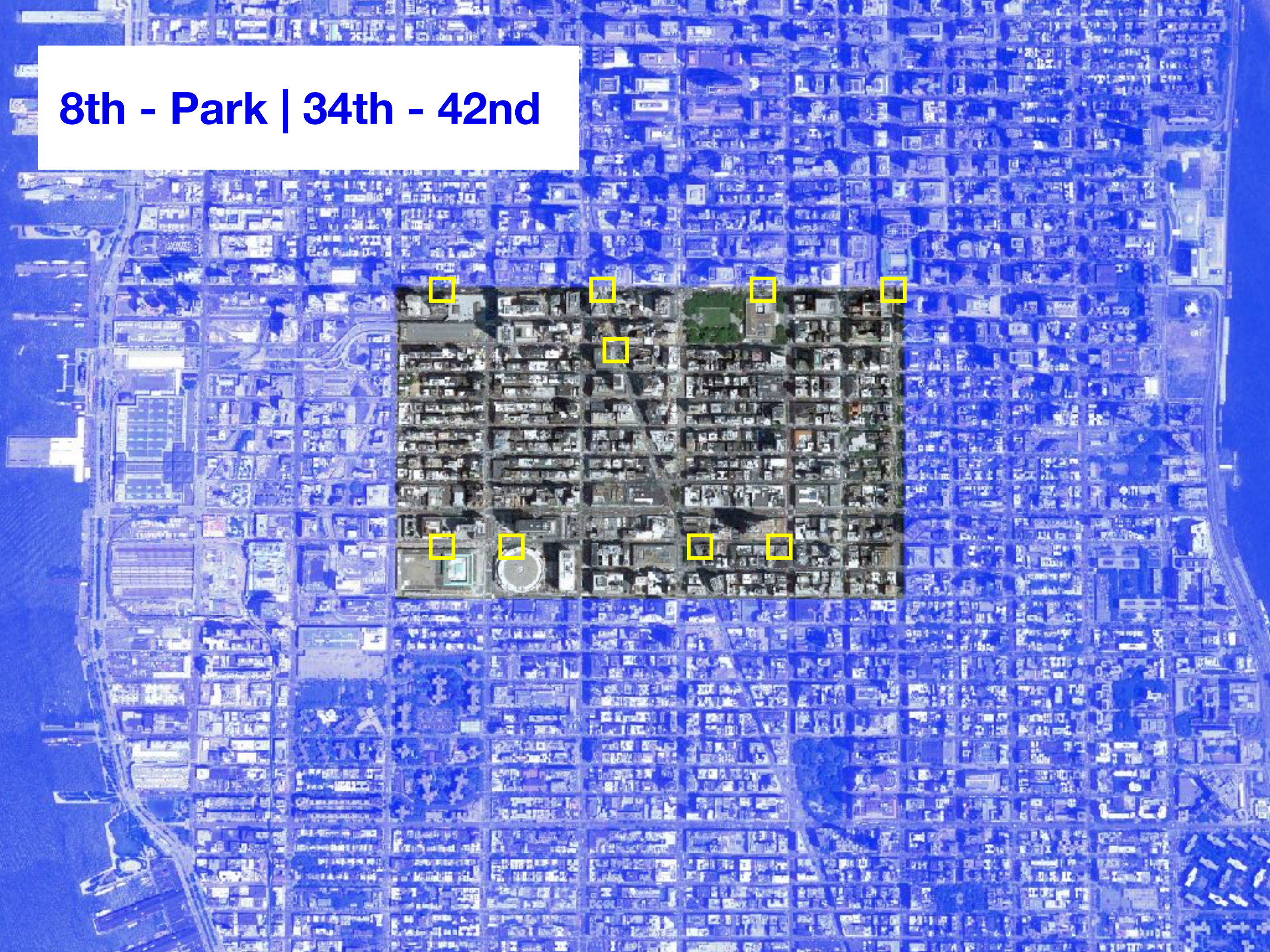
* https://en.wikipedia.org/wiki/New_York_City_Subway

Proposal 1: Location

The highest trafficked stations form a border around South Midtown— We primarily focus on this region.

