



NYC Subway Traffic Assessment



Prepared for Transportation Alternatives
February 2022



INTRODUCTION

MOTIVATION

The mission of Transportation Alternatives is to *reclaim New York City's streets from the automobile and advocate for better walking, biking, and public transit for all New Yorkers.*

Transportation Alternatives is collecting signatures in support of their NYC 25x25 plan, which will be delivered to NYC's city council at the end of 2022. They want to identify priority locations, dates, and times for collecting signatures, and subway stations are one of their identified targets.

OBJECTIVES & GOALS

- Identify which NYC subway station has the most traffic
- Identify busiest times of day
- Identify busiest days of the week



**TRANSPORTATION
ALTERNATIVES**

METHODOLOGY

DATA

NYC Metropolitan Transportation Authority
Turnstile Data:

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

Analysis uses all data reported for 2021

The primary metric used for this analysis is **traffic**, which is a sum of turnstile entries and exits

WORKFLOW & TOOLS

Ingest raw data into SQL database



Query data from database into Python using
SQLAlchemy

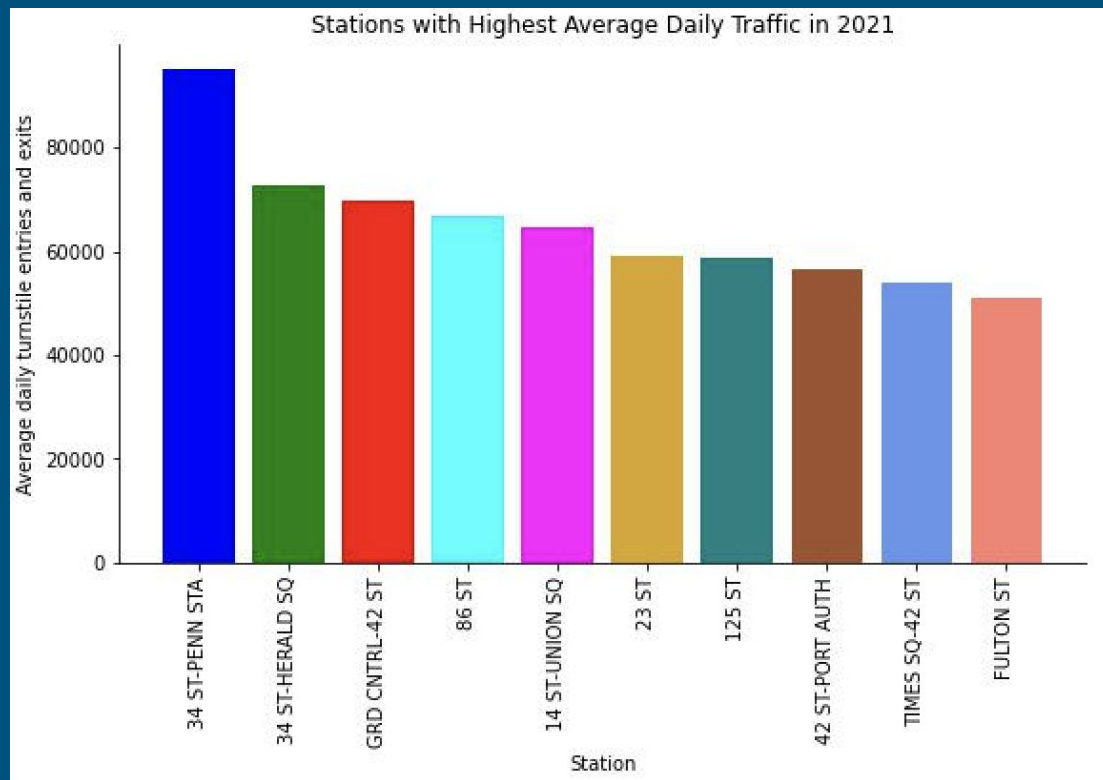


Clean data using Pandas

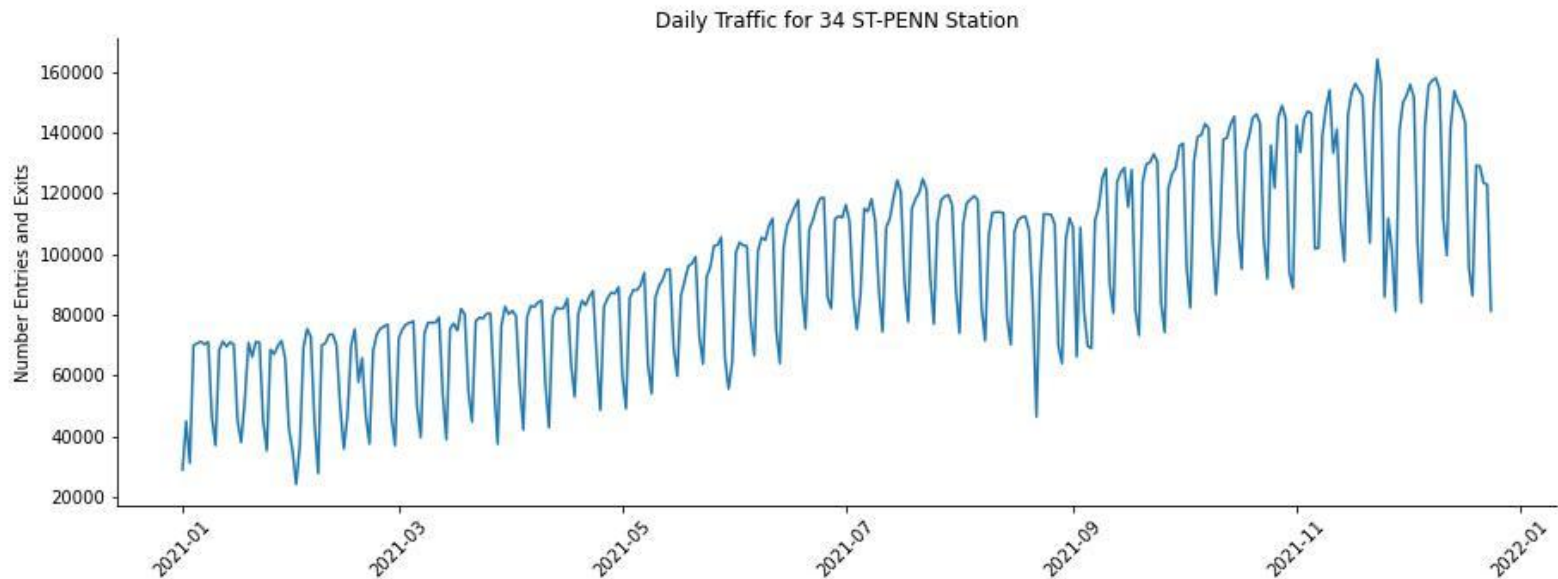


Visualize results using Matplotlib & Seaborn

