### Accessible MTA Subway Stations ---- For Travellers, Seniors & Disabled

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#### **Overview**

#### Problem:

- Tourists: No Internet connections underground (getting LOST!), can't go up/down stairs with heavy luggages
- Seniors and Disabled: can't stand too long, can't go up/down stairs

#### Solution:

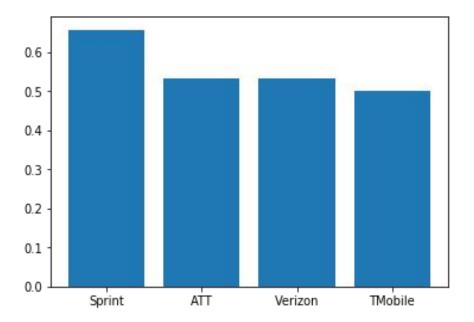
- Wi-Fi access or Internet Connection
- Find alternative transportation (e.g. nearby bus stations with shelters)
- Find Accessible Entrance of Subway Stations
   (e.g. Entrance with Elevator)

#### **Datasets**

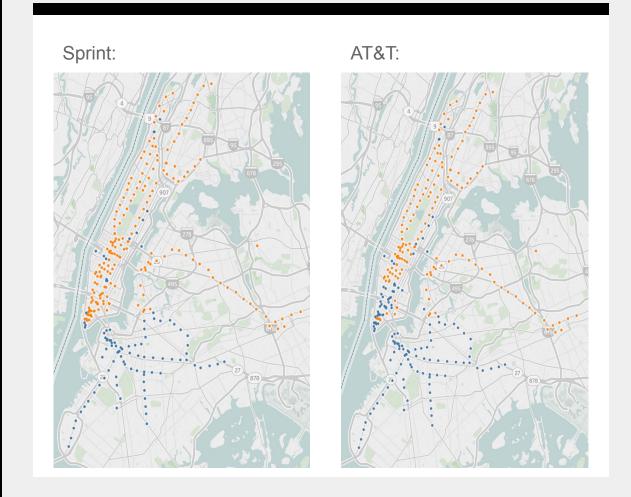
- Enigma New York MTA Wi-Fi Locations
  - Choose best cell phone carriers for travellers by using longitude, latitude, carriers information and wifi-accessibility information
- Enigma New York MTA Elevator Outages
  - Find bad elevators by using out-of-service time and repaired time
- NYC Open Data Bus Stop Shelters
  - Find bus stations (with shelters) near each subway stations by using longitude and latitude of each bus stop
- MTA Info Subway Station Entrances
  - Accessibility (Different entrance types. E.g. stairs, doors, ramp, escalator, elevator, etc) of MTA subways stations

## Result - WiFi and Internet Connection

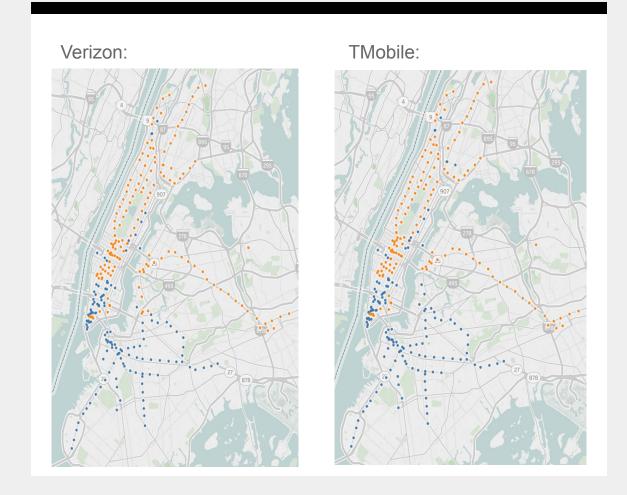
- NO Wi-Fi in any of the station
- Resort to carrier availability



