

NYC HOUSING MARKET FORECASTING

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GOAL OF THE DATA WAREHOUSE

- Provide a central repository of information that generate market-relevant insights into the organization's operations
- Assist the company in accessing property risk
- Improve property valuations, uncovering home service opportunities
- Gain a better understanding of a property

DATA SOURCE



DOB PERMIT ISSUANCE

For every property that is going through construction and demolition, an application would be needed.



ROLLING SALES

For every property being sold, the sales will be recorded.

KPI

- ***New Building Permits per Location(zip code, borough)***
 - Identify the location that is more popular
- ***New Building Permits by month***
 - Identify the trend of application received on monthly basis
- ***New Building Permits by year***
 - Provides a summary of application received on yearly basis

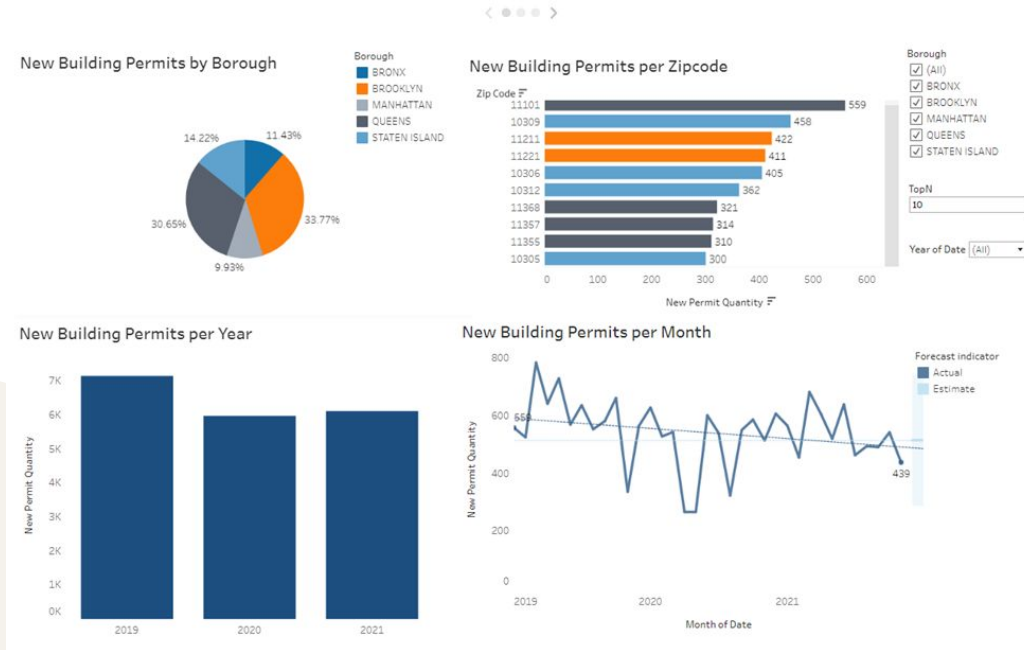
KPI (CONT.)

- ***Median House Price by Location (zip code, borough)***
 - Provides company sense of fair house value and estimating budget for project
- ***Real Estate Price Change Percentage by Location***
 - Provides an idea on how much price fluctuate

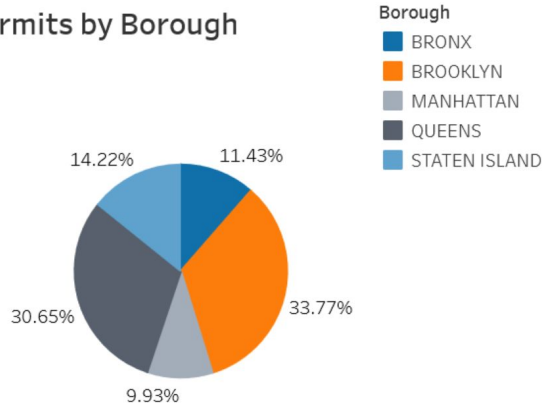
TABLEAU DASHBOARD

Tableau Public Link:

