

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
- NYC School Location Data from data.cityofnewyork.us
- NYC Daycare Facility Data from data.ny.gov

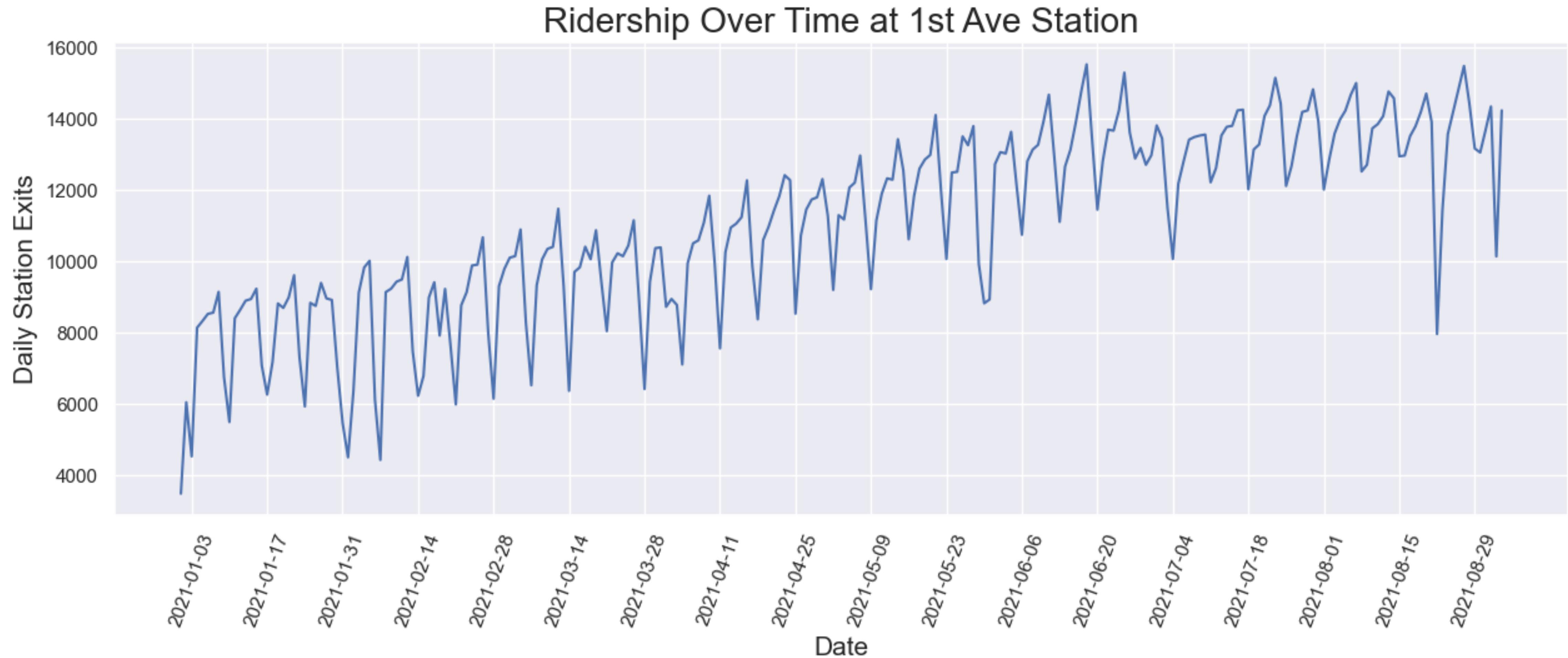
- **Tools**

