

Subway Recovery

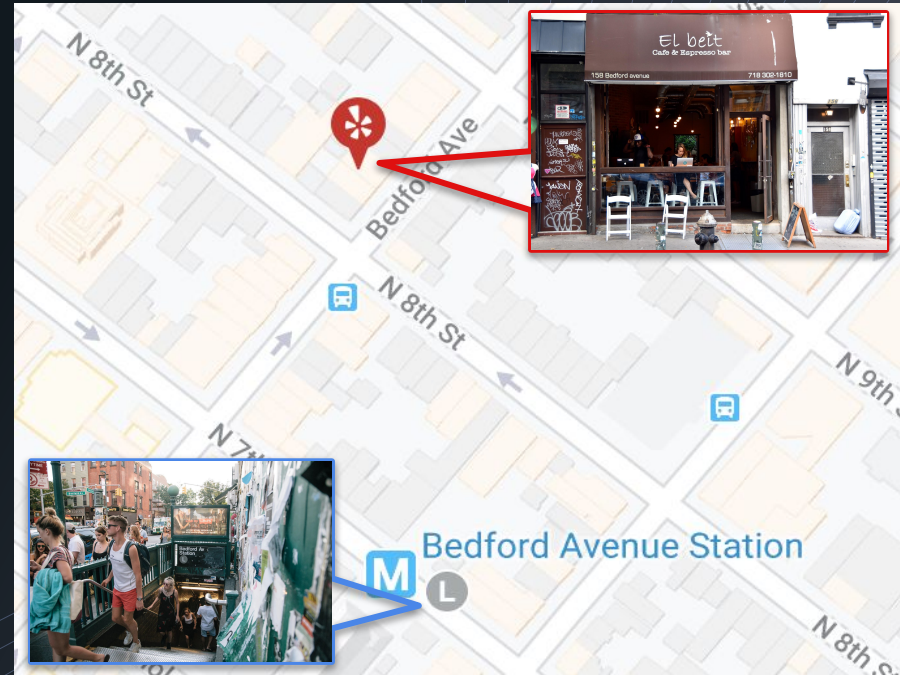
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Introduction

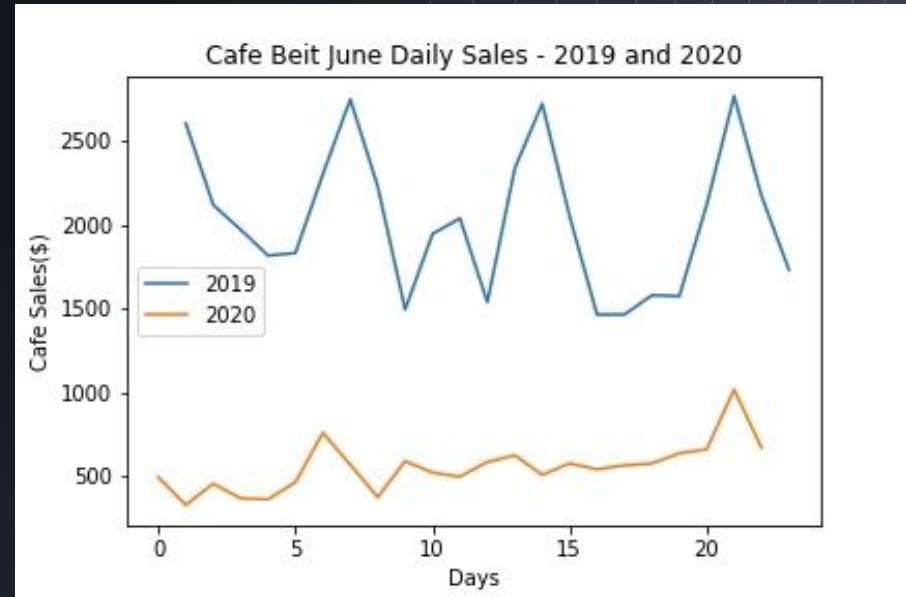
- Cafe Beit in Williamsburg reached out to us while they were renegotiating their lease
- There is a 24% premium for real estate within a quarter mile of Bedford Ave
- Despite the phased reopening of NYC, their sales were flat



