

EXPLORATORY DATA ANALYSIS

MTA

TURNSTILE

ANALYSIS

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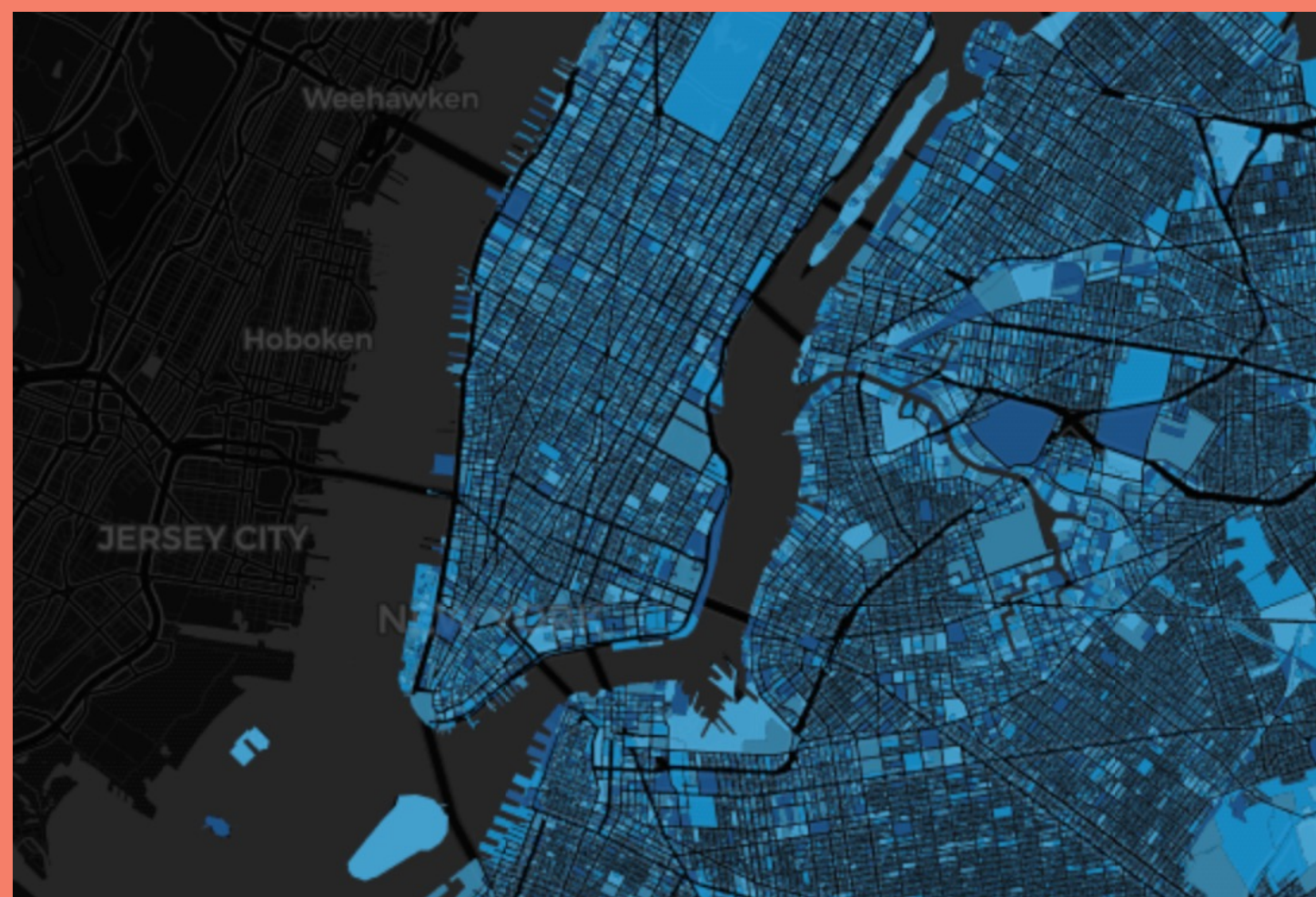
Metis

January 2022

Introduction

Plant-based vending machine start-up company in NYC, plans to place vending machines throughout NYC with fresh meals and snacks in the metro system.

