

# Thwarting Turnstile Terrorists

An analysis of MTA data for the Dept. of Homeland Security



# Background

- MTA daily ridership: 5.2 Million
- Annual downtown traffic: ~110 Million
- 4,000 transit incidents in 2017







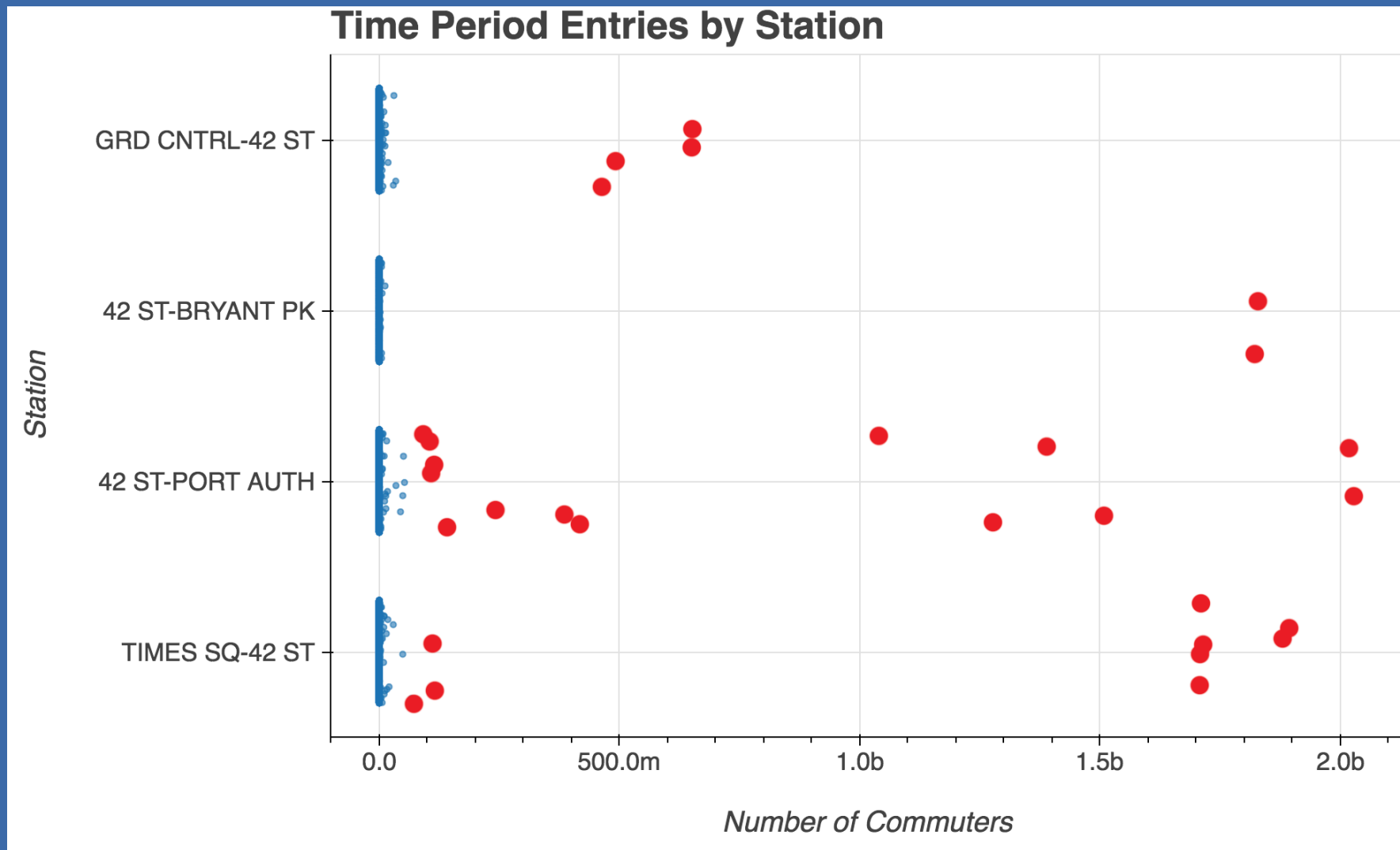
# The Data

- MTA Turnstile Data