- SQLAlchemy
- Pandas & Geopandas
- Numpy & Geopy
- Matplotlib & Seaborn

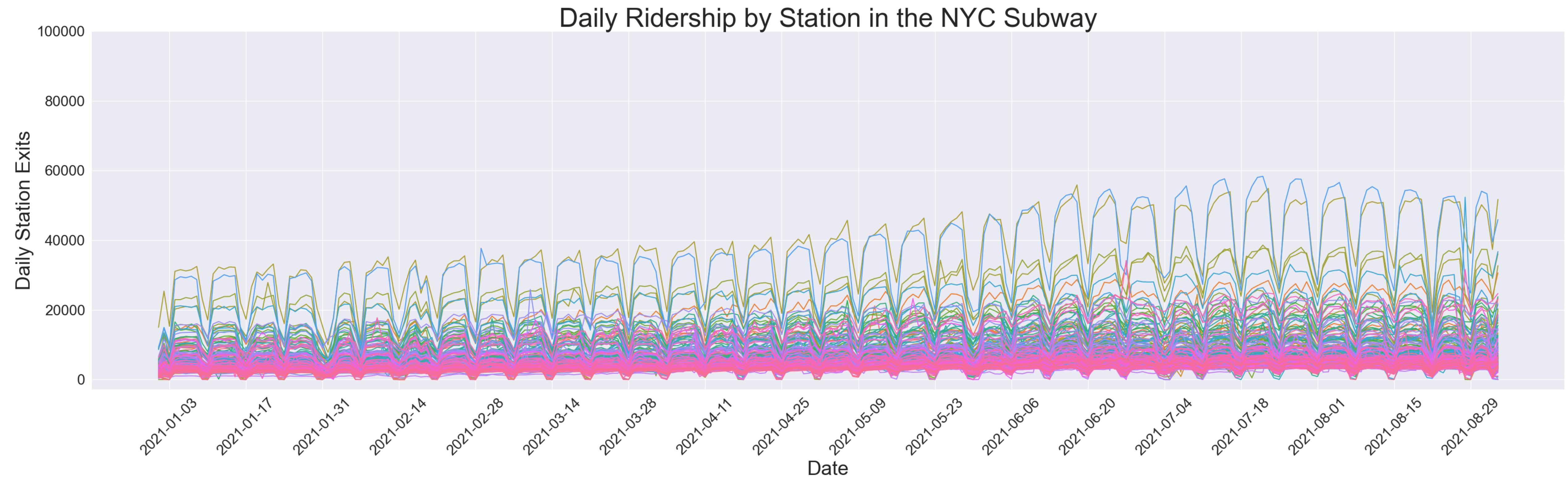


Ridership: total riders exiting from the subway
in a given time period, at a given station

