COVID-19 and MTA Staffing

Sancia Yang

Introduction

- During the current spike in COVID-19 cases due to the omicron variant, MTA has reported a shortage of workers.

- Goals:
  - Evaluate changes in MTA usage due to COVID-19 surge
  - Consider several trains for basis of changing schedule

Methodology

- Data:
  - NYC MTA turnstile data (December 2019 – August 2020)
    - Dec 2019 – Feb 2020 (3 months pre-surge)
    - March 2020 – May 2020 (3 months during surge and lockdown)
    - June 2020 – August 2020 (3 months during initial reopening)
  - NYC Health Department COVID-19 case counts (March 2020 – August 2020)

Methodology

- Metrics:
  - Average entries for each train each day
  - COVID-19 case counts for each day

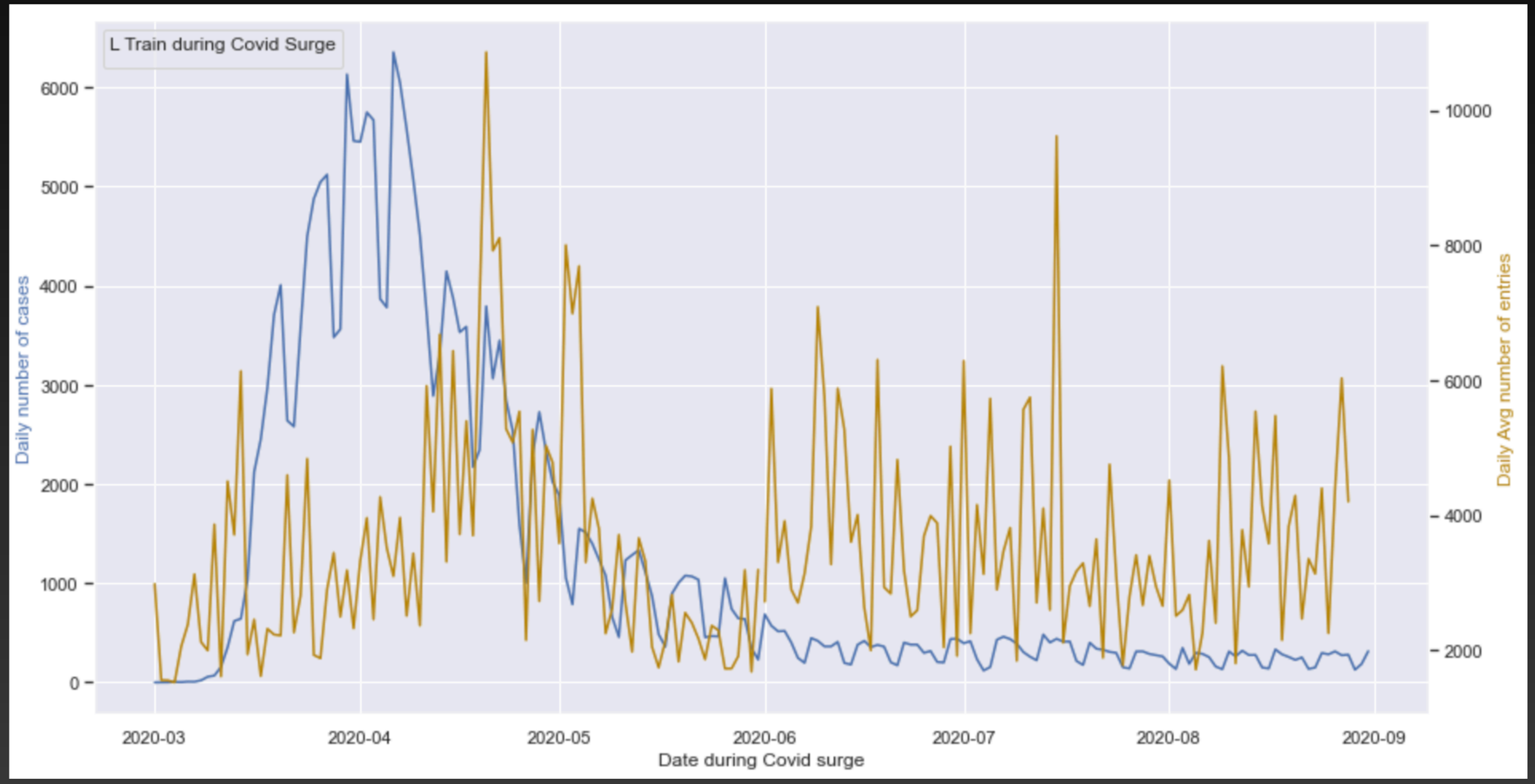
- Tools:
  - DB Browser and SQLite
  - NumPy and Pandas
  - Matplotlib and Seaborn