- Extrapolating Trends
- Inefficiencies

# Cleaning the Data

- Negative Measurements
- Significant Outliers
- Data Interpolation

# Visualizing Outliers



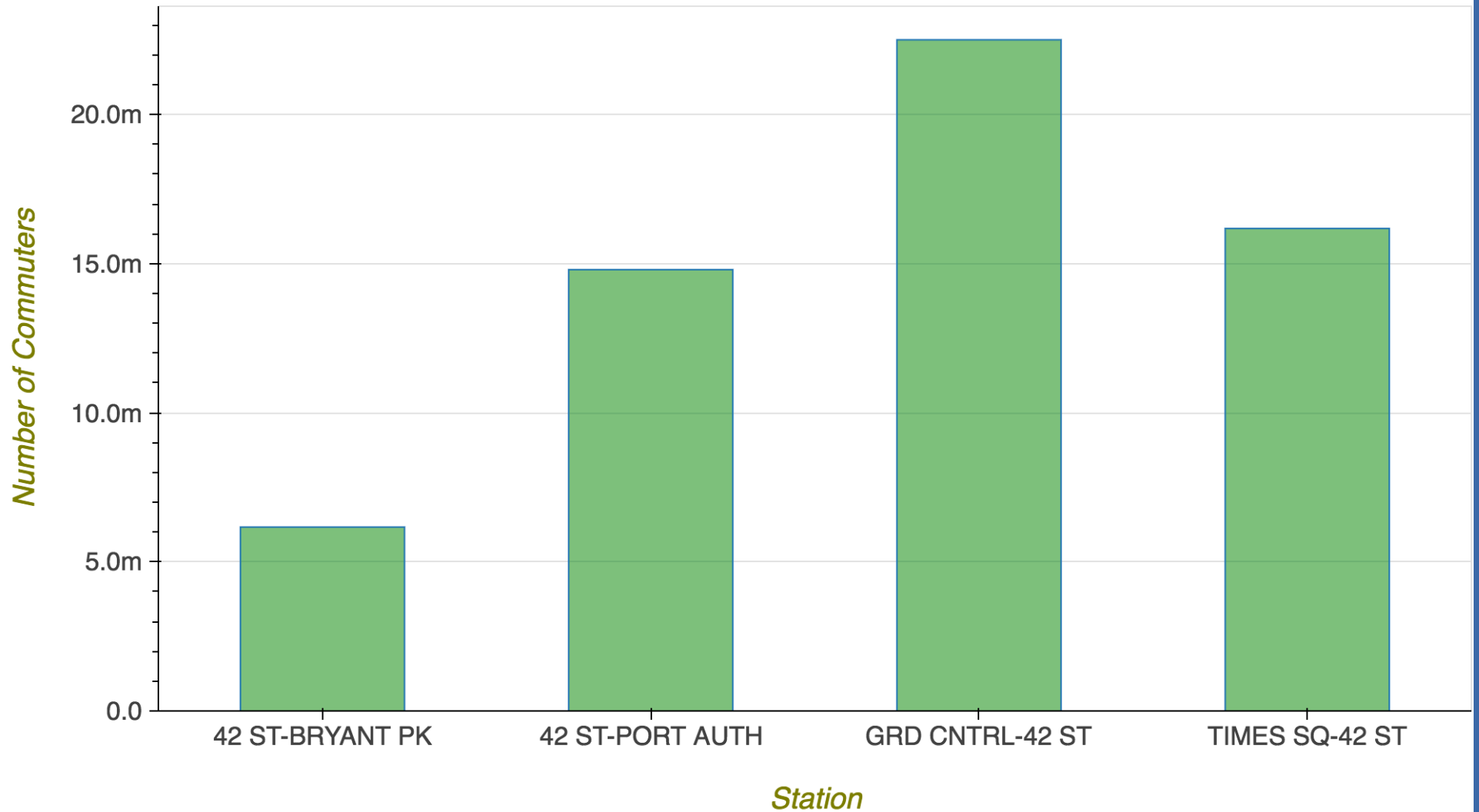


# Which station will be targeted?

- Times Square?
- Grand Central Station?
- Port Authority?
- Bryant Park?