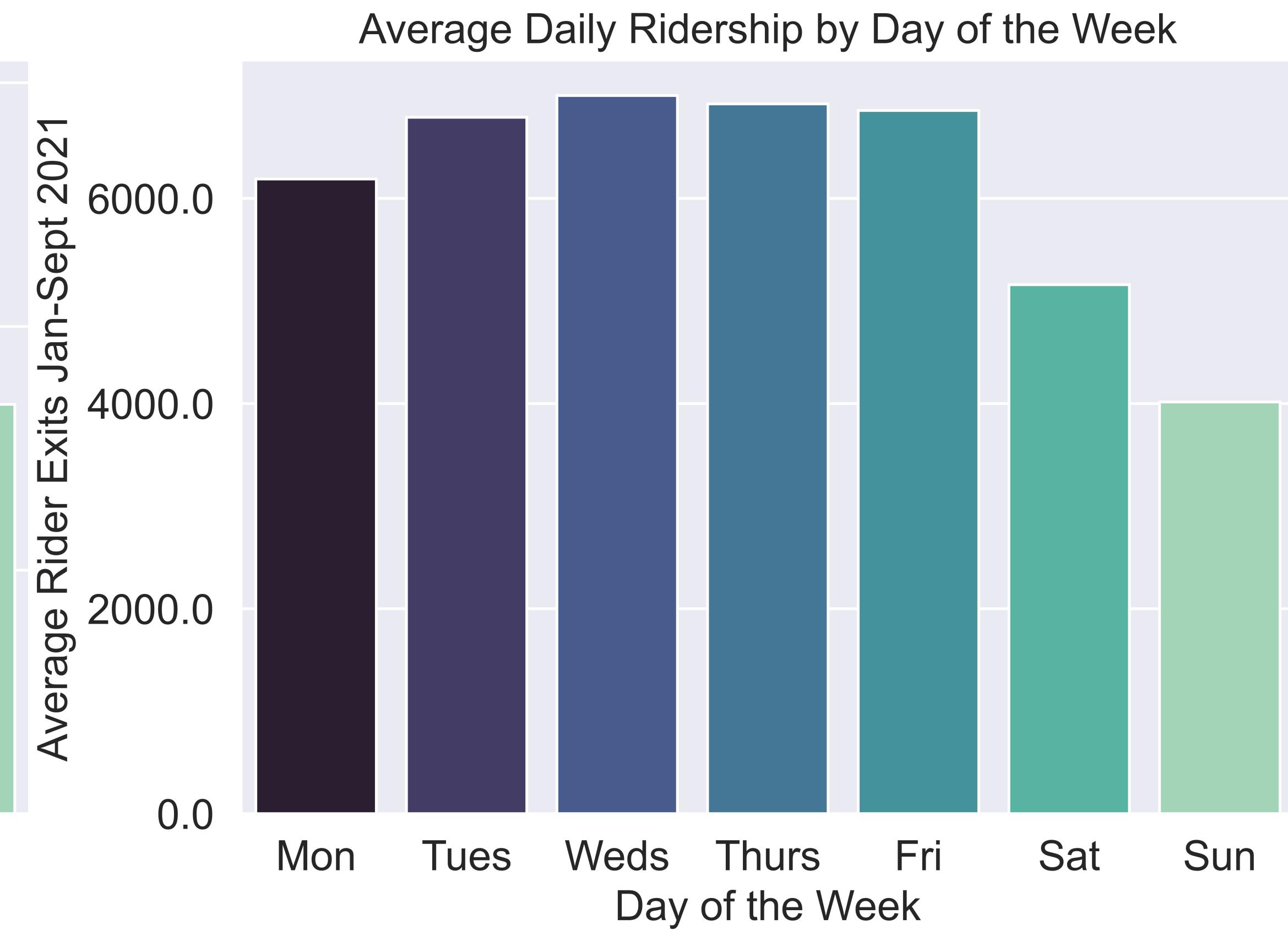
