

# Maximizing Outreach for the WTWY Gala

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## Research Goal

WTWY: “Where we’d like to solicit your engagement is to use MTA subway data, which as I’m sure you know is available freely from the city, to help us optimize the placement of our street teams, such that we can gather the most signatures, ideally from those who will attend the gala and contribute to our cause.”

- Actionable Goal – Find possible street team **locations** that see the **most relevant** foot traffic.
- Simplification – Find **subway stations** with the most foot traffic and the times with the **most** foot traffic

# Data



- MTA Data: <http://web.mta.info/developers/turnstile.html>
  - C/A: Control area
  - UNIT: Remote unit
  - SCP: Sub-unit channel position
  - Entries/Exits: Cumulative Entries/Exits recorded by turnstile at the time stamp
  - Time interval queried: 06/04/2021 - 09/11/2021

Ex.	C/A	UNIT	SCP	STATION	LINENAME	DIVISION	DATE	TIME	DESC	ENTRIES	EXITS
0	A002	R051	02-00-00	59 ST	NQR456W	BMT	06/05/2021	00:00:00	REGULAR	7581941	2591624
1	A002	R051	02-00-00	59 ST	NQR456W	BMT	06/05/2021	04:00:00	REGULAR	7581950	2591625
2	A002	R051	02-00-00	59 ST	NQR456W	BMT	06/05/2021	08:00:00	REGULAR	7581954	2591635

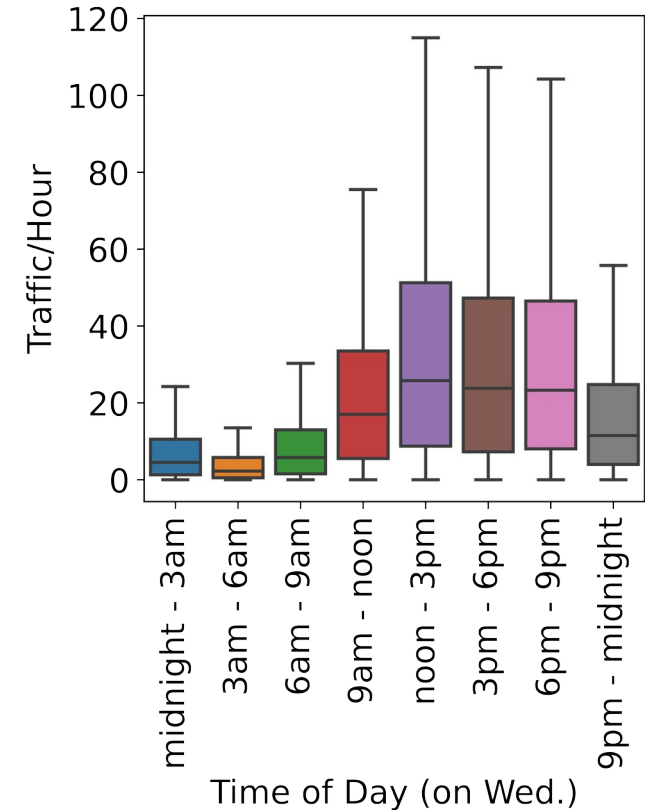
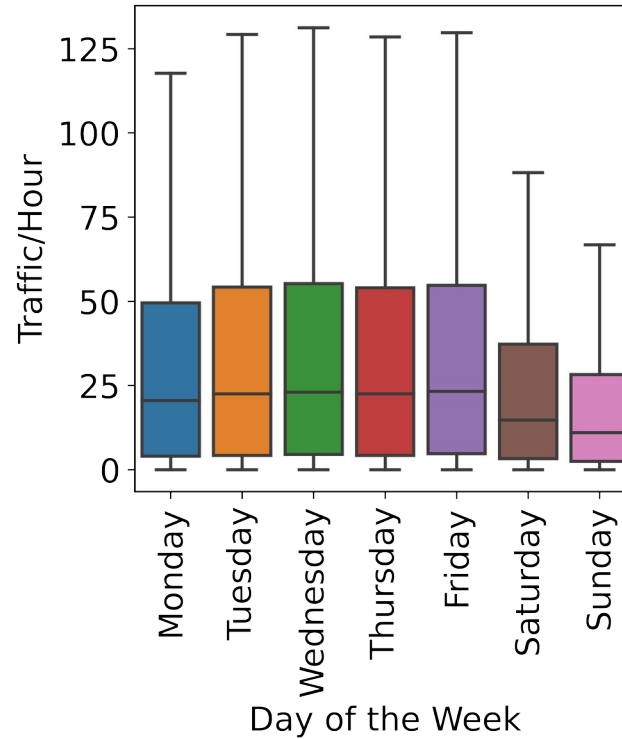
## Procedure

