



WOMEN TECH WOMEN YES ANNUAL GALA CANVAS

Dangaia Sims & Paul Black

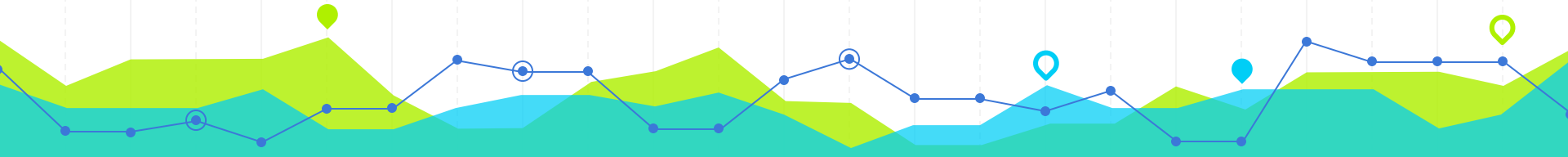
PRESENTATION FORMAT

Project Goals

Data Analysis

Results

Conclusions





Project Goals

1

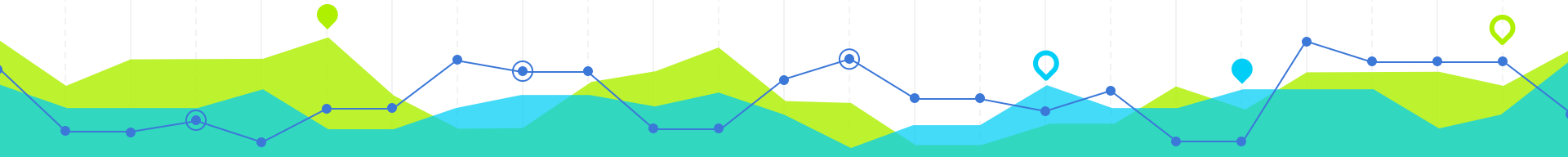
THE EMAIL

- Women Tech Women Yes (WTWY) annual gala
 - May 30, 2017
- Street teams as means of building awareness, increasing reach, and fundraising support
- Need passionate members and donors supportive of women in technology



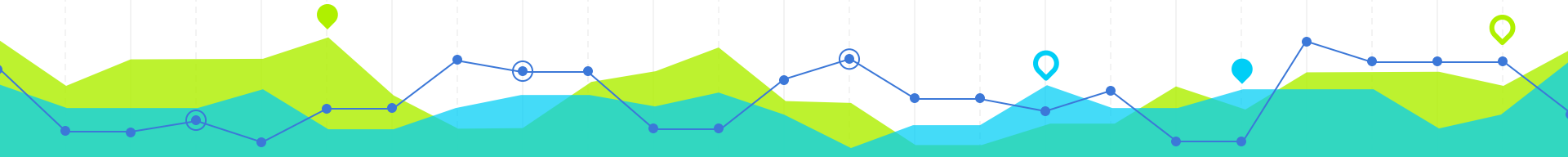
THE DATA

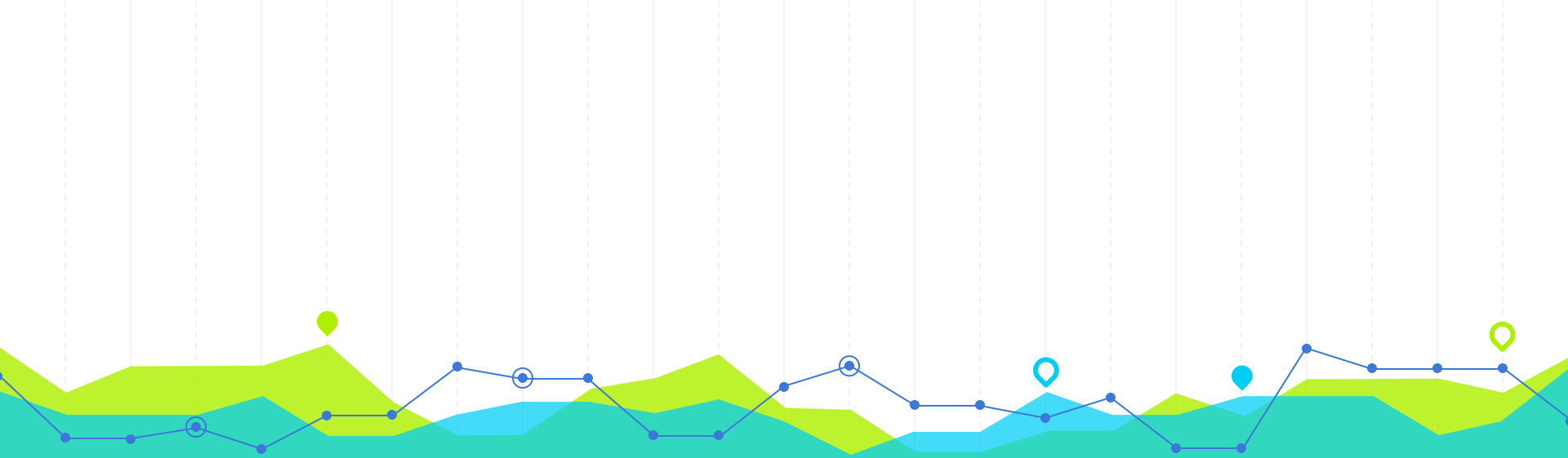
- New York City Metropolitan Transit Authority (MTA) Subway Data
 - Specifically data pulled between March 1st and May 31st 2015, 2016, and 2017
- MTA ridership rankings by weekend and weekday for 2015
 - http://web.mta.info/nyct/facts/ridership/ridership_sub.htm
- Incubators/Accelerators in New York City



