MTA Traffic Analysis for WomenTechWomenYes

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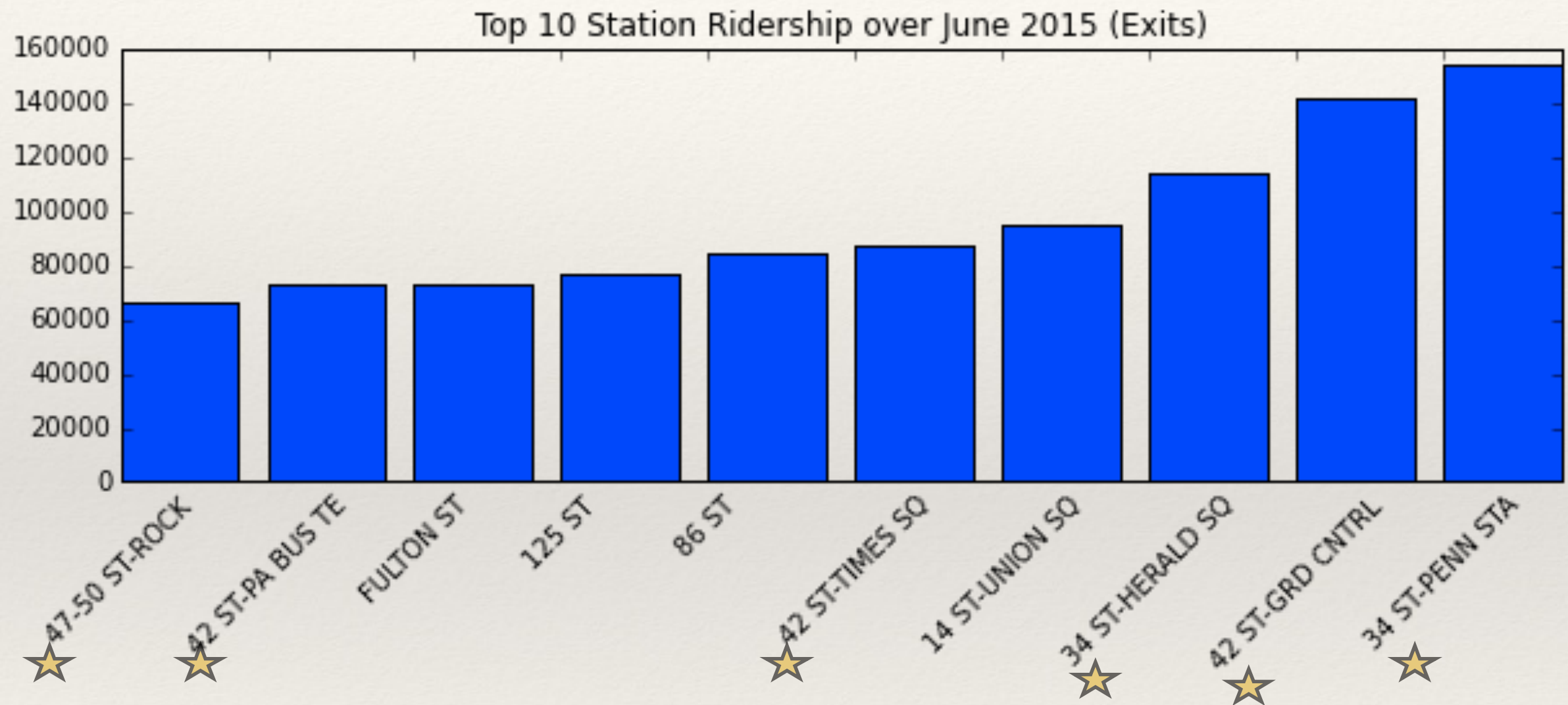# Our goal is to help WomenTechWomenYes optimize the effectiveness of their street teams for their upcoming gala in the summer

❖ WomenTechWomenYes (WTWY) wants to fill an upcoming gala with individuals passionate about their cause as well as build awareness and reach

❖ We harnessed the public MTA data to optimize the effectiveness of their street team and maximize signatures from targeted demographics

