

COVID-19 and MTA Staffing

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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

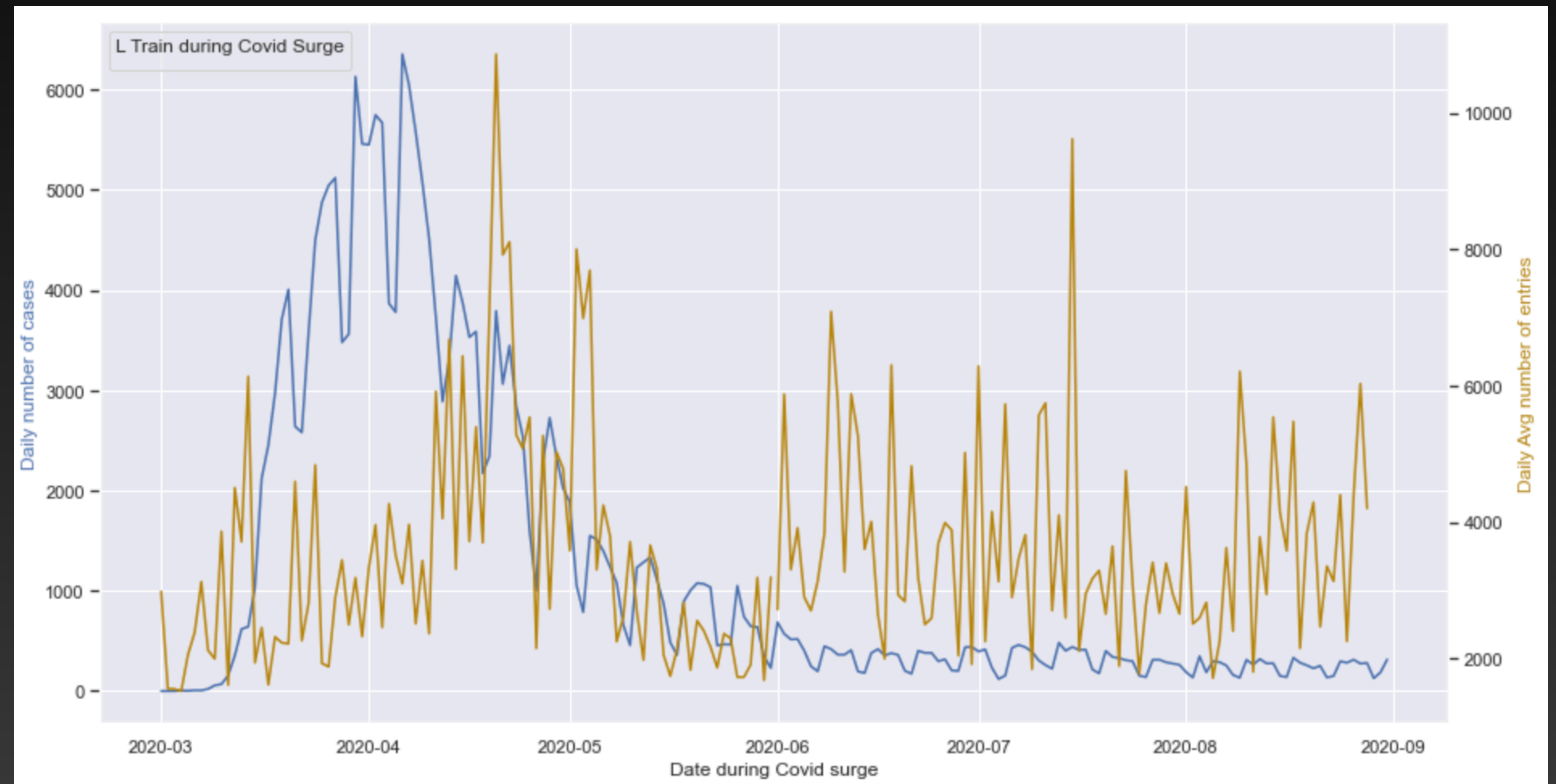
- Metrics:
 - Average entries for each train each day
 - COVID-19 case counts for each day
- Tools:
 - DB Browser and SQLite
 - NumPy and Pandas
 - Matplotlib and Seaborn