THE QUESTION

- ◉ How (i.e., where and when) should WTWY place street teams to optimize their canvassing process?



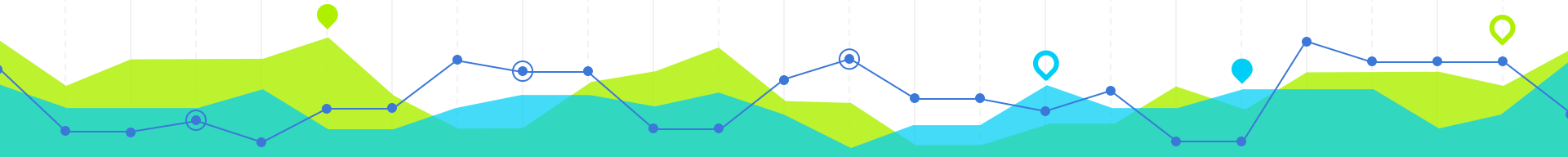


Data Analysis

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EXPLORATORY DATA ANALYSIS

- Leveraged MTA to identify highly trafficked areas
- Identify key days of the week with high volume foot traffic
- Eliminate false data (e.g. negative foot traffic, extreme values)
- Parsed out weekend and weekday data
- Complexity of station
- Total foot traffic
 - Average total foot traffic





Ridership Rank by Weekend vs Weekday

2.1

RANK

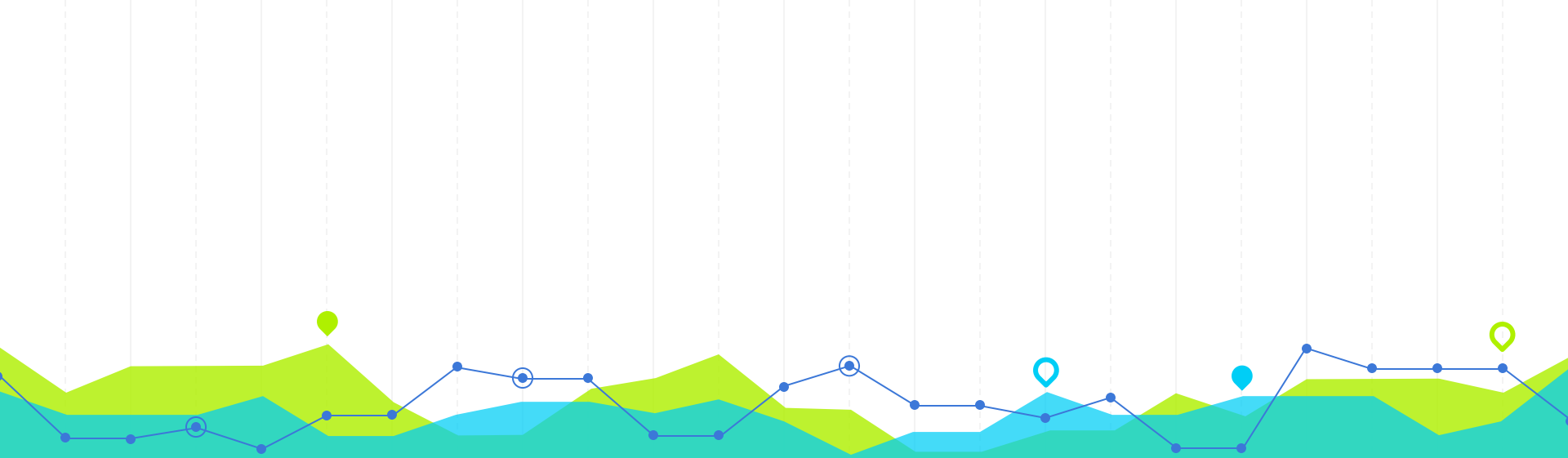
| | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|---------|-----|
| Inwood-207 St A | 12,380 | 15,361 | 11,333 | 11,856 | 12,130 | 12,944 | +814 | +6.7% | 140 |
| Lexington Av N Q R /59 St 4 5 6 | 64,849 | 67,744 | 69,374 | 74,118 | 72,247 | 71,184 | -1,063 | -1.5% | 10 |
| Lexington Av-53 St E M /51 St 6 | 38,040 | 40,172 | 42,957 | 45,260 | 46,802 | 45,716 | -1,086 | -2.3% | 22 |
| Lexington Av-63 St F | 16,221 | 13,981 | 12,191 | 9,928 | 9,863 | 11,517 | +1,654 | +16.8% | 154 |
| Marble Hill-225 St 1 | 6,336 | 4,845 | 6,846 | 6,079 | 6,879 | 6,343 | -536 | -7.8% | 259 |
| Prince St N R | 25,339 | 27,581 | 25,952 | 24,428 | 25,668 | 26,154 | +486 | +1.9% | 50 |
| Rector St 1 | 5,285 | 6,852 | 9,776 | 9,328 | 11,503 | 6,098 | -5,405 | -47.0% | 271 |
| Rector St R | 5,276 | 6,669 | 5,985 | 2,917 | 1,252 | 6,066 | +4,814 | +384.5% | 274 |
| Roosevelt Island F | 10,621 | 8,135 | 7,571 | 6,123 | 6,200 | 7,100 | +900 | +14.5% | 239 |