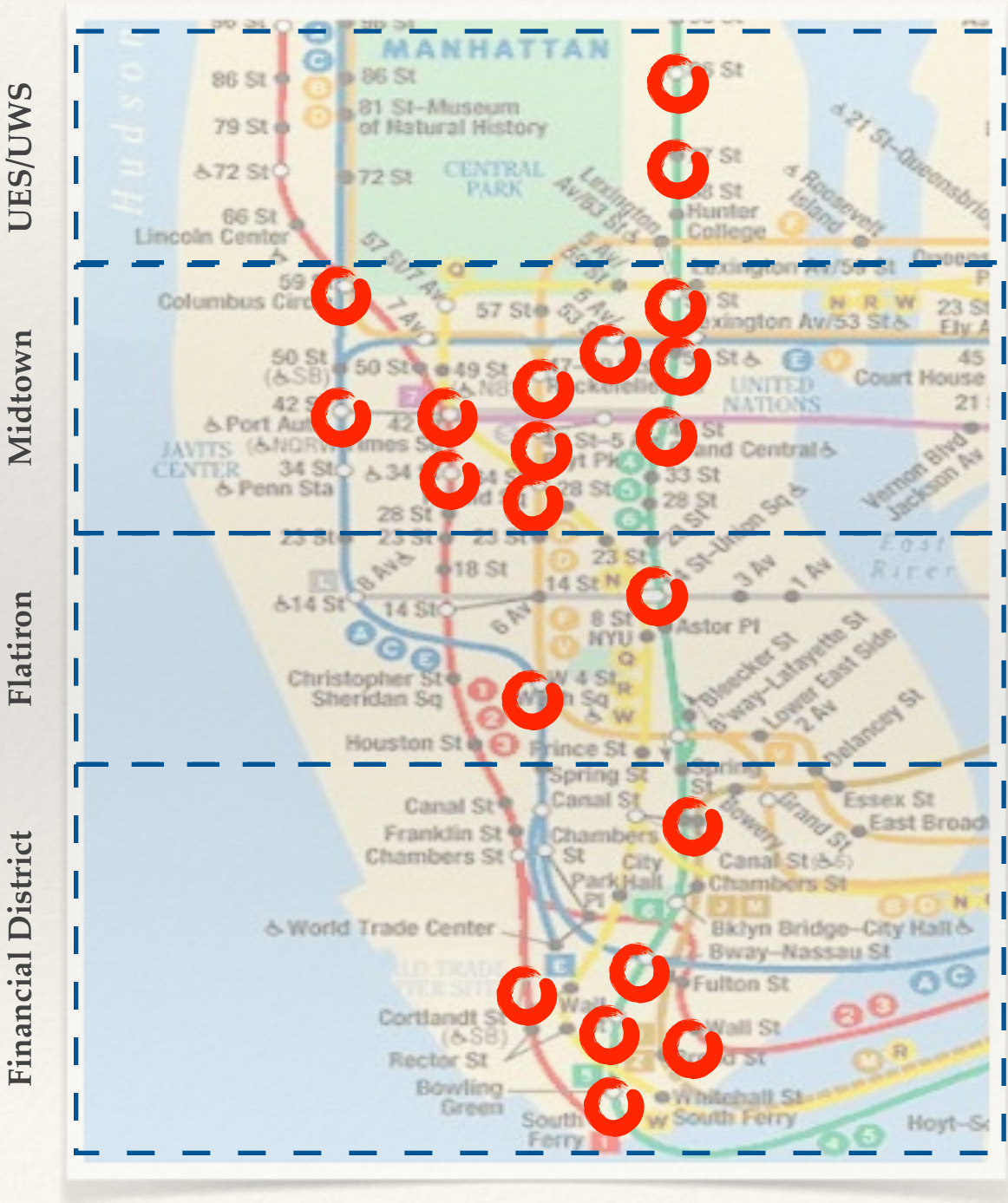# Overall, the top traffic subway stations are concentrated in midtown Manhattan

Top 10 Station Ridership over June 2015 (Exits)

⭐ *Note: Midtown crushes it*

Subway Traffic Flow Summary by Time
Early Morning Commute (before 11am)

Summary for Top 5 Percent Subway Stations

#	Subway Station Name	Average Exits Per Week
1	42 ST-GRD CNTRL 4567S	436,880
2	34 ST-HERALD SQ BDFMNQR	272,653
3	47-50 ST-ROCK BDFM	249,219
4	PATH WTC 1	247,439
5	14 ST-UNION SQ LNQR456	189,017
6	42 ST-TIMES SQ 1237ACENQRS	185,273
7	LEXINGTON-53 ST EM6	164,774
8	34 ST-PENN STA ACE	155,072
9	59 ST 456NQR	154,080
10	FULTON ST 2345ACJZ	149,936
11	59 ST-COLUMBUS ABCD1	142,119
12	42 ST-BRYANT PK BDFM7	129,285
13	5 AVE-53 ST EM	125,606
14	86 ST 456	125,156
15	42 ST-PA BUS TE ACENQRS1237	112,784
16	CANAL ST JNQRZ6	112,558
17	W 4 ST-WASH SQ ABCDEFM	110,237
18	WALL ST 23	101,135
19	BOWLING GREEN 45	99,382
20	77 ST 6	88,646

0   125,000   250,000   375,000   500,000

*These subway stations are not in the Manhattan island and therefore not plotted on the chart.