In this area, overall exits exceeded entries in the morning (between 8am-12pm), and entries exceeded exits in the evening (between 8pm-12am).

8th - Park | 34th - 42nd



Proposal 2: Placement

Collecting emails

- Between 8am-12pm and 6-10pm
 - Above ground, outside of station
 - At Citi Bike stations

Handing out information (and free USB sticks)

- Between 8am-12pm and 6-10pm
 - Below ground, inside station

Between 12-6pm, both teams will be underground

Proposal 2: Placement

Street-team members that focus on collecting email addresses will be placed at top stations where volume is low

Street-team members that hand out information about WTWY (and free USB sticks) will be placed in top stations where volume is high

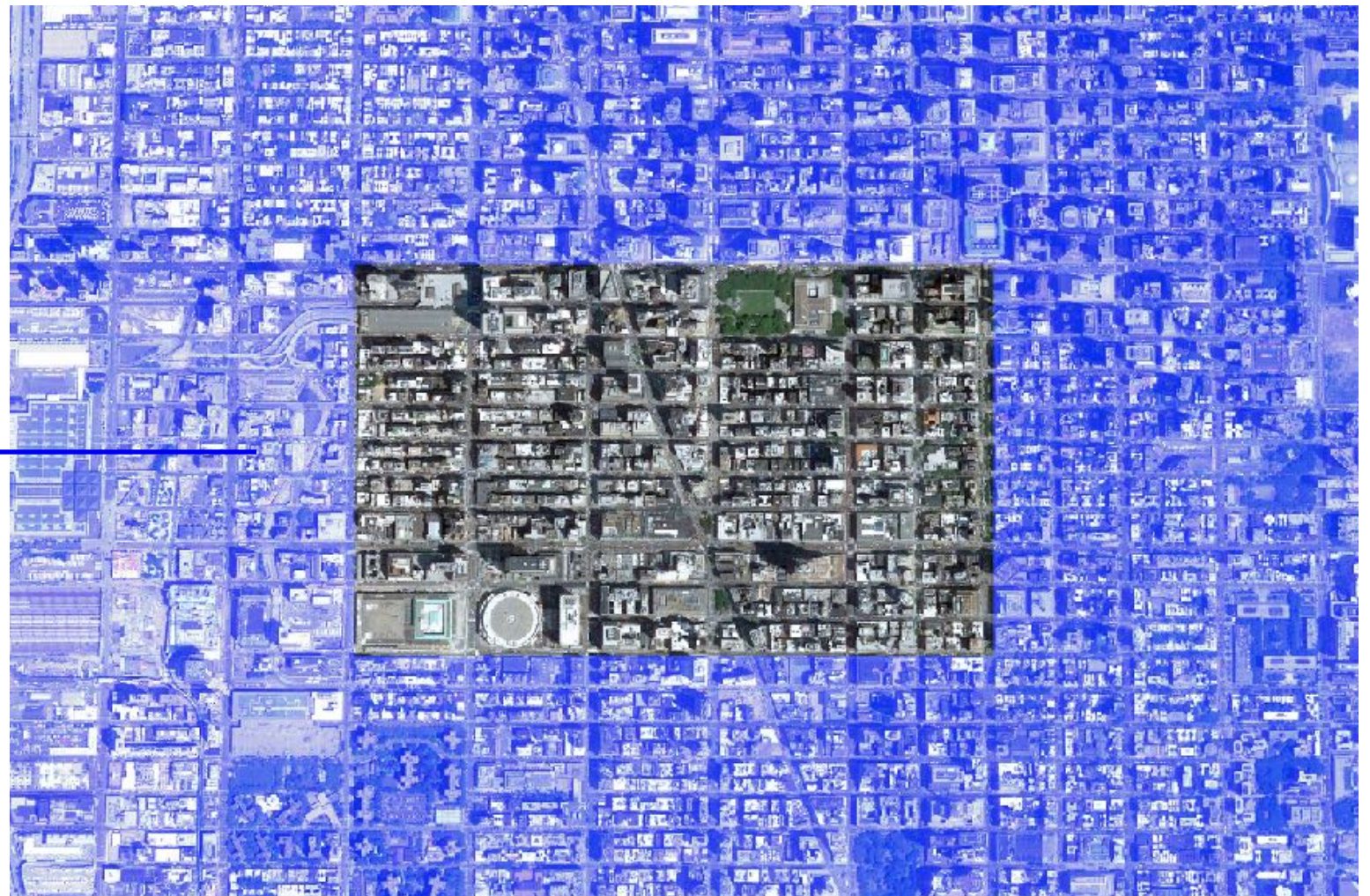
Proposal 3: Citi Bike

We also considered how Citi Bike stations might allow us to engage with commuters that travel to areas that are inaccessible by subway.

We plan to place street team members at Citi Bike stations next to subways that border our area of interest.

We believe soliciting people in less crowded, open spaces might lead to higher engagement levels.