WEEKEND

RANK

| | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| Inwood-207 St A | 8,202 | 8,888 | 8,717 | 8,866 | 9,136 | 9,317 | +181 | +2.0% | 178 |
| Lexington Av N Q R /59 St 4 5 6 | 63,138 | 65,855 | 67,478 | 67,841 | 69,332 | 68,988 | -344 | -0.5% | 10 |
| Lexington Av-53 St E M /51 St 6 | 62,774 | 66,045 | 67,821 | 69,973 | 70,606 | 70,686 | +80 | +0.1% | 9 |
| Lexington Av-63 St F | 15,816 | 15,616 | 15,639 | 15,404 | 15,493 | 16,098 | +605 | +3.9% | 90 |
| Marble Hill-225 St 1 | 5,570 | 4,758 | 5,380 | 5,456 | 5,766 | 5,732 | -34 | -0.6% | 274 |
| Prince St N R | 14,826 | 16,223 | 16,344 | 15,261 | 15,404 | 15,597 | +193 | +1.3% | 98 |
| Rector St 1 | 8,165 | 8,902 | 10,065 | 11,323 | 10,869 | 10,625 | -244 | -2.2% | 151 |
| Rector St R | 8,588 | 8,083 | 6,912 | 5,362 | 4,127 | 6,157 | +2,030 | +49.2% | 257 |
| Roosevelt Island F | 7,870 | 6,576 | 6,430 | 6,321 | 5,998 | 6,197 | +199 | +3.3% | 255 |

