

A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and others with blue dots. The lines are thin and grey, creating a mesh-like structure.

# WomenTechWomenYes

Street Team Analysis and Recommendations

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A decorative network diagram in the bottom-right corner, similar to the one in the top-left, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and others with blue dots. The lines are thin and grey, creating a mesh-like structure.



# Background and Purpose



## Background and Purpose

- WomenTechWomenYes (WTWY)
  - Increasing awareness and outreach
  - Increasing Summer Gala interest and attendance
  - Improve street teams at subway entrances success rates
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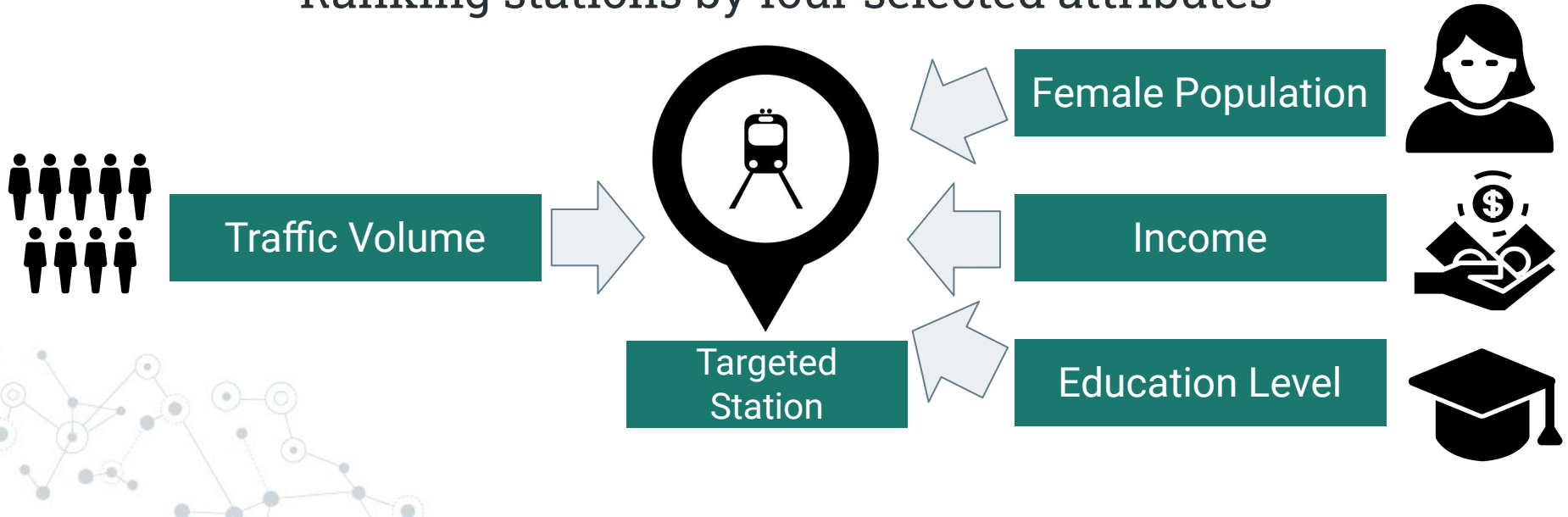
The background of the slide is a light gray network diagram. It consists of numerous small circles, some of which are double-outlined, connected by thin, light gray lines. The connections form a complex, interconnected web across the entire slide.

# Methodology

## Approach

- Target demographic
- Recommend MTA stations by:

Ranking stations by four selected attributes





## Data Sources

### **MTA**

- March 23, 2019 - June 1, 2019
- Station traffic

### **American Community Survey**

- Census tracts
  - Female population
  - Income
  - Education Level

### **NYC Open Data**

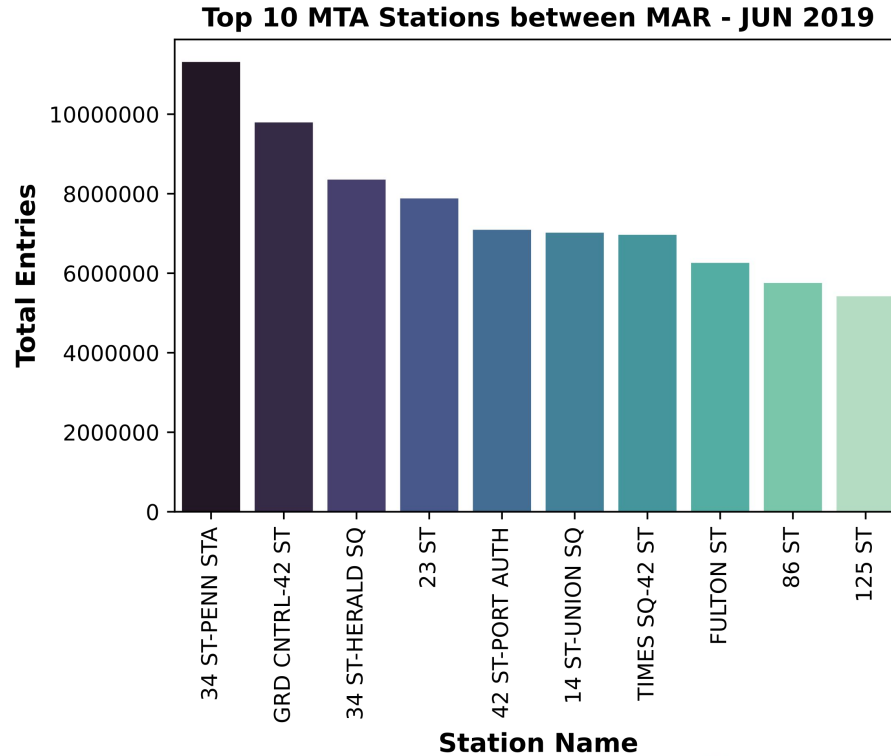
- MTA station locations/coordinates

*\* See Appendix B for tools utilized*

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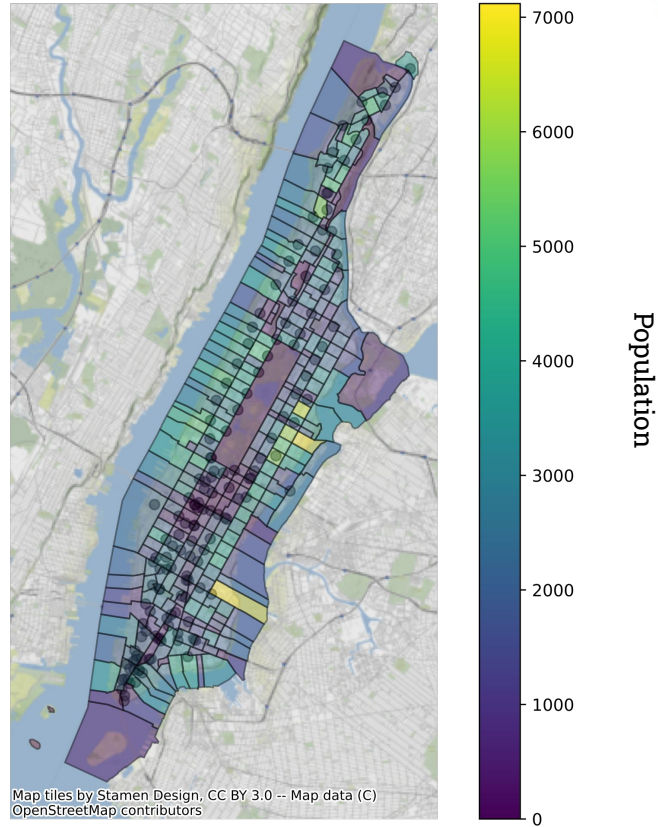
# Findings