They would like to know where to place 35 vending machines.



FIND BEST PLACEMENT FOR VENDING MACHINES, AFTER
LOOKING INTO METRO TRAFFIC

Methodology

Analyse stations with high traffic:









- Entries and Exits
- Trends

Data Used:

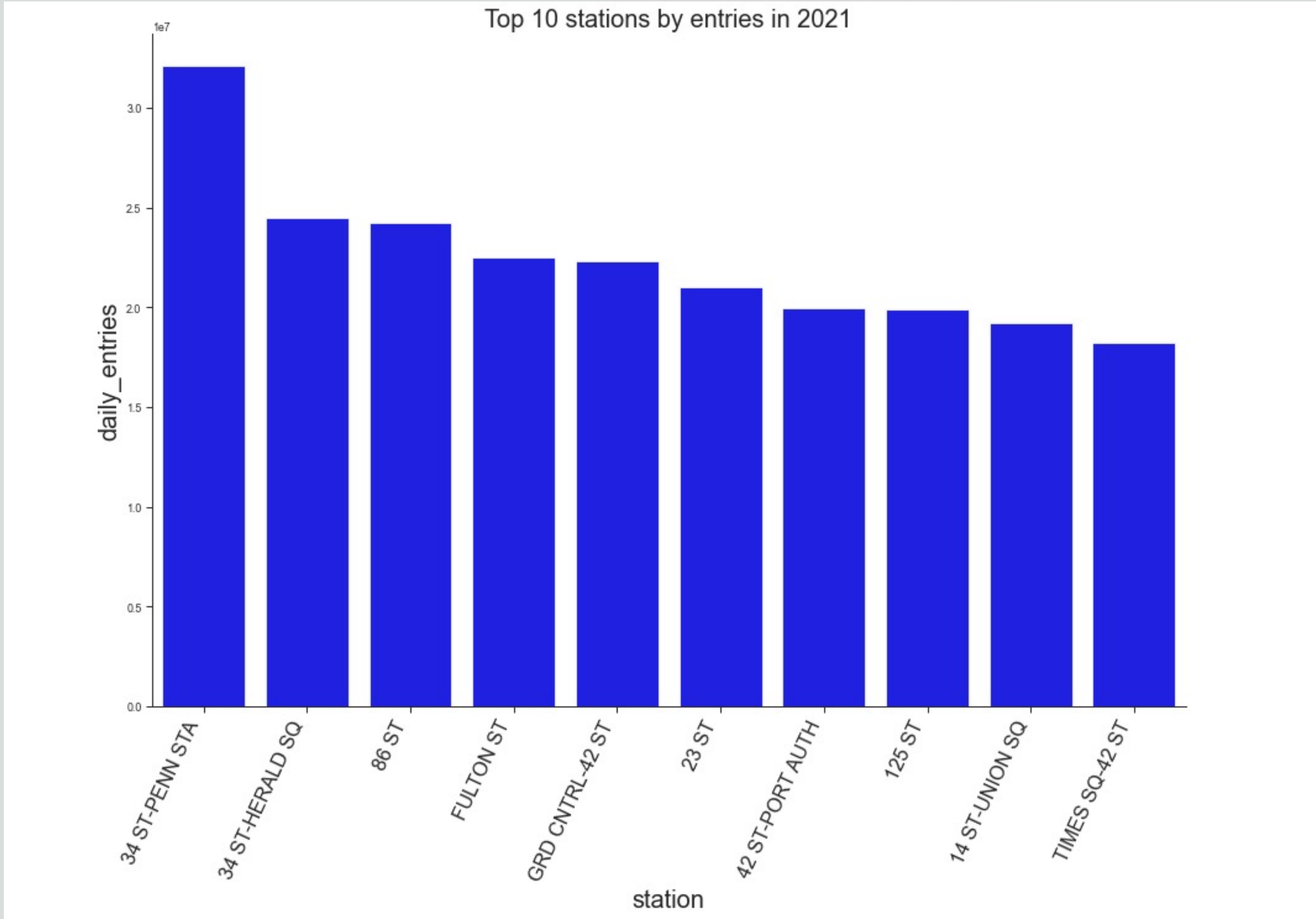
[MTA Turnstile Data](#)

