

# **Meeting NYC Women Where They Are**

In partnership with WomenTechWomenYes (WTWY)

Nina Sweeney 9/17/21



# Project Goal:

## Optimize Street Team Placement

- Build awareness and reach
- Gather emails to fill the gala
- Expose potential contributors

# Research-Informed Approach

**“...women’s travel patterns tend to be more complicated... [due to] ‘trip-chaining’, a travel pattern... that has been observed in women around the world.”**

- Caroline Criado Perez, *Invisible Women: Data Bias in a World Designed for Men*

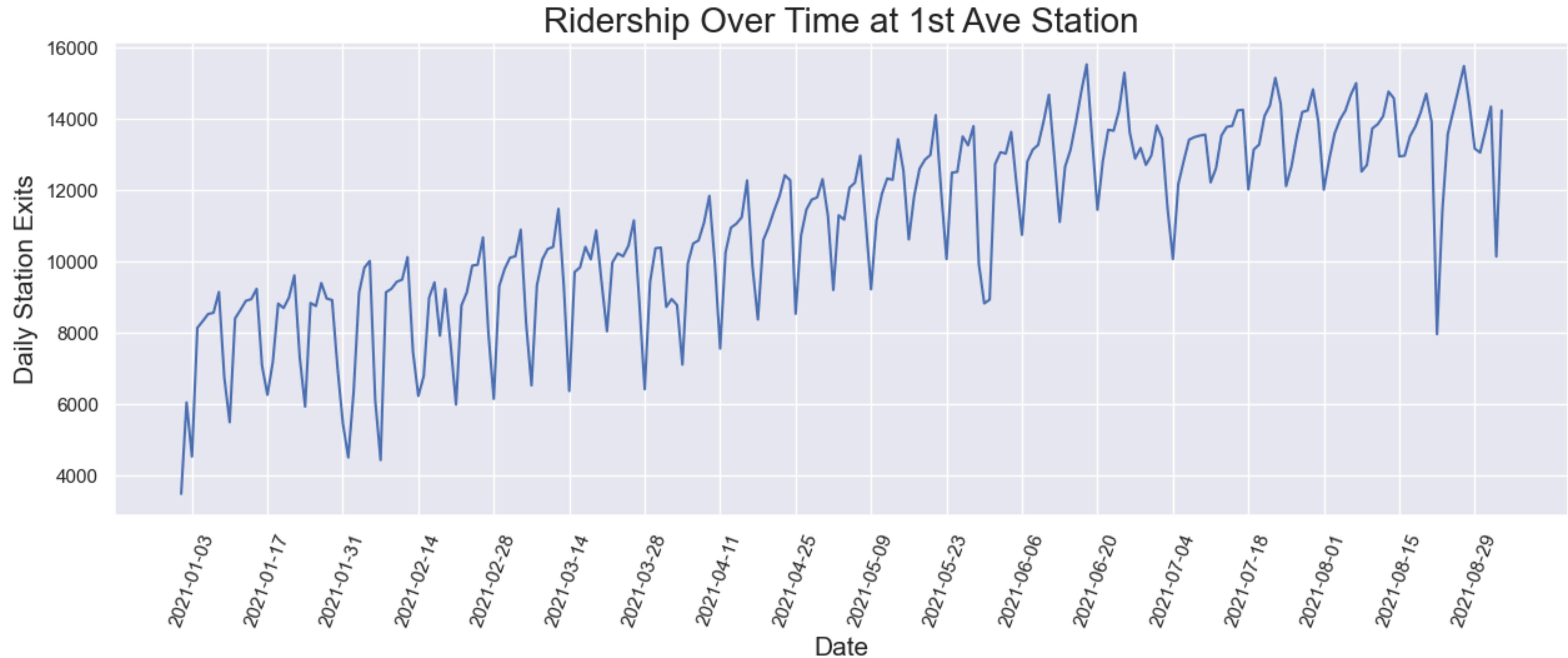


# Methodology

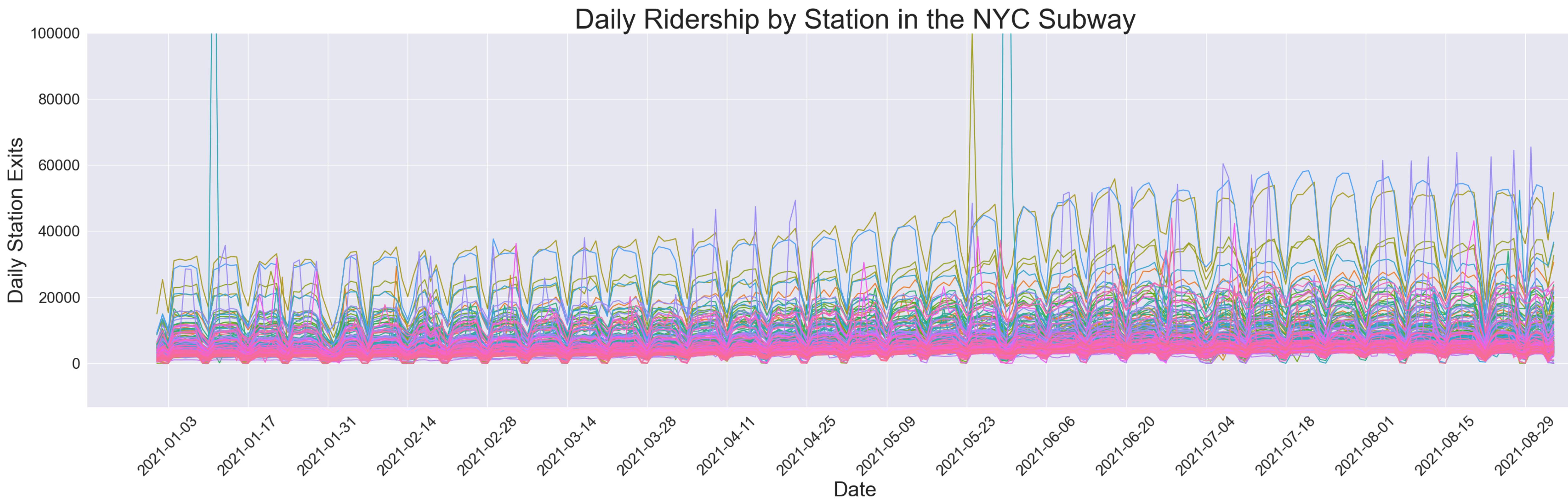
- **Data Sources**
  - Turnstile Data and Station Location Data from [new.MTA.info](http://new.MTA.info)
  - NYC School Location Data from [data.cityofnewyork.us](http://data.cityofnewyork.us)
  - NYC Daycare Facility Data from [data.ny.gov](http://data.ny.gov)
- **Tools**
  - SQLAlchemy
  - Pandas & Geopandas
  - Numpy & Geopy
  - Matplotlib & Seaborn

