

# EXPLORATORY DATA ANALYSIS

MTA

TURNSTILE

ANALYSIS

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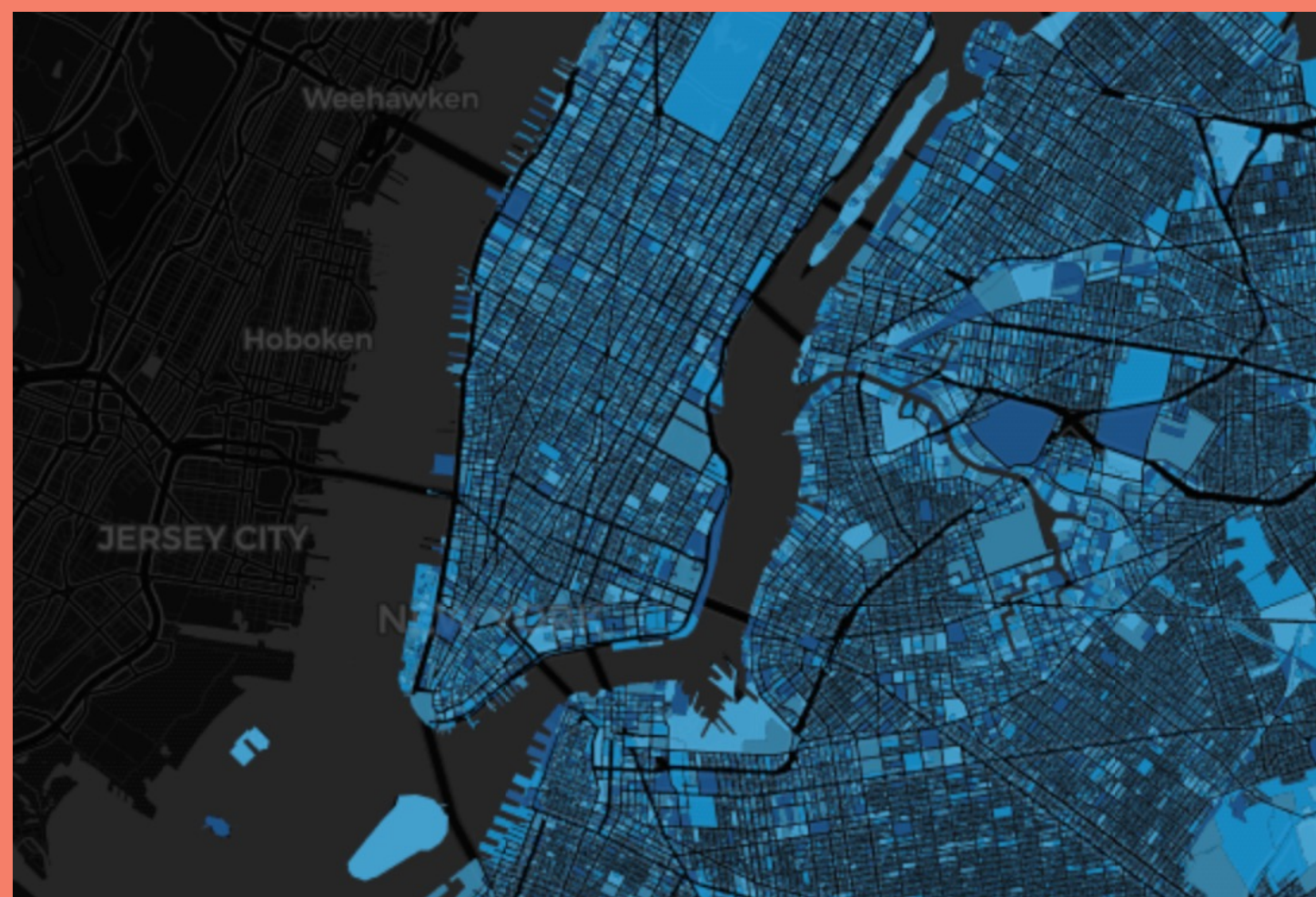
Metis

