Image From: nyc subway station image - Bing images

EXPLORATORY DATA:
MTA TURNSTILE ANALYSIS

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Introduction

Client:

A non-profit provider of free dental pop-up clinics offering quality dental services to people of lower income or the uninsured.

Objectives & Goals:

1. Utilize 3-months MTA Turnstile Data to identify stations with the most foot traffic
    a. Distribute flyers to recruit volunteers
2. Identify stations that target key demographic
    a. Distribute flyers to recruit patients in low-income areas

Methodology

DATA

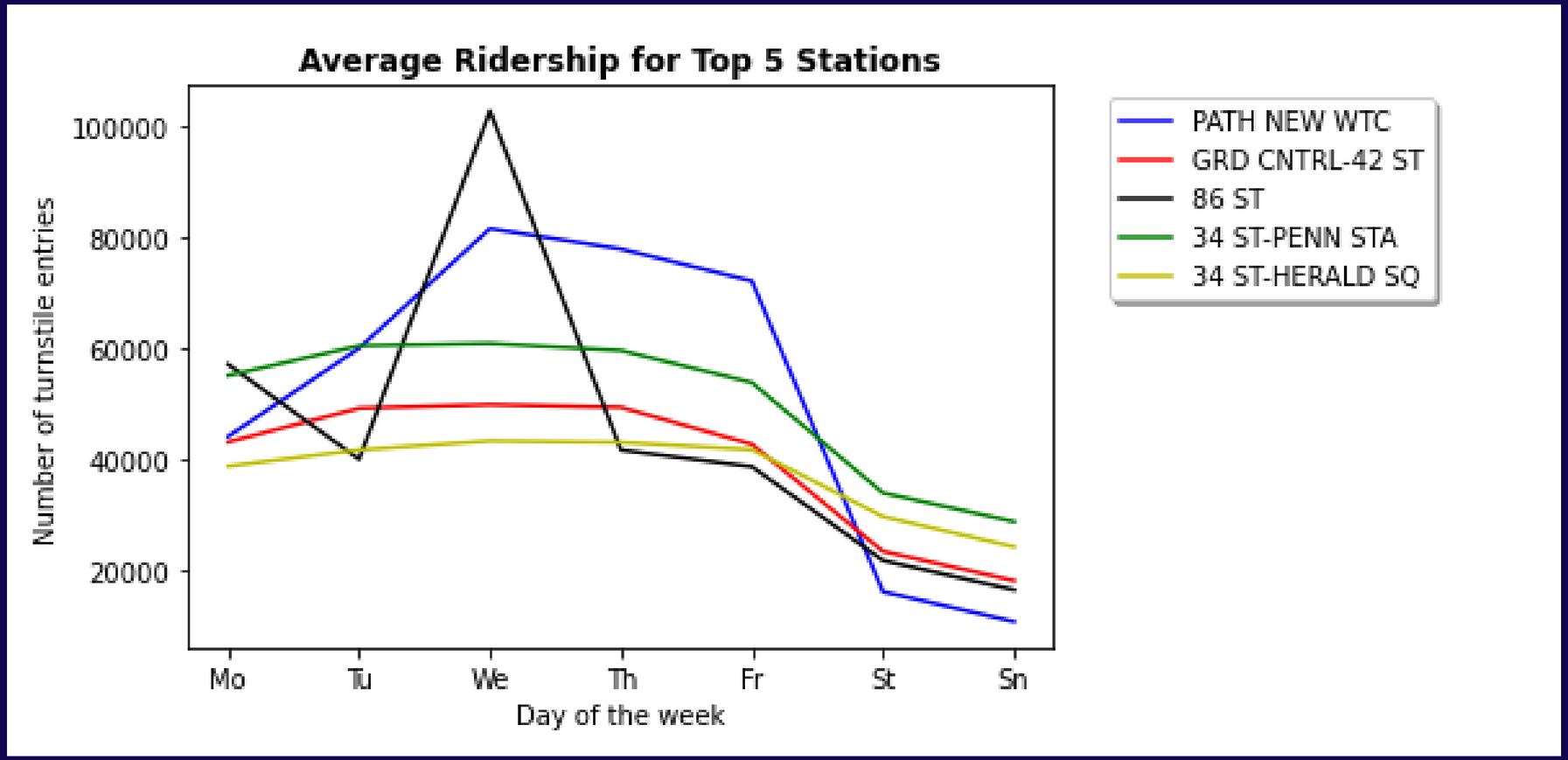
- MTA Turnstile Data (http://web.mta.info/)
  - Analyze stations with high traffic
  - Analyze stations with high traffic with corresponding demographic target
- NYC Median Income Data (cccnewyork.org)