# Top MTA Stations by Entries

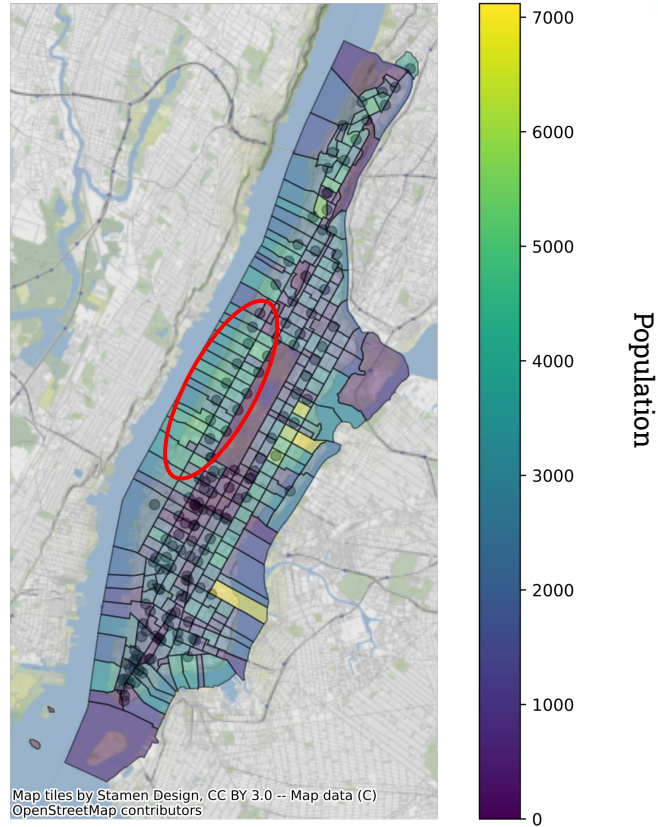




# Female Population - 25 years and over



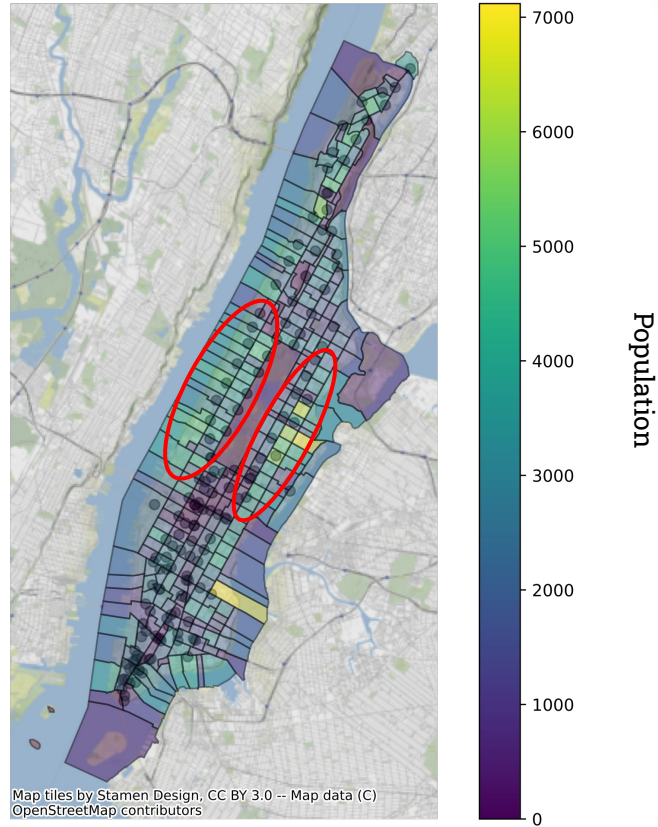
# Female Population - 25 years and over



\* Data grouped by Census Tracts

● MTA Subway Station

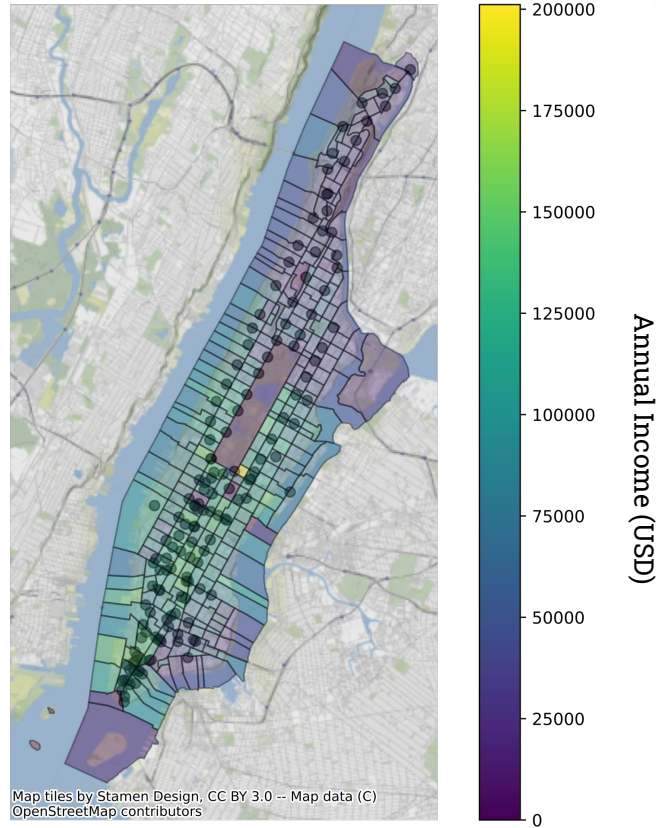