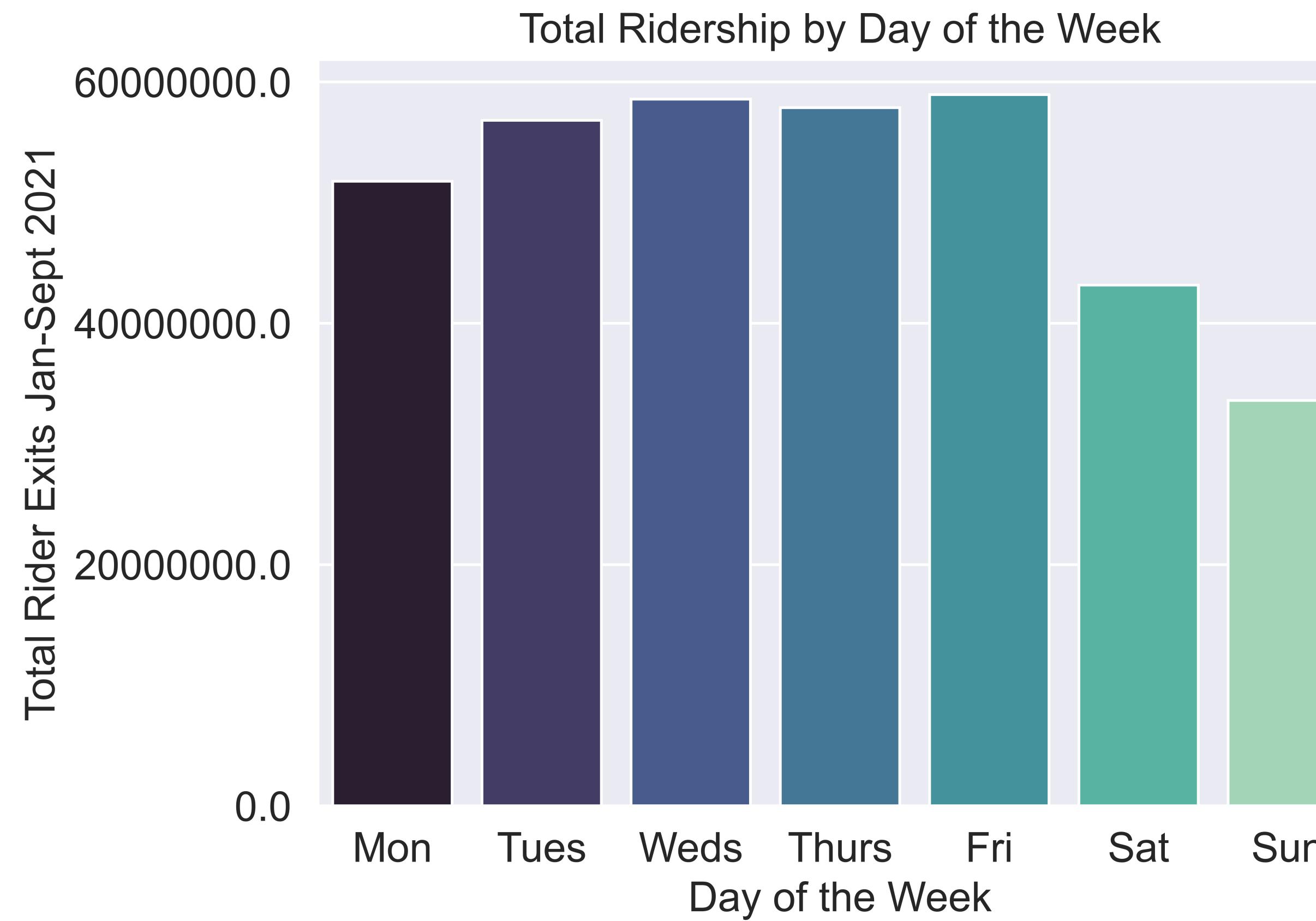
Results: System-Wide Trends