[NYC Subway Stations geo location](#)

TOOLS:

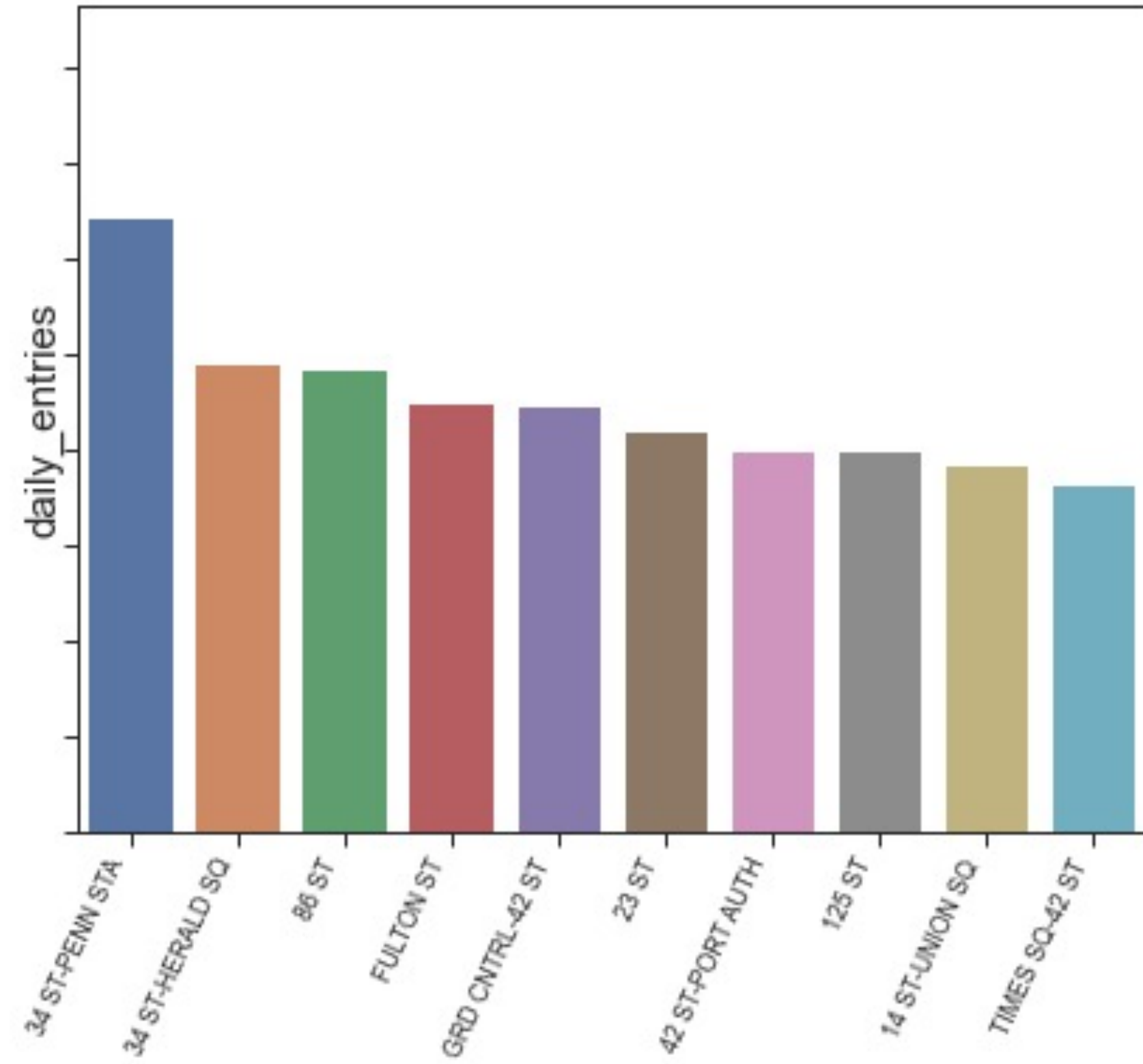