# Female Population - 25 years and over



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● MTA Subway Station

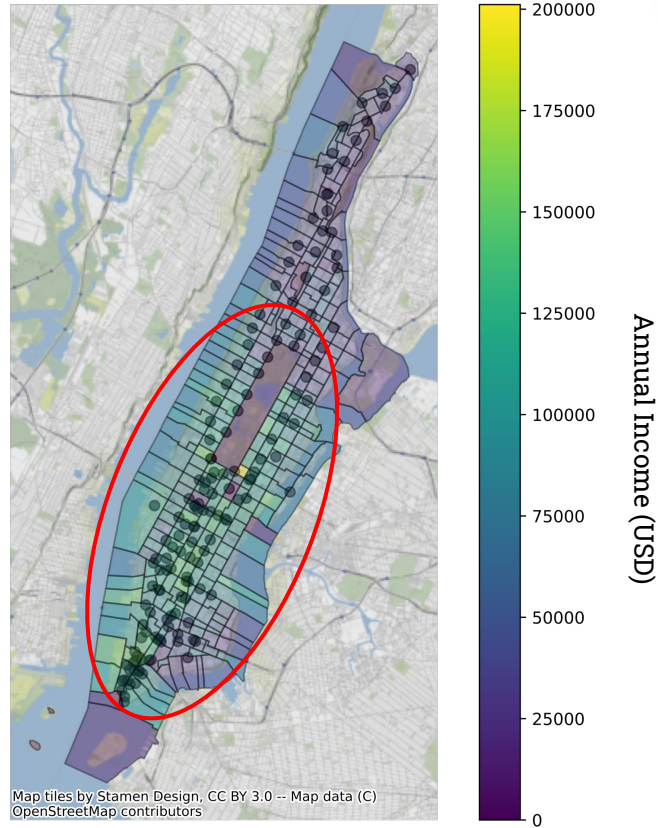
# Median Income - 25 years and over



\* Data grouped by Census Tracts

● MTA Subway Station

# Median Income - 25 years and over

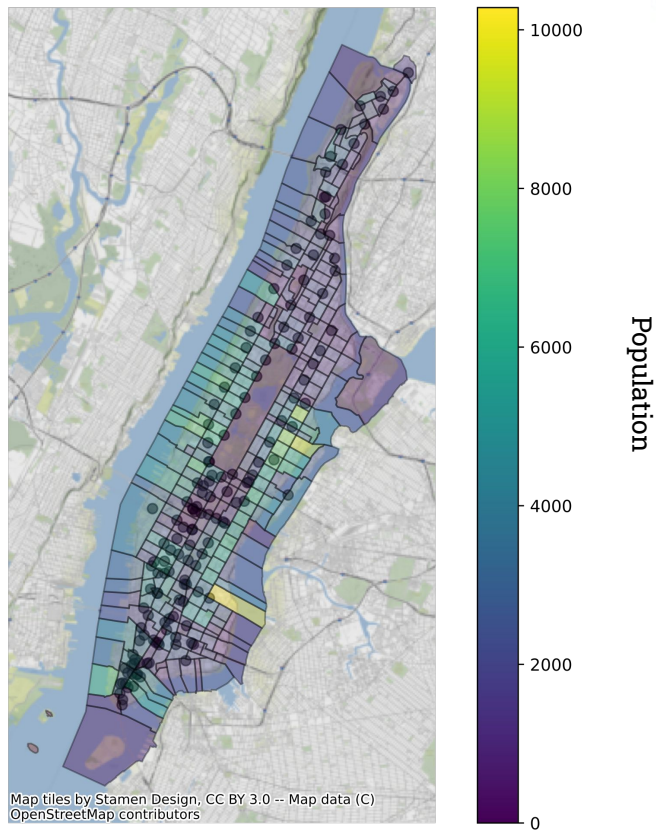


\* Data grouped by Census Tracts