**Ridership:** total riders exiting from the subway  
in a given time period, at a given station

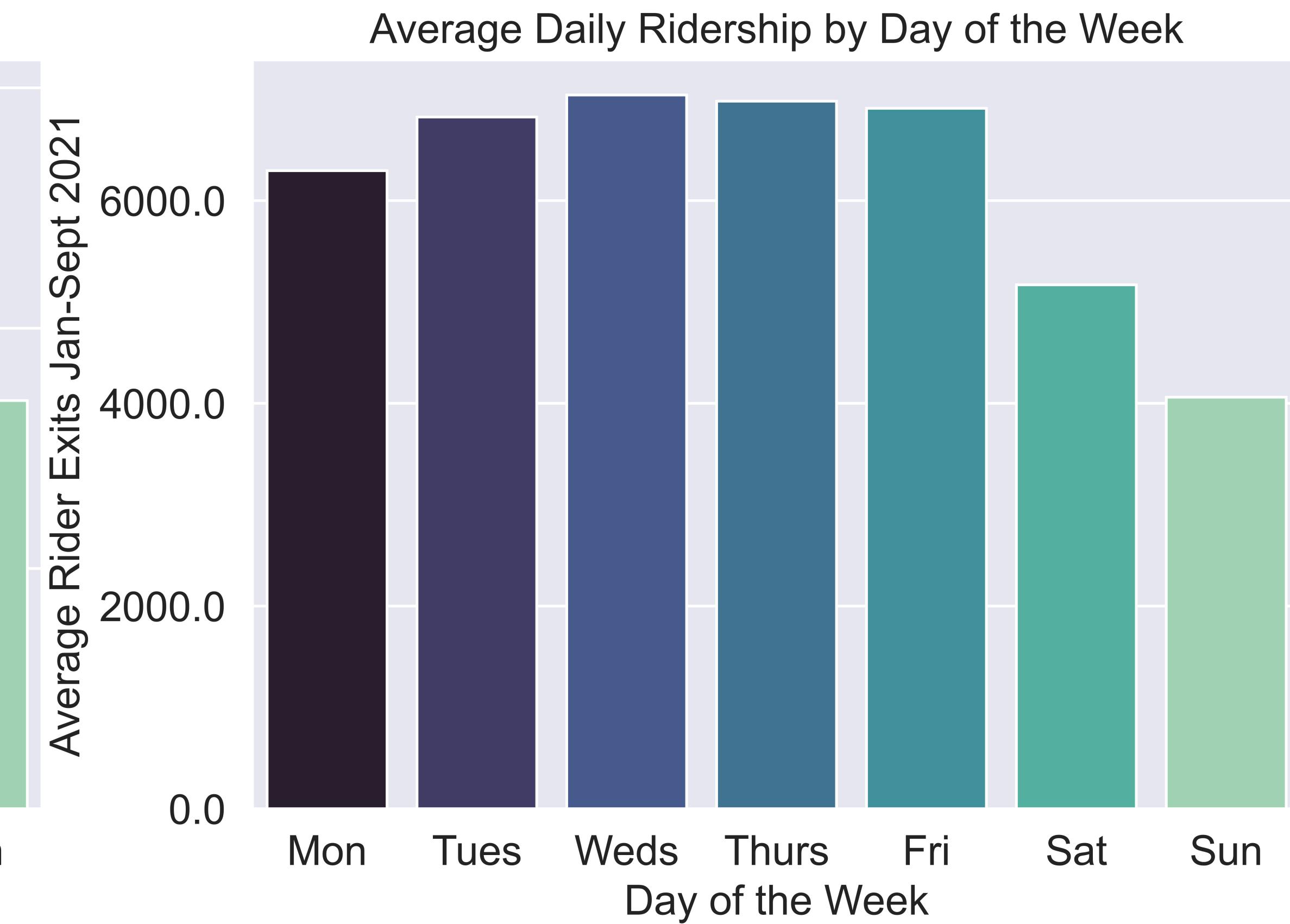
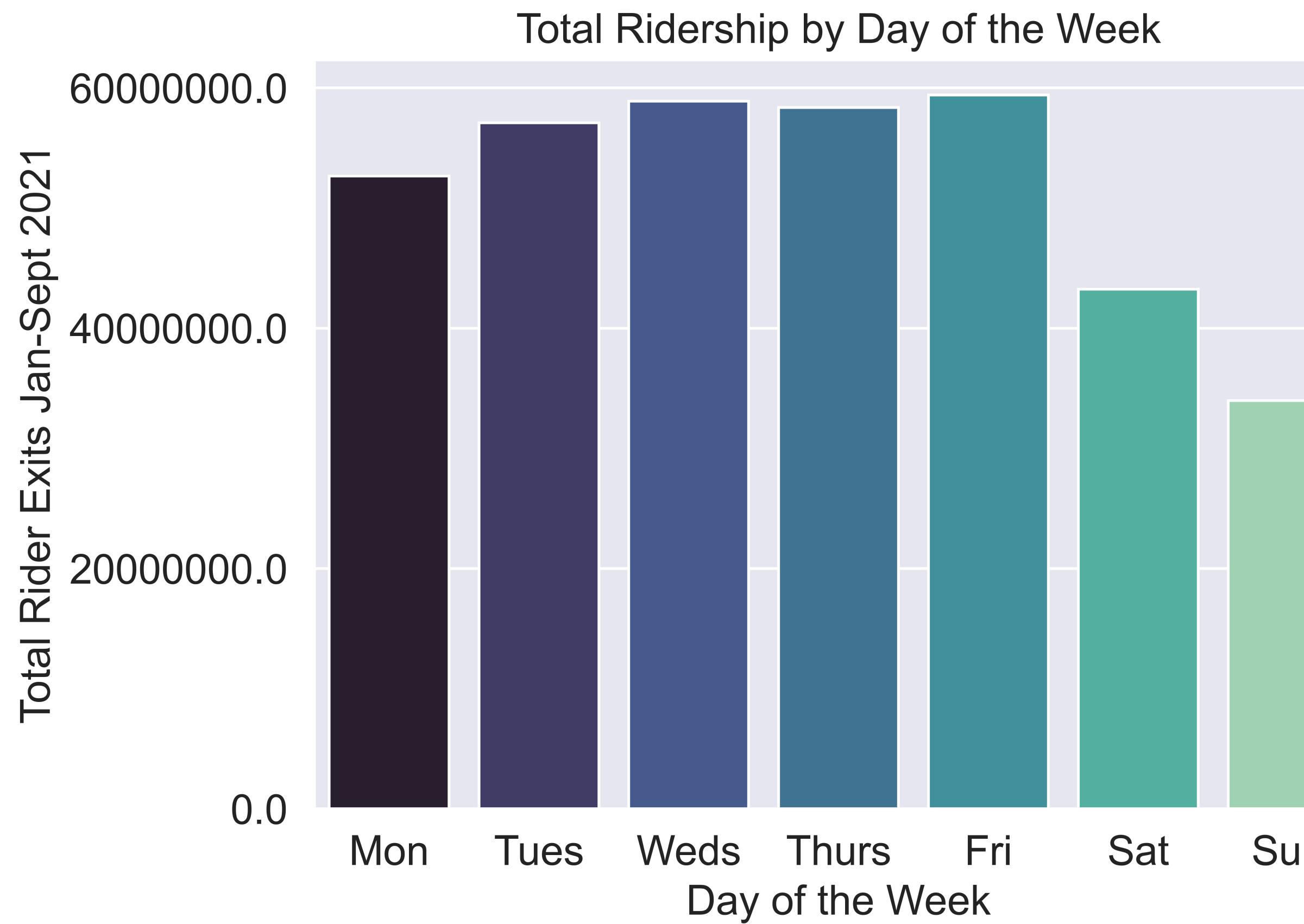
# Results: System-Wide Trends