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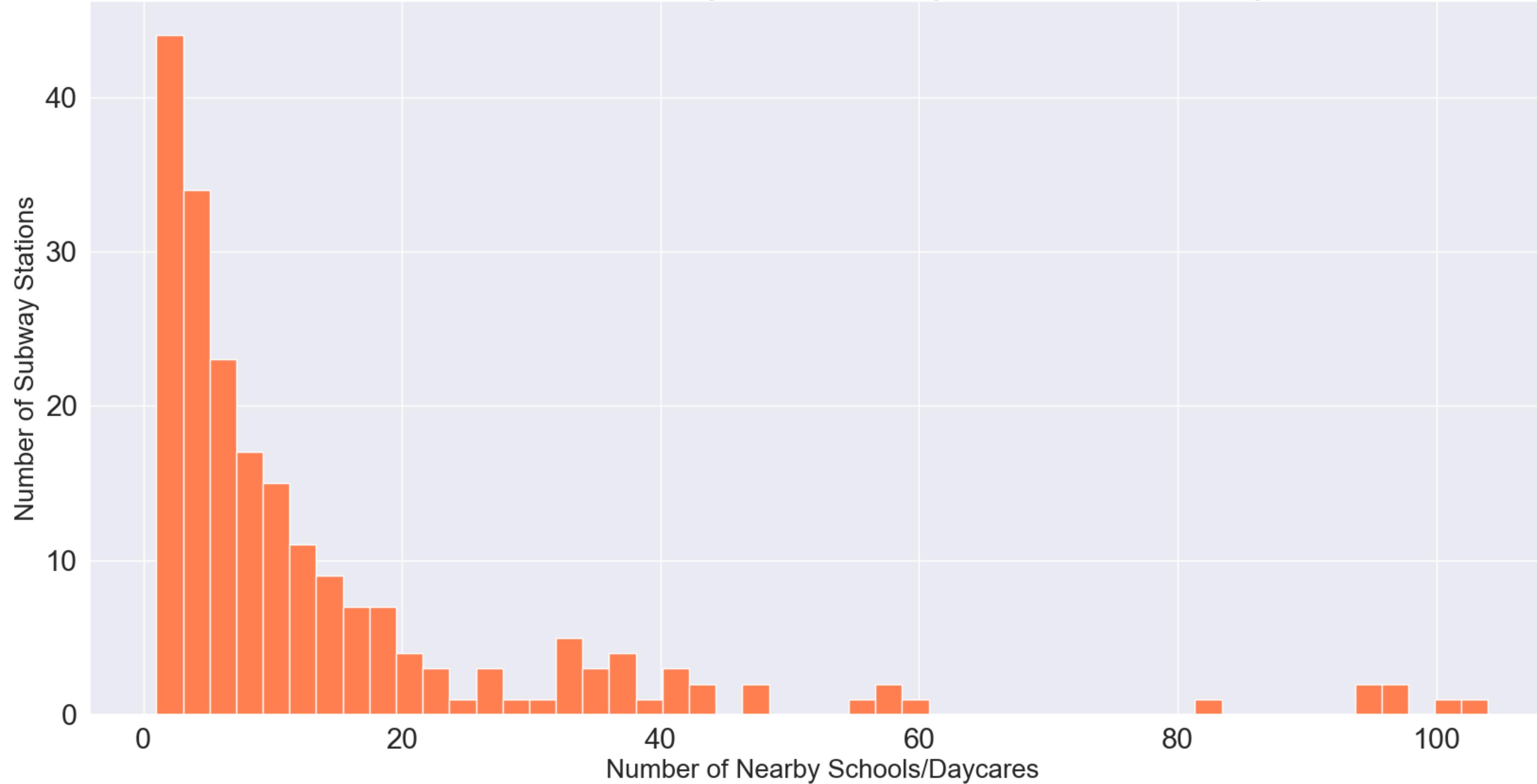