Bedford Ave L in Relation to Cafe Beit

Proposal

- Help the cafe understand how MTA traffic affects their sales
- Provide information they could utilize in the lease renegotiation
- Give the cafe owners enough data to help them understand when their business may be viable again



Methodology

DATA COLLECTION (Source, Raw data, Period collected):

January 19th to August 2nd 2019 / January 18th to July 3rd 2020

DATA CLEANING

Removed records and columns

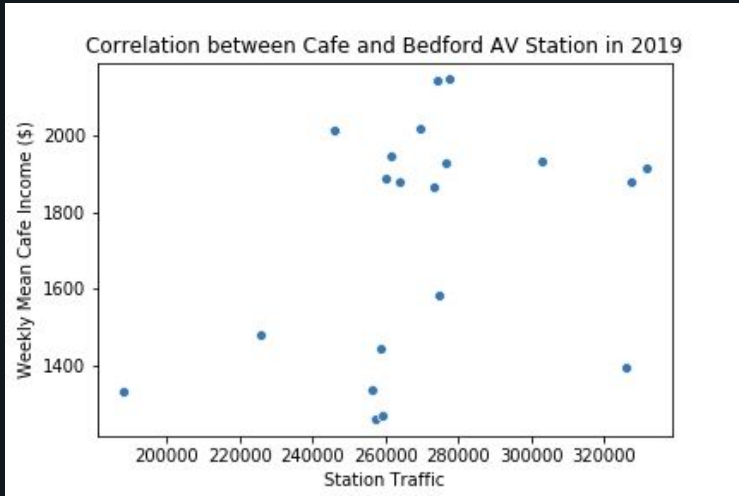
Keep records from Week 24 (June 8th) to Week 26 (June 22nd)

EDA (Foot Traffic)

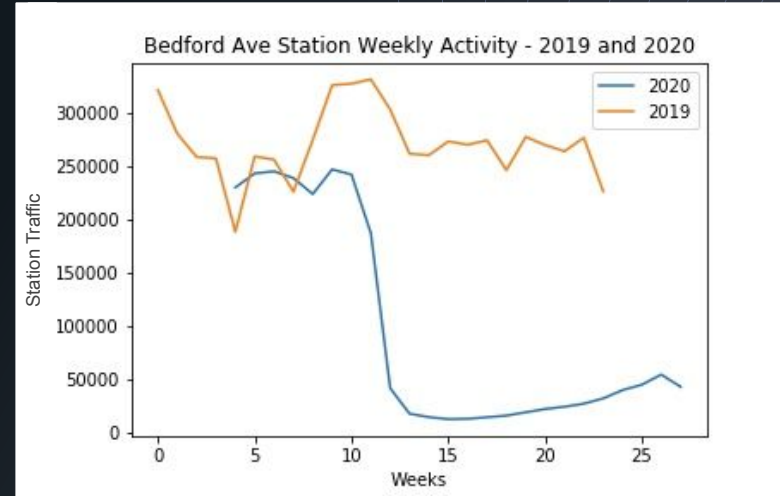
- For each year:
 - Daily Foot Traffic (Daily Entries + Daily Exits)
 - Weekly Foot Traffic (Aggregate by Station and Week)
- Difference in Weekly Foot Traffic between years 2019 and 2020

$$\% \text{Difference} = \frac{\text{week}_2 - \text{week}_1}{\text{week}_1} \times 100$$