● MTA Subway Station



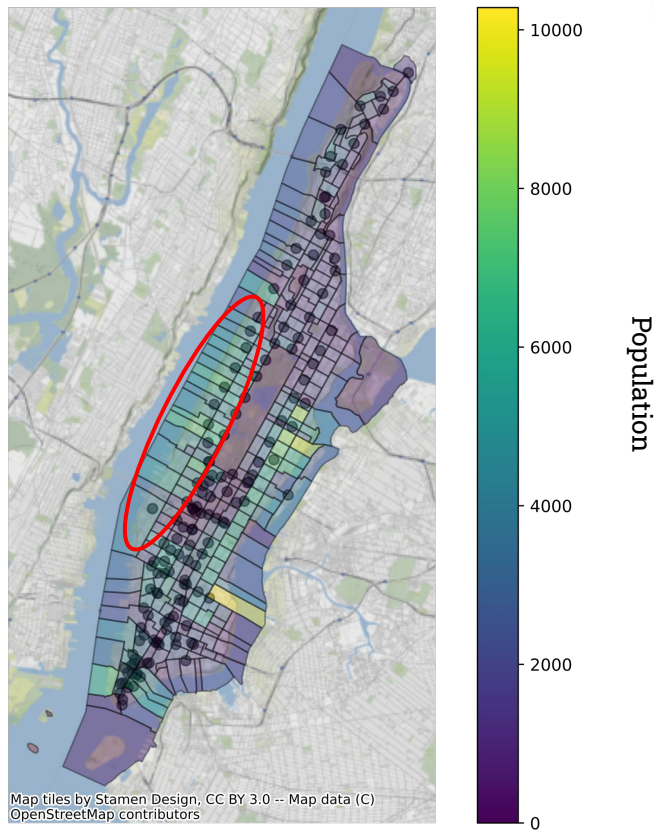
# Population 25 years and over w/ Advanced Degree



\* Data grouped by Census Tracts

● MTA Subway Station

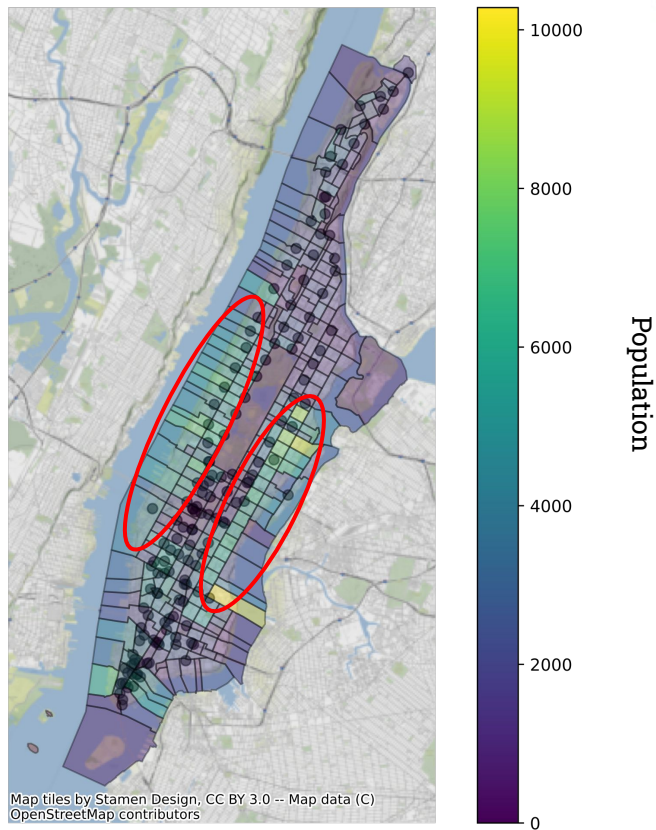
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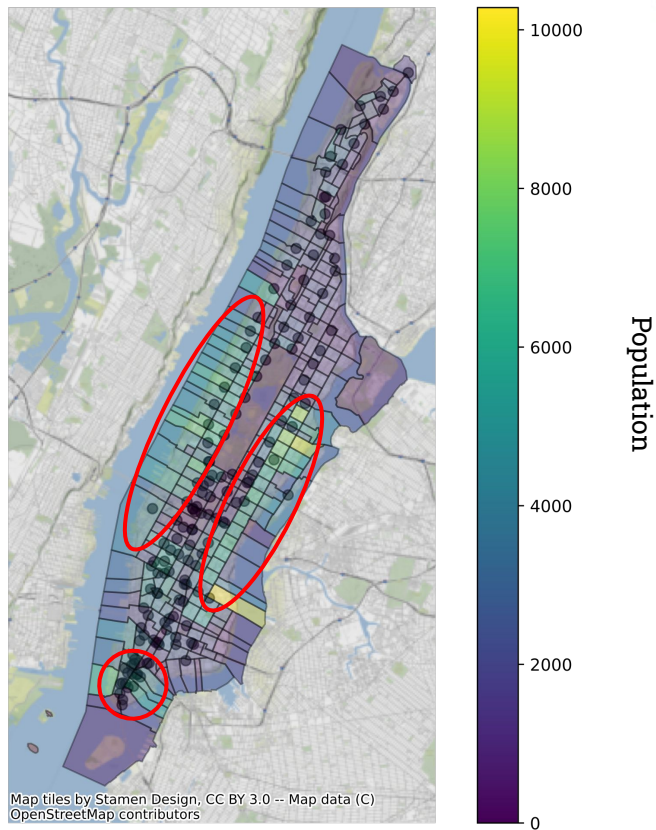