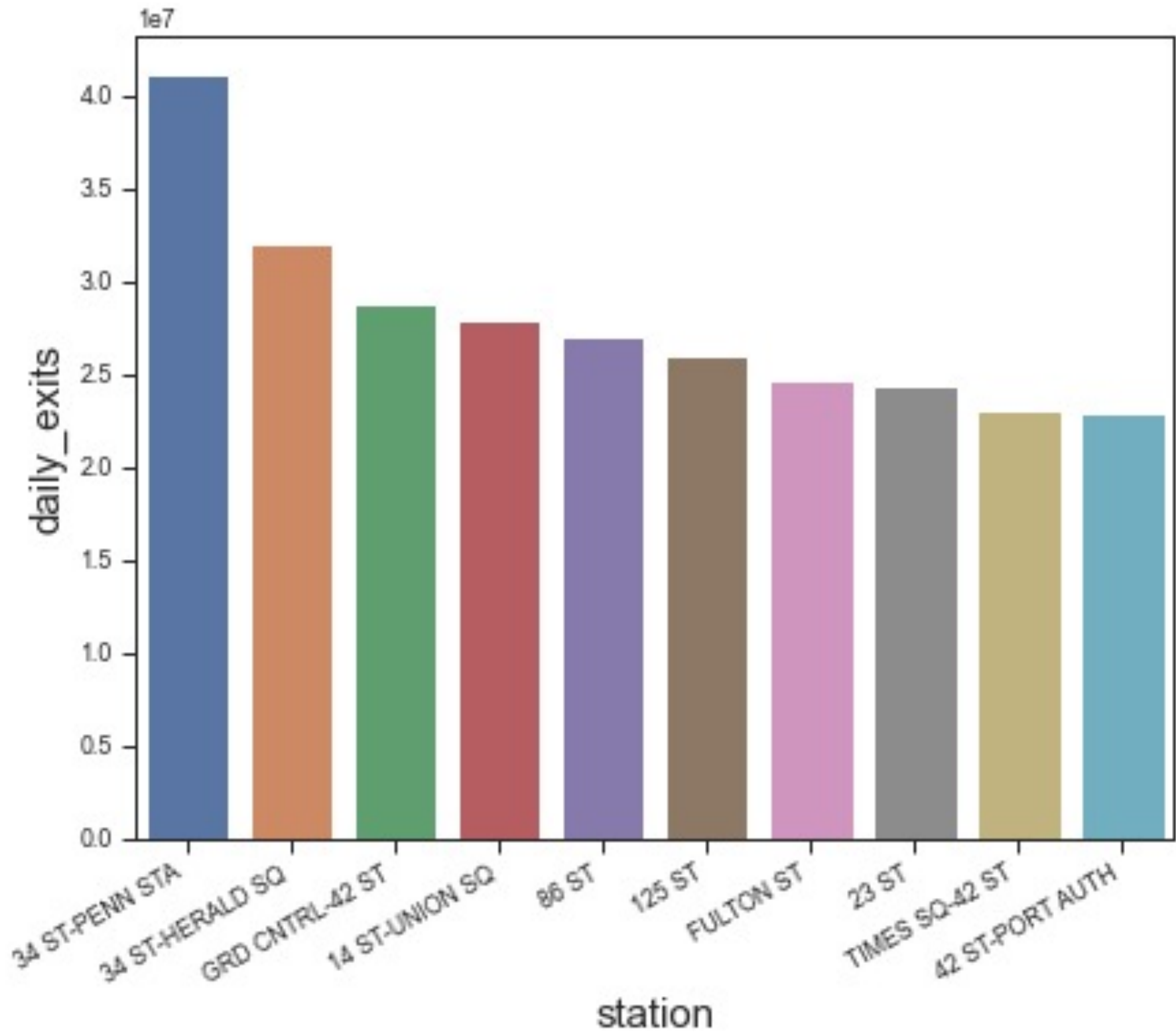
 JUPYTERNOTEBOOK,
 SQL ,
 PANDAS,
 NUMPY,
 SEABORN,
 PLOTLY,
 SQLALCHEMY,
 DATETIME

