New York, NYU Data

Exploratory Data Analysis

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Background

- Bonomi Family Admissions Center at NYU
- Which MTA station at NYU is busiest during Fall move-in week? When?
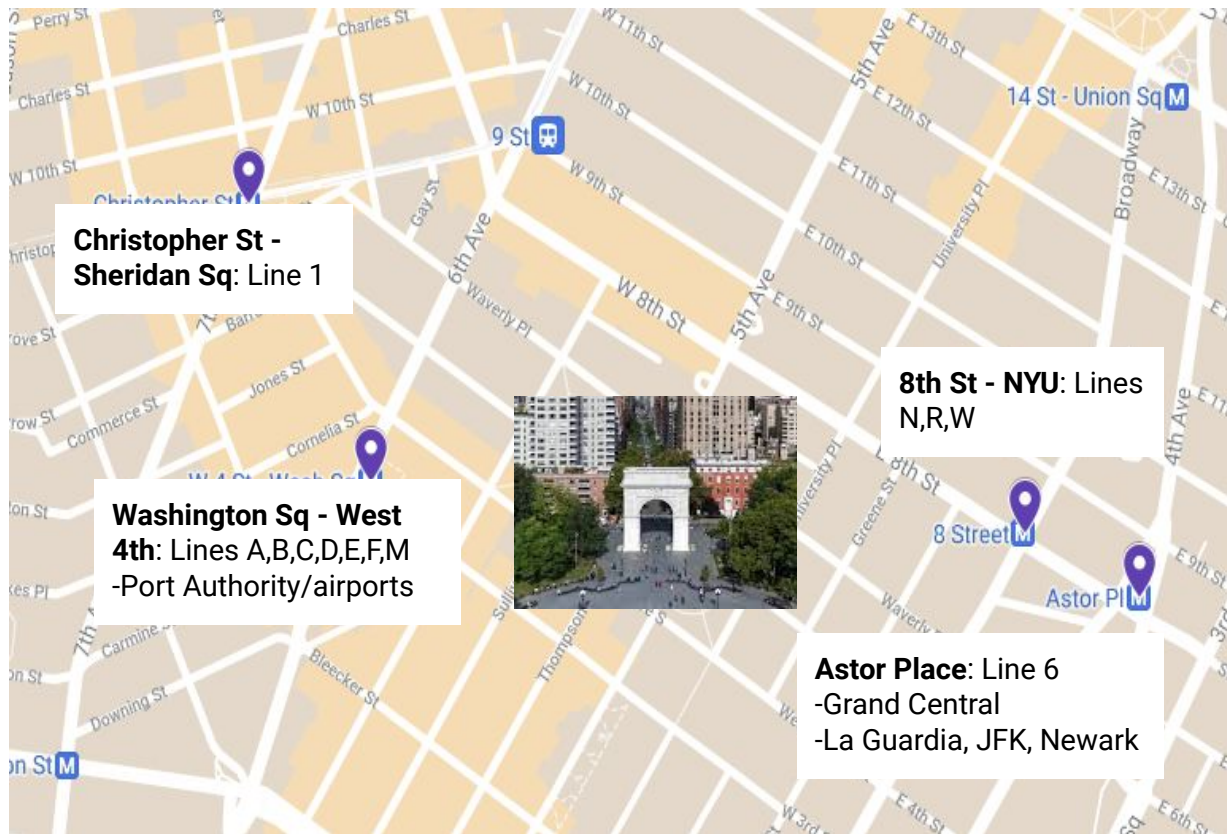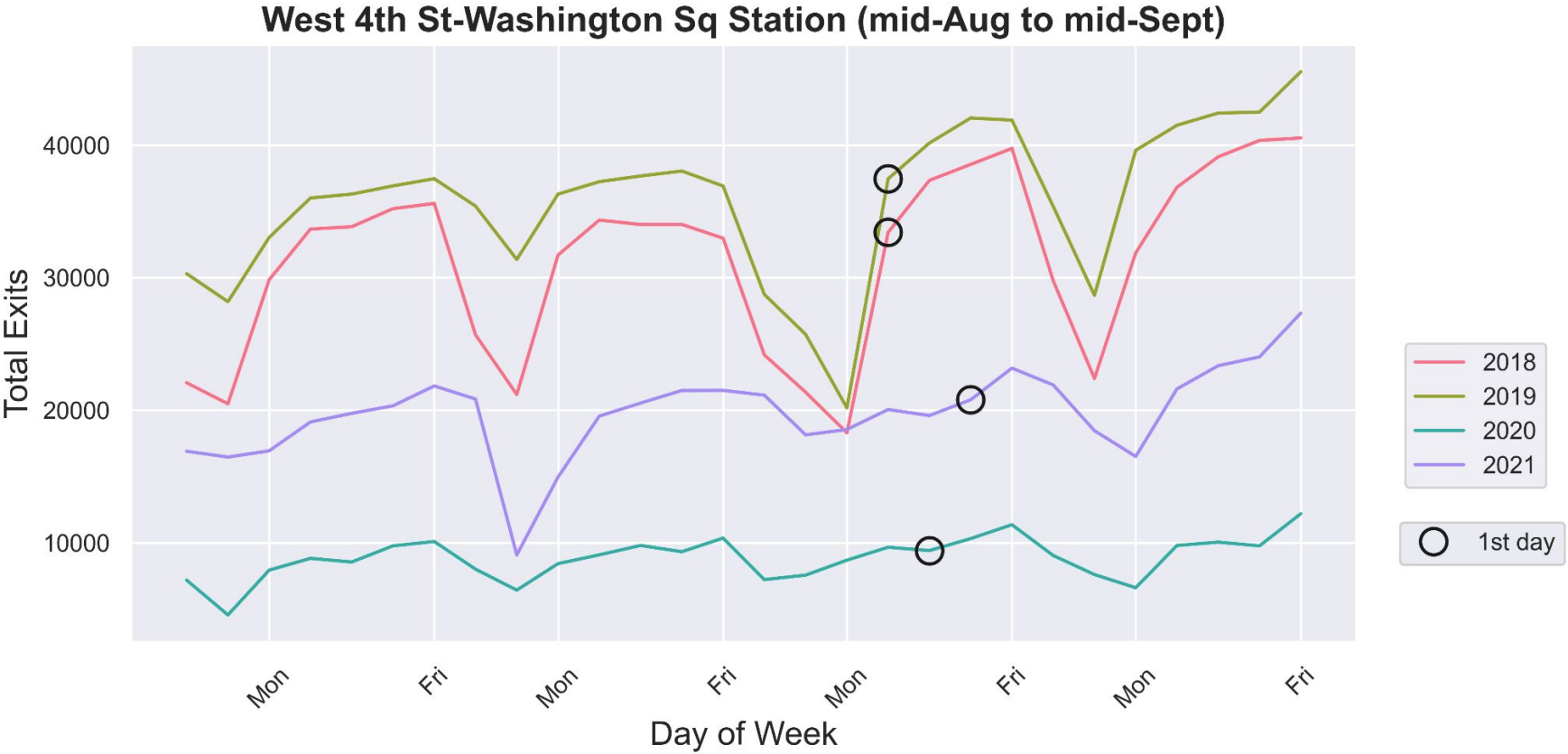- Goal: Place student volunteers at MTA stations