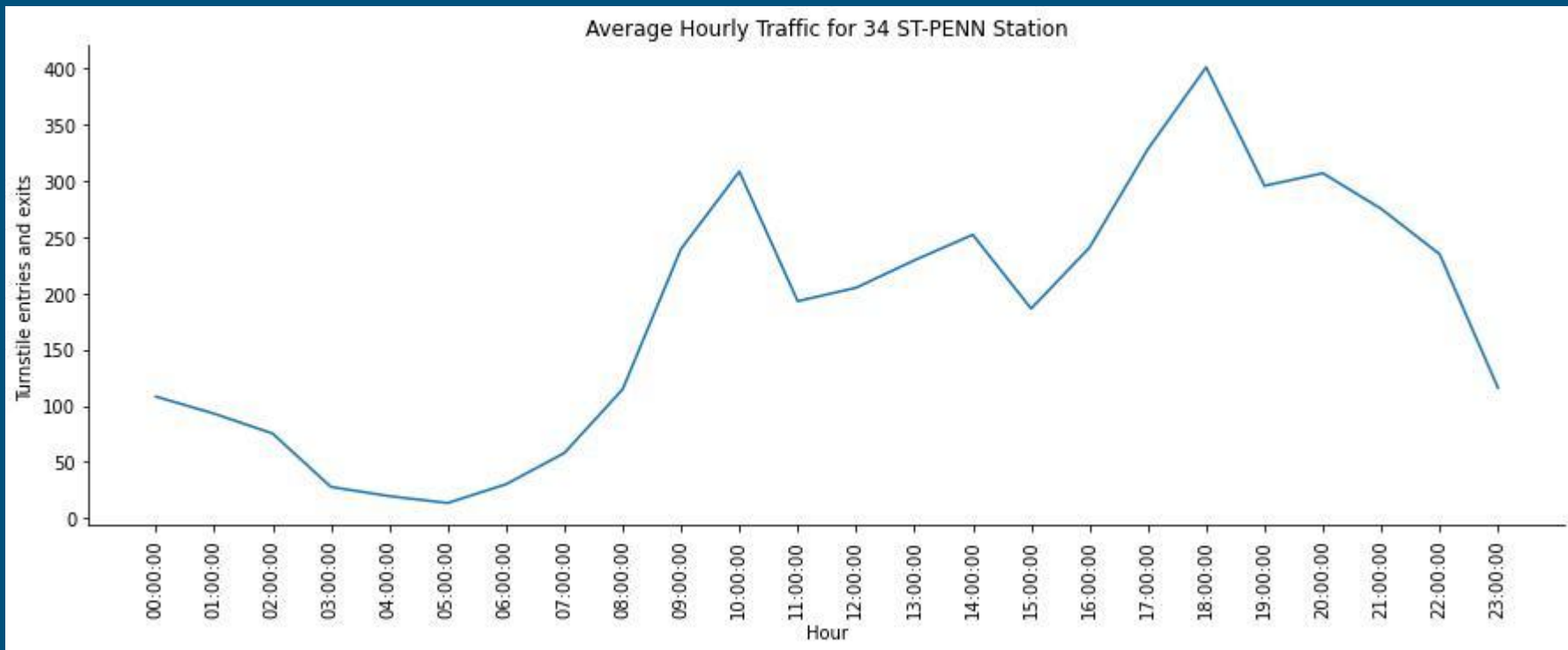
RESULTS



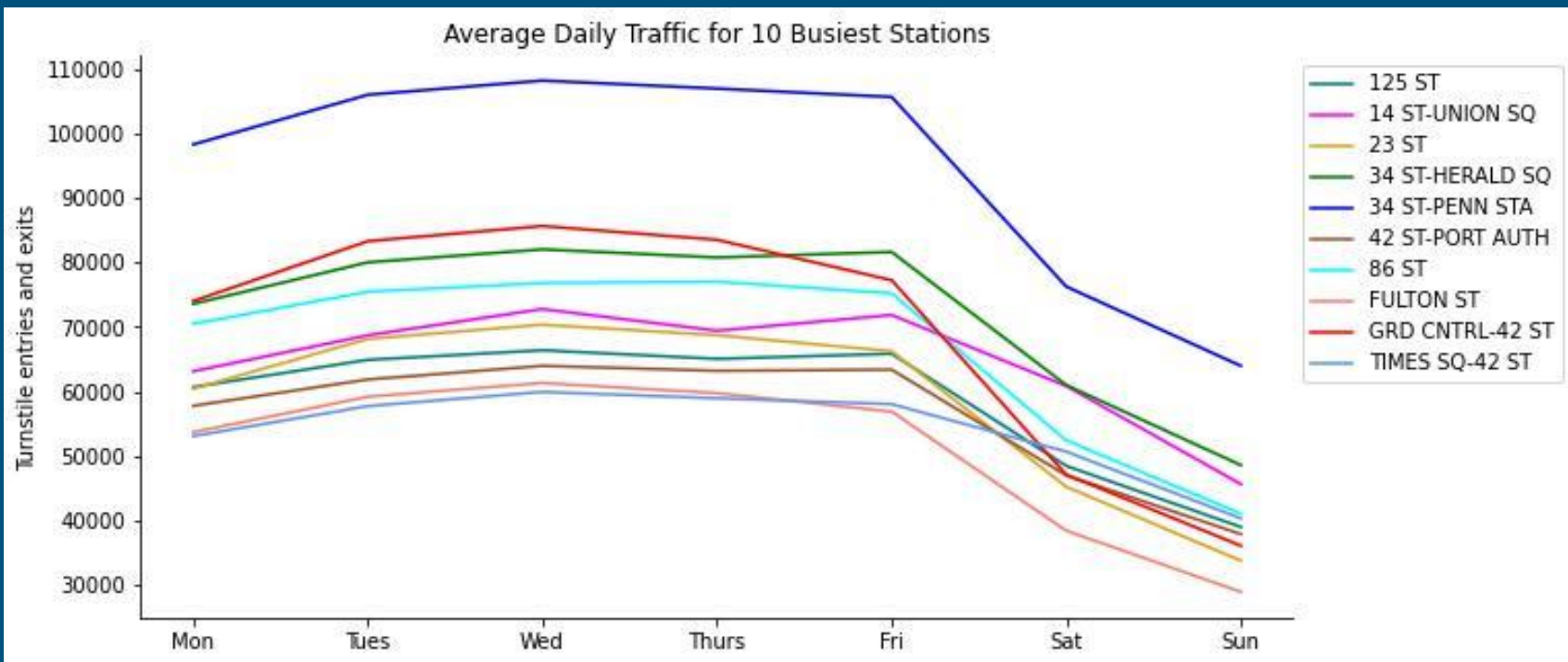
RESULTS



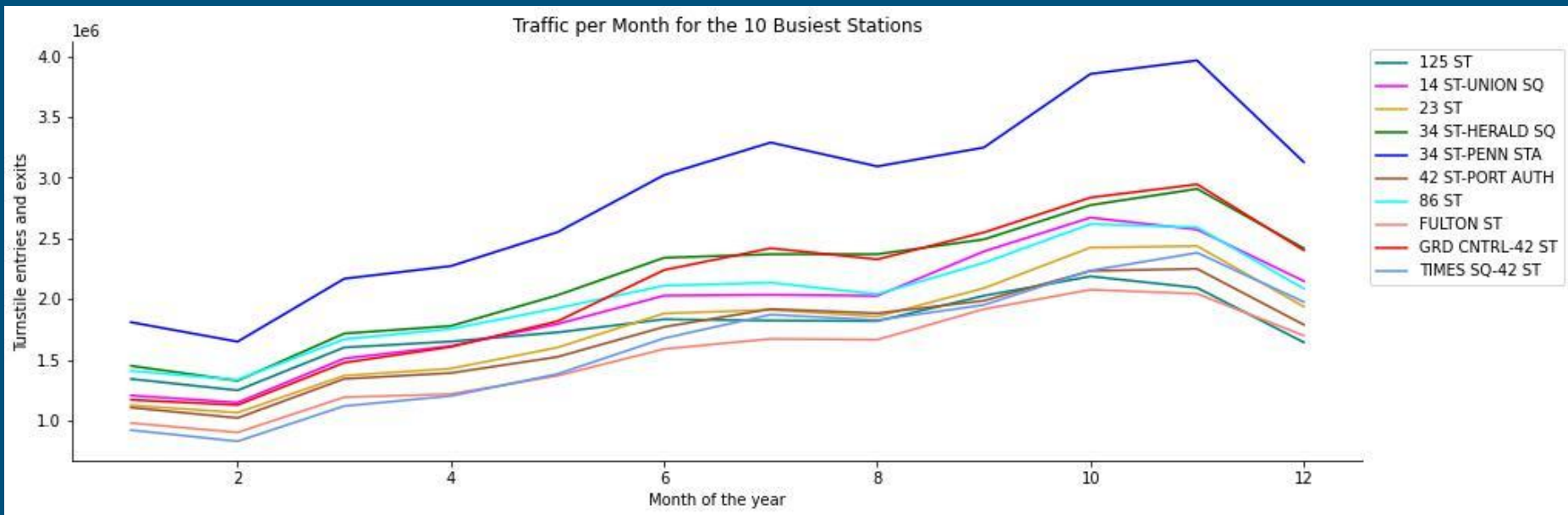
RESULTS



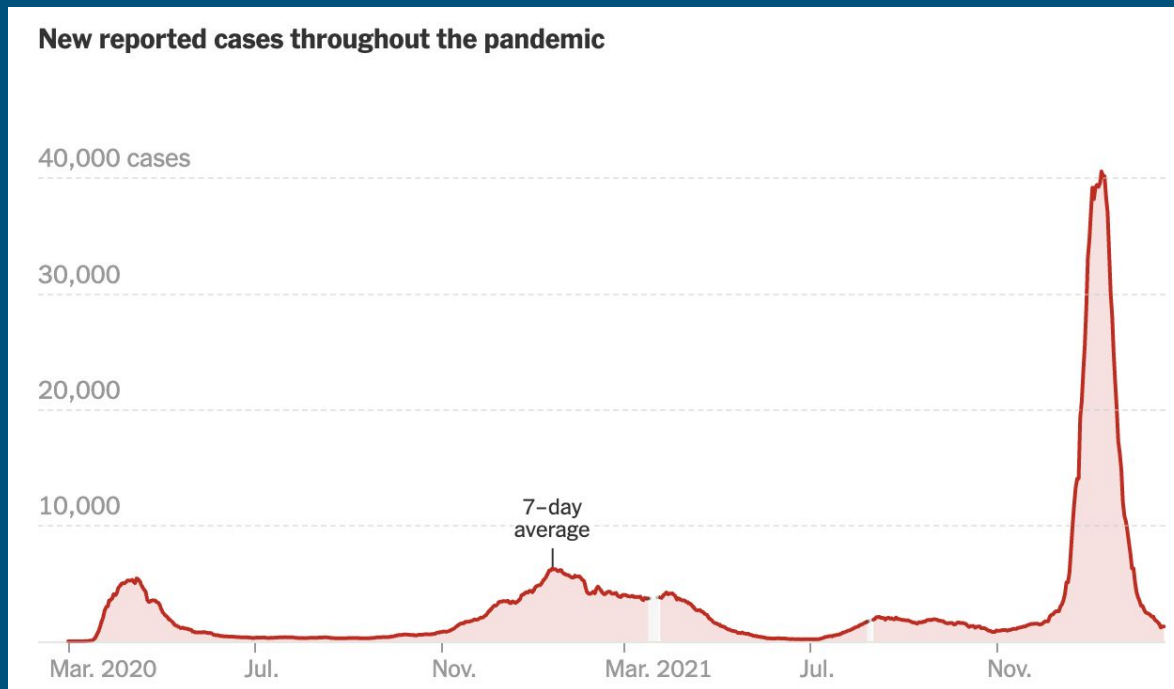
RESULTS



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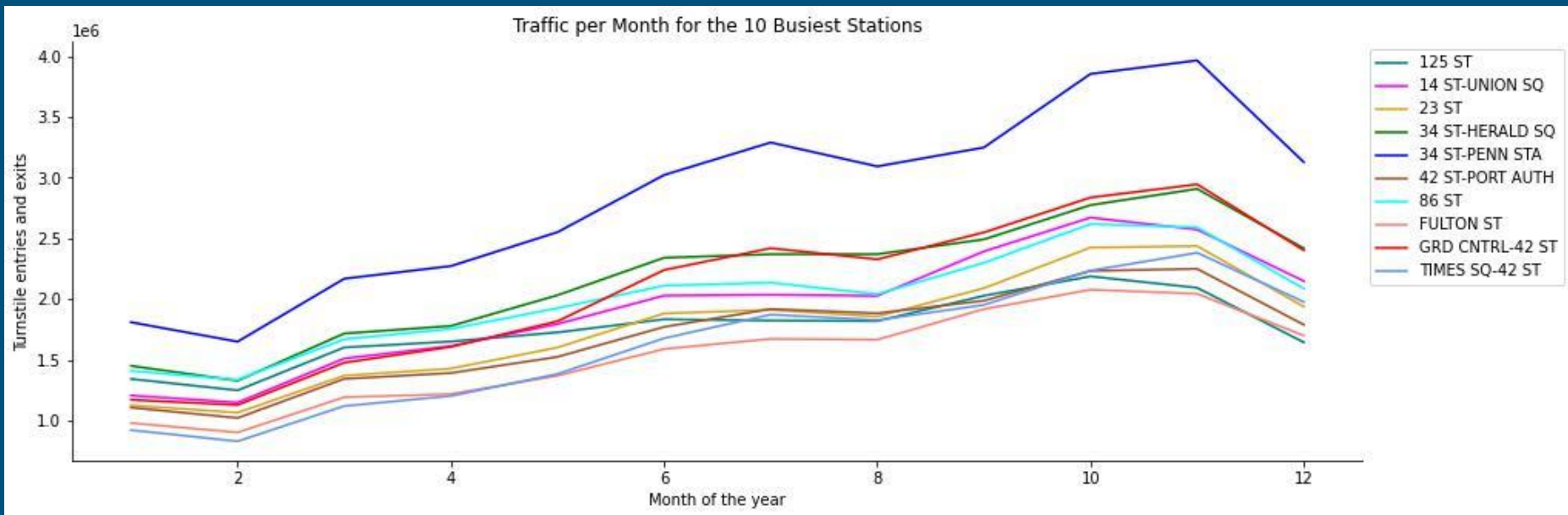
RESULTS