TOOLS

- **Python Libararies:** Pandas, Numpy, Matplotlib, Seaborn
- **Canva**

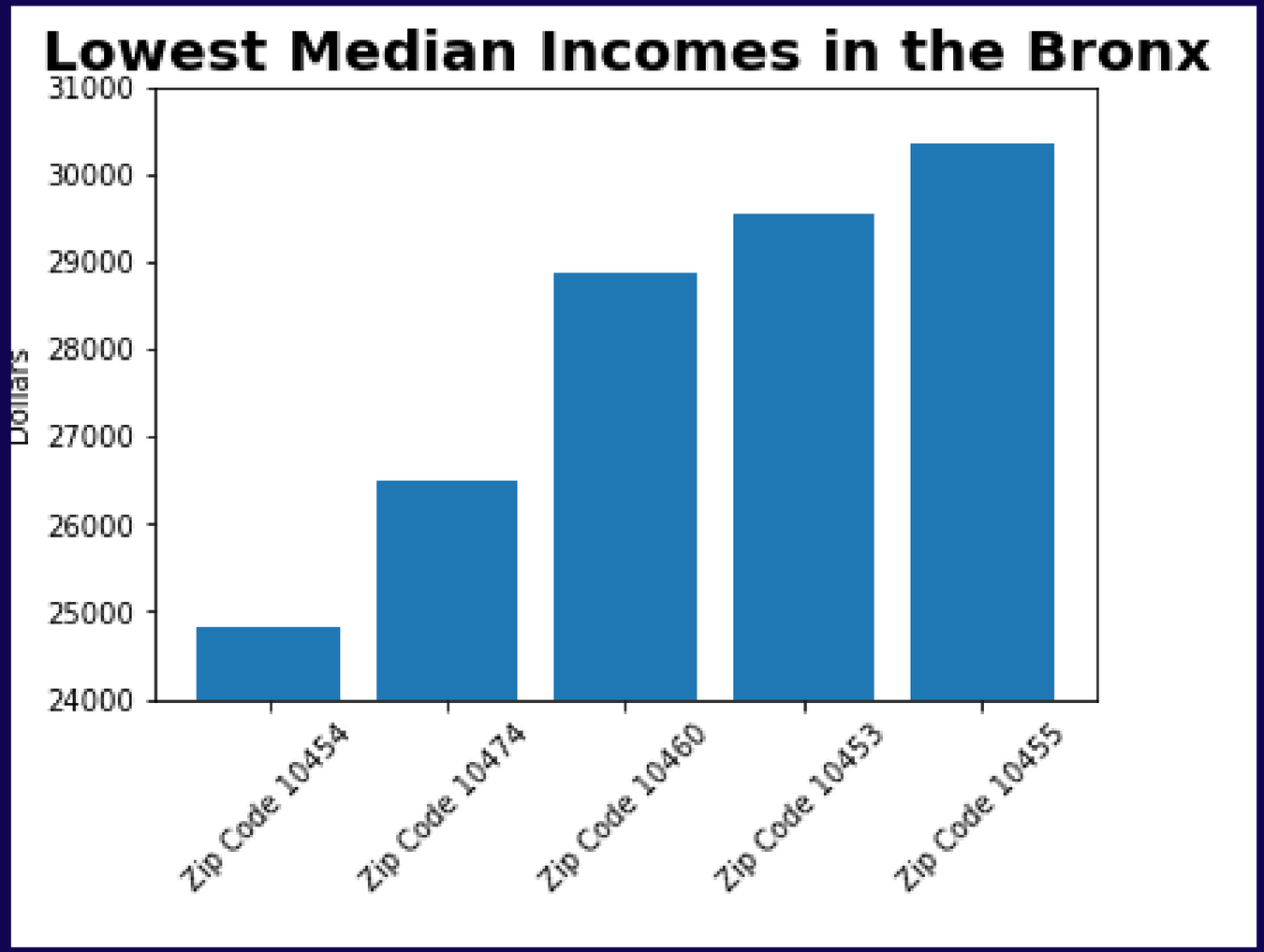
Results

- Average ridership for months of March, April, May 2022
- Ridership greater on weekdays than on weekends
- Wednesday = busiest day for particularly stations 86 ST and PATH NEW WTC