\* Data grouped by Census Tracts

● MTA Subway Station



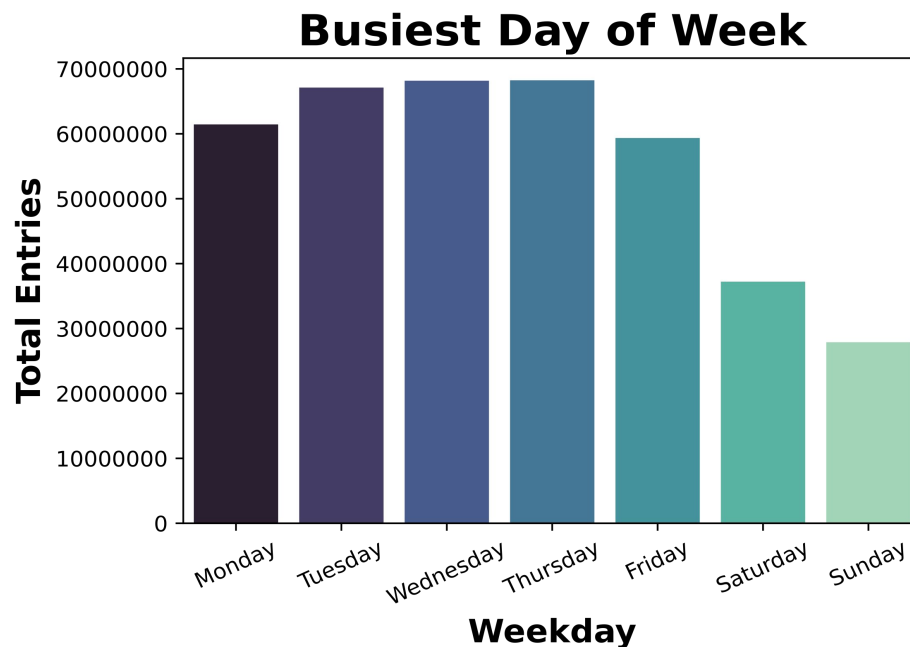
# Population 25 years and over w/ Advanced Degree



\* Data grouped by Census Tracts

● MTA Subway Station

# Busiest Days of the Week



\* See Appendix C for examination of individual turnstile data for daily entries and more in depth analysis of daily entries for a top 10 station

# Recommendations



## Ranked with Census Data

Rank	Station
1	23rd St
2	Fulton St
3	59th St - Columbus Circle
4	14th St
5	34th St - Penn Station
6	Wall St
7	Grand Central - 42nd St
8	Chambers St
9	World Trade Center
10	Lexington Ave - 53rd St




## Ranked without Census Data

Rank	Station
1	34th St - Penn Station
2	Grand Central - 42nd St
3	Herald Sq - 34th St
4	23rd St
5	42nd St - Port Authority Bus Term
6	Union Sq - 14th St
7	Times Sq - 42nd St
8	Fulton St
9	86th St
10	125th St



## Future Work

- Include data on tech company and higher education institution locations
  - Schedule street teams by busiest times of day
  - Cluster targeted stations to increase labor efficiency
  - Investigate effects of weather on station traffic
- 

The background of the image is a light gray network pattern. It consists of numerous small circles, some of which are solid gray and others are hollow with a gray outline. These circles are interconnected by a web of thin, light gray lines, creating a complex, organic structure that resembles a molecular or digital network.