- 1) Compute (entries+exits)/hour  $\rightarrow$  traffic/hour
- 2) Find busiest weekday
- 3) Find busiest time of day
- 4) Find busiest stations (on the busiest day/time)

# Busiest day of the week and time of the day

## Takeaways:

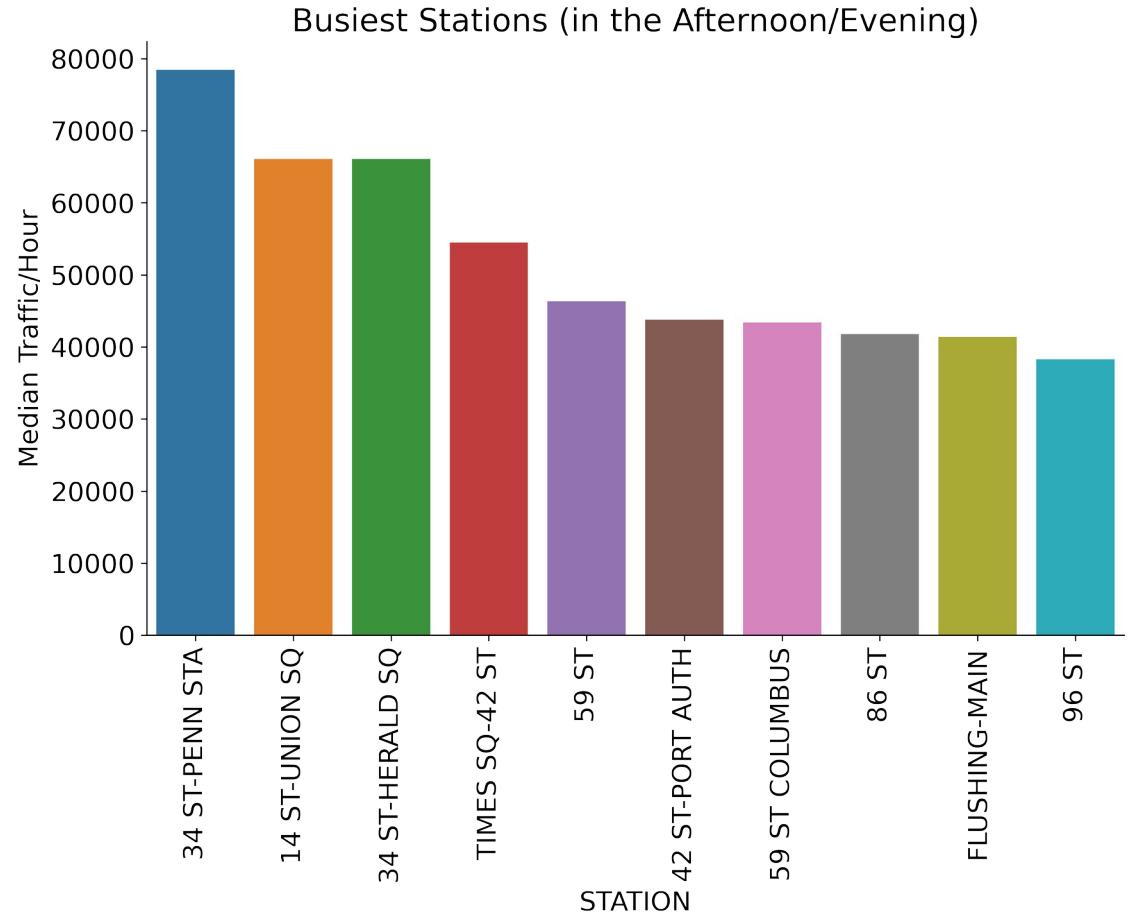
- Tues – Fri are the busiest days
- 12-9pm is the busiest time of the day



# Results

## Takeaways:

- Best time: 2-6pm
- Best days: Tues - Fri
- Best Stations: →



## Potential Improvements

- Incorporate number of entrances per station
- Incorporate subway lines to minimize double coverage of the same commuters



# Questions?



## Appendix - Artifacts

### Types of issues in Data

- Broken turnstiles
- Turnstile resets
- Reversed Turnstiles

### Cumulative Entries vs. Time for “Bad” Turnstiles

