



METIS

WomenTechWomenYes International: Street Team Strategy

Date Science Team



Jon Lindenauer - Introduction

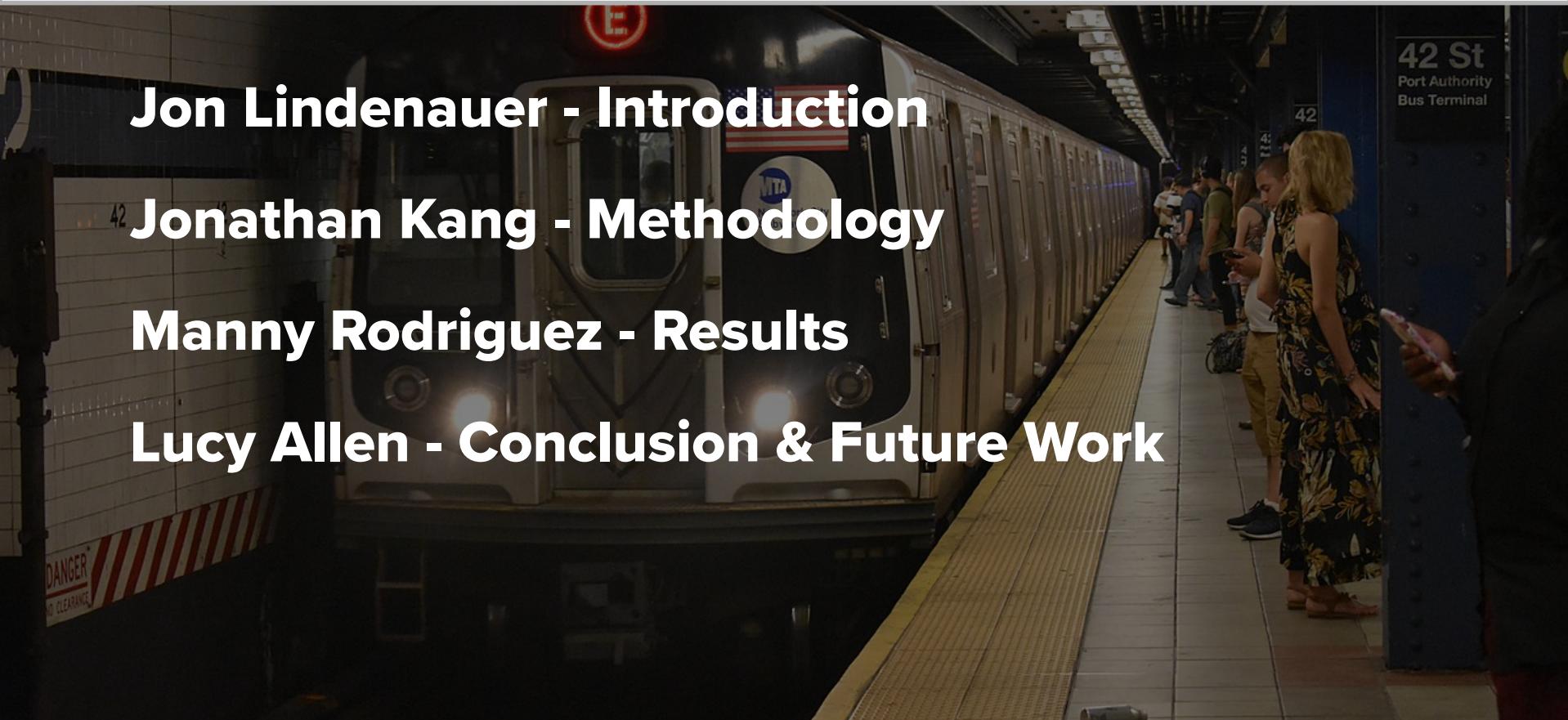
Jonathan Kang - Methodology

Manny Rodriguez - Results

Lucy Allen - Conclusion & Future Work

42 St
Port Authority
Bus Terminal

DANGER
NO CLEARANCE



Introduction



- **The WomenTechWomenYes International**
 - **New organization**
 - **Annual summer gala fundraiser**
- **The WTWY Street Team**
 - **Gives away free gala tickets**
 - **Placement is key to success**