Method

Tool(s)

- Python: pandas, matplotlib, seaborn, SQLAlchemy

MTA Turnstile Data →

- 2018, 2019, 2020, 2021
- 1 month each year (mid-Aug to mid-Sept)
  - Includes move-in weekend and 1st day of class

Christopher St - Sheridan Sq: Line 1

8th St - NYU: Lines N,R,W

Washington Sq - West 4th: Lines A,B,C,D,E,F,M -Port Authority/airports

Astor Place: Line 6 -Grand Central -La Guardia, JFK, Newark

Results: Part 1

West 4th St-Washington Sq Station (mid-Aug to mid-Sept)

Results: Part 2

Number of Exits per Time Range by Station in 2021
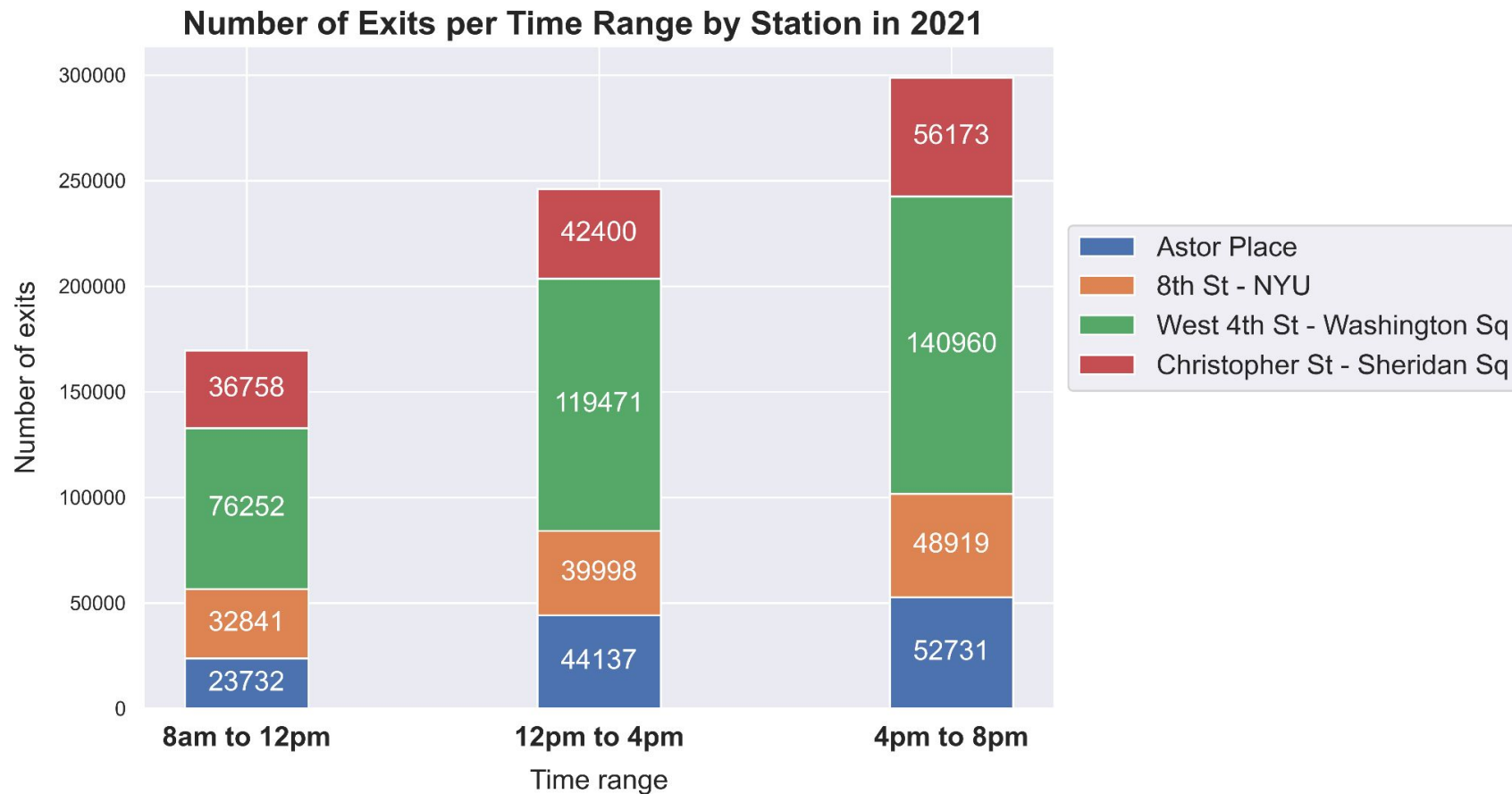
Conclusions

Recommendations:

- Not a high demand during move-in weekend
- If fully in-person classes, then can have volunteers during 1st week of school (Tues-Fri)
  - If 20 volunteers a day:
    - 10 at West 4-Washington Sq
      - 5 at 4-8pm
      - 3 at 12-4pm
      - 2 at 8am-12pm
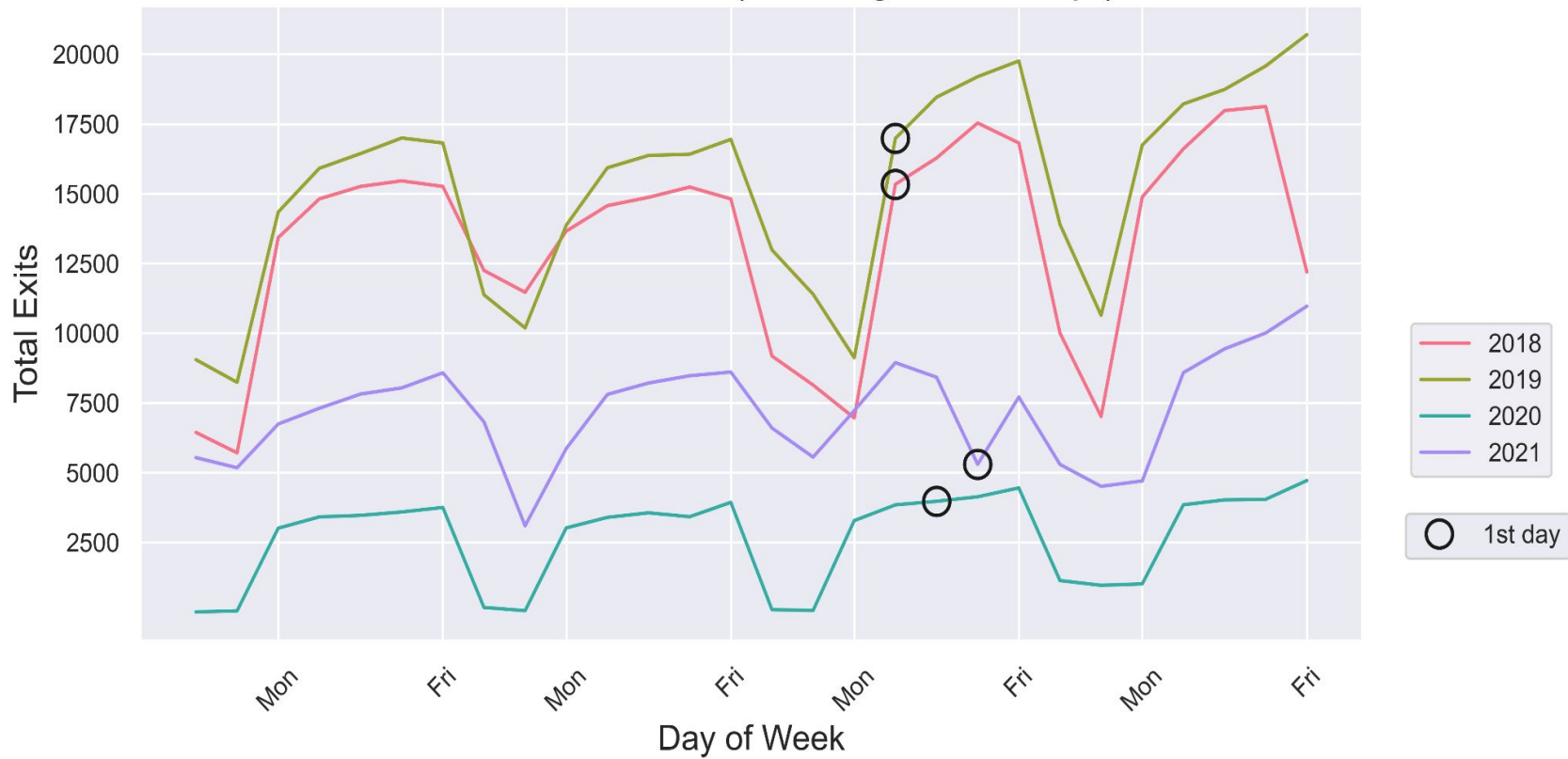   - Split other 10 among 3 stations