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

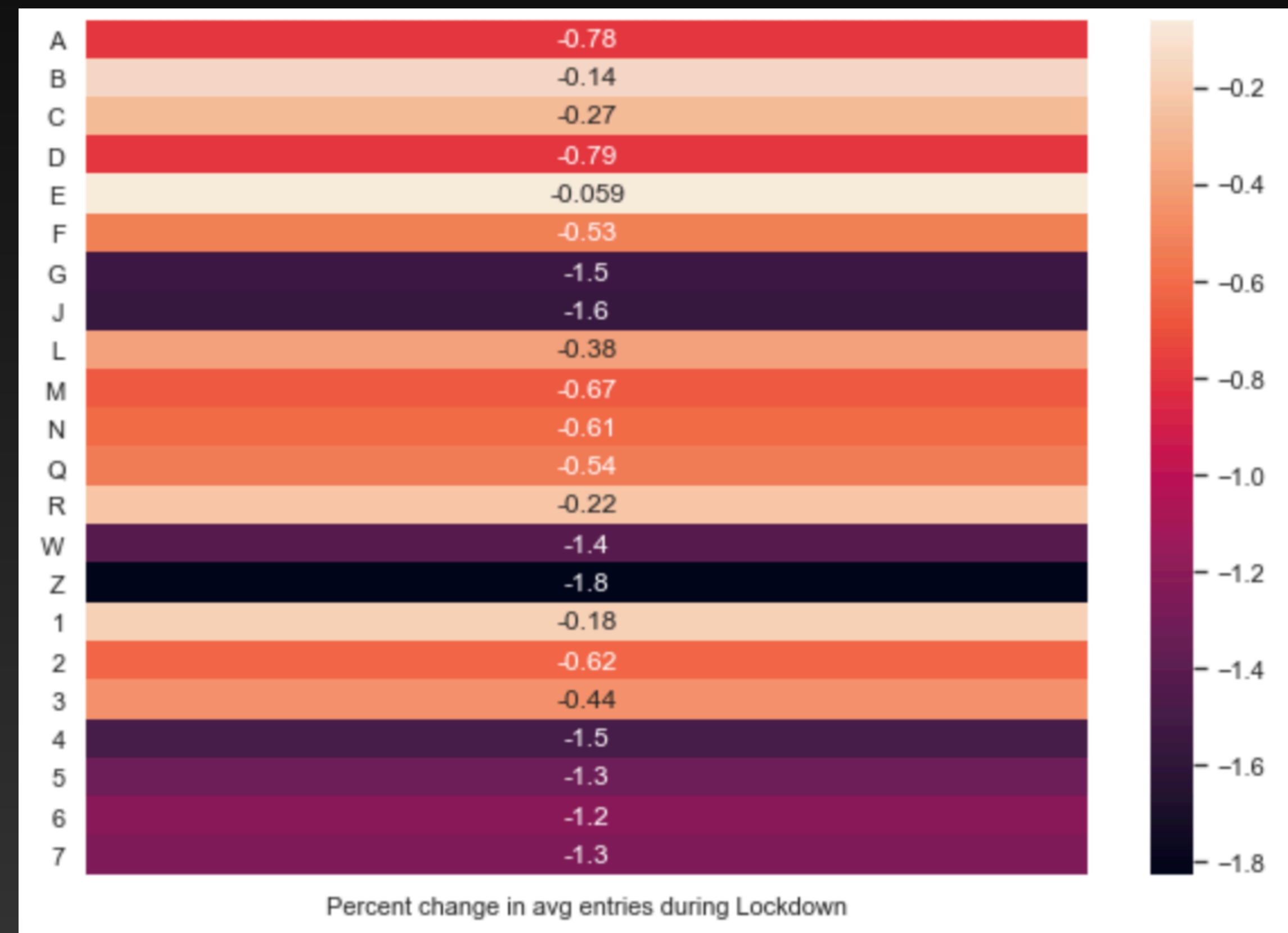
Results

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



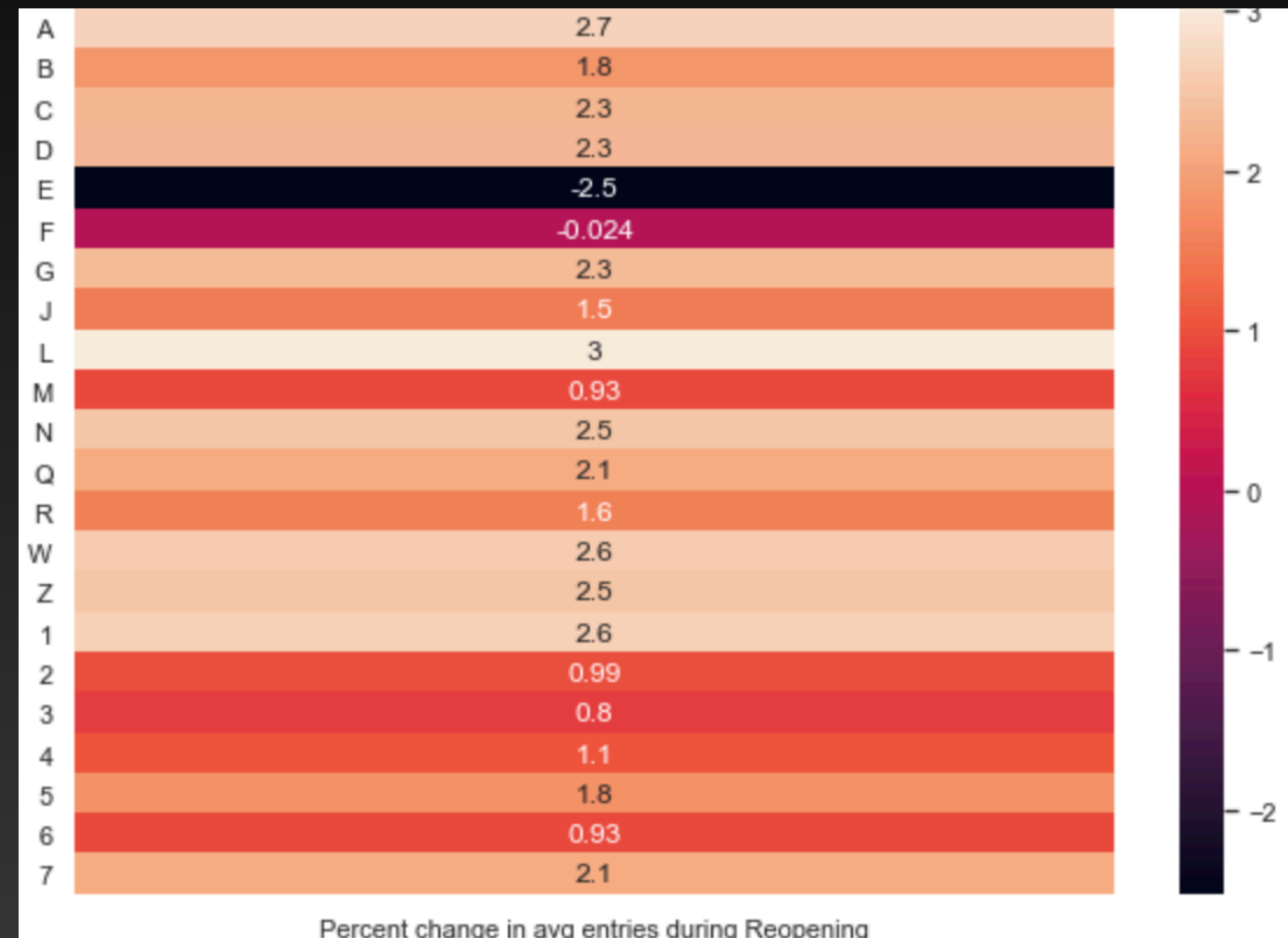
Results

- But not all trains experienced the same amount of change: Z train, E train



Results

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



Conclusions

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