Subway Traffic Flow Summary by Time
Lunch Period (between 11am and 2pm)

Summary for Top 5 Percent Subway Stations

#	Subway Station Name	Average Exits Per Week
1	42 ST-GRD CNTRL 4567S	156,367
2	34 ST-HERALD SQ BDFMNQR	150,579
3	34 ST-PENN STA ACE	104,092
4	42 ST-TIMES SQ 1237ACENQRS	103,391
5	14 ST-UNION SQ LNQR456	96,128
6	86 ST 456	85,157
7	59 ST 456NQR	69,695
8	59 ST-COLUMBUS ABCD1	67,050
9	W 4 ST-WASH SQ ABCDEFM	65,945
10	47-50 ST-ROCK BDFM	65,194
11	42 ST-PA BUS TE ACENQRS1237	60,201
12	*MAIN ST 7	59,782
13	96 ST 123	58,461
14	CANAL ST JNQRZ6	57,044
15	14 ST-UNION SQ 456LNQR	56,328
16	72 ST 123	55,007
17	*ROOSEVELT AVE EFMR7	52,598
18	FULTON ST 2345ACJZ	48,729
19	34 ST-PENN STA 123	46,066
20	*BROADWAY / LAFAY BDFQ6	45,054

0   80,000   160,000

Notes:
1. Data source: MTA turnstile data from 4/4/2015 to 4/15/2015.
2. There were a total of 473 unique subway stations (unique by station name and line number).

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Subway Traffic Flow Summary by Time
Afternoons to Early Evenings (between 2pm and 7pm)

Summary for Top 5 Percent Subway Stations

#	Subway Station Name	Average Exits Per Week
1	34 ST-HERALD SQ BDFMNQR	197,058
2	42 ST-GRD CNTRL 4567S	183,060
3	34 ST-PENN STA ACE	175,035
4	42 ST-PA BUS TE ACENQRS1237	169,988
5	34 ST-PENN STA 123ACE	144,680
6	42 ST-TIMES SQ 1237ACENQRS	124,606
7	86 ST 456	121,794
8	*MAIN ST 7	114,862
9	*UNION TPK-KEW G EF	103,322
10	PATH WTC 1	92,454
11	*ROOSEVELT AVE EFMR7	91,937
12	14 ST-UNION SQ LNQR456	91,334
13	34 ST-PENN STA 123	91,284
14	W 4 ST-WASH SQ ABCDEFM	80,852
15	96 ST 123	74,696
16	*JAMAICA CENTER EJZ	71,780
17	59 ST-COLUMBUS ABCD1	68,236
18	*BEDFORD AVE L	66,780
19	72 ST 123	65,040
20	59 ST 456NQR	62,518

Notes:
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Subway Traffic Flow Summary by Time
Late Evenings (from 7pm to Midnight)

