

The text is framed by a series of white dashed lines and arrows on a blue grid background. A horizontal dashed line with arrowheads at both ends is positioned above the text. A vertical dashed line with arrowheads at both ends is positioned to the right of the text. A curved dashed arrow in the top right corner points from the horizontal line down to the vertical line. A curved dashed arrow in the bottom left corner points from the vertical line back to the horizontal line.

# MTA Track Maintenance





# 1

# Introduction



## Motivation

Metro commuters are facing the obstacle of lines being out of service suddenly due to the lack of regular maintenance.

## Goal

To schedule shut downs for maintenance where a line is in minimal use.





# 2

## Methodology



## Data

- Dates:
  - 2017 JULY
  - 2021 AUG
  - 2021 SEP
- Time
- Entries
- Line
- Station

## Tools

- Data manipulation:
  - Pandas
  - Datetime.
- Visualization:
  - Matplotlib
  - Seaborn

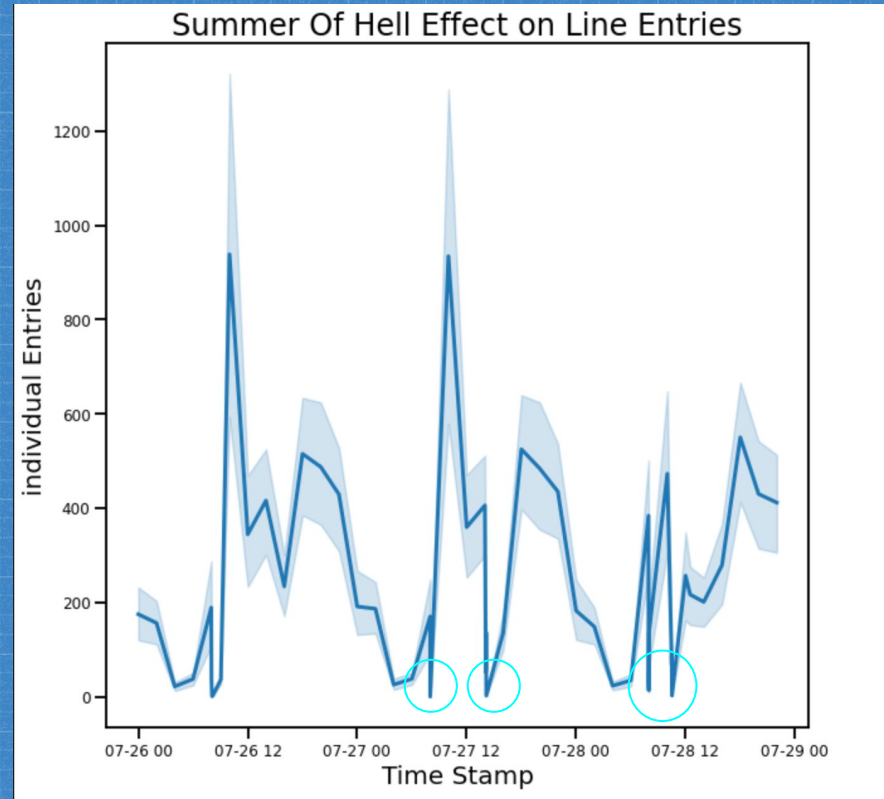


# A Plot IS WORTH A THOUSAND WORDS

Here we show how  
entrie hit 0!

Bad for commuters

Bad for business







# 3

## Results



Let's start with the  
first set of slides



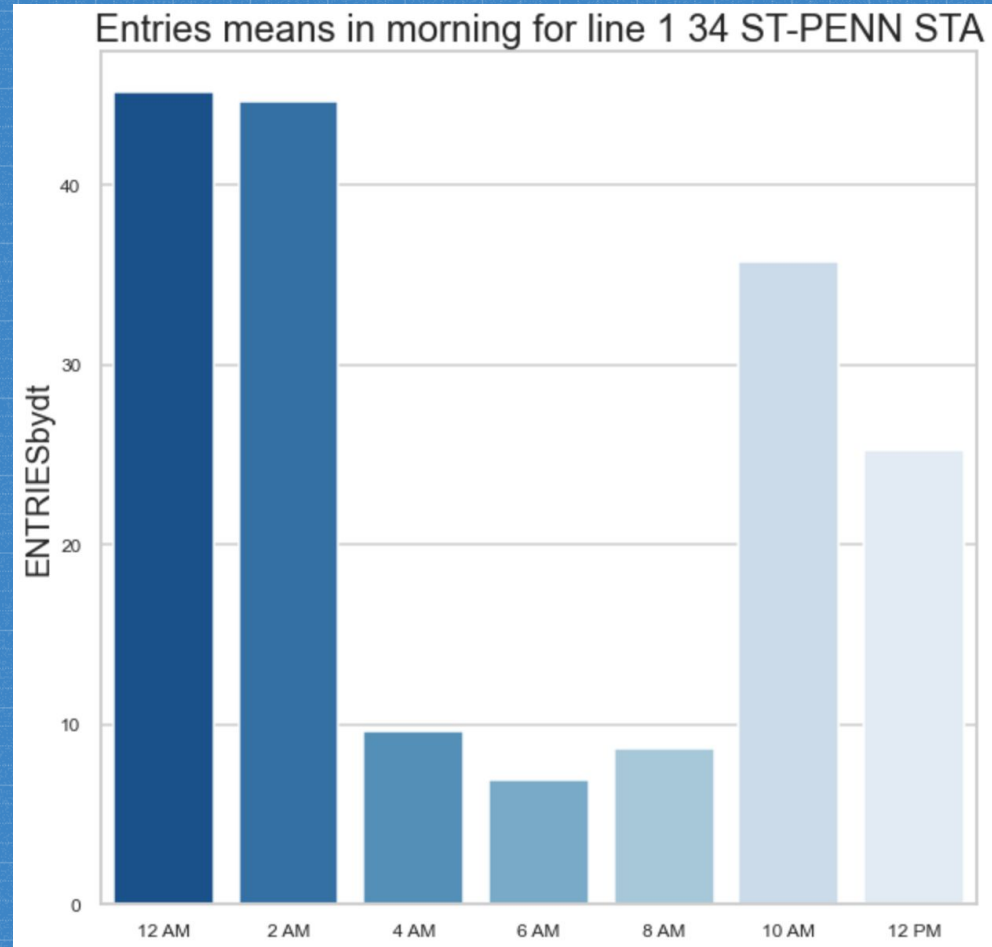


For the same station and line in aug and sep of 2020:

- The mean of individual entries for Sundays is the lowest.



- The means of individual entries in Sundays for morning hours:







# 4

## Conclusions



Let's start with the  
first set of slides





## Findings

The MTA maintenance team should start regular maintenance for track 1 in sundays from 4 AM to 8 AM.



## Future Work

- Get more data on track rails and how old they are to prioritize repairing older tracks and how regular maintenance should be for a particular track.
- Develop a maintenance schedule for all tracks.



# Thanks!

ANY QUESTIONS?