TOP 10 STATIONS ENTRIES IN 2021



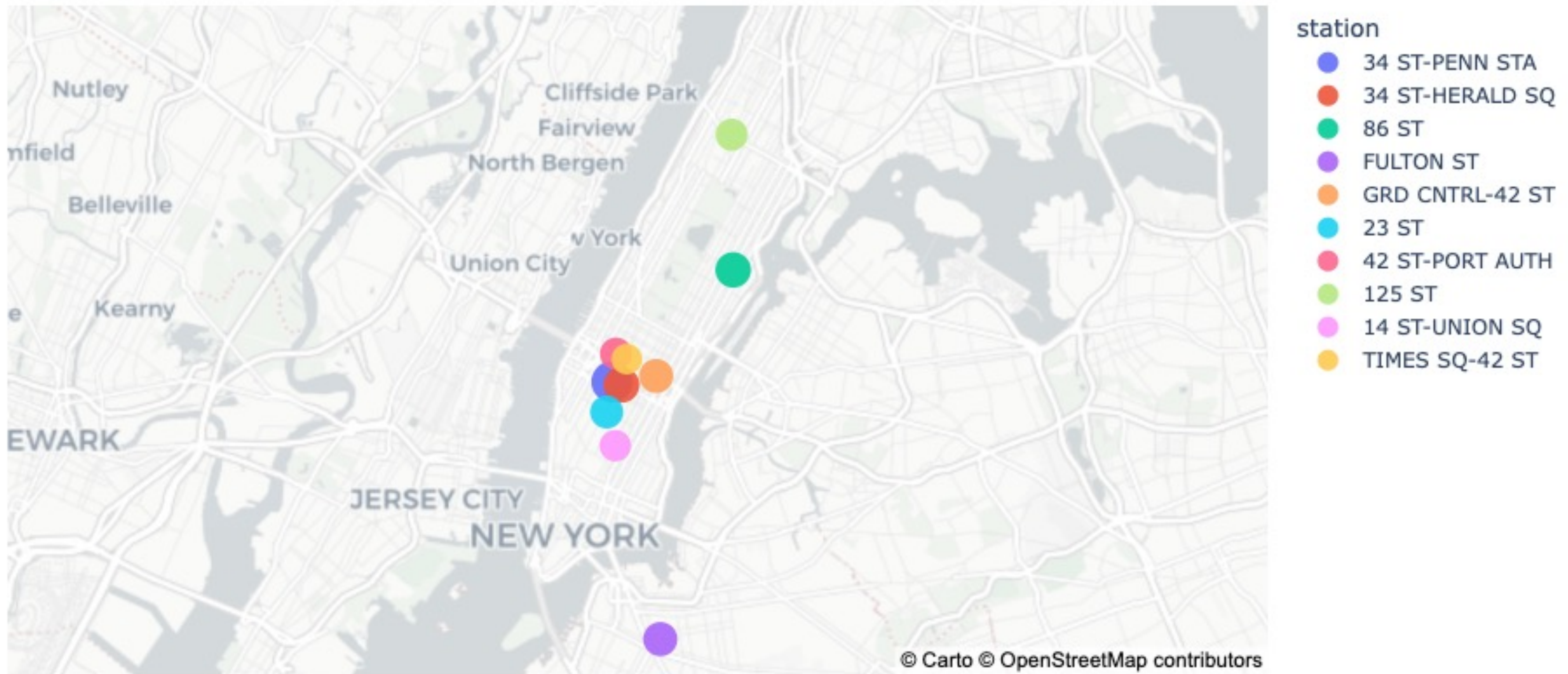
ENTRIES VS EXITS DURING 2021

Stations with most entries vs exits in 2021

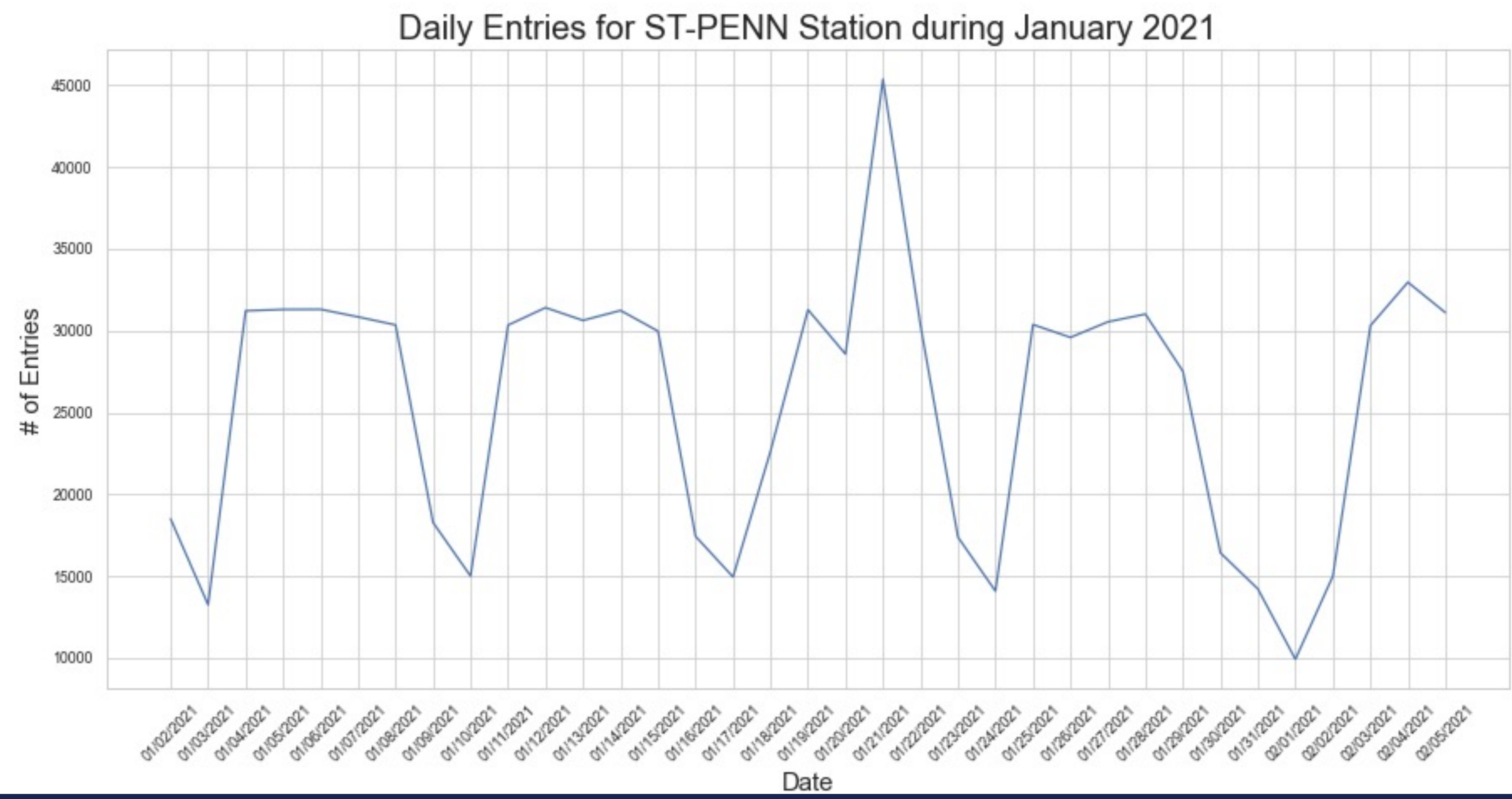


NYC Transit Subway Entrance and Exit Data, geo location