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:**

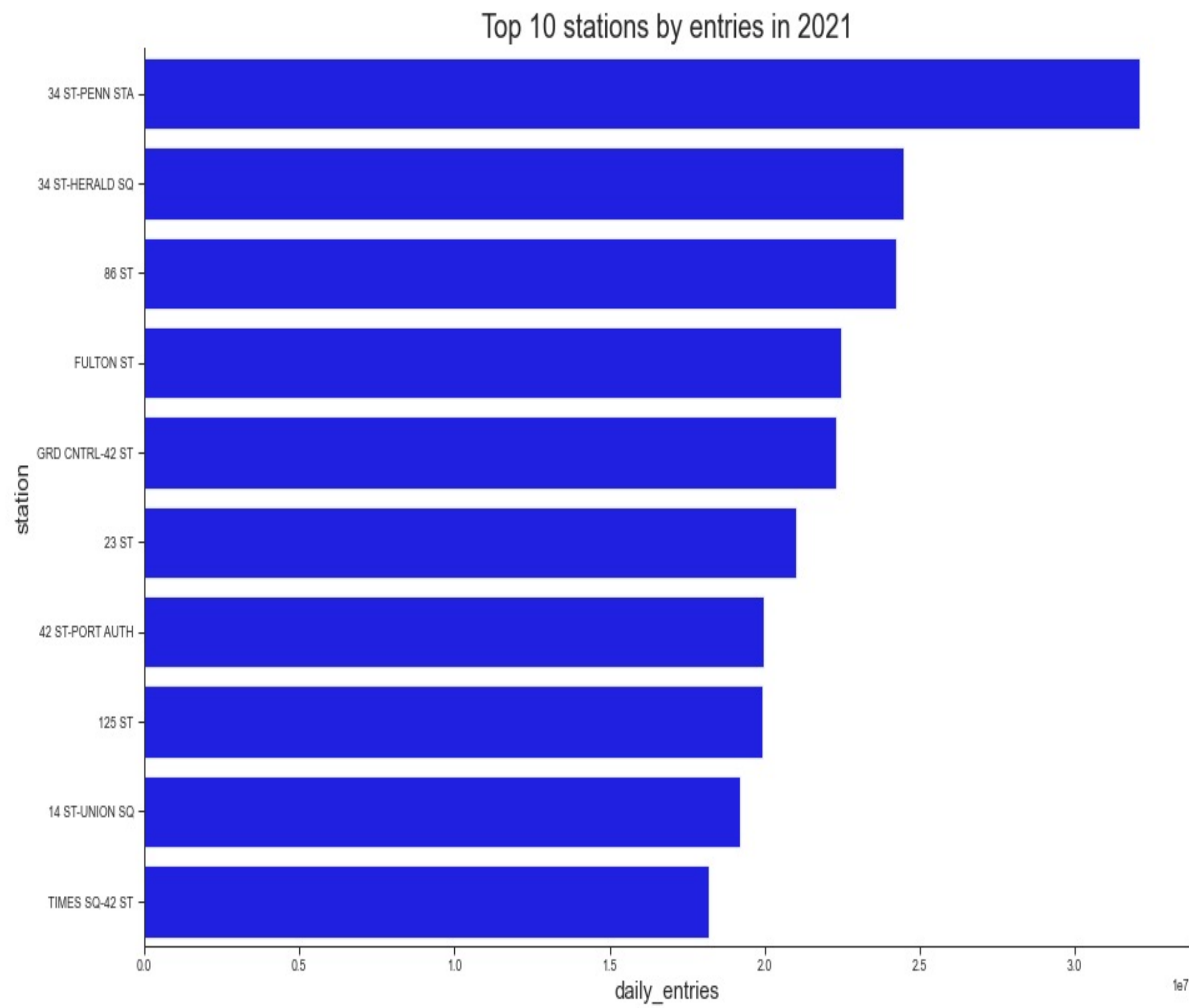
[MTA Turnstile Data](#)

[NYC Subway Stations geo location](#)