Summary for Top 5 Percent Subway Stations

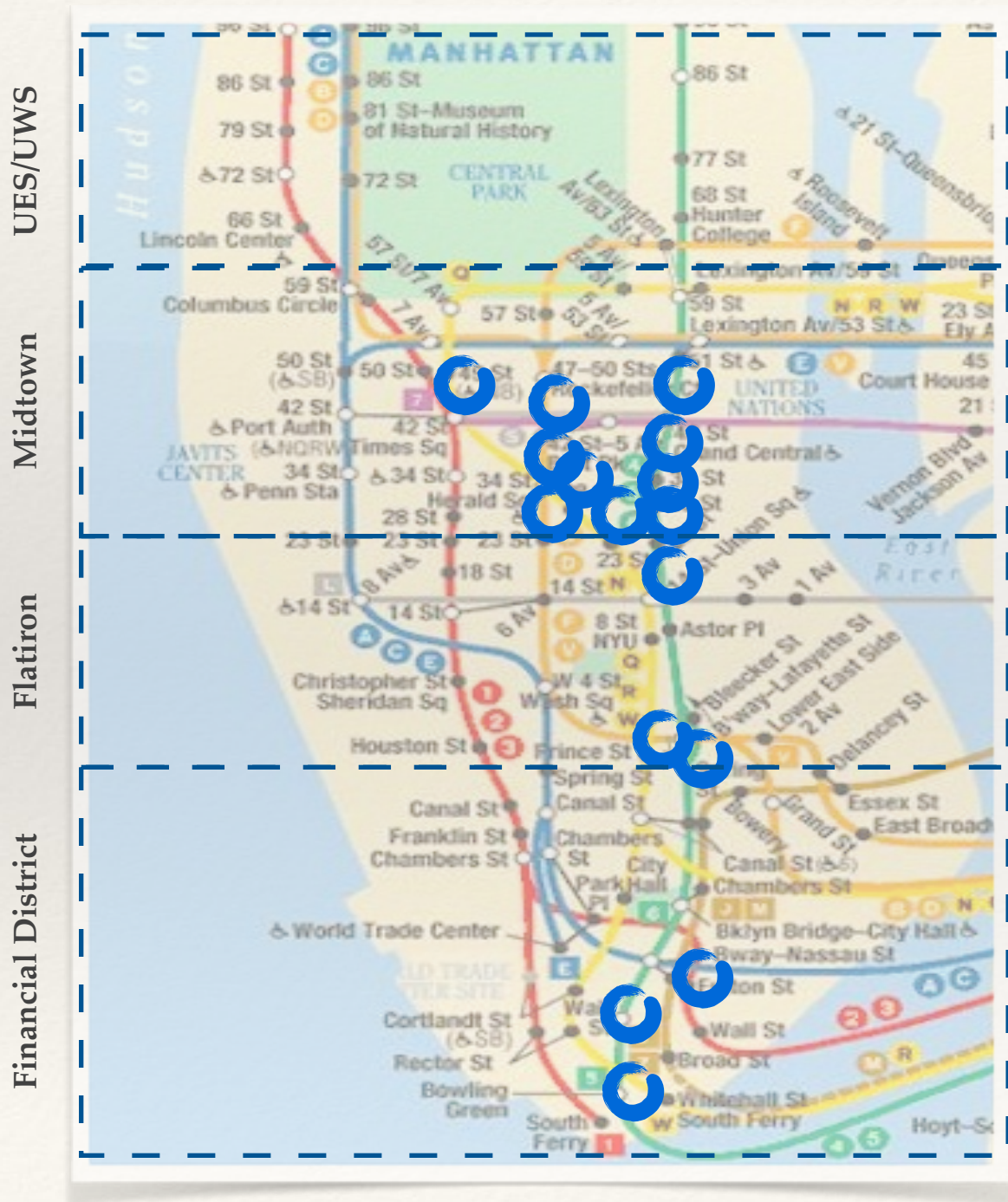| #	Subway Station Name	Average Exits Per Week
1	*MAIN ST 7	49,745
2	34 ST-HERALD SQ BDFMNQR	47,443
3	*ROOSEVELT AVE EFMR7	43,903
4	42 ST-PA BUS TE ACENQRS1237	40,686
5	86 ST 456	40,481
6	42 ST-GRD CNTRL 4567S	40,130
7	42 ST-TIMES SQ 1237ACENQRS	37,906
8	34 ST-PENN STA ACE	36,733
9	*BEDFORD AVE L	31,283
10	*JAMAICA CENTER EJZ	28,166
11	*145 ST ABCD	26,969
12	96 ST 123	26,497
13	*CROWN HTS-UTICA 34	22,870
14	*1 AVE L	21,712
15	*JUNCTION BLVD 7	20,896
16	*125 ST ACBD	19,994
17	*CHURCH AVE BQ	19,509
18	*DITMARS BL-31 S NQ	19,444
19	FULTON ST 2345ACJZ	19,266
20	W 4 ST-WASH SQ ABCDEFM	18,783