Methodology

- Examining data:
  - Determining whether there was a drop in usage during lockdown
  - Compared the percentage change in average daily entries between:
    - Pre-covid surge and during surge lockdown
    - Surge lockdown and reopening
  - Looking at several notable examples

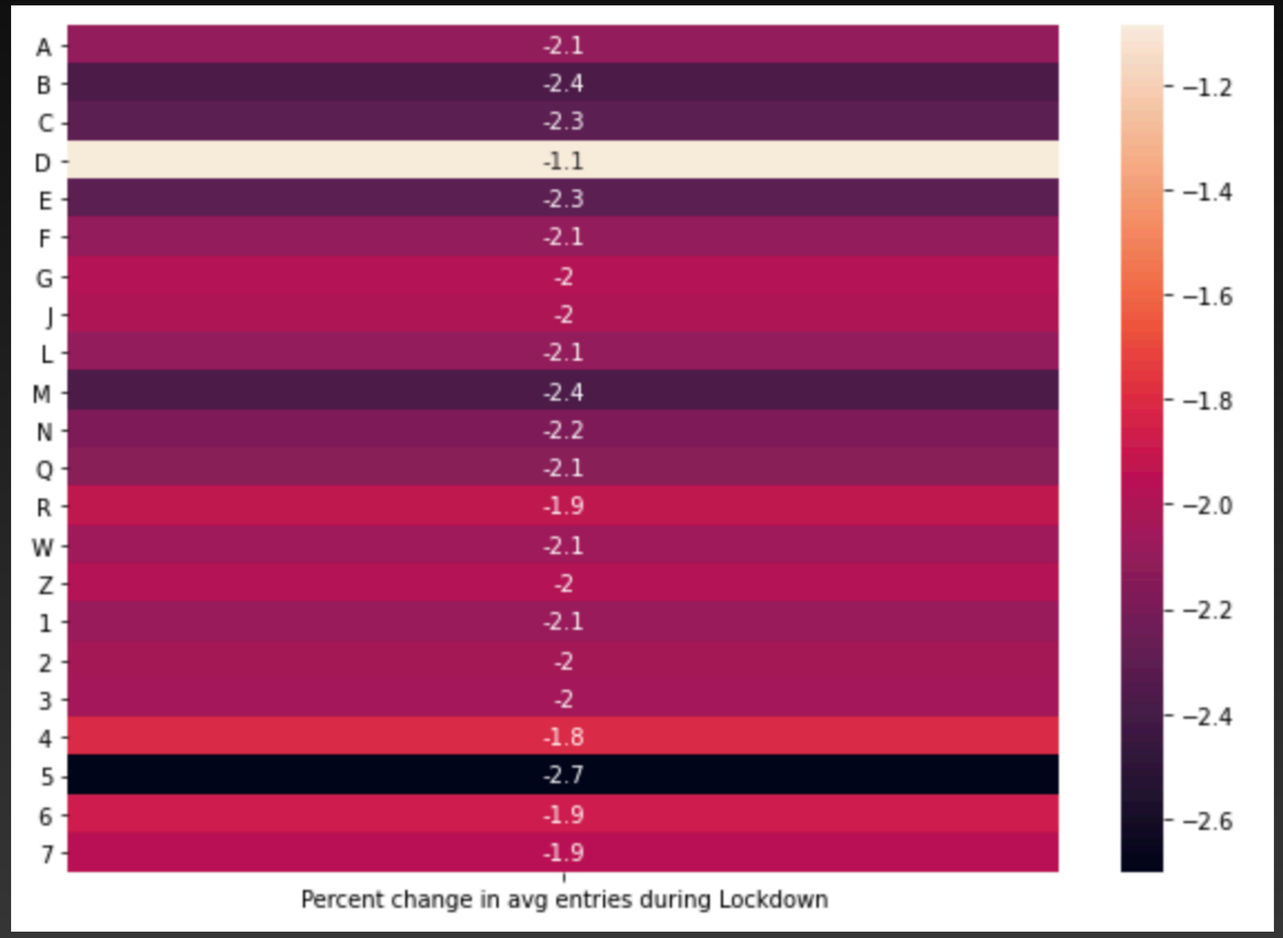
Results

- Yes, there was a noticeable drop in average MTA usage for all trains during the lockdown
- Example: L train