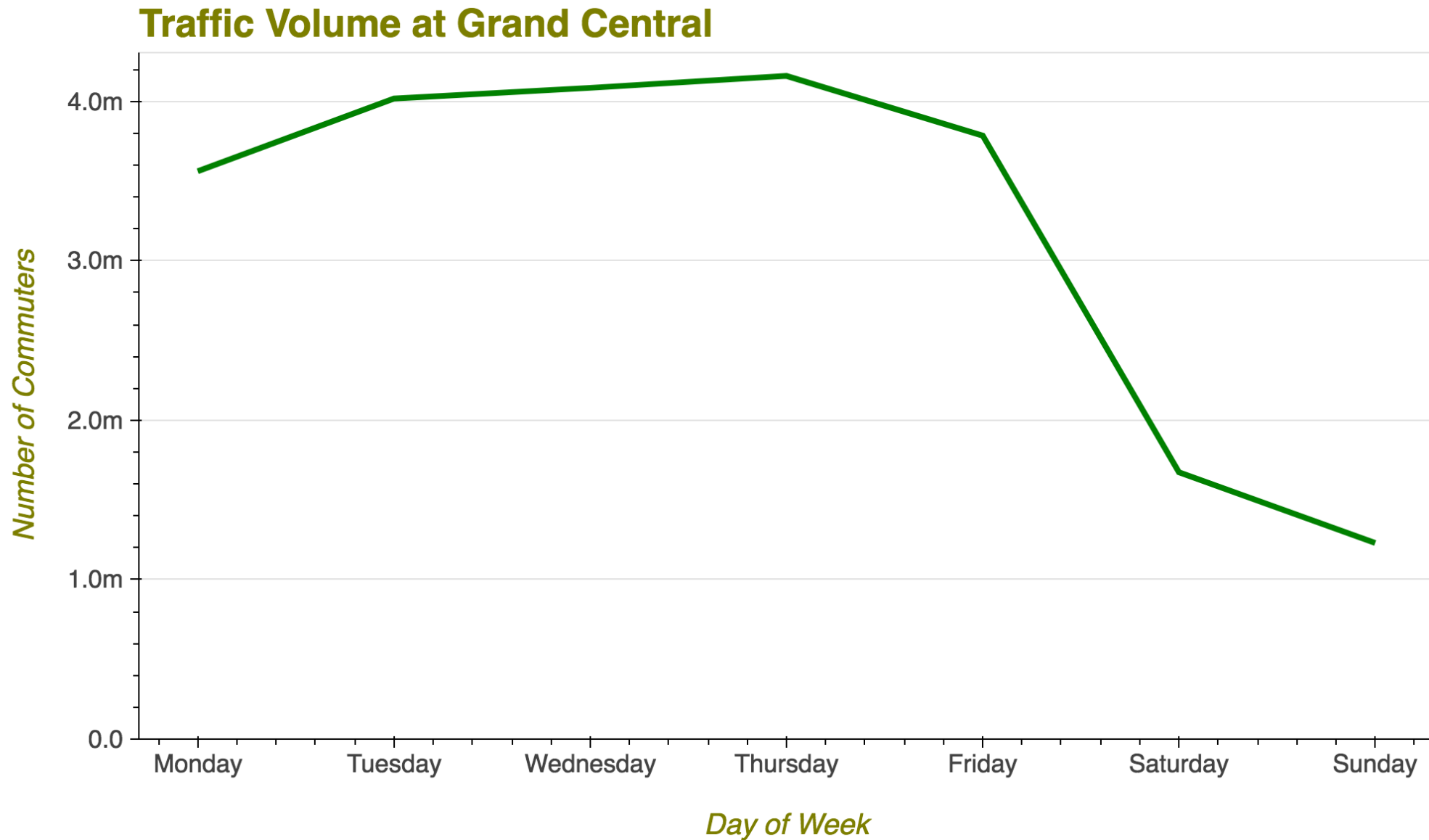
# Site Selection

**Traffic Volume at 42nd St Stations**



When will they attack?