0   25,000   50,000

Notes:
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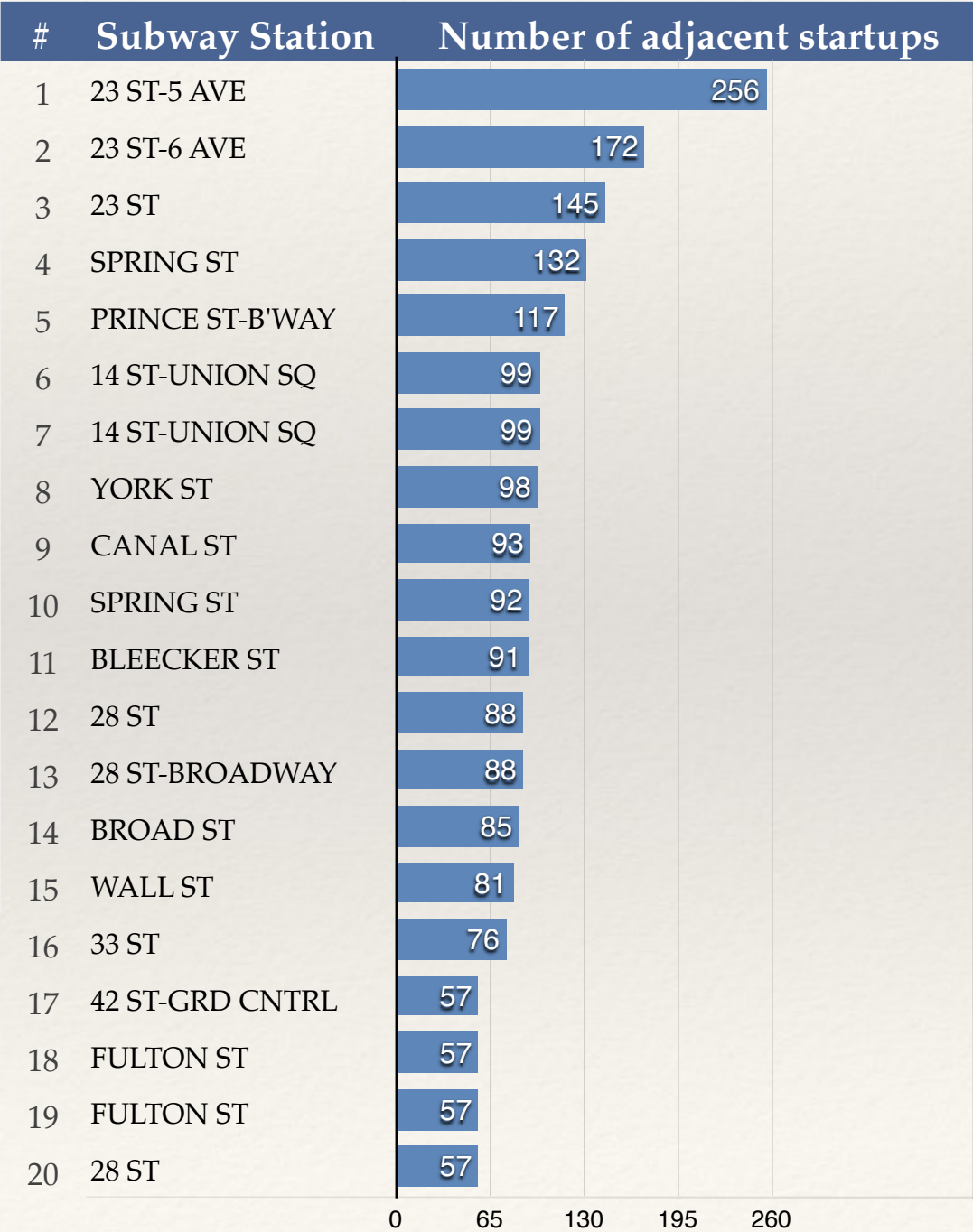
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Majority of the high traffic subway stations are also close to the tech startup hubs in NYC
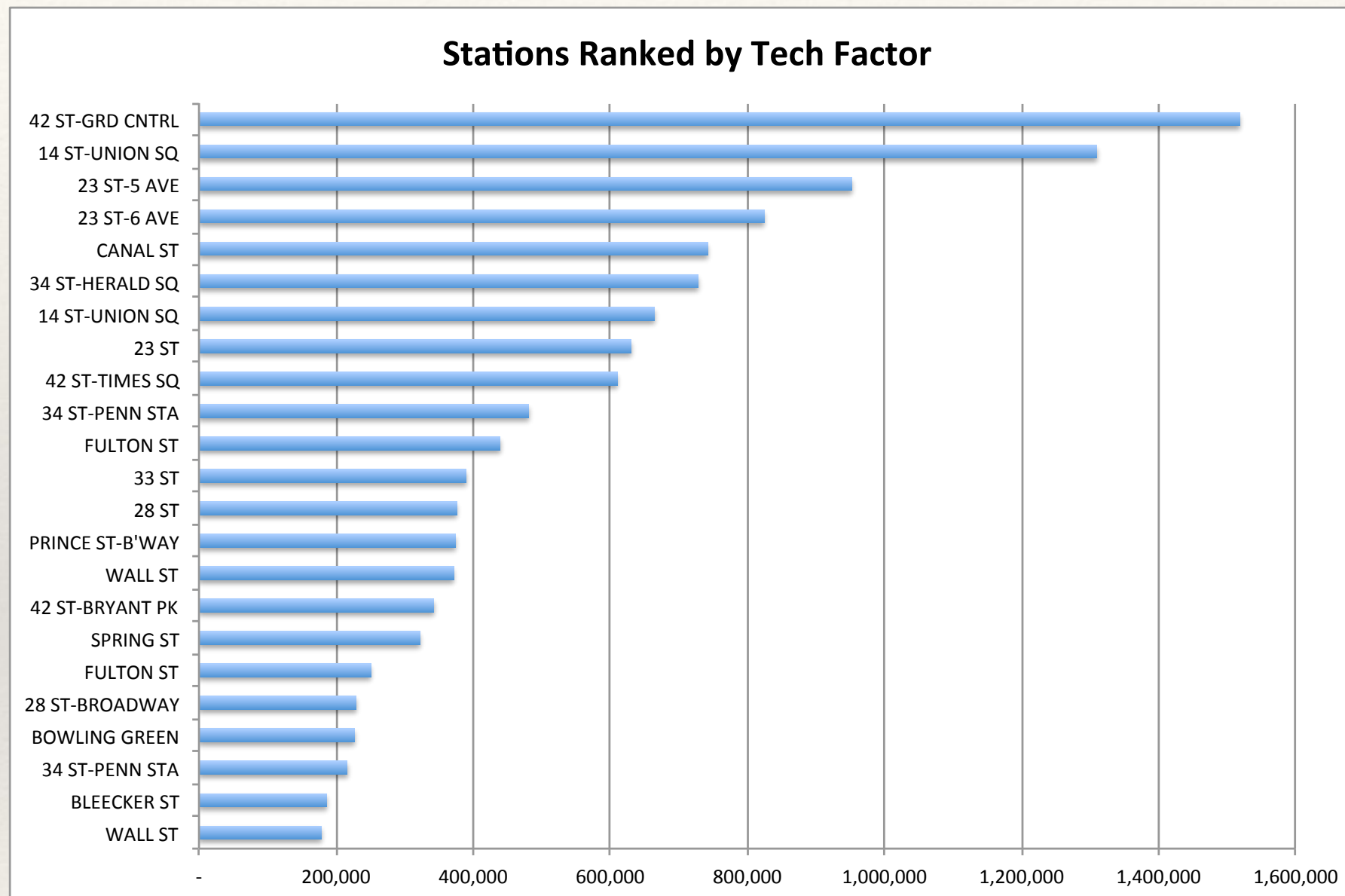