Results: System-Wide Trends



Results: Proximity to Schools & Daycares

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



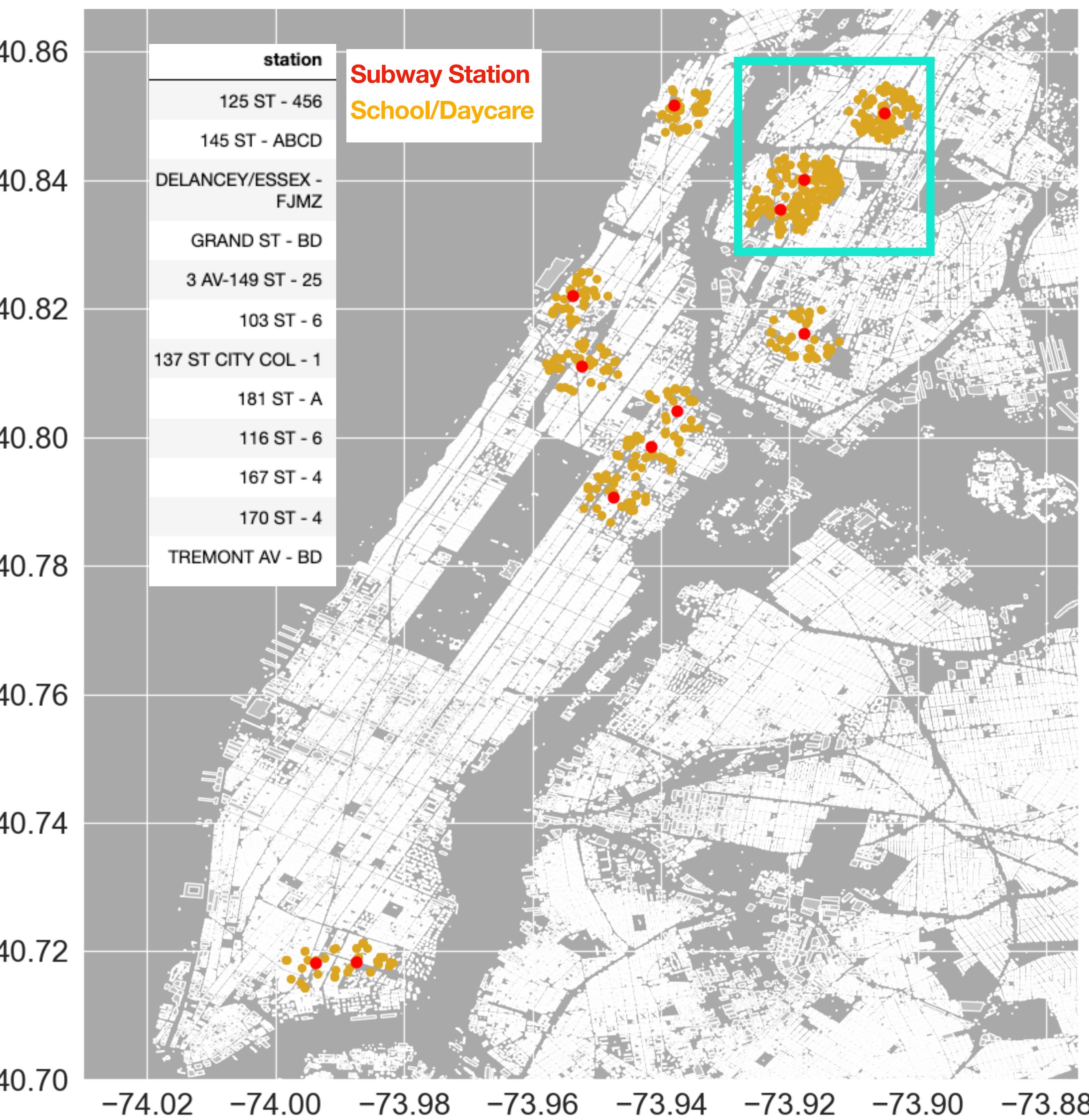
Nearby = 0.3
miles or less as
the bird flies