Future Work

- Overestimate:
  - Non-NYU students
  - Students who are not freshmen/transfers
- Explore patterns:
  - Walking after move-in
  - Weekend dips
  - Fridays
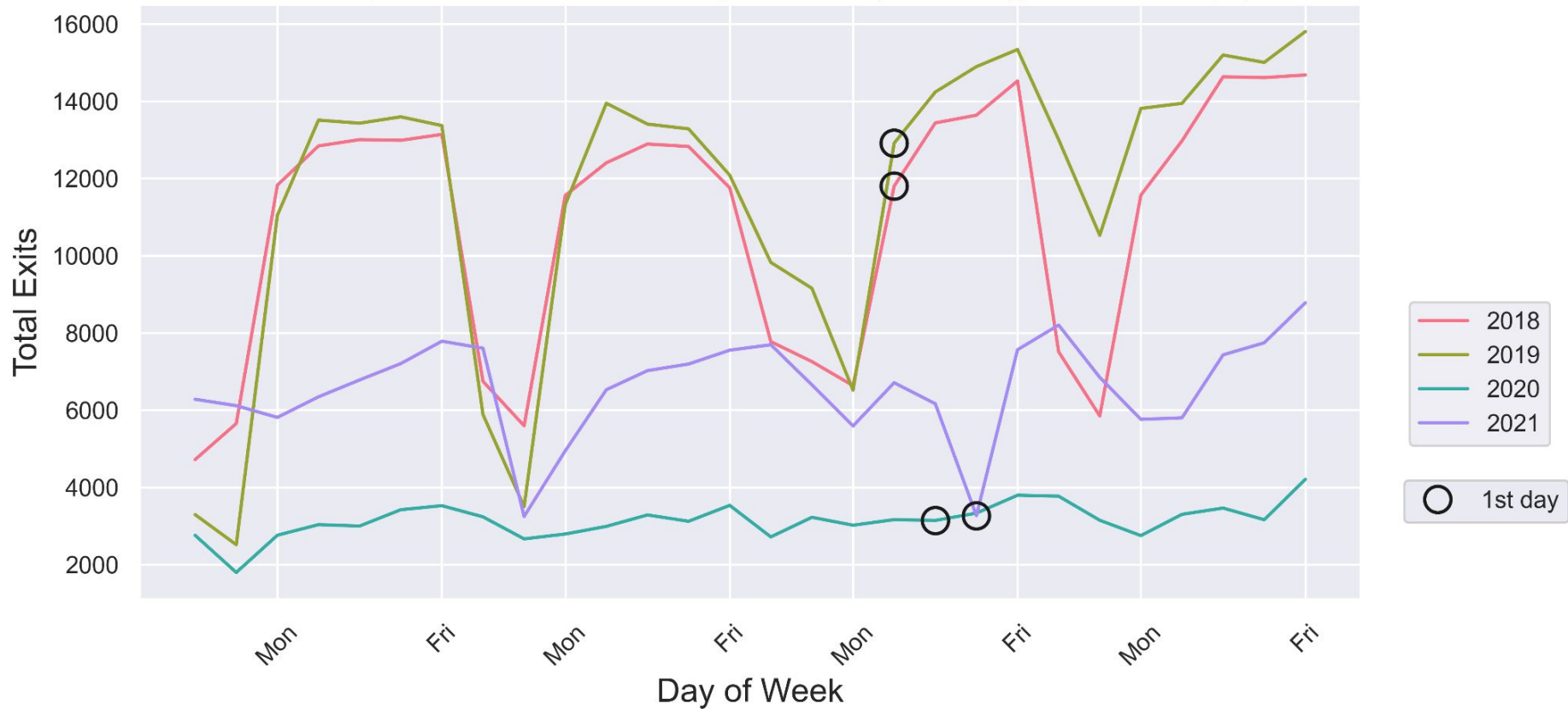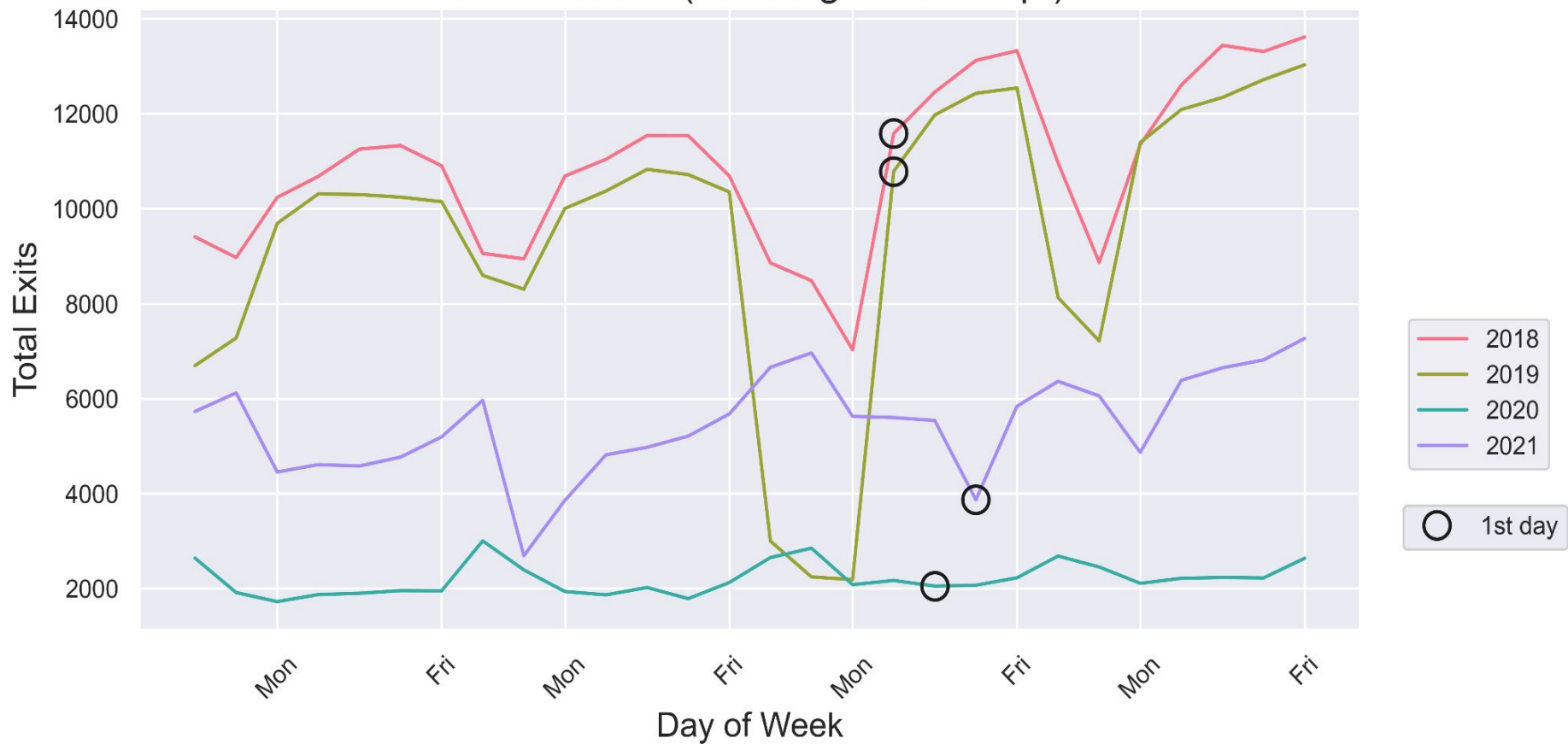 - 4-8pm
  - Hybrid/flex classes