Subway stations with the highest number of startups close by

#	Subway Station	Number of adjacent startups
1	23 ST-5 AVE	256
2	23 ST-6 AVE	172
3	23 ST	145
4	SPRING ST	132
5	PRINCE ST-B'WAY	117
6	14 ST-UNION SQ	99
7	14 ST-UNION SQ	99
8	YORK ST	98
9	CANAL ST	93
10	SPRING ST	92
11	BLEECKER ST	91
12	28 ST	88
13	28 ST-BROADWAY	88
14	BROAD ST	85
15	WALL ST	81
16	33 ST	76
17	42 ST-GRD CNTRL	57
18	FULTON ST	57
19	FULTON ST	57
20	28 ST	57

Notes:
1. Data source: http://www.digital.nyc/map

Analysis on the "Tech Factor" for subway stations

Stations Ranked by Tech Factor

"Tech factor" expresses the interaction between traffic volume and number of adjacent startups.
High "tech factor" stations have both high traffic volume and adjacent startups.
Tech Factor = traffic volume in exits * norm(number of tech startups close by)

Recommendations

- Overall, subway stations around **Midtown** represents the highest traffic volume throughout the day (including morning and afternoon commute times). Those stations include Grand Central, Penn Station, Herald Square, Time Square, Rockefeller Center, etc.

- Significant number of startups are concentrated around the **Flatiron area** (Union Square etc) as well as Midtown. These stations also have high traffic volume throughout the day and represent prime targets for canvassing efforts.

- Residential districts around **UES** and **UWS** may be good to target during afternoons, when people are coming home from work.

- The neighborhood around **financial district** gets high volume during the mornings but not as much throughout the rest of the day. Fulton street and the WTC Path station are the best stations to target in these areas.