Results: Ideal Station Locations

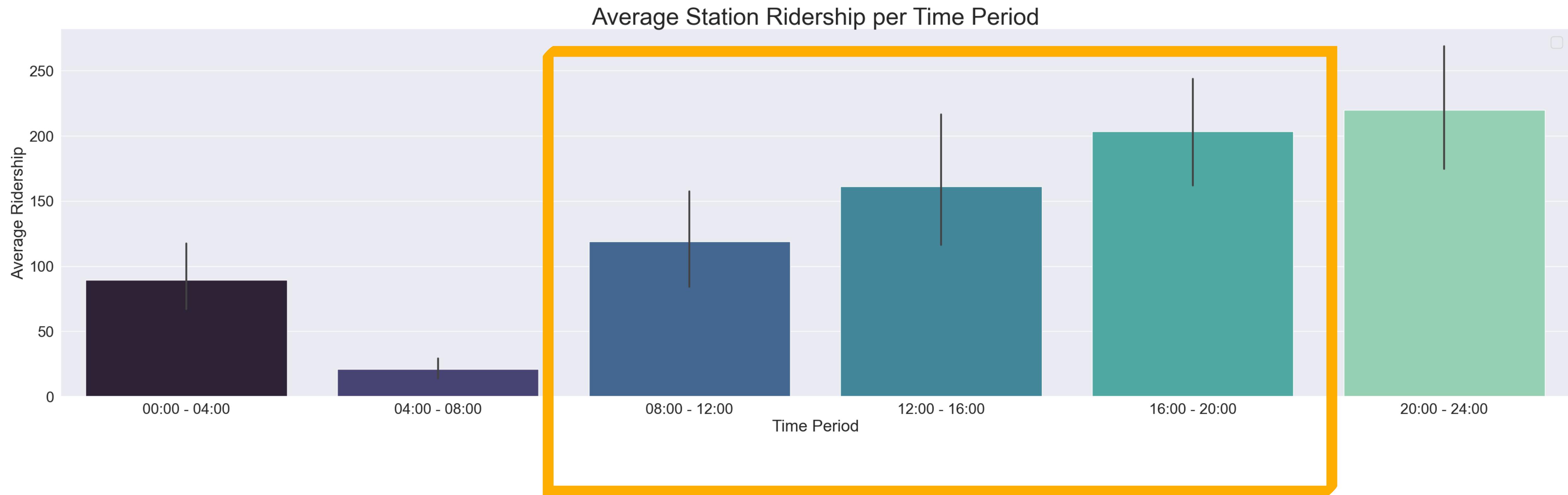
Ridership > 5,000 and
Facilities > 20

OR

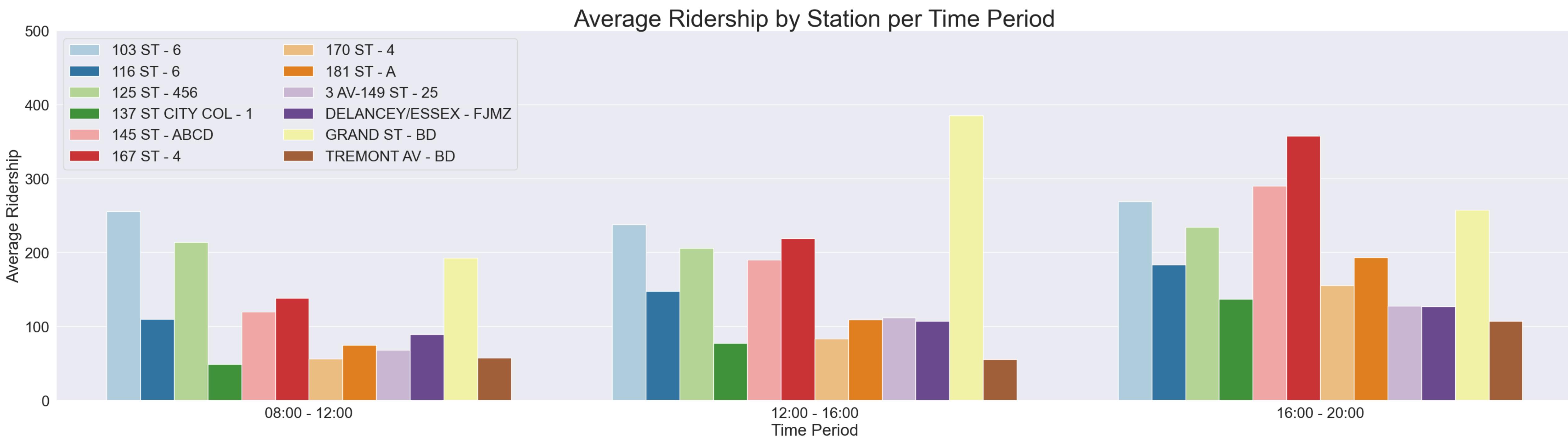
Ridership > 3,500 and
Facilities > 80



Results: Time of Day



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Recommendations: Starting Point

Time Block	Priority Stations
8am-9am School Drop-off	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 School Pickup	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?

86 Street
Subway Station Q

Elevator at
SE corner
86 St & 2 Av