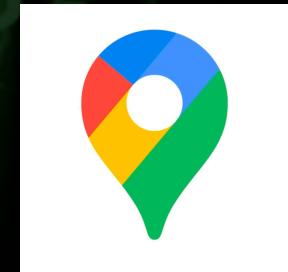
Introduction

- The Data Science Team's results will optimize Street Team placement at entrances of subway stations
 - Maximize foot traffic
 - People passionate about Women in Tech
 - Be inclusive to all

Methodology

Major data sources supporting the analysis:

- MTA Turnstile Data
- Census Bureau Data
- Google Maps Location Data



Methodology

Discovery

Preparation

Modeling

**Data gathering
based approach**

**Data cleaning
and conversion**

**Data
relationships**

Methodology

Major data sources supporting the analysis:

- Jupyter Notebook



- Pandas



- Matplotlib

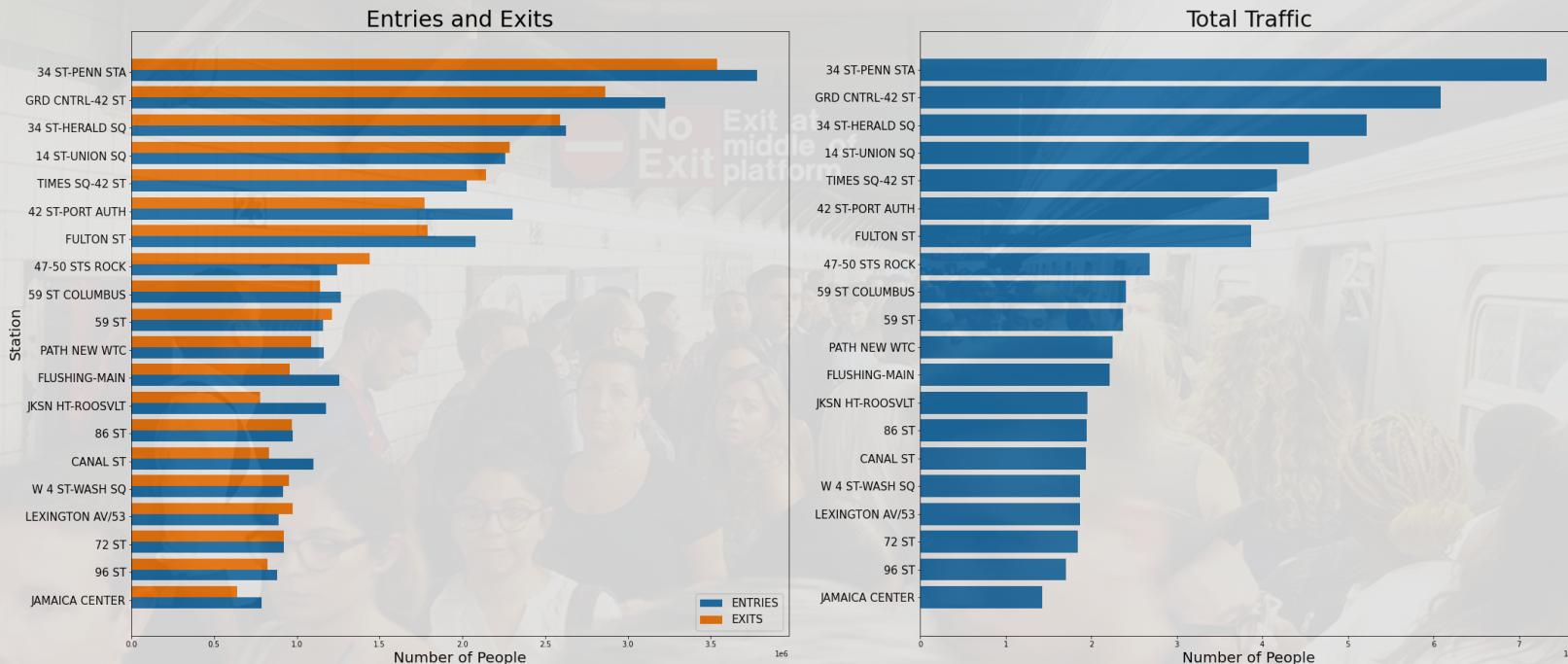


Results and Conclusions



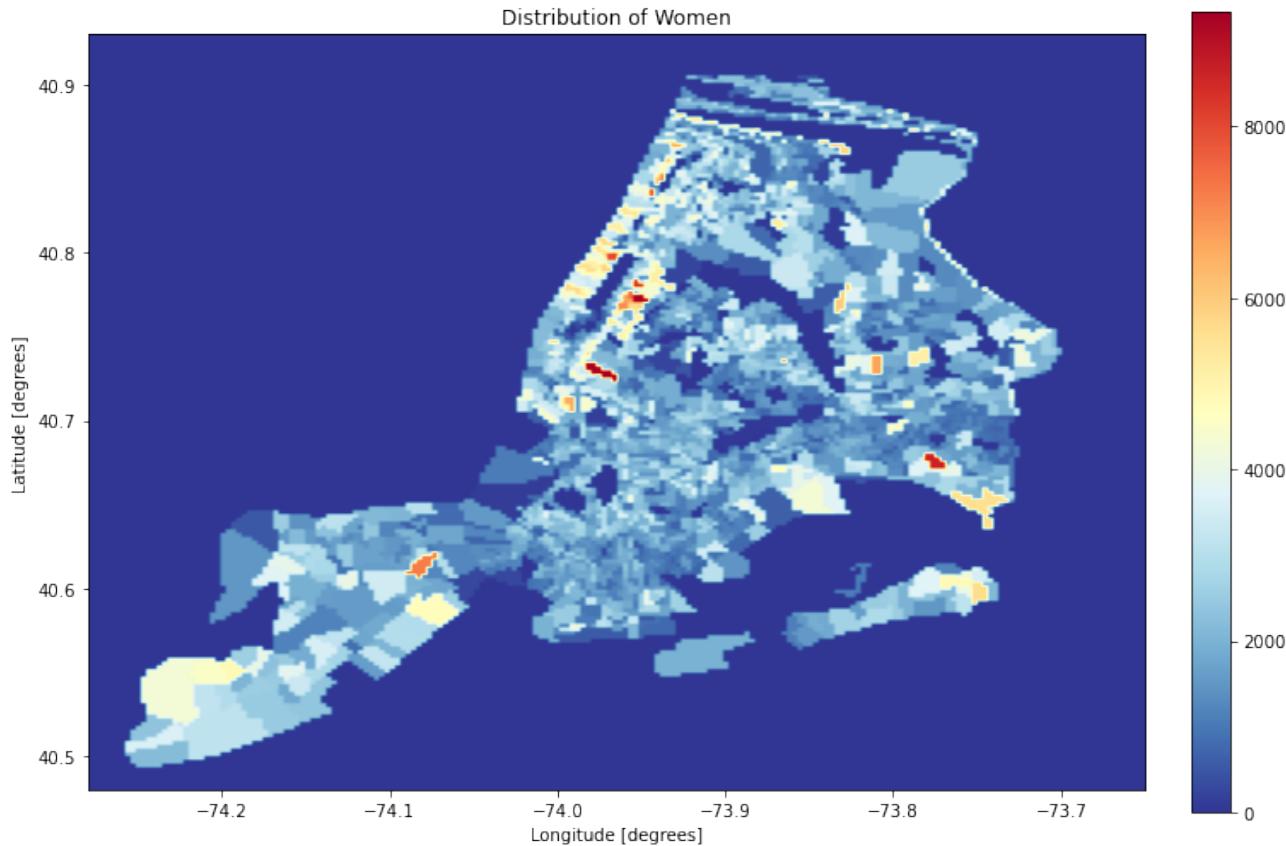
Results

Top 20 Stations



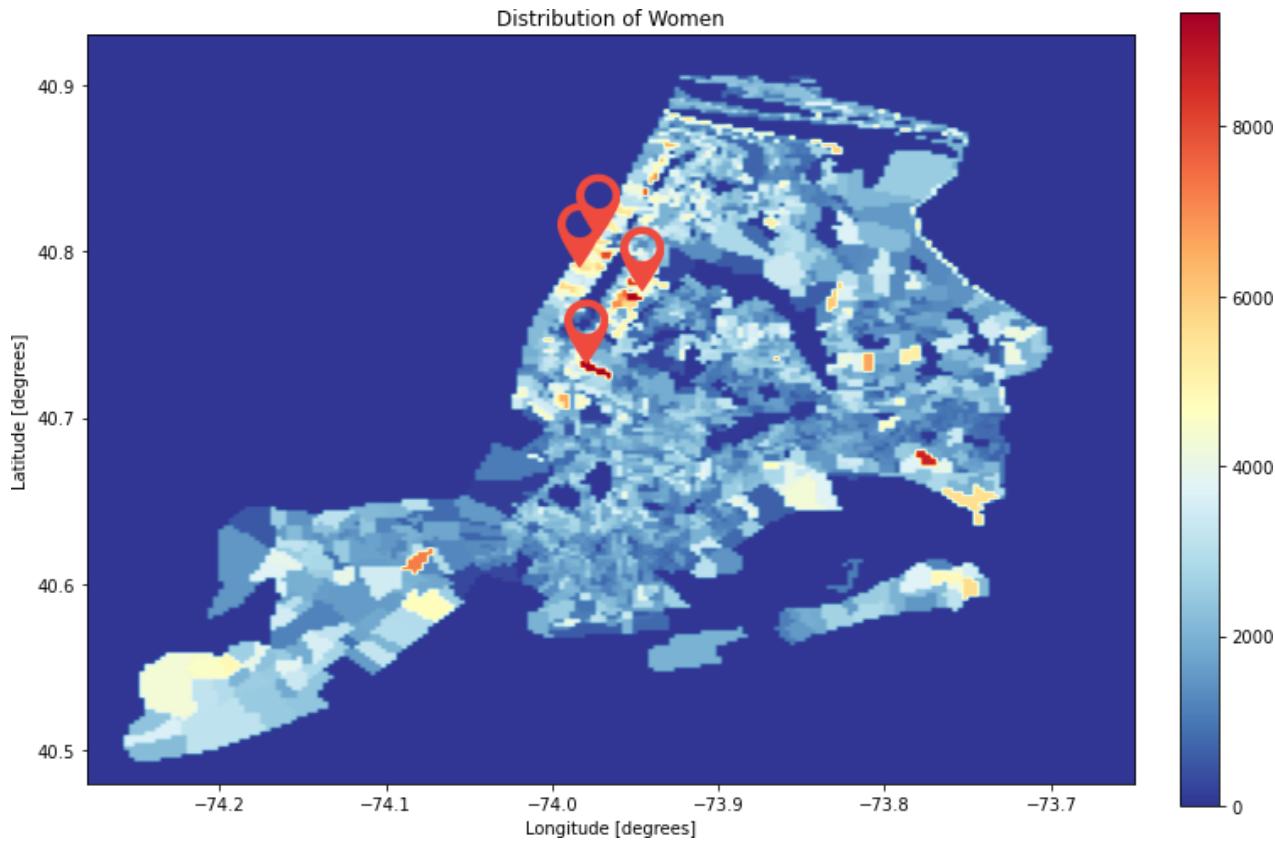


Results





Results





Results

Top 5 All-Girls Schools

1. Brearly School
2. The Chapin School
3. The Spence School
4. Emma Willard School
5. Nightingale-Bamford School

Top 4 Tech Schools

1. NYU
2. CUNY
3. Pace University
4. Cooper Union Institute

Conclusions

- 42nd St Times Square and Port Authority
- St Penn Station
- Grand Central Station
- 14th St Union Square
- 86th St
- 96th St
- 72nd St
- 34th St Herald Square
- Fulton St
- W 4th St Washington Square