Bedford Stop Case Study



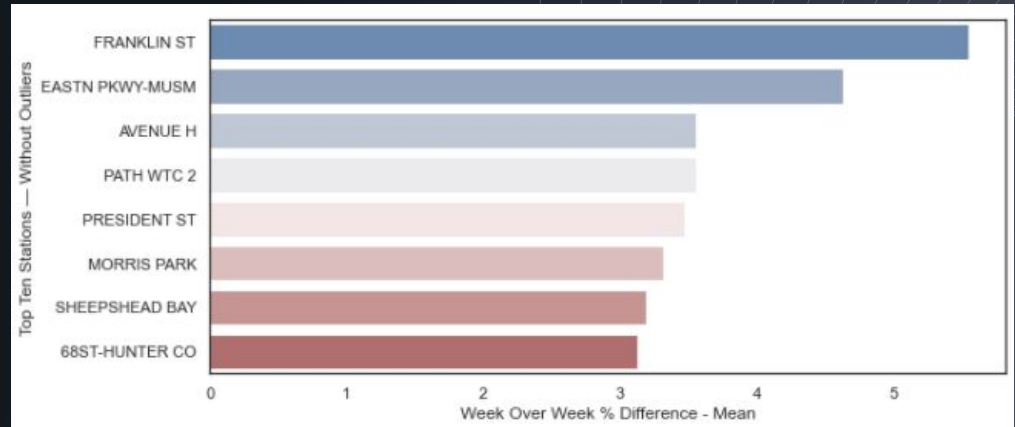
Medium Correlation
+0.49



Avg Recovery rate of 1.84% per week - Post Phase 1 Reopening

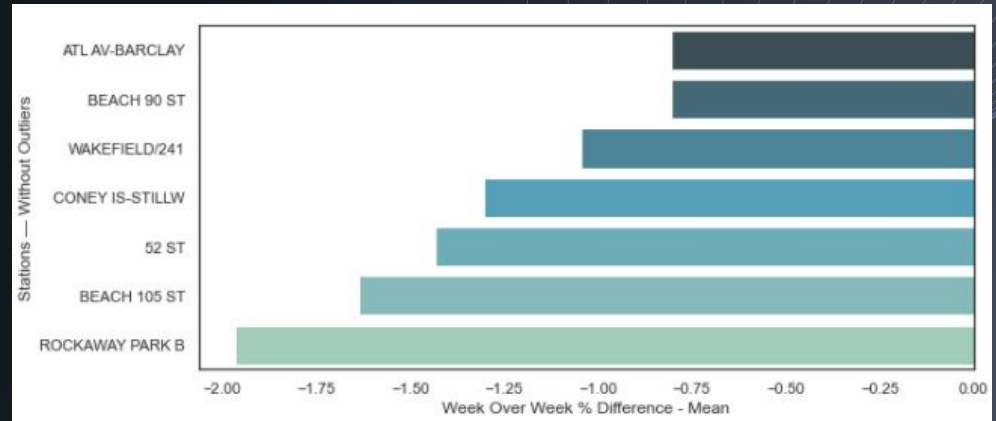
City Data/Visuals - High Recovery

- Reasons for high recovery rates were not clear initially
- Need to dig deeper into the station data
- Theory:
 - Areas that have a high residential to office building ratio



City Data/Visuals - Low Recovery

- Low recovery rates were around beaches and stadiums
- During weeks 24-27, 2019 ridership was increasing while 2020 stayed steady
- Theory: Less demand for the beach and indoor gatherings



Analysis & Conclusions

- Stations near indoor venues, airports and beaches have not recovered at same rate as other parts of the city in comparison to the previous year
- Accelerated recovery areas may be in locations that have less office buildings and high residential density
- Medium correlation between cafe revenue and foot traffic generated from the subway

Future Work

- Compare census data for locations based on income levels
- Look into upticks in bus/ride share usage to compensate for subway
- Locate more businesses to work with in low recovery areas paying a high premium for subway proximity (Coney Island)

Borough	Neighborhood	Station Name	Subway Proximity Median Sale Price	Neighborhood Median Sale Price	Difference
Brooklyn	Coney Island	Coney Island - Stillwell Av	\$495,000	\$380,000	30%

Thank You



Property Value Relative to Subway Proximity

Borough	Neighborhood	Station Name	Subway Proximity [*] Median Sale Price	Neighborhood Median Sale Price	Difference
Brooklyn	Williamsburg	Bedford Ave	\$1,165,000	\$939,750	24%

*Proximity refers to a quarter mile radius from station

Source: propertyshark.com