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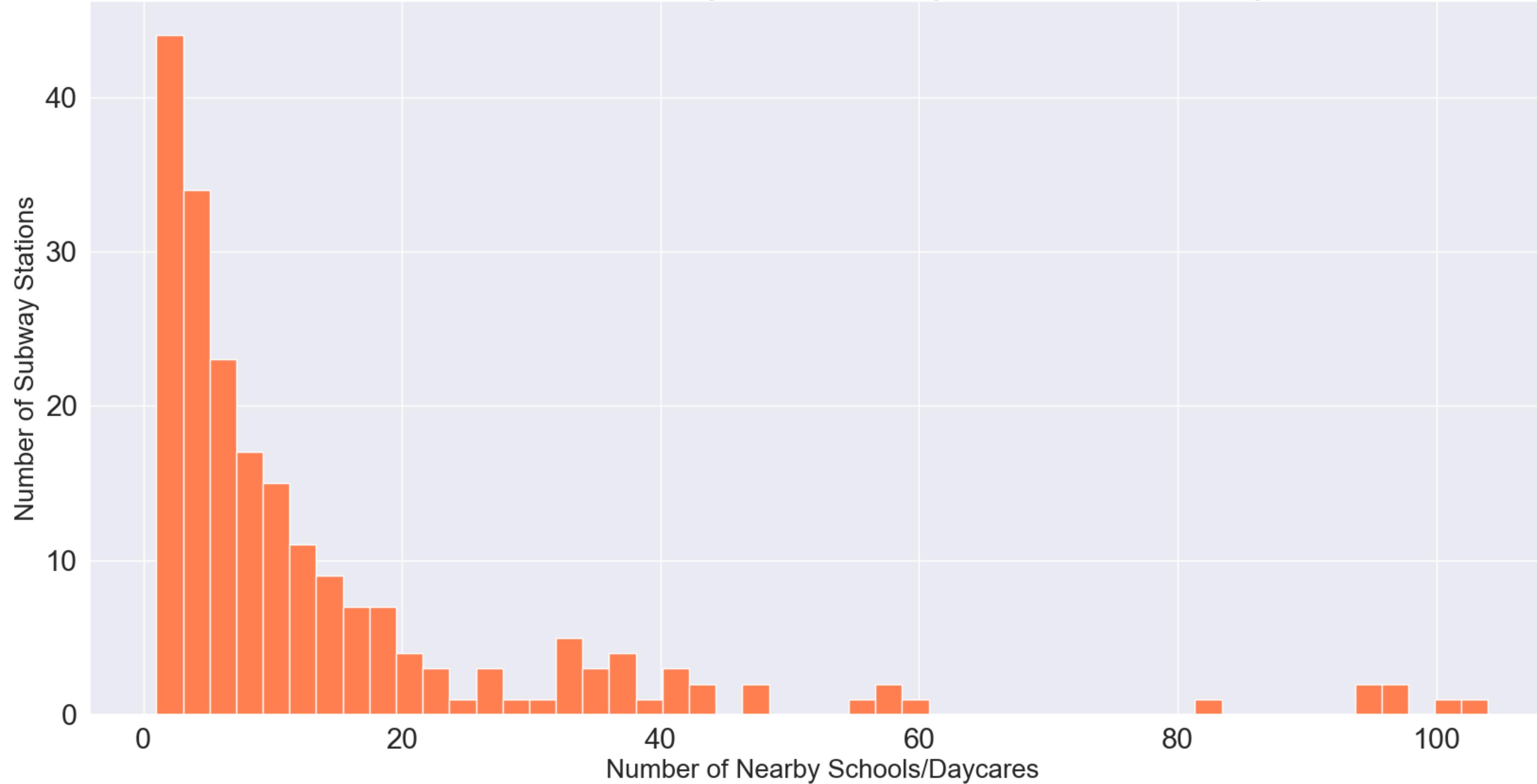


