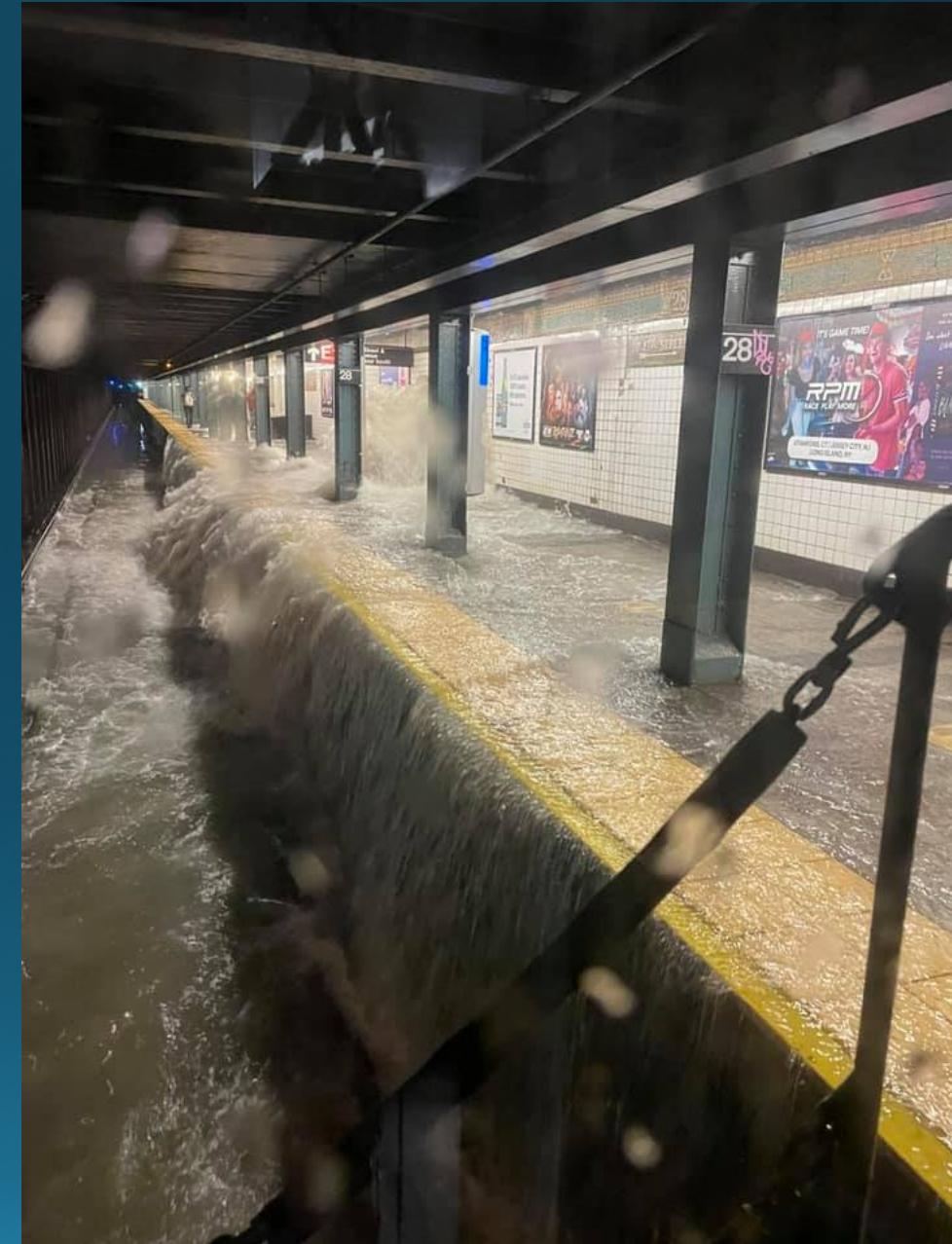


MTA Data Analysis during the Flooding in NYC Subways

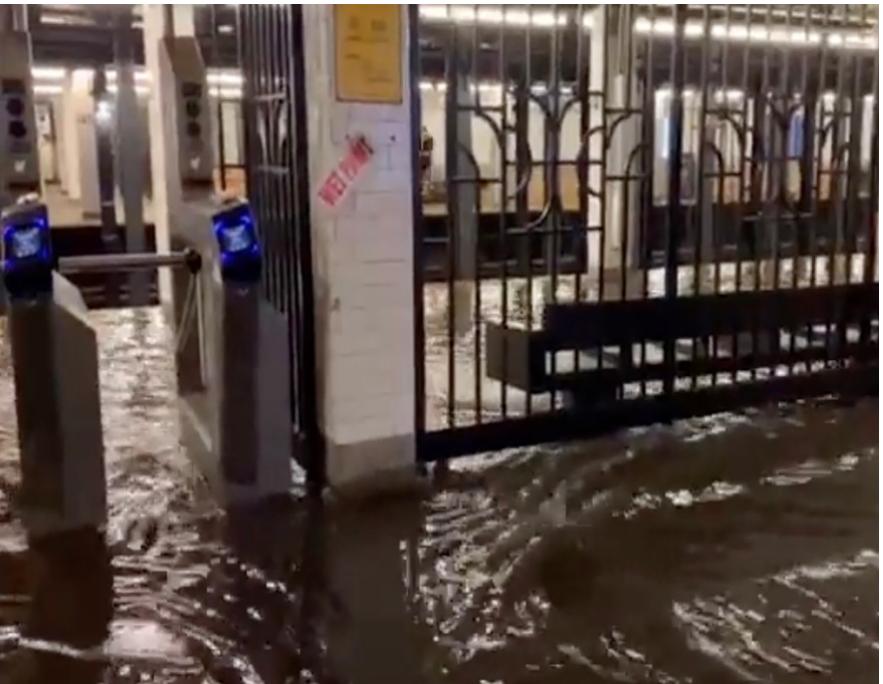
By Ohoud Albabtin
09 Oct 2021



Problem description:

- On September 1, 2021. MTA Subways were affected by “Ida” flooding as an analog for sea-level rise caused by climate change.
- MTA suspended some of the station's services due to the damages that happened to the turnstiles .
- According to the News reports . They found that the most (Three) affected stations were:
 - 1 . 57 ST-7 AV Station.
 - 2. 3 AV-149 ST Station.
 - 3. 28 ST Station.

Objectives

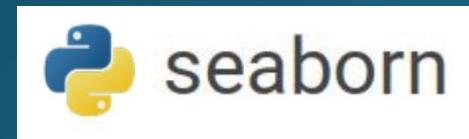