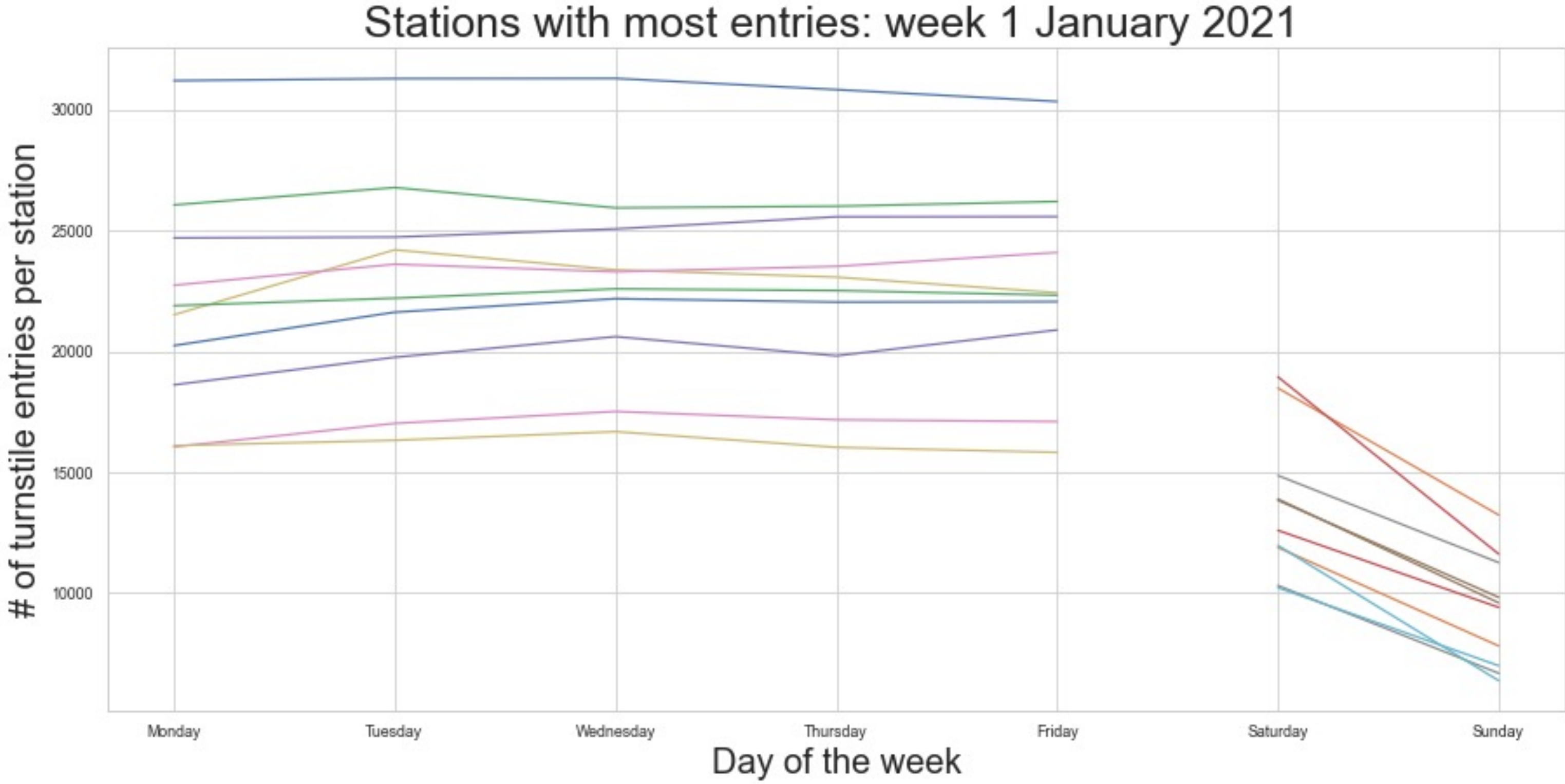
Top 10 NYC metro stations in 2021



DAILY ENTRIES FOR PENN ST DURING JANUARY 2021



DAILY ENTRIES FOR MOST POPULATED STATIONS DURING FIRST WEEK OF JANUARY 2021



CONCLUSIONS

Steady pace of commuters throughout 2021

Numbers for exits and entries for most populated stations is similar

Weekend traffic falls for all top populated stations

FURTHER ANALYSIS

Combining busiest stations with average income will gain more insights than only looking into commuter traffic.