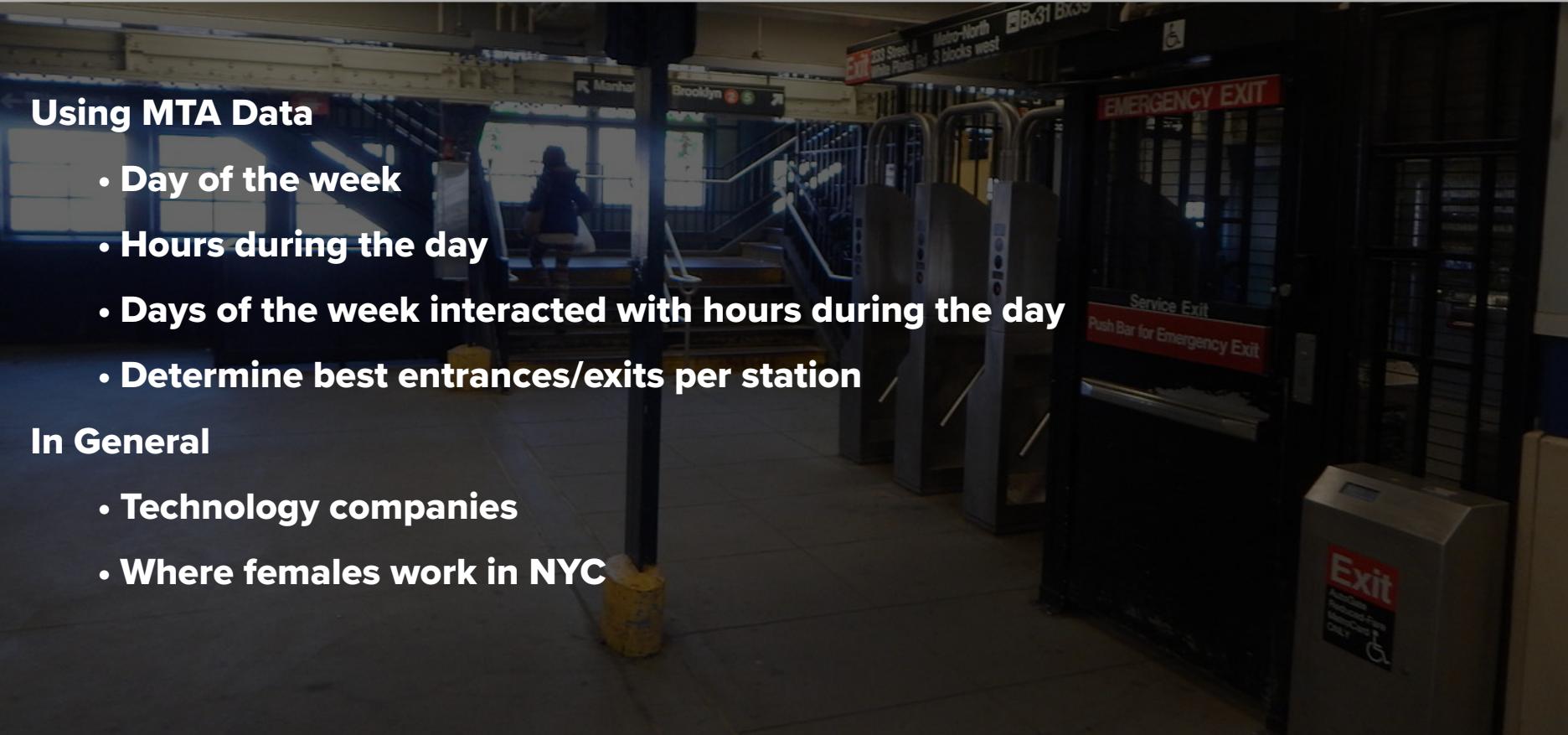
Future Work

Using MTA Data

- Day of the week
- Hours during the day
- Days of the week interacted with hours during the day
- Determine best entrances/exits per station

In General

- Technology companies
- Where females work in NYC



Appendix



Acknowledgements:

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By Adam Moss from Highland Park, NJ, United States - 233rd Street Station, CC BY-SA 2.0, <https://commons.wikimedia.org/w/index.php?curid=39822252>

www.shutterfly.com

www.kaggle.com

*<http://web.mta.info/developers/turnstile.html>

Niche website for information on schools

<https://www.niche.com/colleges/search/best-colleges-for-information-technology/s/new-york/>

<https://www.niche.com/k12/search/best-all-girls-high-schools/s/new-york/>

Appendix



To determine key metrics for evaluating curated data



- ▶ MTA Turnstile Data
 - ▶ Max minus Min on ENTRIES and EXITS
 - ▶ Combined to determine total traffic
 - ▶ Total Traffic data based on Station and Line Name
 - ▶ Can be evaluated based on any set of given attributes
 - ▶ Station
 - ▶ Line
 - ▶ SCP
 - ▶ Date...



- ▶ Census Bureau Data
 - ▶ Translate Census Tract information to Latitude and Longitude
 - ▶ Total density and scale information can be extracted via distribution
 - ▶ Census demographic data can be evaluated based on a number of given characteristics
 - ▶ Gender
 - ▶ Race
 - ▶ Income
 - ▶ Job Category
 - ▶ Mode of Transit ...
- ▶ Google Map Data
 - ▶ Supplemental information:
 - ▶ Pin point location for major school
 - ▶ Pin point location for major