- Our goal is to Analyze MTA data turnstiles for these three stations to find out if its meet their assumption or not.

Methodology

Using the New York City subway data to analyse transit patterns of commuters in order to figure out how these three stations were get affected by flooding during Sep 2021.

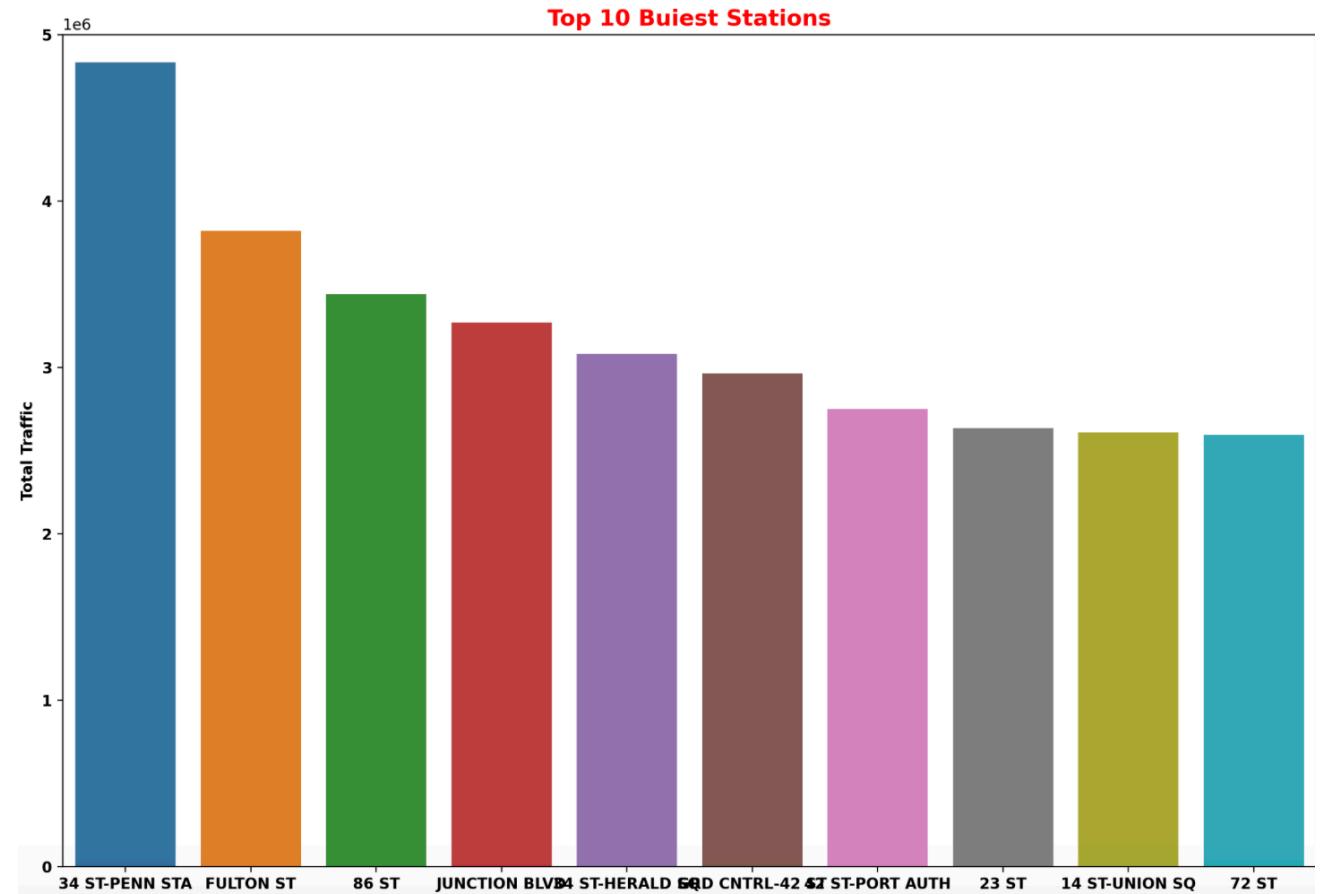
- 12 weeks' worth of turnstile data from the MTA datasets.
- We found top five traffic station from July until Sep 2021.
- For each of the three affected station, we added their daily entries during the flooding days to know ho much the traffic were impacted by flooding.
- Data analysis with the following:



Key Findings

- Top Ten traffic station were less affected by flooding.
- Most of the top traffic stations have similar patterns of traffic during these months
- Stations remain in the high level of traffic
- Top stations are the following:
 - Penn Station
 - Fulton
 - 86 ST
 - Junction BLVD
 - Herald Square
 - Grand Central
 - 42 ST
 - 23rd Street
 - Union Square
 - 72 ST

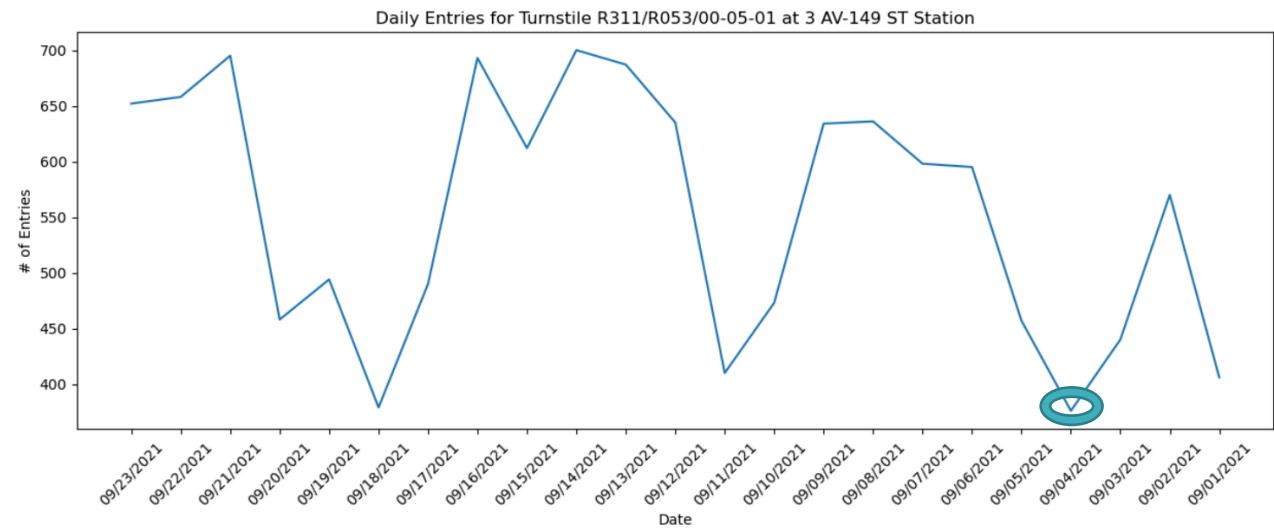
Busiest MTA NYC Stations
(1 July 2021 – 30 Sep 2021)