Proposal 3: Citi Bike

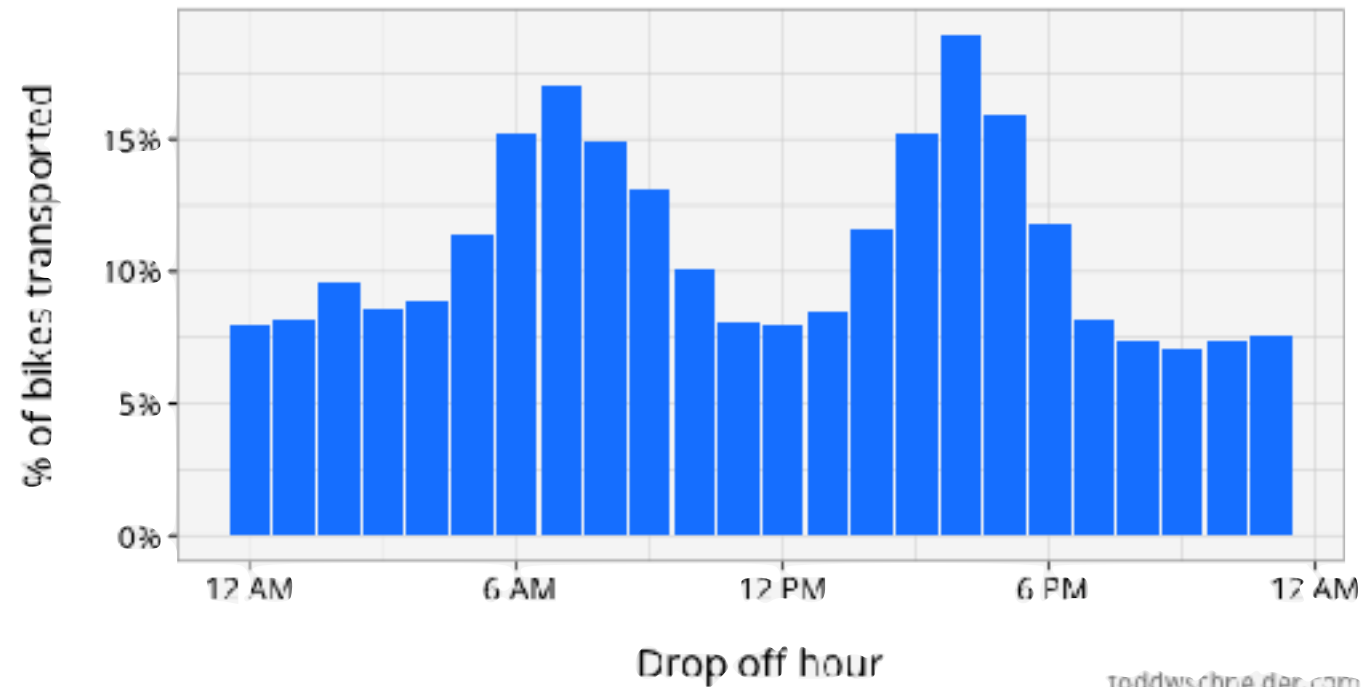


Proposal 3: Citi Bike

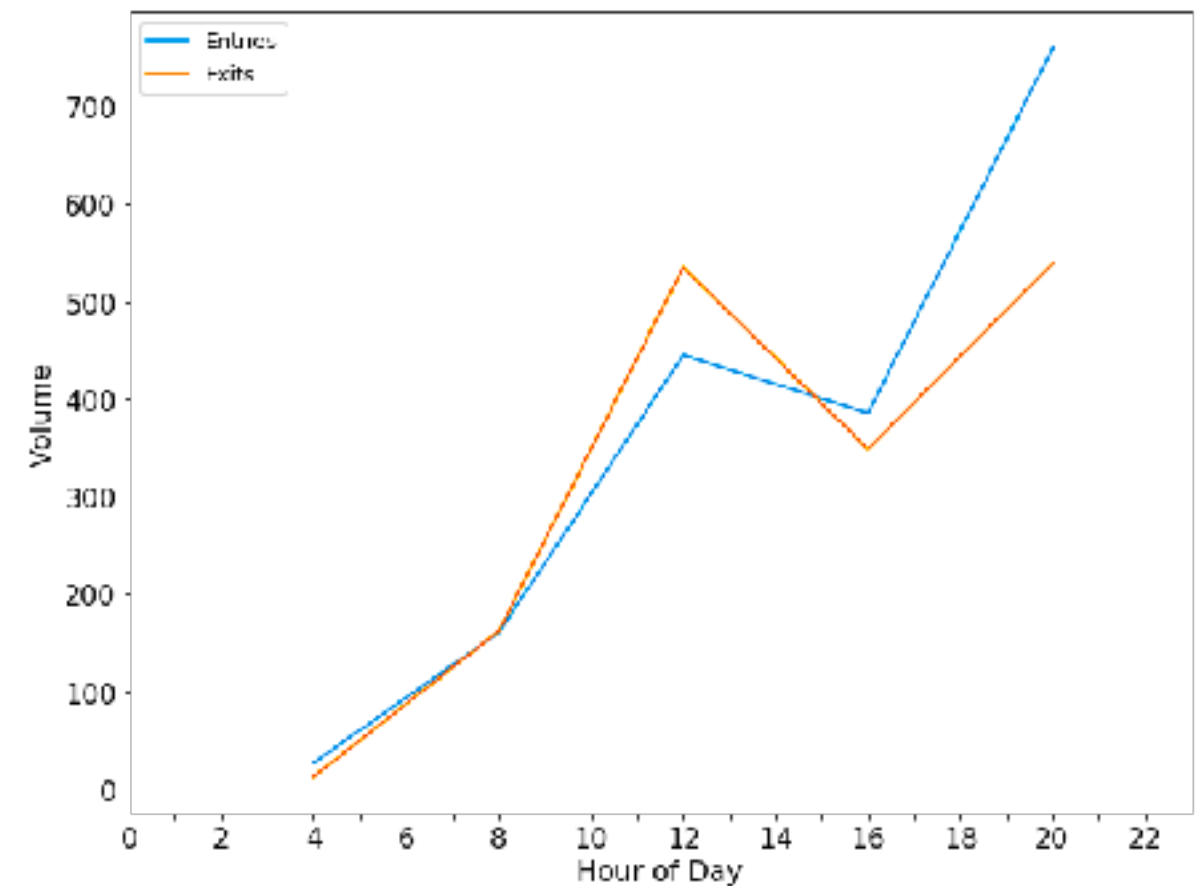
Citi Bike Stations

Midtown-Midtown South

% of Citi Bikes that are manually moved to a different station after being dropped off



Top 5 Subway Stations



Caveats

We silo our focus to South Midtown. We might be missing key outliers.

Our primary region is commercial could people's moods engagement vary in a residential area?

We don't focus on weekends— perhaps people might not be as busy and more willing to participate.

Next Steps

Donation statistics

Reliable demographic data

Thanks!