# Results: System-Wide Trends



# Results: Proximity to Schools & Daycares

Distribution of Number of Nearby Schools & Daycares to NYC Subway Stations



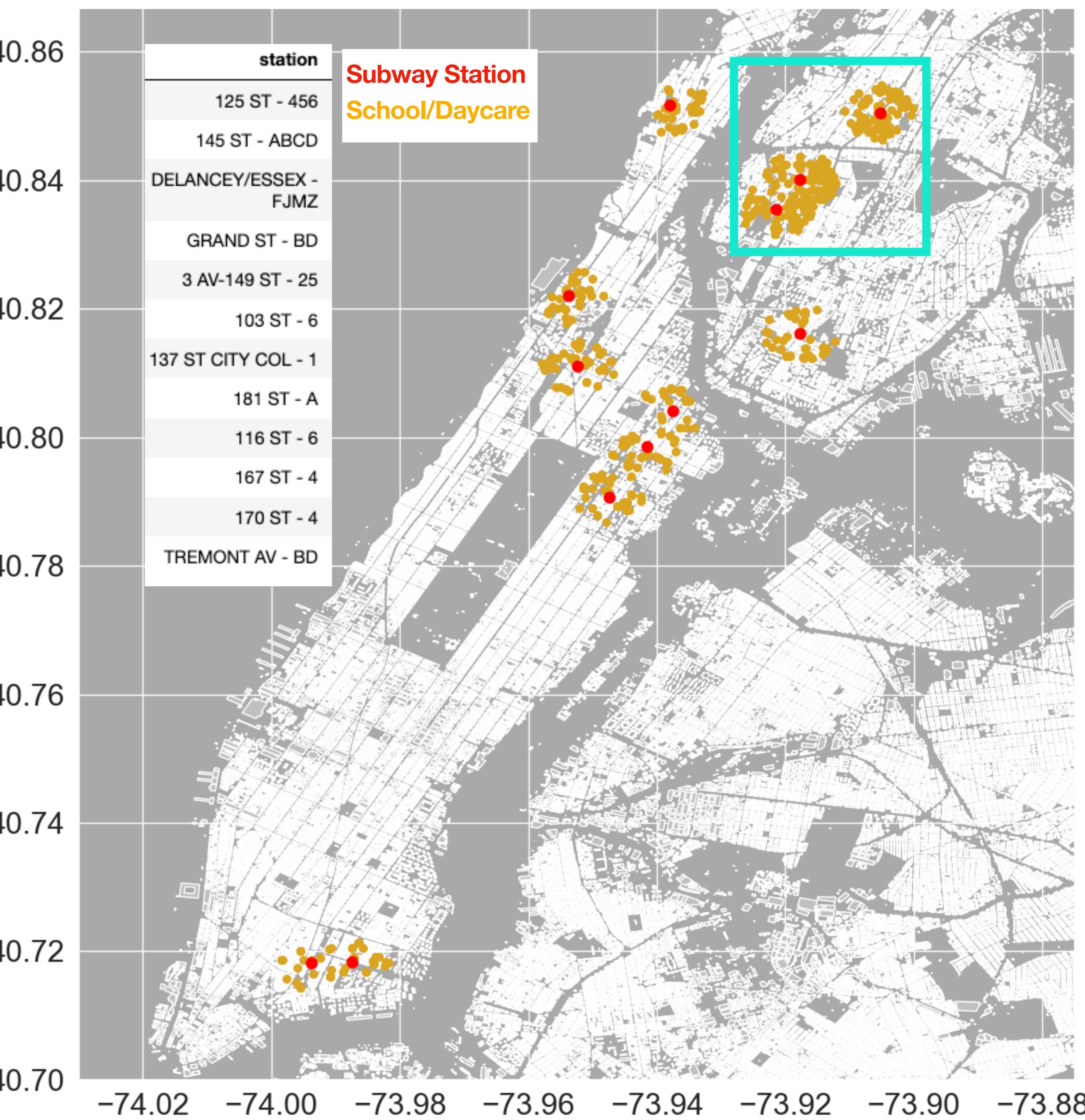
Nearby = 0.3  
miles or less as  
the bird flies