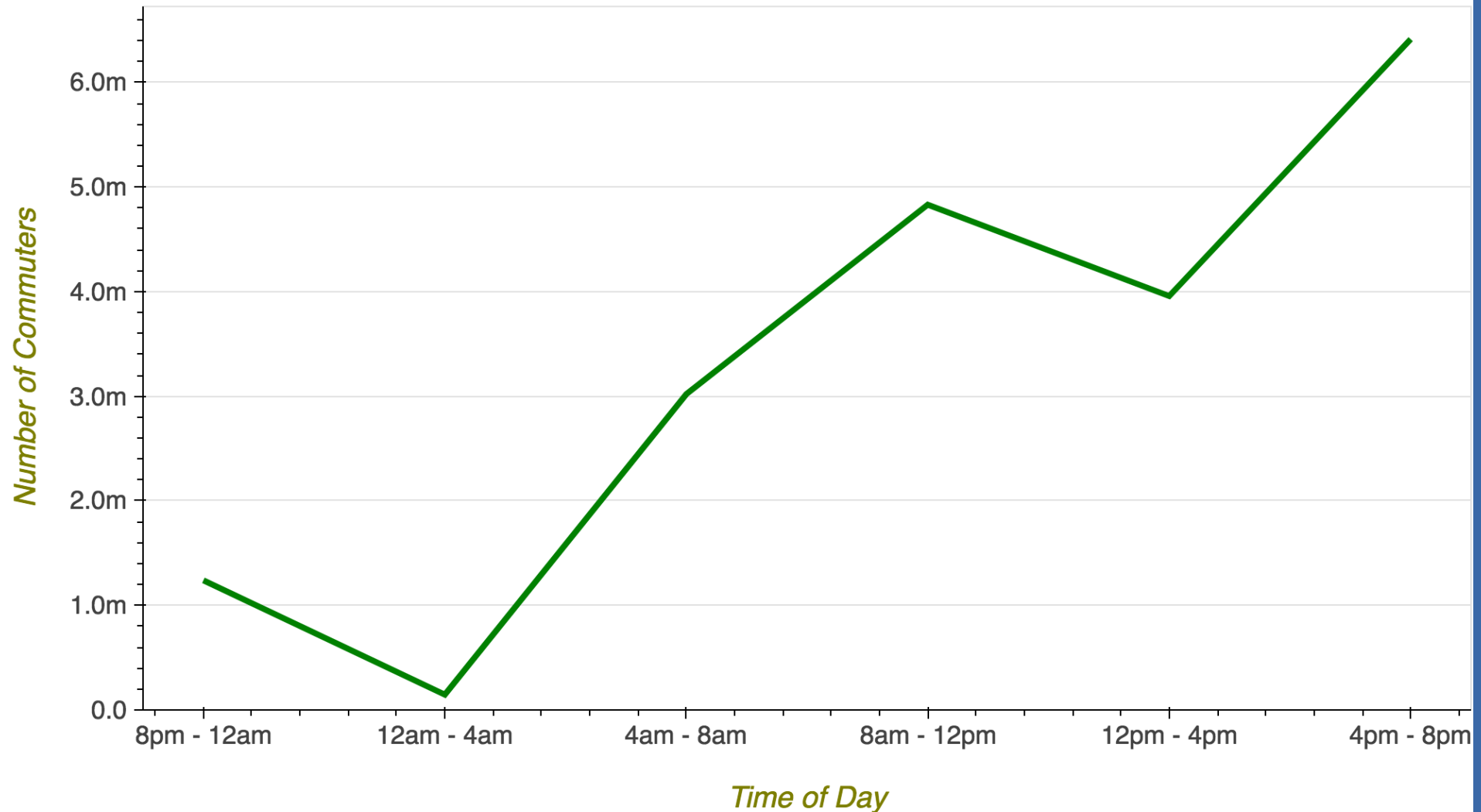
# Weekly Traffic Profile



At what time will they attack?