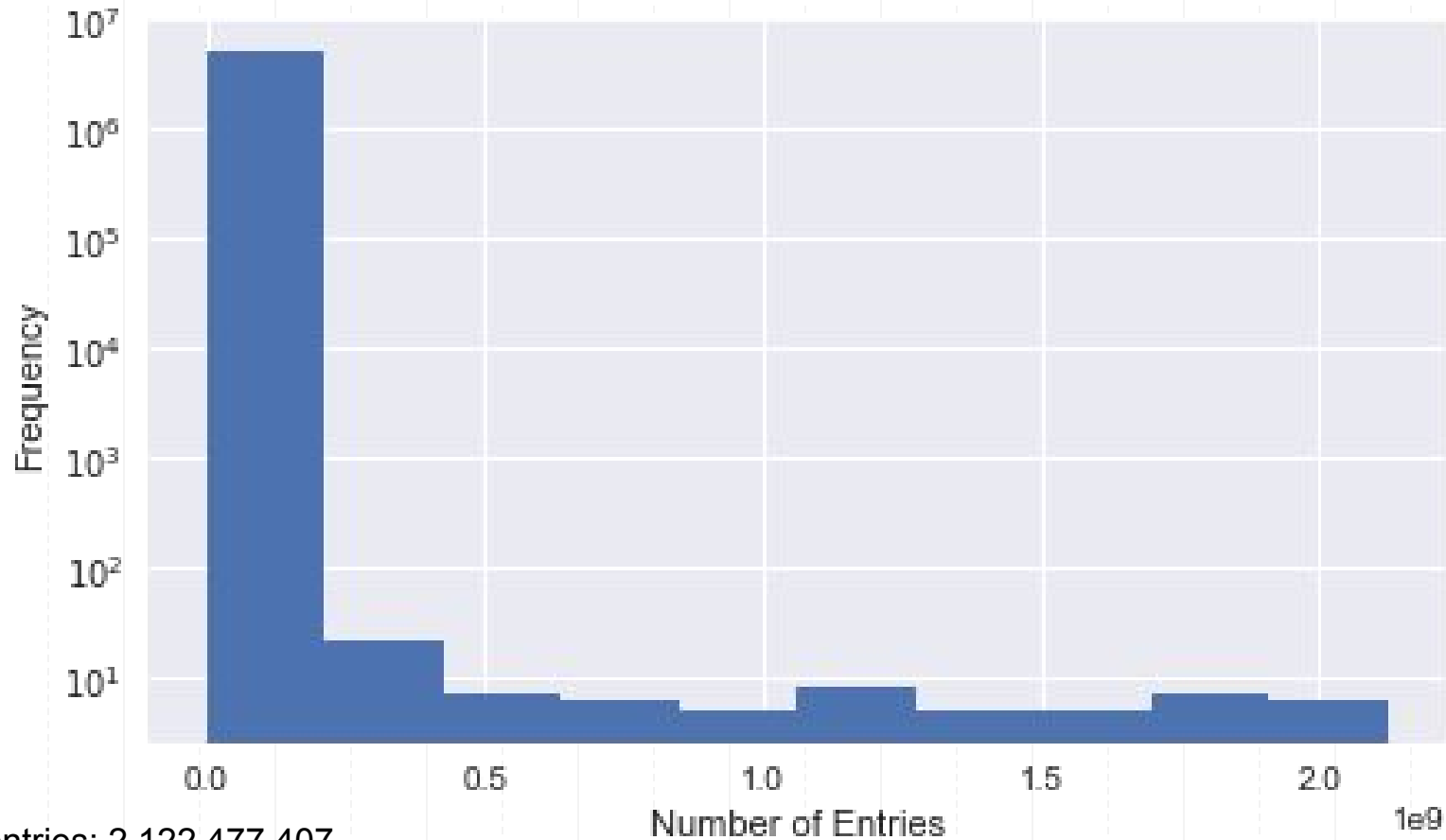
WEEKDAY



Eliminating False Data

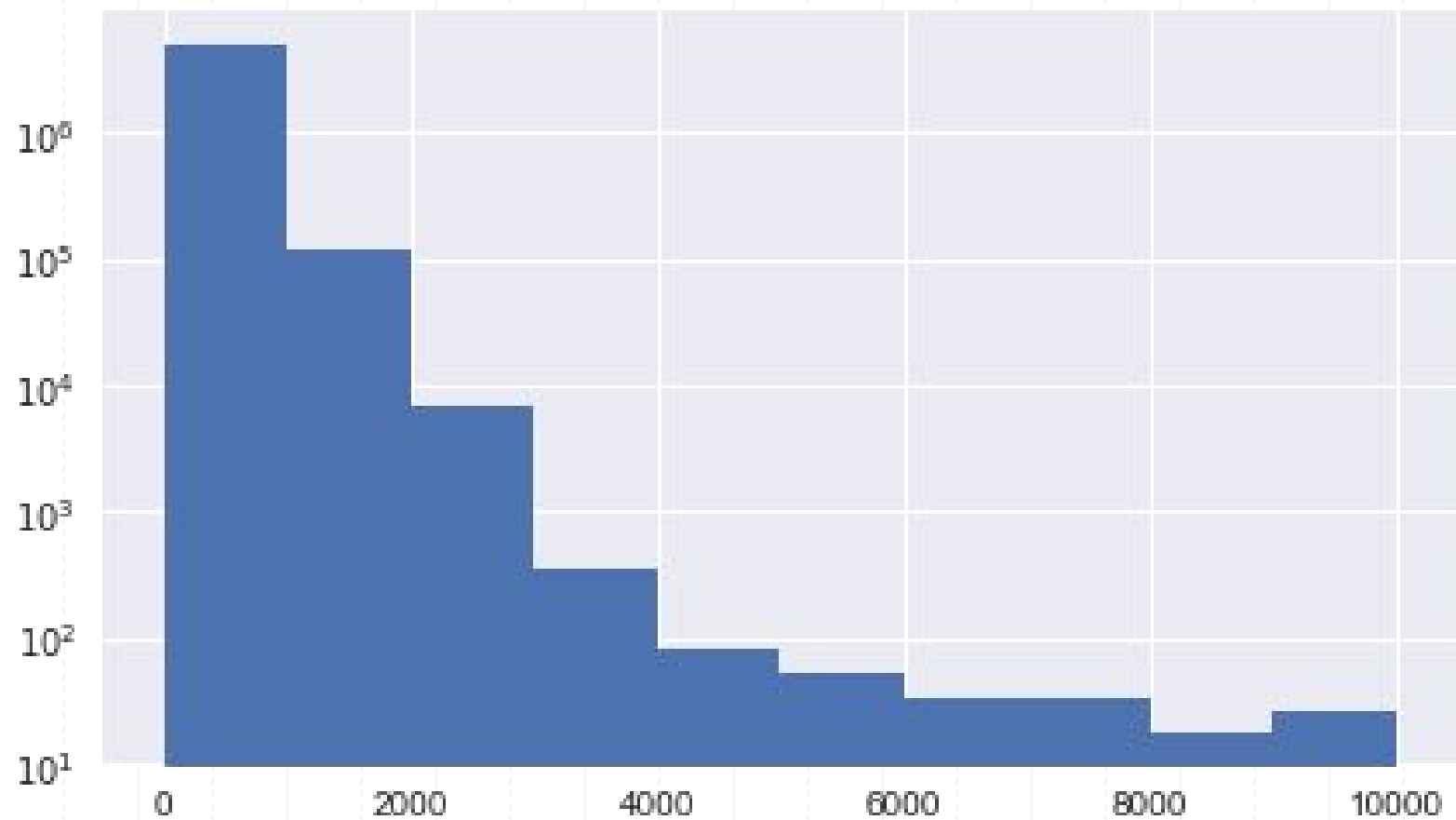
2.2

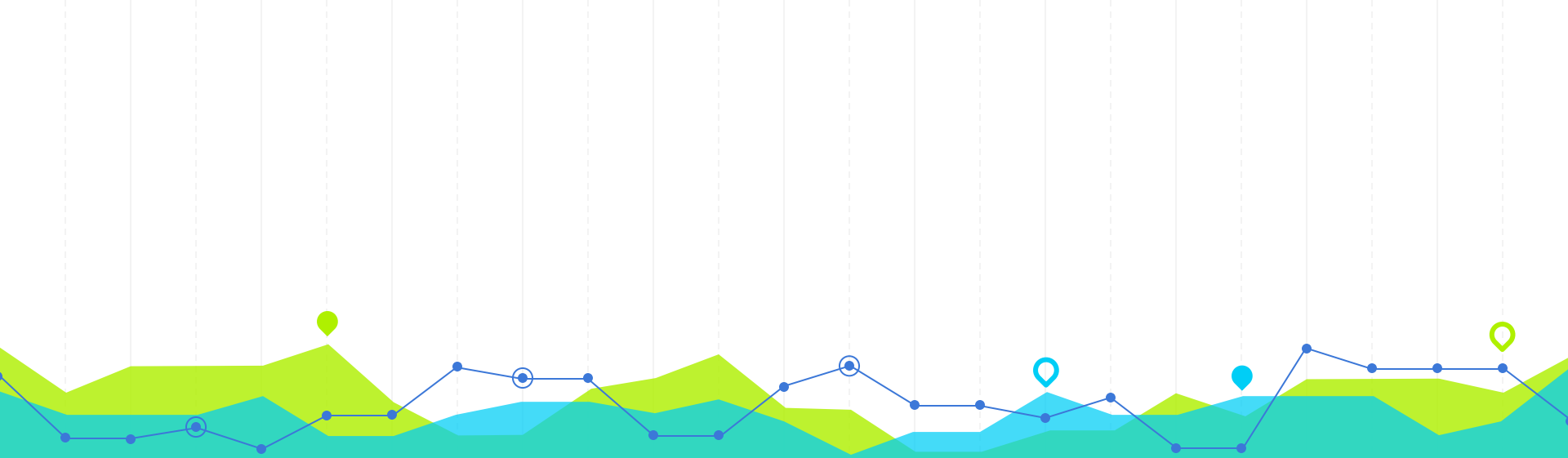