## TOOLS:

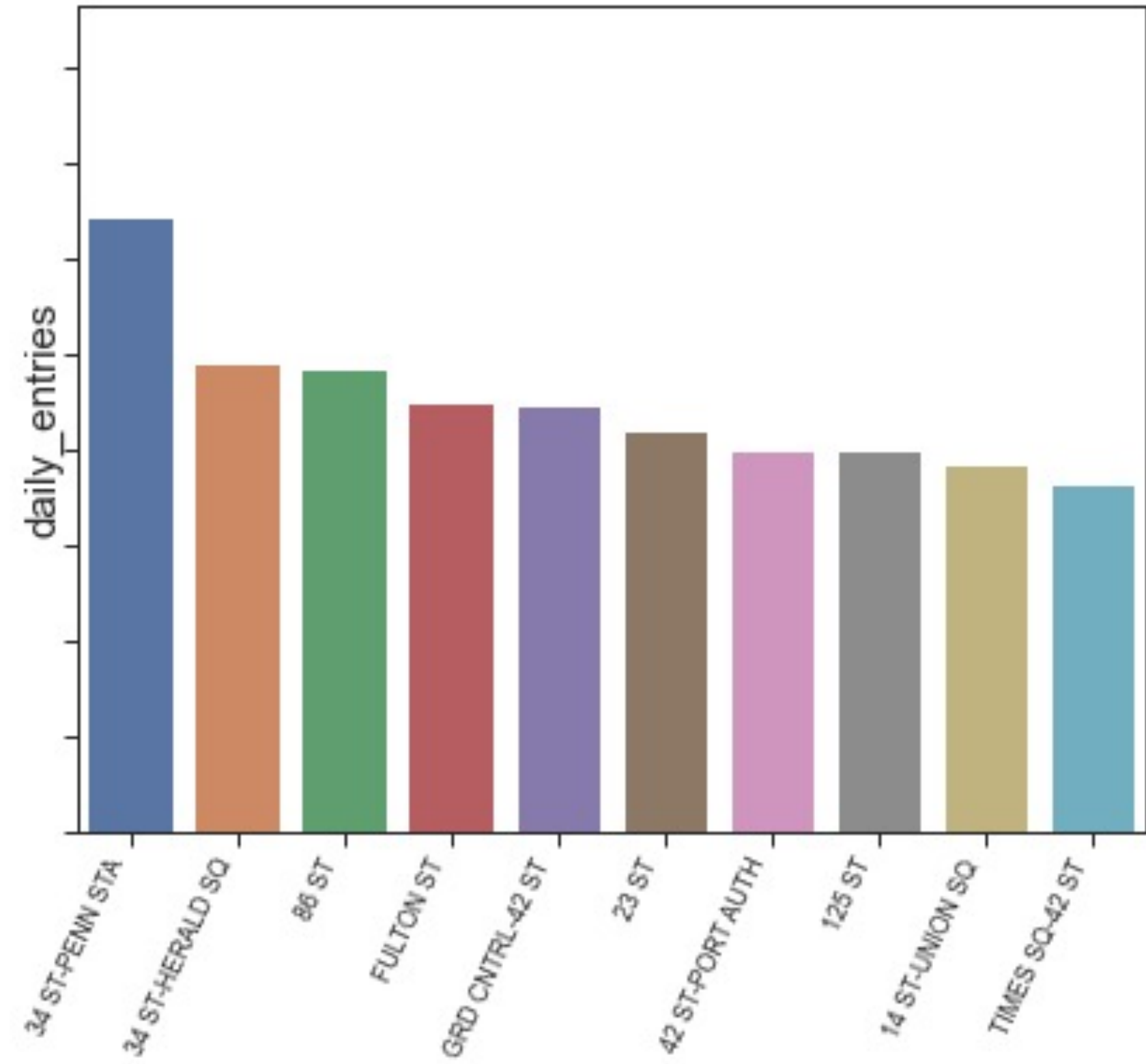
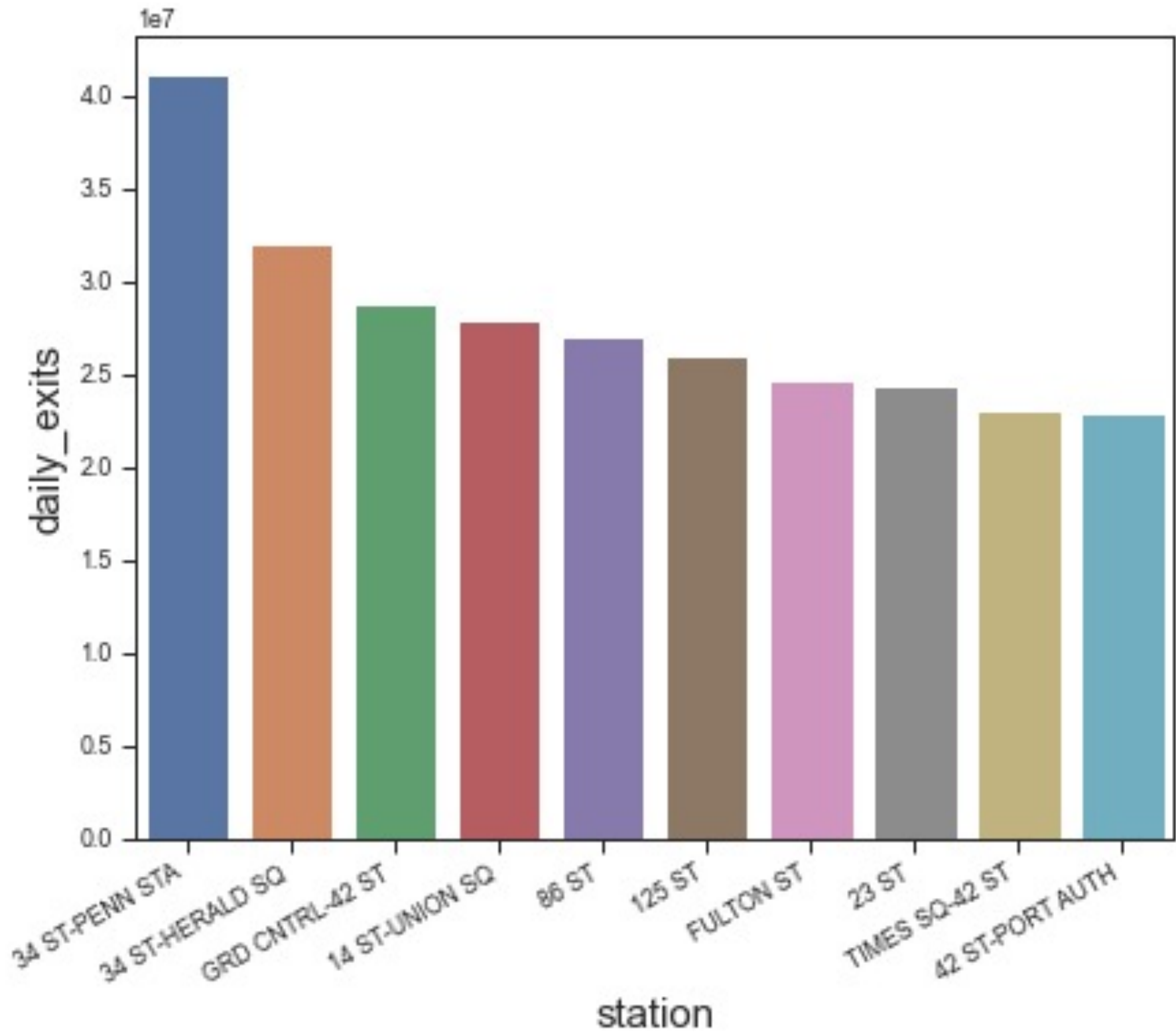
 JUPYTERNOTEBOOK,  
 SQL ,  
 PANDAS,  
 NUMPY,  
 SEABORN,  
 PLOTLY,  
 SQLALCHEMY,  
 DATETIME