Appendix

Astor Place Station (mid-Aug to mid-Sept)

Christopher St-Sheridan Sq Station (mid-Aug to mid-Sept)

8th St Station (mid-Aug to mid-Sept)

Number of Exits per Time Range by Station from 2018-2021

W. 9TH STREET

GREENWICH VILLAGE

W. 8TH STREET

E. 8TH STREET

MACDOUGAL ALLEY

WASHINGTON MEWS

WASHINGTON SQUARE NORTH

WAVERLY PLACE

29
27 28
22 26
20 21
23 24 25

31 32
33
34

35

R

6

ASTOR PL.

A
C
E
B
D
F
M

WASHINGTON PL.

WASHINGTON SQUARE PARK

WASHINGTON PLACE

67

WASHINGTON SQ. WEST

WASHINGTON SQ. EAST

38 39
40
41 42 43
44 45 46
47
48
49

50

LAFAYETTE STREET

51
52

64

NOHO

COOPER SQUARE

COOPER SQUARE

GREENE STREET

53 54 55
56 57
58 59
60
61 62
63

E. 4TH STREET

WASHINGTON SQUARE SOUTH

W. 4TH STREET

68
69
70 71
72
73 74
75 76
?
77
78
79
80 81

82
83

BARROW ST.
GROVE ST.
JONES ST.
CORNELIA ST.

W. 3RD STREET

GREAT JONES STREET

85
86

90
91
92

89

90

94

JONES ALLEY

BOND STREET

BLEECKER STREET

MINETTA LANE

SEVENTH AVENUE
LEROY ST.
CARMINE ST.
DOWNING STREET
SIXTH AVENUE
MACDOUGAL STREET
SULLIVAN STREET
THOMPSON STREET
LAGUARDIA PLACE
MERCER STREET
BROADWAY
CROSBY STREET
MULBERRY ST.
MOTT STREET
ELIZABETH ST.

94

96

6

B D F M 6

W. HOUSTON STREET

E. HOUSTON STREET

CHARLES ST.
W. 10TH STREET
CHRISTOPHER ST.
ST.