Frequency of New Entries Amounts Unfiltered



max entries: 2,122,477,407

Frequency of New Entries Amounts

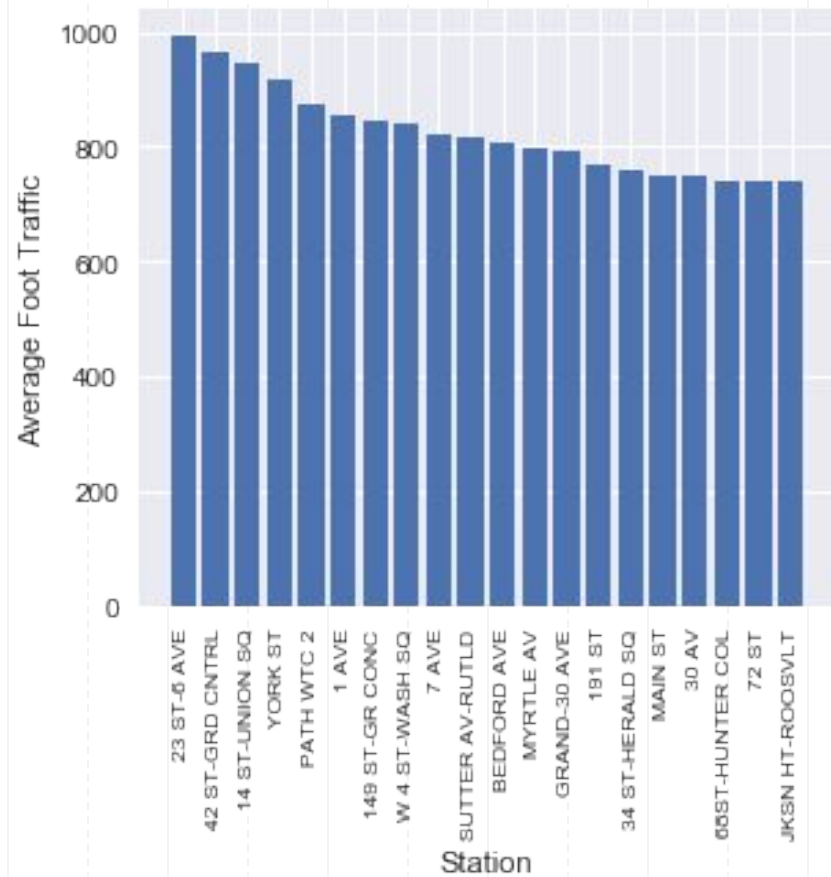
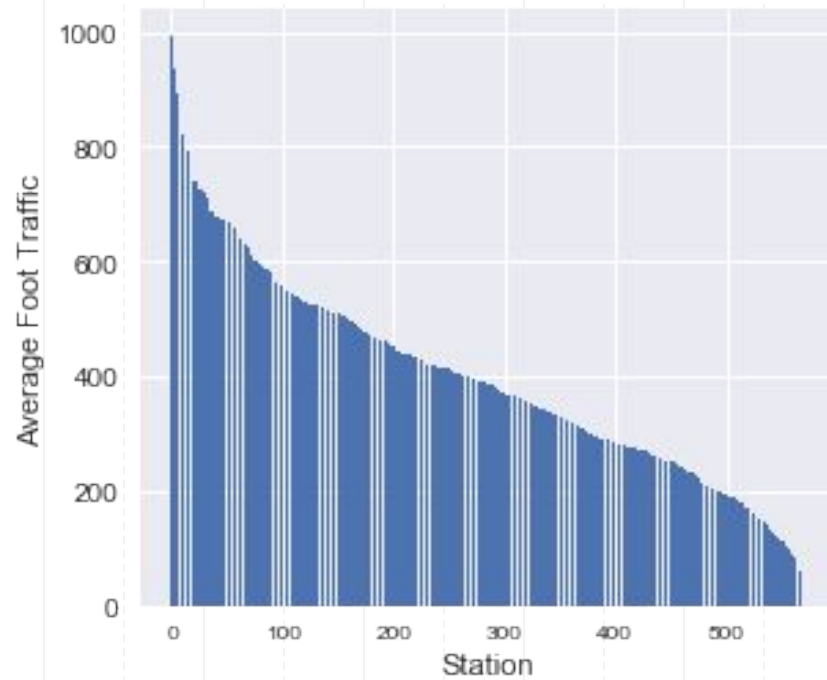