# TOP 10 STATIONS ENTRIES IN 2021



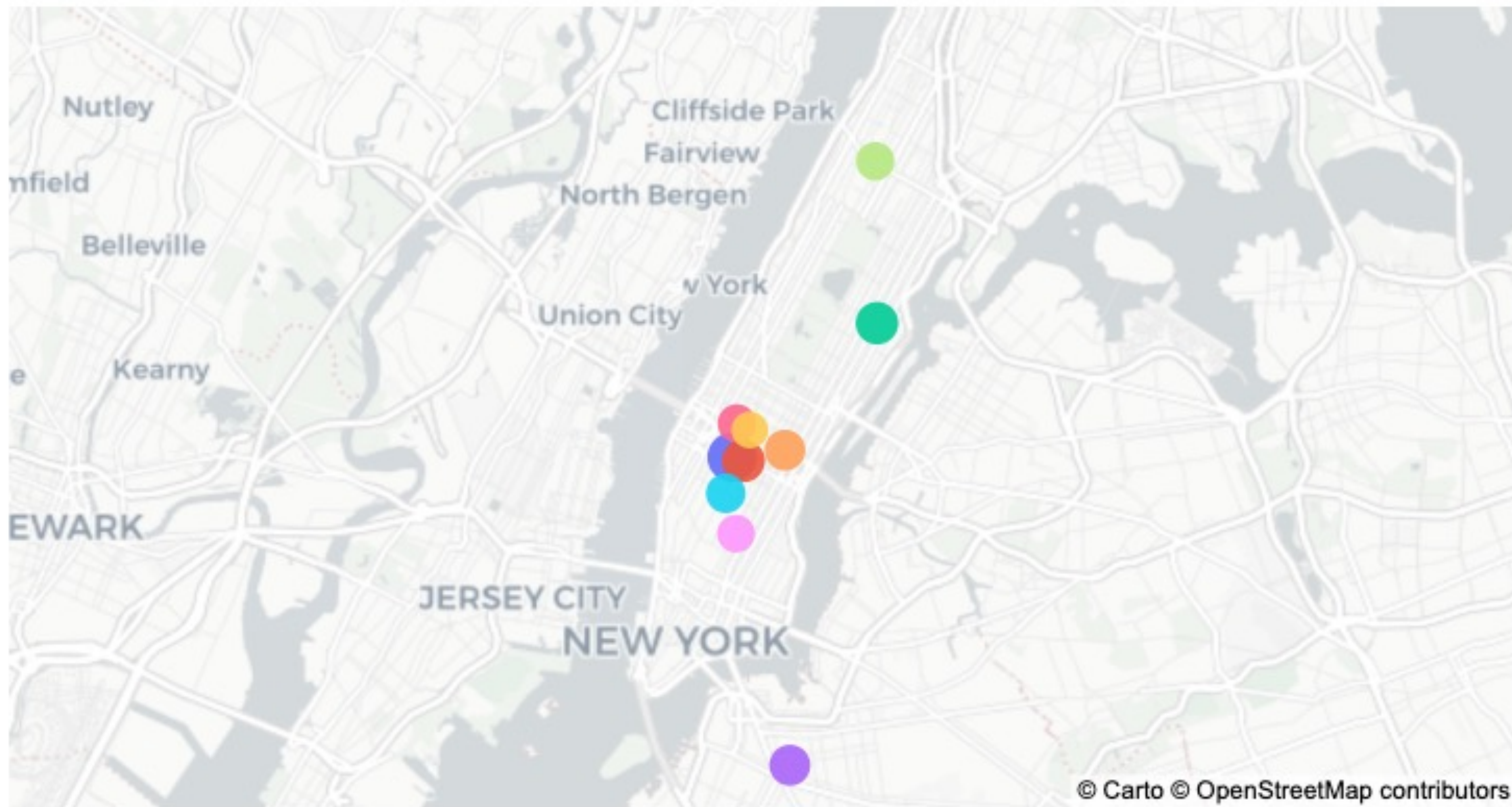
# ENTRIES VS EXITS DURING 2021

Stations with most entries vs exits in 2021