**Thank You**



**Questions?**



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# Appendix

# Appendix A: Data Links

## Data Sources:

[MTA](#)

[American Community Survey \(Census Data\)](#)

[NYC Open Data - Subway Stations](#)

## Algorithm Used:

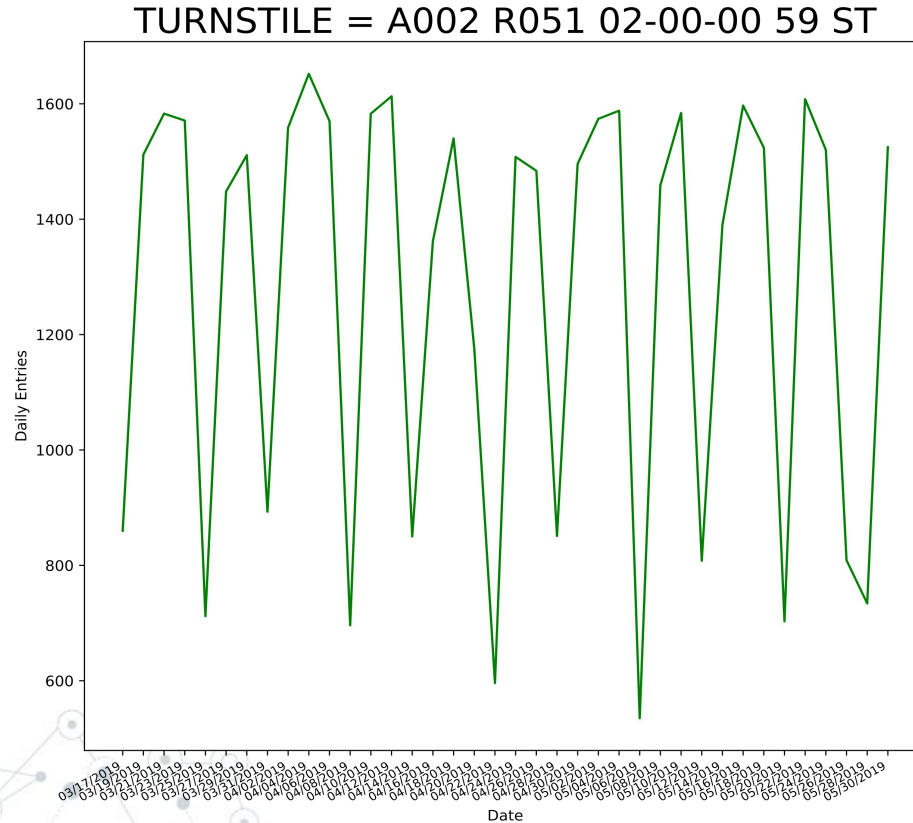
[Composite Ranked Score](#)