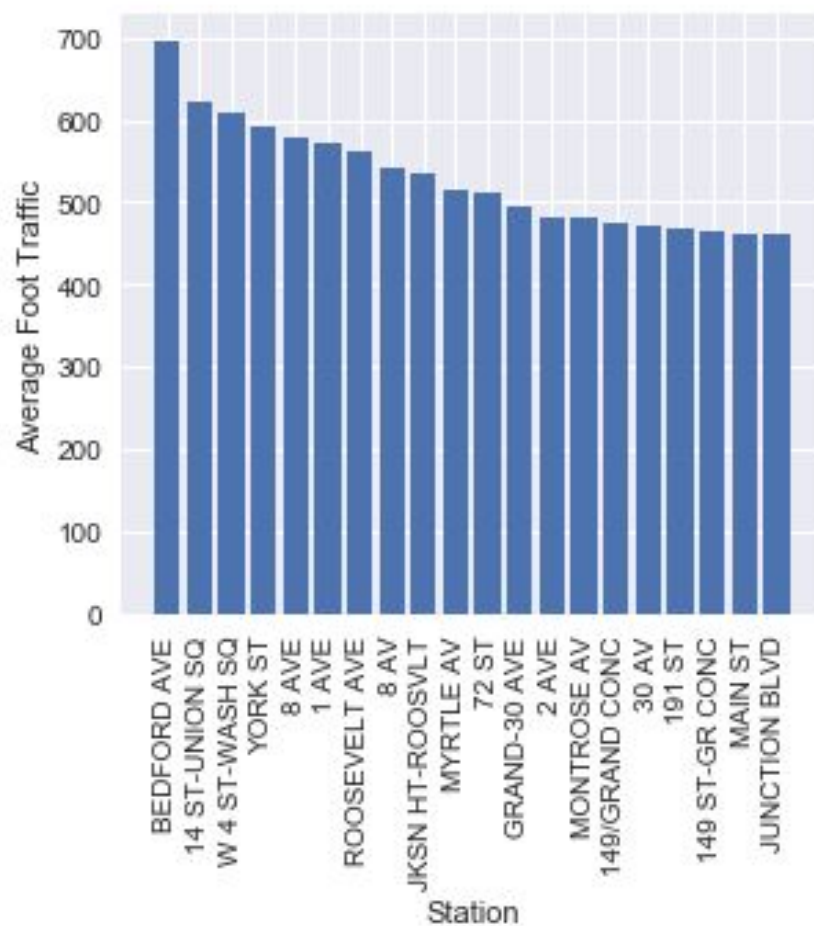
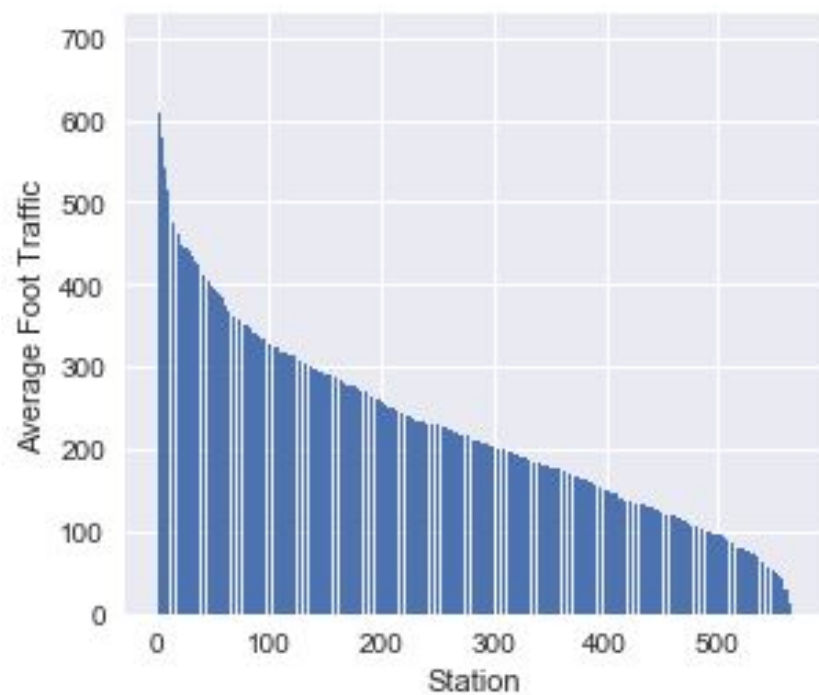
Average Foot Traffic by Station