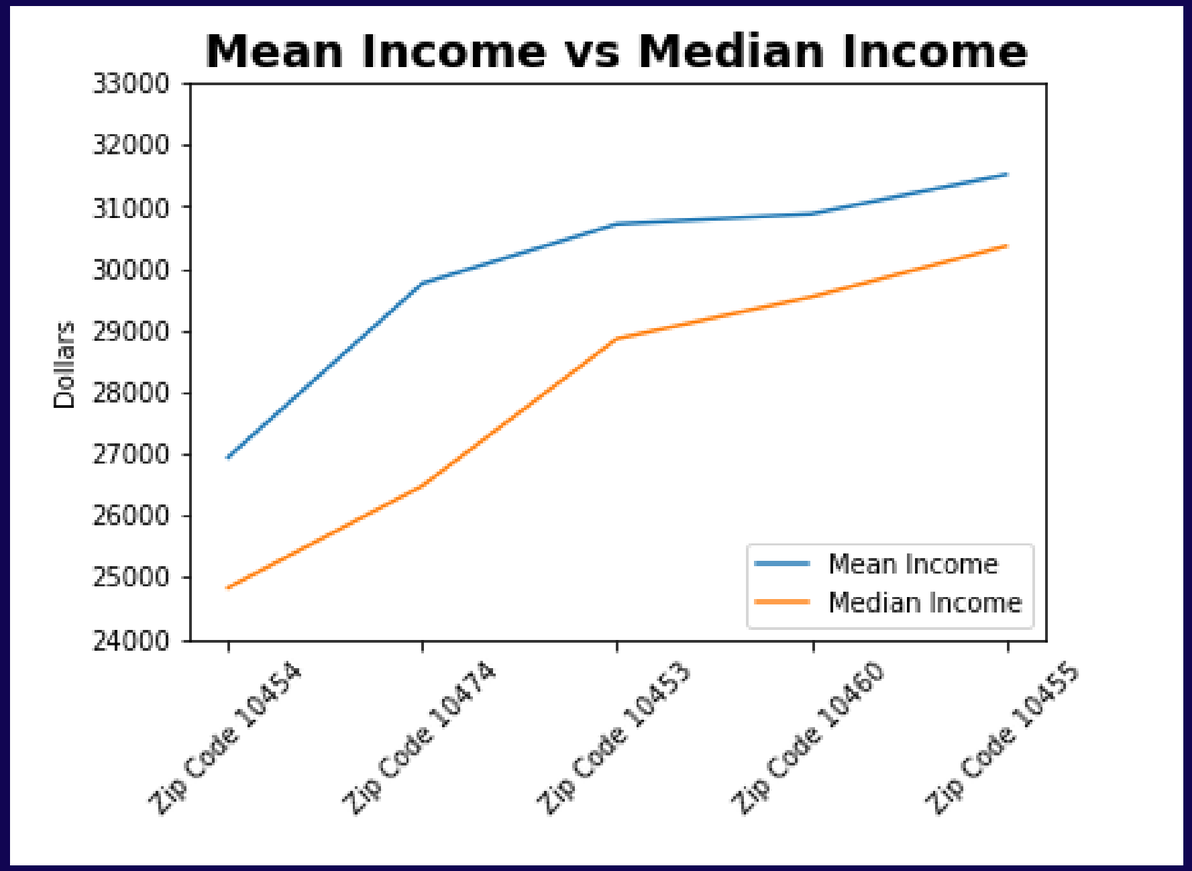


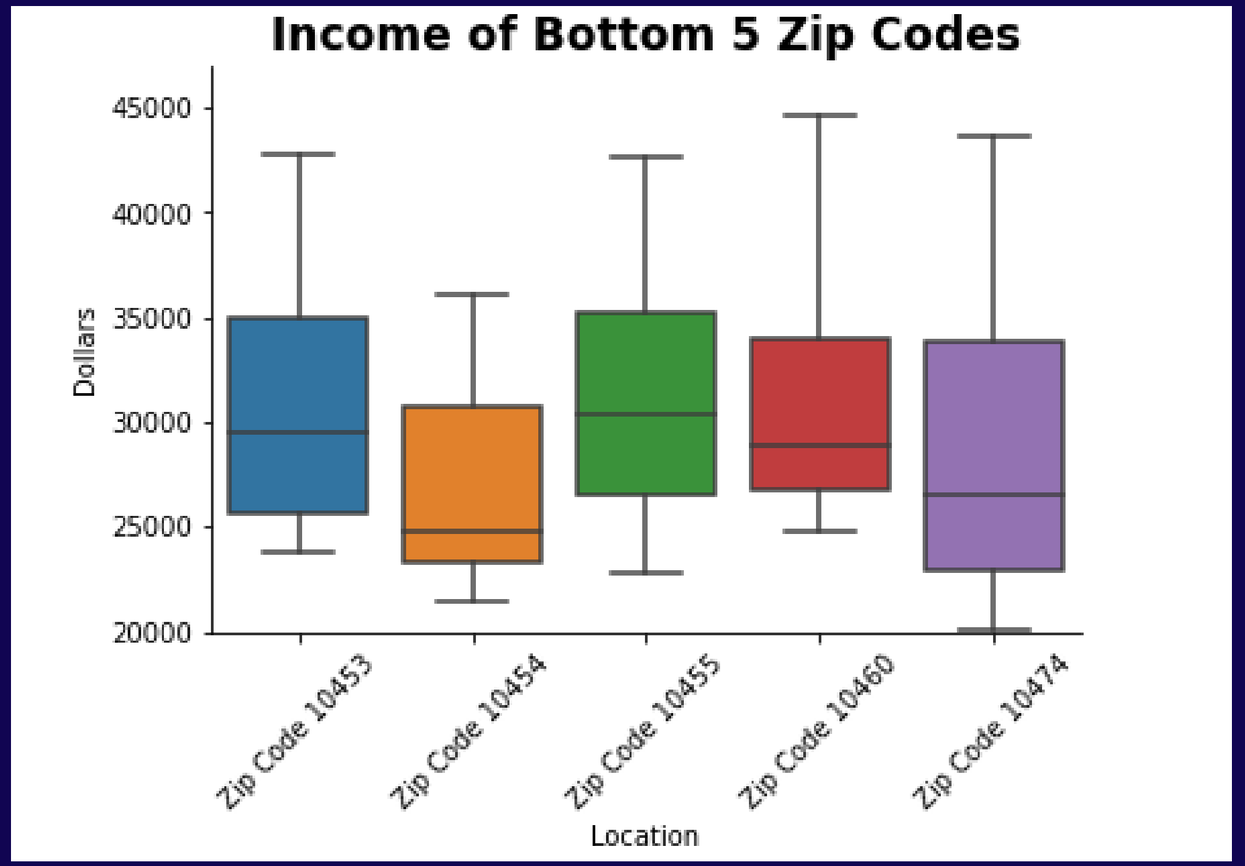
Results

- 5 Zip codes with the lowest median incomes, from 2005 - 2019
- ALL in the **BRONX** borough
- ALL below $31,000
- In contrast:
  - Zip Code 11697
  - Manhattan
  - Highest median income of $254,530



Results





- Usu. median income = more accurate representation of income in given area
- Mean income could have skew from outlier values, e.g. wider spread between highest value and other values

Conclusion

- To reach the most people, distribute flyers at stations:
  - Path New WTC
  - Grand Central-42 St
  - 86 St
- To reach key demographic:
  - Target the Bronx big stations
  - 149 St Grand Concourse
  - 161 St Yankee Stadium
  - 138 St Grand Concourse

Future Work

- If I had more time...
  - Make a geographic heat map of the boroughs, neighborhoods demonstrating key data
  - Delve deeper and deconstruct the demographic more
    - Ethnicity, Race
    - Age
    - Gender
  - Find more targeted volunteer group (dentalcare & healthcare professionals)