## Appendix B: Tools Used

- Numpy
- Pandas
- Pickle
- Matplotlib
- Seaborn
- Geopy/Geopandas
- FuzzyWuzzy

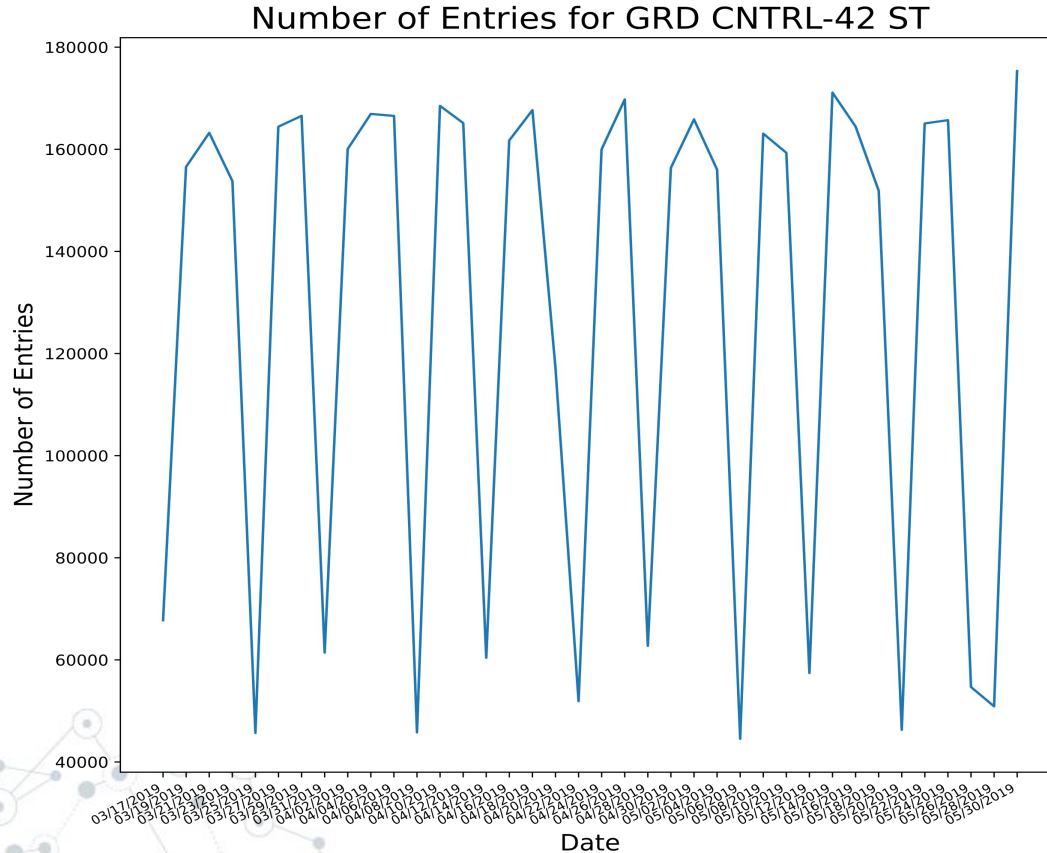
## Appendix C: Examination of Individual Turnstile Data for Daily Entries



### Key Takeaways

- Showing strong pattern for day of week

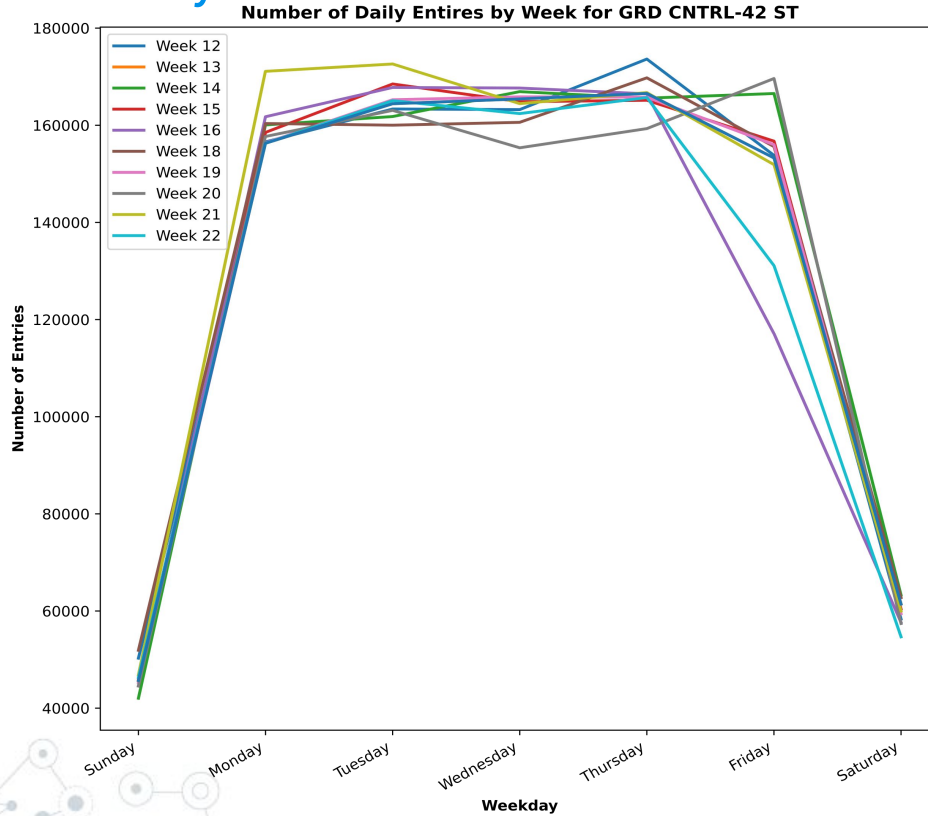
## Appendix C: Examination of Daily Entries on a Single Station



### Key Takeaways

- Showing strong pattern for day of week

## Appendix C: Busiest Days of the Week



### Key Takeaways

- Daily entries shown for all weeks for a top 10 station