# NYC Transit Subway Entrance and Exit Data, geo location

Top 10 NYC metro stations in 2021

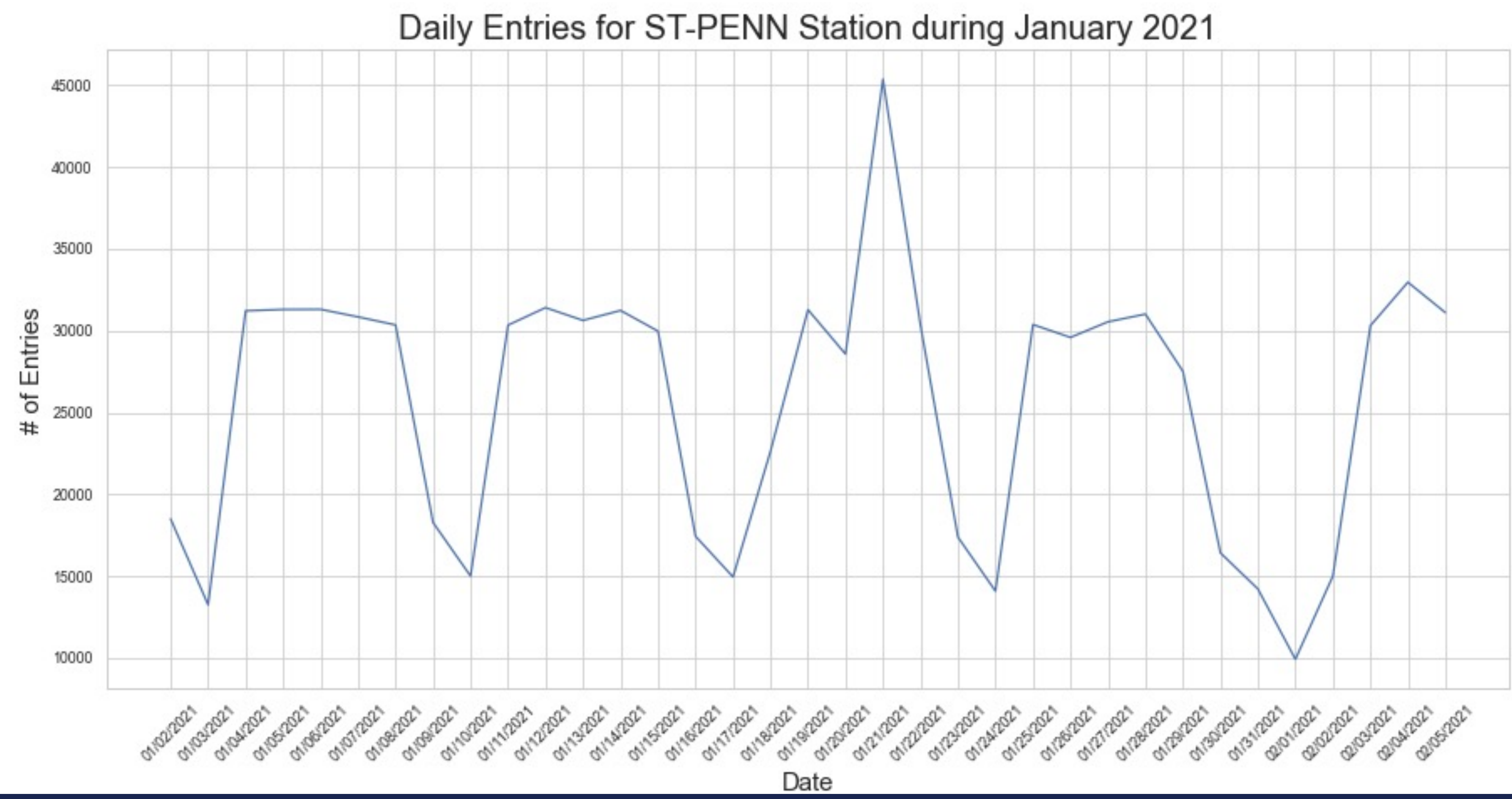


station

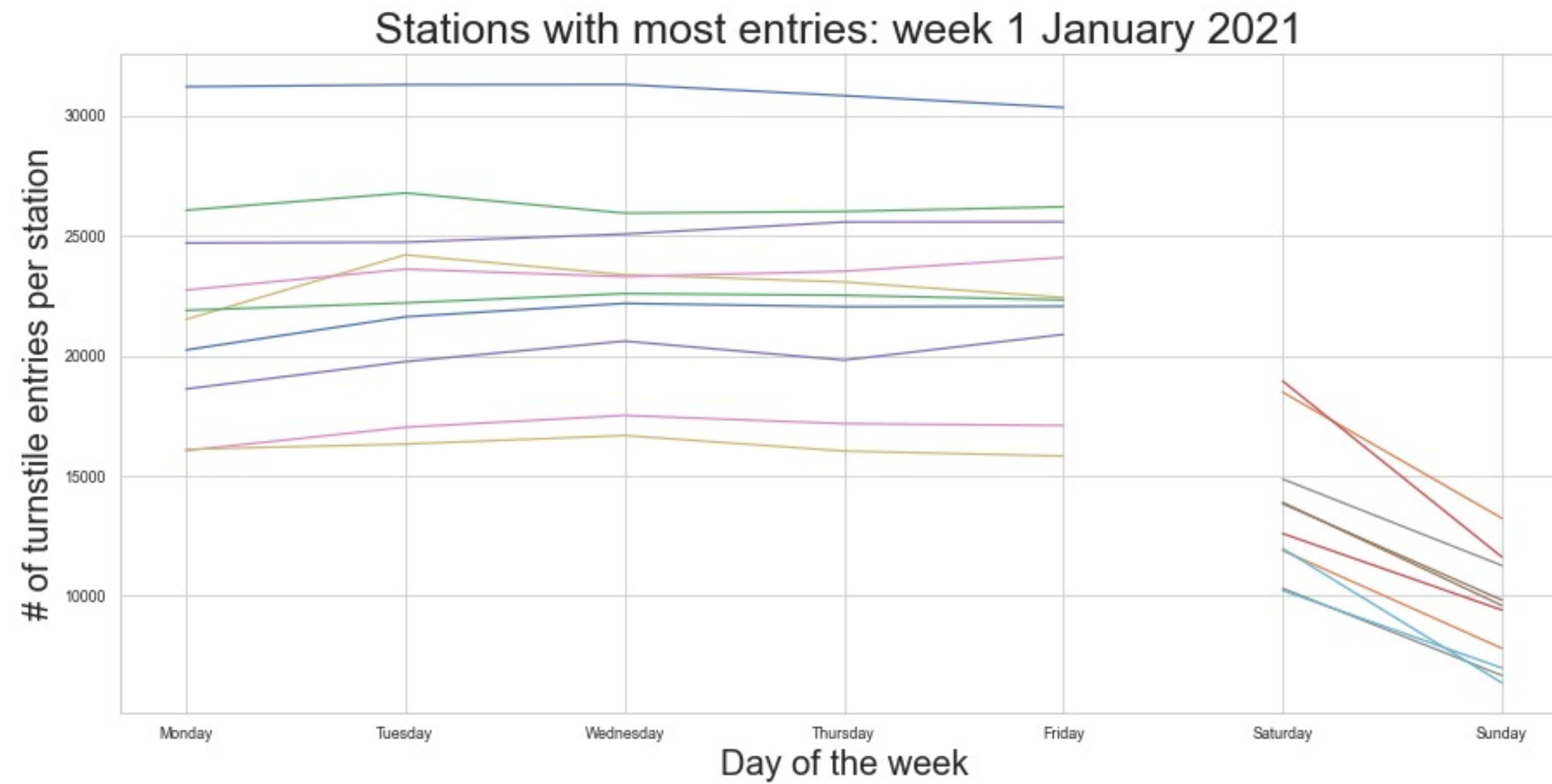
- 34 ST-PENN STA
- 34 ST-HERALD SQ
- 86 ST
- FULTON ST
- GRD CNTRL-42 ST
- 23 ST
- 42 ST-PORT AUTH
- 125 ST
- 14 ST-UNION SQ
- TIMES SQ-42 ST



# 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.**