Source: New York Times

<https://www.nytimes.com/interactive/2021/us/new-york-city-new-york-covid-cases.html>

RESULTS



CONCLUSIONS

Insights & Recommendations

- Target 34th Street–Penn Station
- Weekdays between 4 and 8 pm are busiest
- Traffic appears to respond to COVID case counts so go when case counts are low
- Likely that people have more flexibility in their schedule in the afternoon on their commute home, making it a better time to solicit signatures

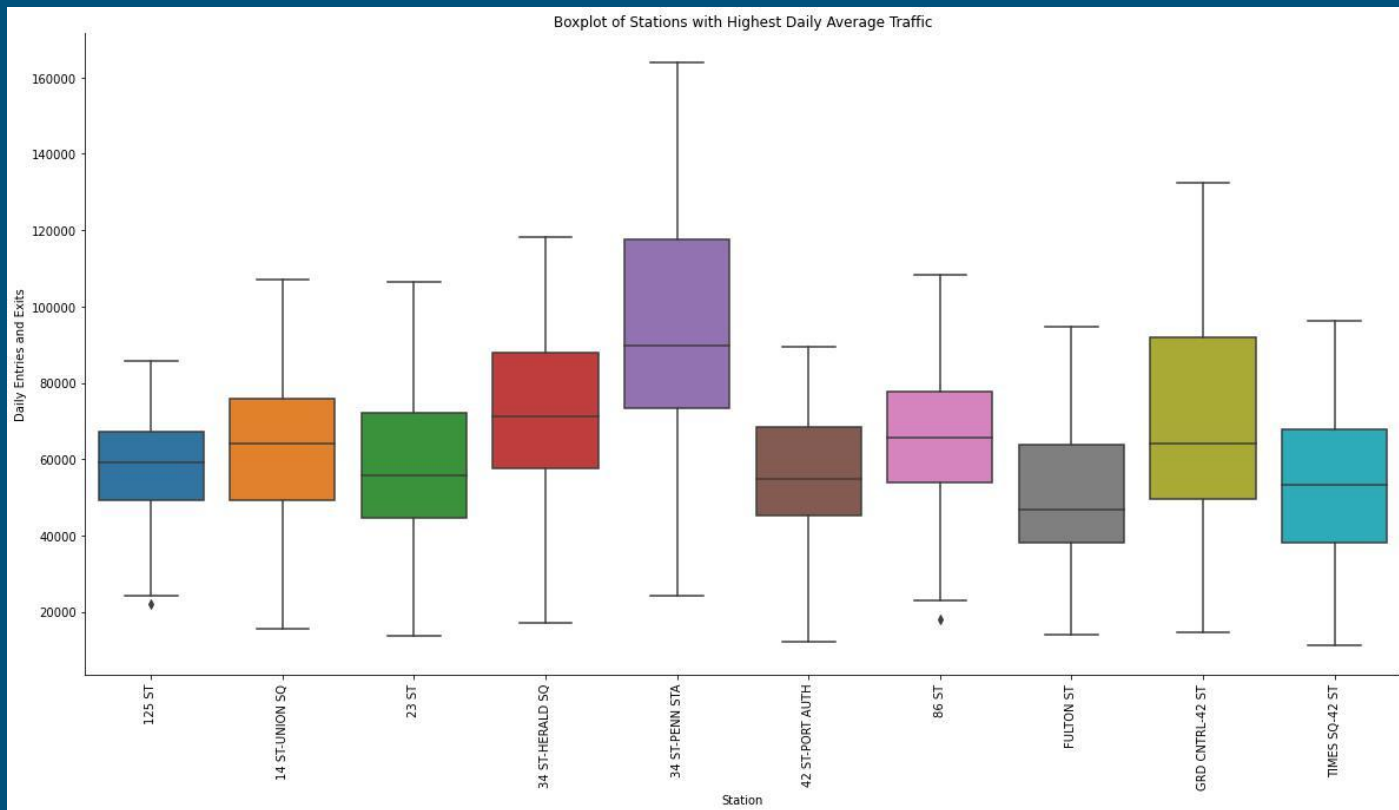


APPENDIX

Code and additional info about the project can be found on my GitHub page:

<https://github.com/ngoodby/EDA-Project>

APPENDIX



APPENDIX