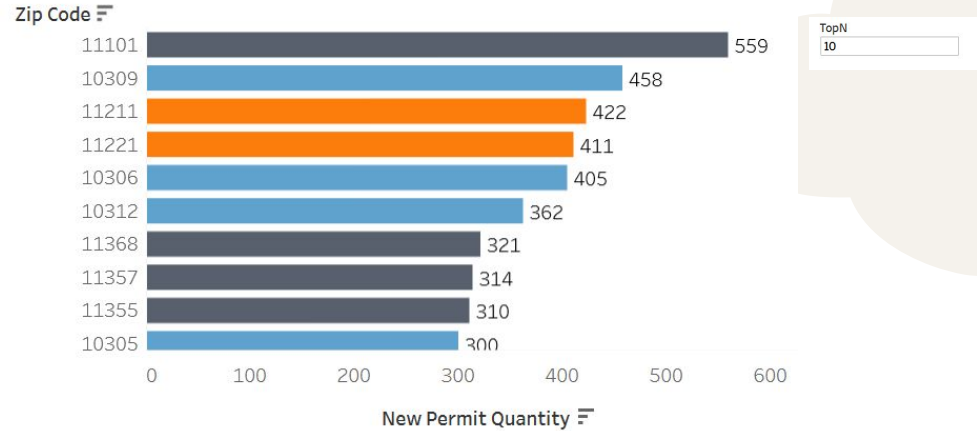
<https://public.tableau.com/app/profile/xiaojin.li/viz/NewBuildingPermitsKPIDashboard/Story1?publish=yes>



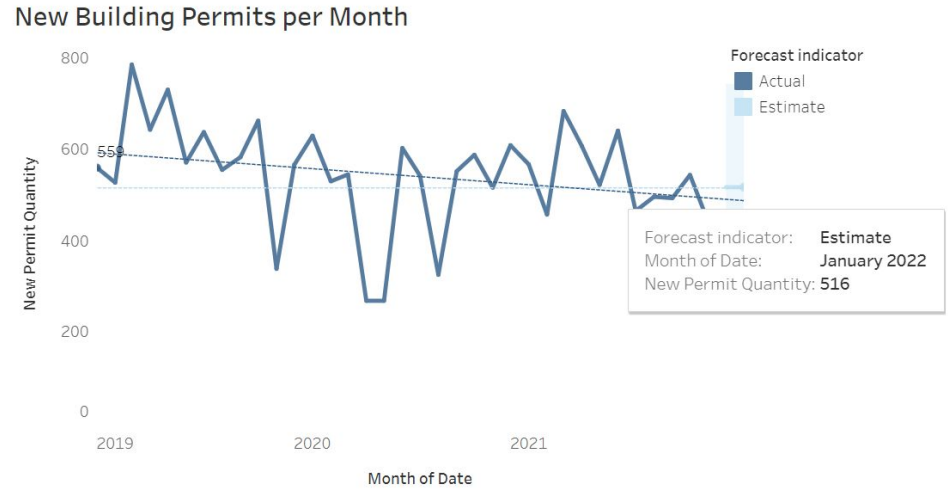
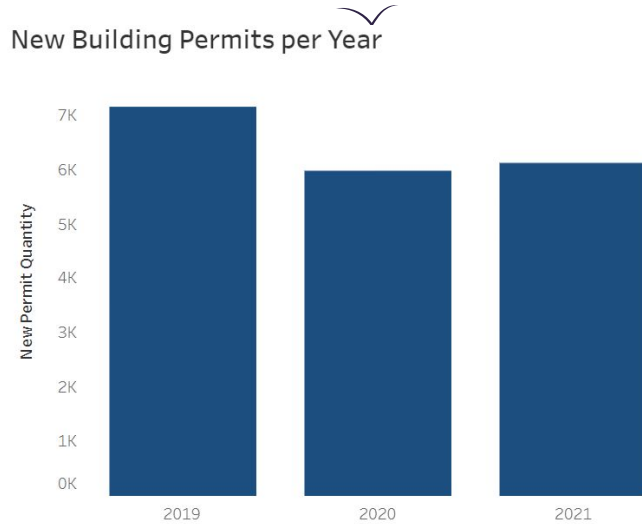
New Building Permits by Borough