# Hourly Traffic Volume

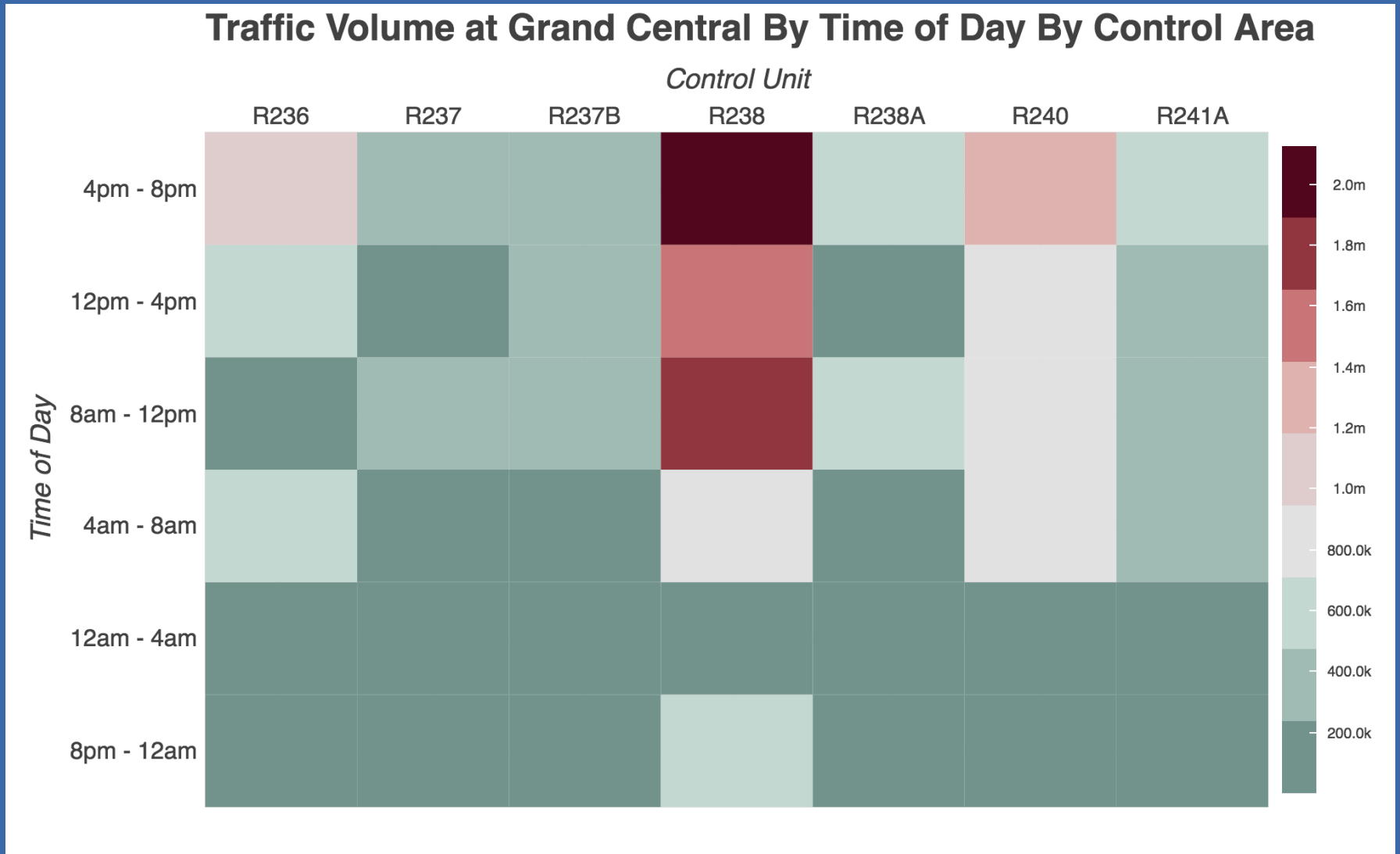
**Traffic Volume at Grand Central By Time of Day**





# Project Pipeline

# Station Mapping: Traffic Profile by Area



# Next Steps

## Current Data

- How do trends vary annually?
- What are trends around Holidays?
- What are peak traffic trends at other major stations?
- Recommend maintenance/audit process

# Next Steps

## Additional Data

- Police Stations
- Crime statistics
- Overall plan for whole city