1 Sep 2021 – 30 Sep 2021

Key Findings

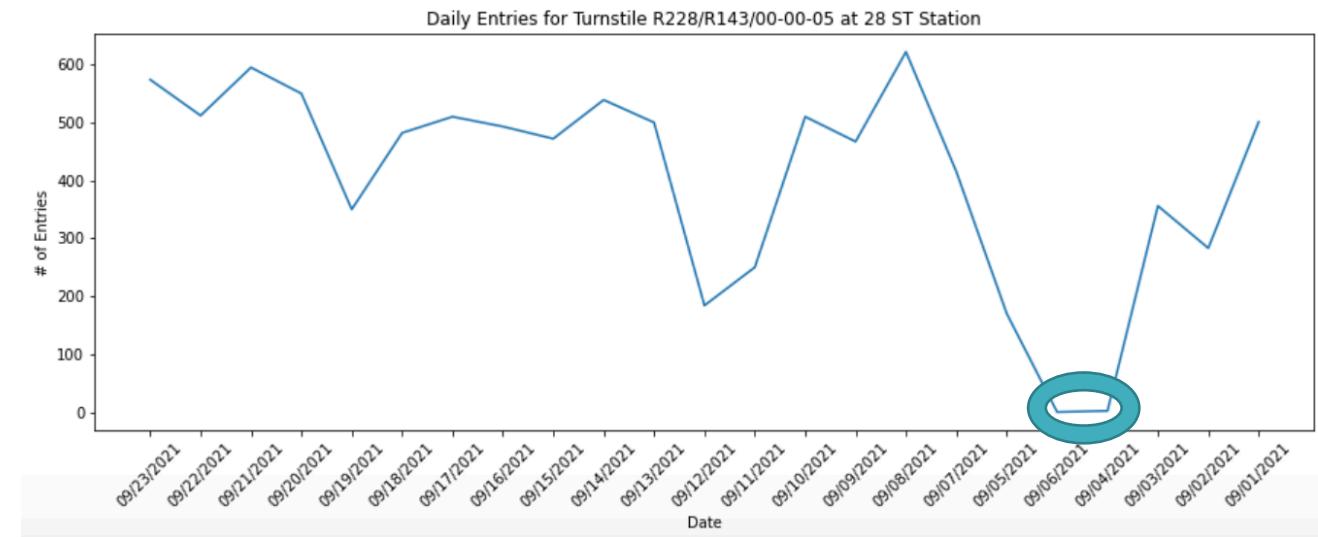
- 3 AV- 149 ST was the most affected station by flooding during Sep 2021
- Once the station got flooded , they suspend turnstile service and reopen again.
 - Lower traffic was on 09/04/2021 same as the news report said.
 - Larger variations during the month



1 Sep 2021 – 30 Sep 2021

Key Findings

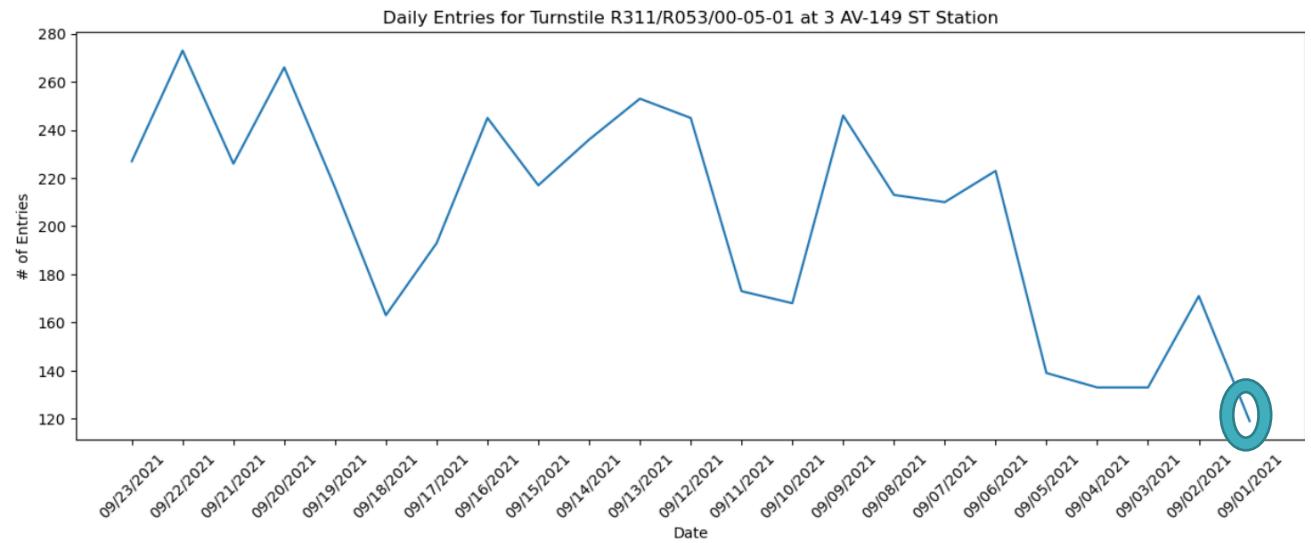
- Lower traffic was near to be Zero on 09/06/2021 same as the news report said.



26 Jan 2019 – 5 April 2019

Key Findings

- Lower traffic was on 09/01/2021 same as the news report said.
- Meets the assumption.



Thank You