2.3

Average Foot Traffic by Station: Weekday



Average Foot Traffic by Station: Weekend



| WEEKDAY | | | |
|---------|-----------------|------------------|--|
| | STATION | FOOT TRAFFIC AVG | |
| 1 | 23 ST-6 AVE | 991.082034 | |
| 2 | 42 ST-GRD CNTRL | 964.126204 | |
| 3 | 14 ST-UNION SQ | 946.837296 | |
| 4 | YORK ST | 917.153547 | |
| 5 | PATH WTC 2 | 874.459441 | |
| 6 | 1 AVE | 853.024055 | |
| 7 | 149 ST-GR CONC | 847.212966 | |
| 8 | W 4 ST-WASH SQ | 839.671501 | |
| 9 | 7 AVE | 819.695769 | |
| 10 | SUTTER AV-RUTLD | 814.216028 | |

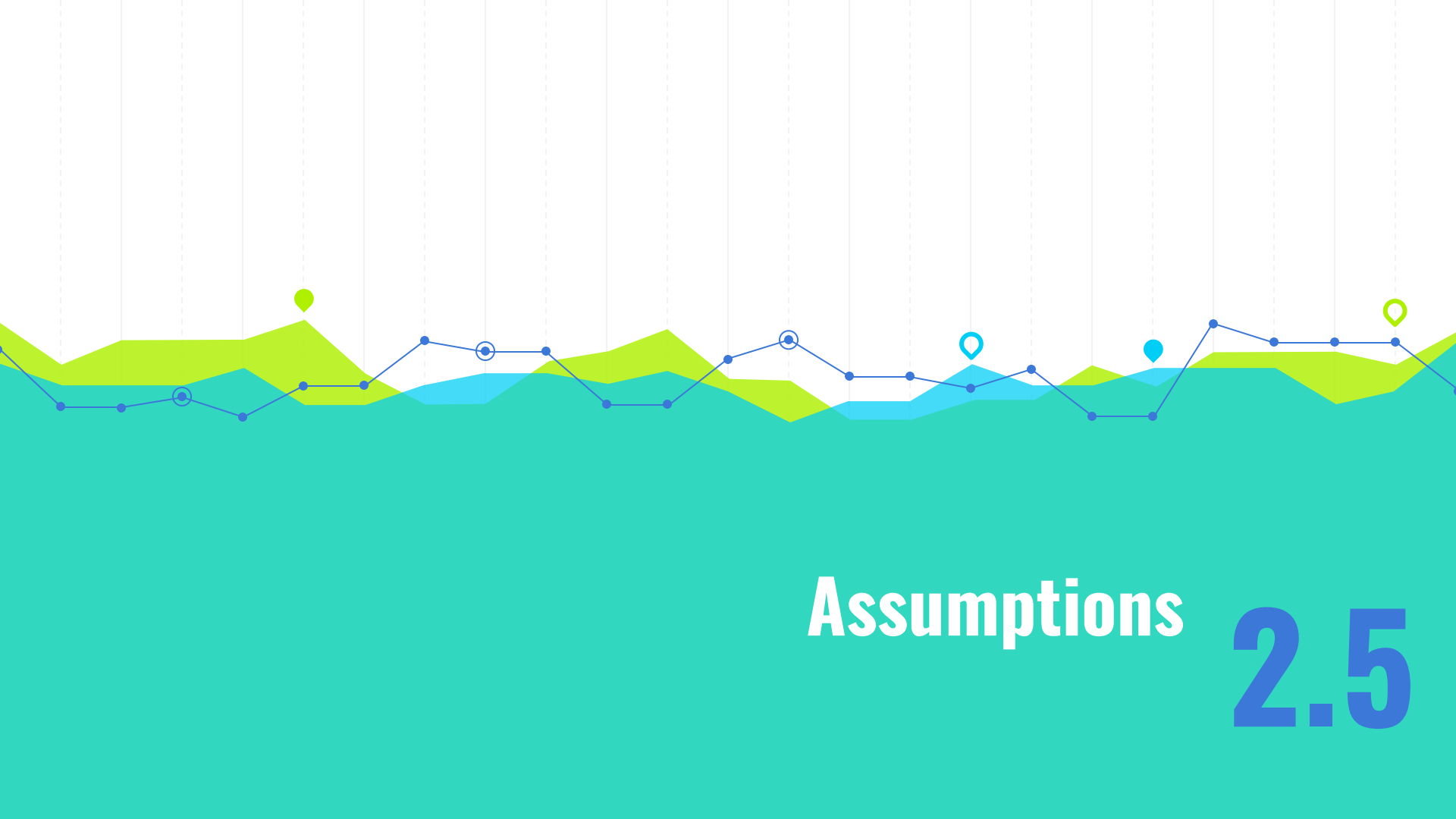
| WEEKEND | | | |
|---------|-----------------|------------------|--|
| | STATION | FOOT TRAFFIC AVG | |
| 1 | BEDFORD AVE | 694.54073 | |
| 2 | 14 ST-UNION SQ | 621.187505 | |
| 3 | W 4 ST-WASH SQ | 610.158971 | |
| 4 | YORK ST | 591.883036 | |
| 5 | 8 AVE | 577.071057 | |
| 6 | 1 AVE | 571.316233 | |
| 7 | ROOSEVELT AVE | 561.60607 | |
| 8 | 8 AV | 540.191445 | |
| 9 | JKSN HT-ROOSVLT | 536.52435 | |
| 10 | MYRTLE AV | 515.440789 | |