## WiFi and Internet



### WiFi and Internet



#### Result -**Accessibility**

Entrance Type: Stair, Elevator, Door, Escalator, Walkway, Easement, Ramp

Accessible Entrance: Elevator

and Easement



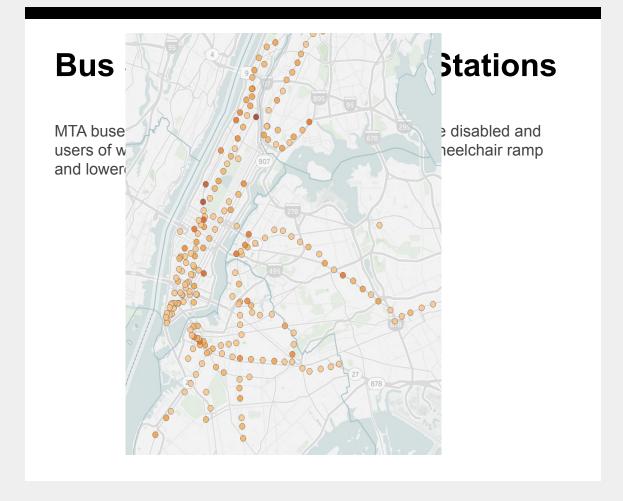
False

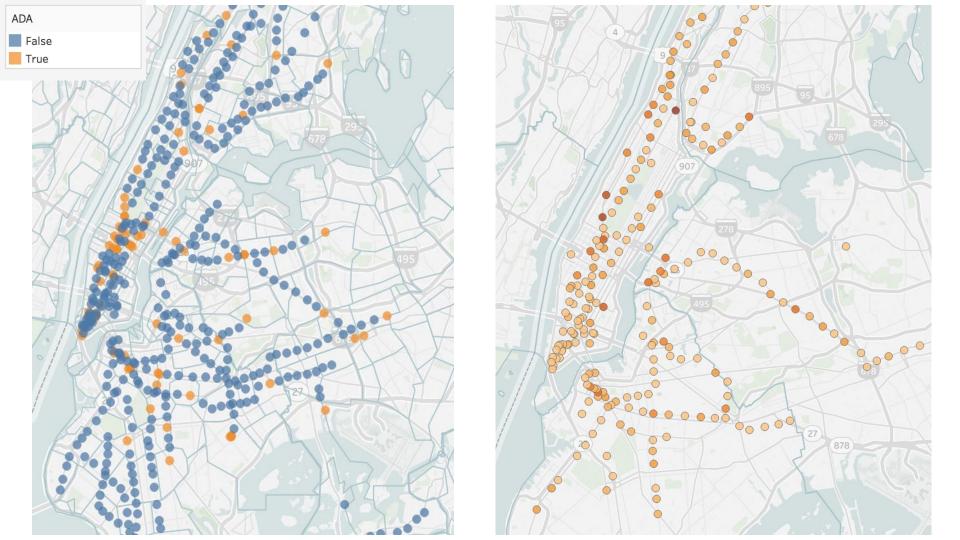
## Result Alternative Transportation

#### **Bus Stops Near Subway Stations**

MTA buses in the city of New York are accessible to the travellers with luggages and users of wheelchairs. All buses are equipped with a wheelchair ramp and lowered floor or a mechanical lift.

## Result Alternative Transportation



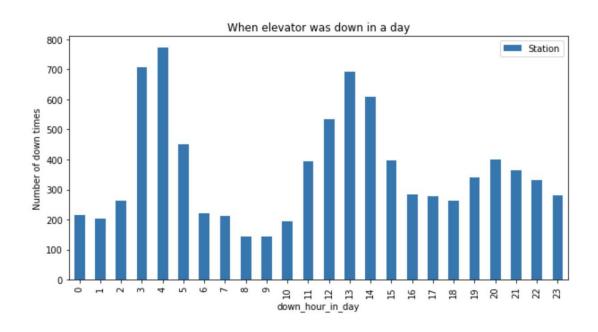


# Result Top reasons for elevator inaccessibility

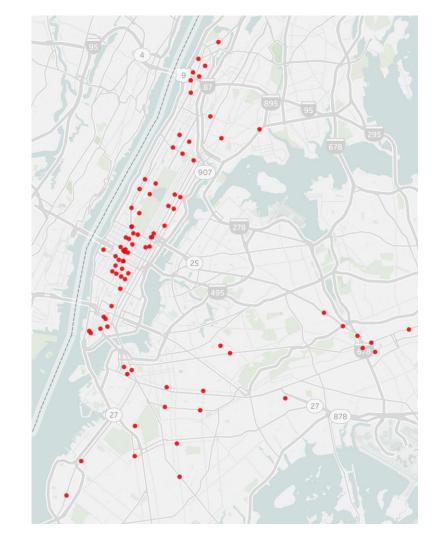
#### reason **Under Investigation** 4303 1390 Maintenance 1374 Repair **Planned Work** 1223 Inspection 224 115 Cleaning 19 **Access Improvements** Station Is Under Rehabilitation 12 **Urgent Con Edison Upgrades** Repair. The remaining Escalator is operating in the up direction. **Modifications In Progress Elevator Rehabilitation Weather Related Capital Replacement Warranty Repair** 2 **Port Authority Construction** Con Edison Power Issue

Number of down times

Result Elevators'
down-time in a
day



### Top elevator down locations



### Questions?