

# MTA Fare Card History

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# NYC Metropolitan Transport Authority

- New York City public transportation system
- 23 line in 5 boro, millions riders in New York City
- There are over 450 subway stations, 17 different fare types
- MTA collect fare swipe data for each rider swipe the card
- MTA release weekly swipe count online



<http://web.mta.info/maps/submap.html>

# MTA Open Data

- MetroCard swipes made each week by customers entering each station of the New York City Subway, PATH, AirTrain JFK and the Roosevelt Island Tram
- Raw data from MTA website: <http://web.mta.info/developers/fare.html>
- Data frame from New York State Open Data:  
<https://data.ny.gov/Transportation/Fare-Card-History-for-Metropolitan-Transportation-/v7qc-gwpn>



# Extract information from fare card data

- What is the overall trend of fare card usage in MTA system, by Year and Month?
- Which is the busiest subway stations in MTA, and which fare type are most commonly used?
- Any trend of fare card swipe in specific station or using specific card



[https://en.wikipedia.org/wiki/MetroCard\\_\(New\\_York\\_City\)](https://en.wikipedia.org/wiki/MetroCard_(New_York_City))

# Shiny Apps

[https://wanggene.shinyapps.io/mta\\_fare\\_card\\_history/](https://wanggene.shinyapps.io/mta_fare_card_history/)



# Insight and Business Recommendation

- Insight can be extracted from the dataset?
  - There are increased use of Senior/Disable fare type from 2011 to 2016
  - There are increased use of Mail / Unlimited fare card use
- Information can be used to improve the service or make more profit
  - for specific group of MTA rider
  - Ad/promotion through specific station or fare card



# Future Works

- Keep update new data from MTA website.
- Calculate the weighted proportion in the plot, and do statistical analysis.
- Integrate geographic information into app.



Thank You!