# Results: Ideal Station Locations

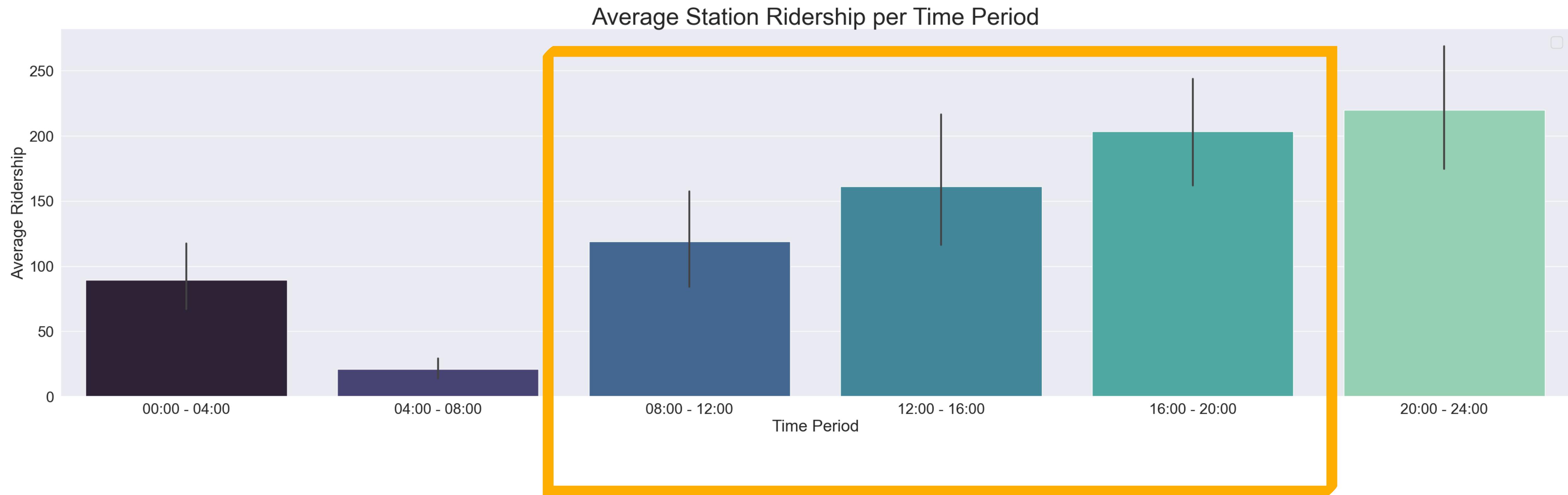
Ridership > 5,000 and  
Facilities > 20

OR

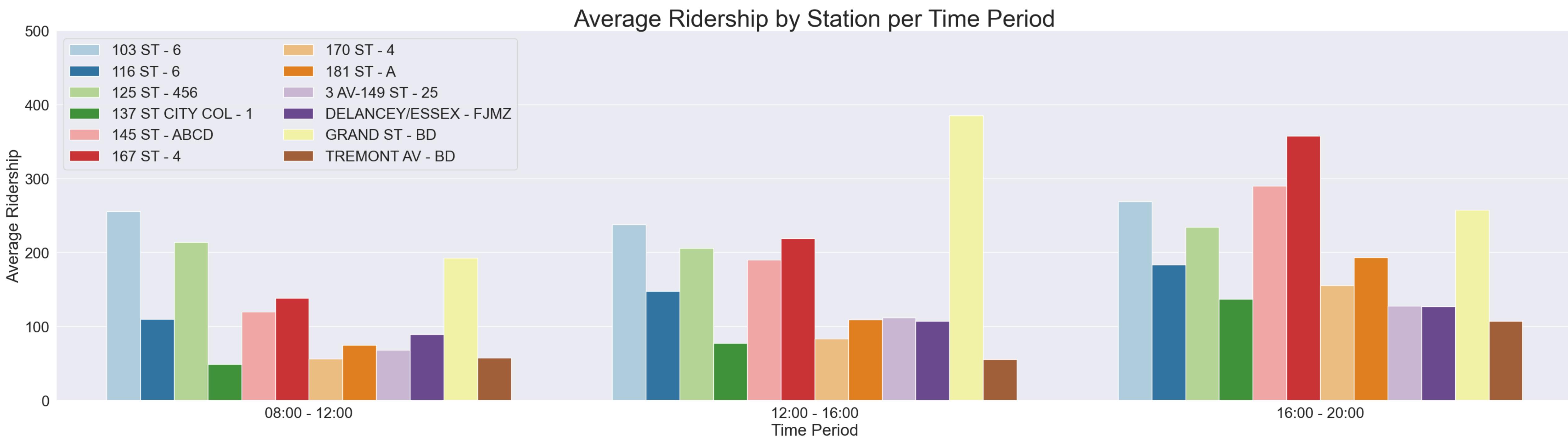
Ridership > 3,500 and  
Facilities > 80



# Results: Time of Day



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# Recommendations: Starting Point

Time Block	Priority Stations
8am-9am <b>School Drop-off</b>	167 St., 170 St. Tremont, 145 St.
9am - 12pm	103 St., 125 St. Grand St.
12pm - 3pm	Grand St., 167 St. 103 St.
3pm-5pm <b>School Pickup</b>	167 St., 170 St. Tremont, 145 St.
5pm-8pm	167 St., 145 St. Grand St., 103 St.

- Place teams outside at street entrances/exits
- Can cover schedule with an 8+ person team

# Future Work

- Optimize street team schedule based on WTWY team bandwidth
- Compare team success by station and re-evaluate
- Incorporate demographic data



# Questions?