Station Complexity

2.4

| WEEKDAY | | | |
|---------|-----------------|------------------|------------|
| | STATION | FOOT TRAFFIC AVG | COMPLEXITY |
| 1 | 23 ST-6 AVE | 991.082034 | MEDIUM |
| 2 | 42 ST-GRD CNTRL | 964.126204 | EXTREME |
| 3 | 14 ST-UNION SQ | 946.837296 | HIGH |
| 4 | YORK ST | 917.153547 | LOW |
| 5 | PATH WTC 2 | 874.459441 | LOW |
| 6 | 1 AVE | 853.024055 | MEDIUM |
| 7 | 149 ST-GR CONC | 847.212966 | LOW |
| 8 | W 4 ST-WASH SQ | 839.671501 | MEDIUM |
| 9 | 7 AVE | 819.695769 | LOW |
| 10 | SUTTER AV-RUTLD | 814.216028 | LOW |



Assumptions 2.5

CLEANING DATA OUR ASSUMPTIONS

- Number of turnstiles at a single station is a good depiction of station complexity
- More than 10,000 entries in a 4 hour period is false data
 - Likely caused by turnstile malfunction
- Negative entries is due to turnstile malfunction
- Ridership changes by seasonality
- Ridership changes by weekday vs weekend





Results 3

- Stations



- Stations
- Incubators



- Incubators
- Stations for canvassing



THE STATIONS

| WEEKEND | |
|---------|----------------------------------|
| 1 | W 4th St - Washington Sq (Lower) |
| 2 | York Street |
| 3 | 8th Avenue |
| 4 | 1st Avenue |
| 5 | 72nd Street |
| 6 | 2nd Avenue |
| 7 | 191 Street |
| 8 | 42nd Street - Bryant park |

| WEEKDAY | |
|---------|----------------------------------|
| 1 | 23rd Street |
| 2 | York Street |
| 3 | World Trade Center |
| 4 | 1st Avenue |
| 5 | W 4th St - Washington Sq (Lower) |
| 6 | 7th Avenue |
| 7 | 30th Avenue |
| 8 | 191 Street |

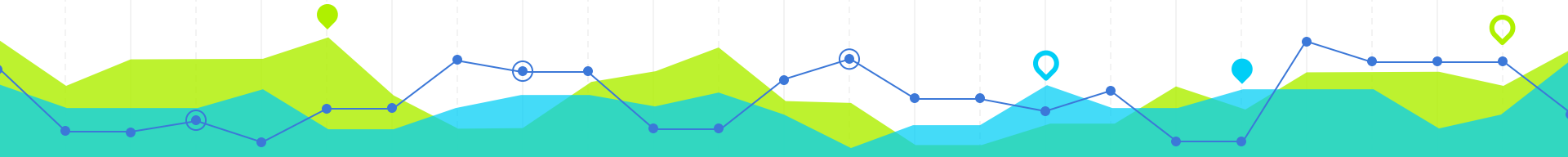


Conclusions

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THE CONCLUSIONS

- Canvassers should be cognizant of:
 - Weekday vs Weekend
 - Complexity of station
 - Proximity to “tech-y” people



THANKS!

Any questions?