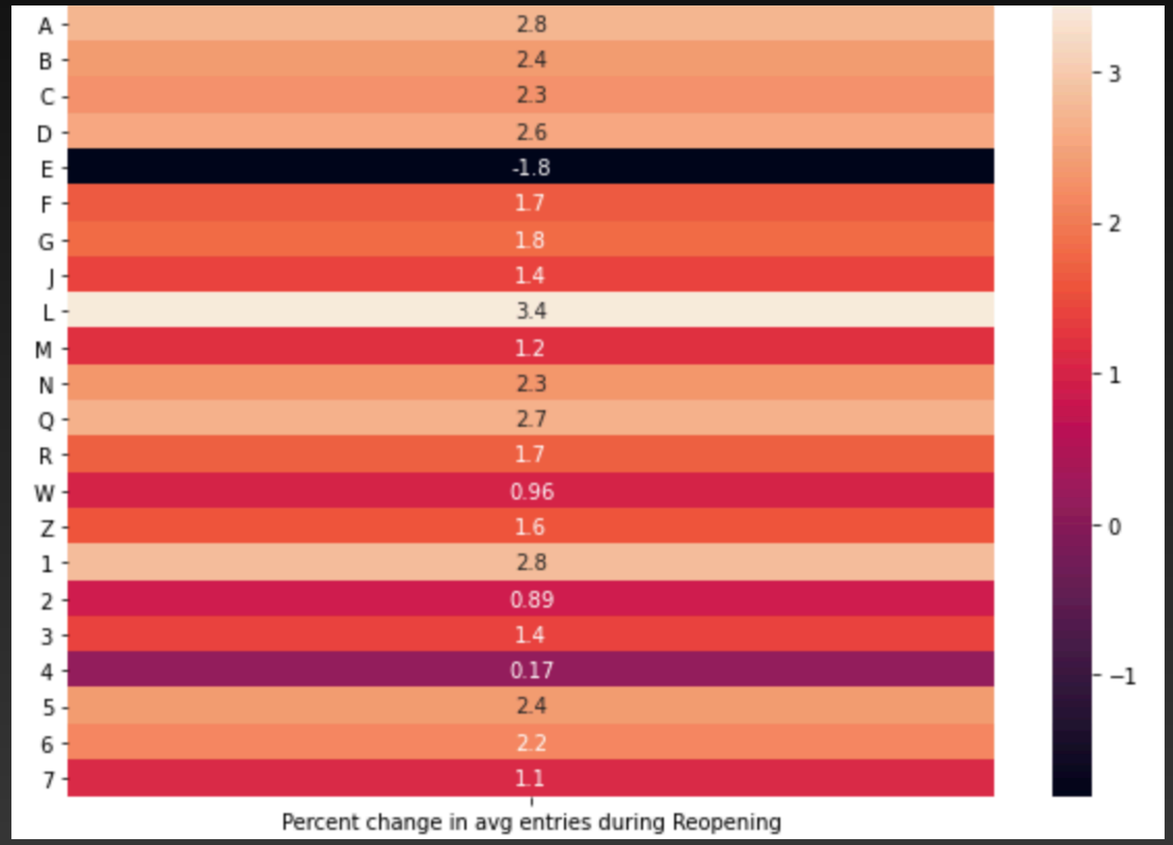
Results

- But not all trains experienced the same amount of change: D train, 5 train



Results

- During reopening the daily average of most trains increased, but to varying amounts: E train, 4 train, L train



Conclusions

- Recommendations:
  - Reduce number of trains running during COVID-19 surge
  - Selectively ramp up frequency of trains during reopening/after surge