New Building Permits per Zipcode



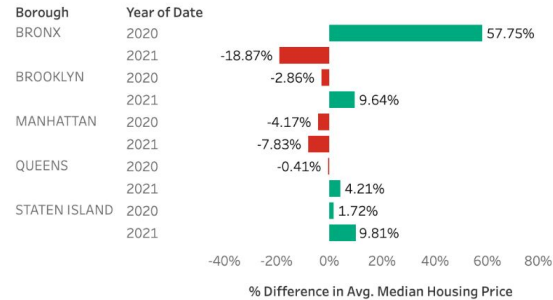
- The pie chart shows the top 3 boroughs that has the largest number of new building permits are Brooklyn, Queens, and Staten Island
- The horizontal bar graph shows top 10 zip codes based on the number of new building permits



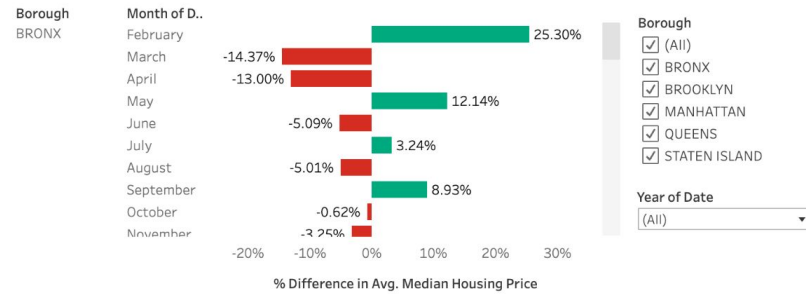
- The bar graph shows the trend of new building permits per year. In 2020, the number of new building permits decreased by approximately 16.5% from 7149 permits in 2019 to 5964 in 2020
- The line chart shows the breakdown of new building permits by month. The overall monthly new building permit is stable at around 450 per month. Our visual estimate for the new building permits in January 2022 will be around 516

TABLEAU DASHBOARD-2

Real Estate Price Year Over Year Growth by Borough



Real Estate Price Month Over Month Growth by Borough



% Difference in Avg. M...



Borough

- ☒ (All)
- ☒ BRONX
- ☒ BROOKLYN
- ☒ MANHATTAN
- ☒ QUEENS
- ☒ STATEN ISLAND

Year of Date

(All)

New Building Permits vs Average Housing Price

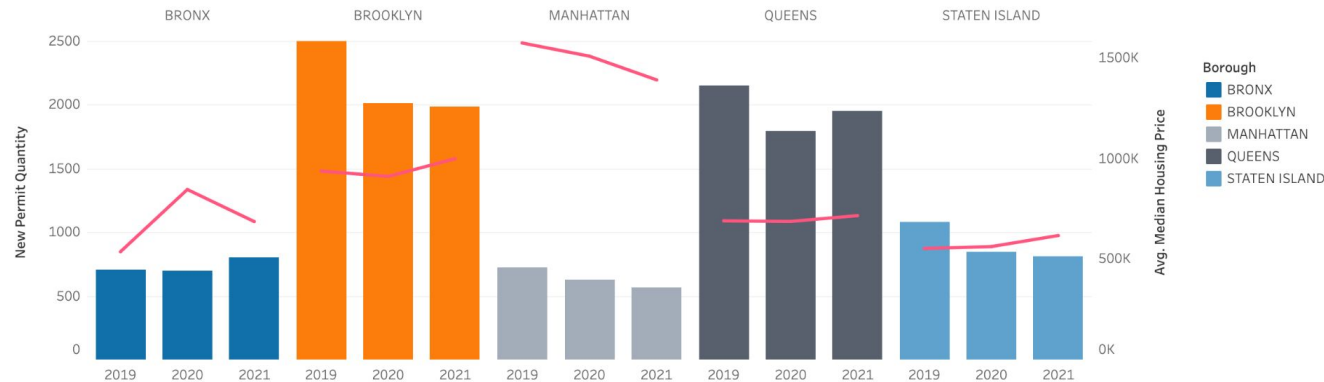
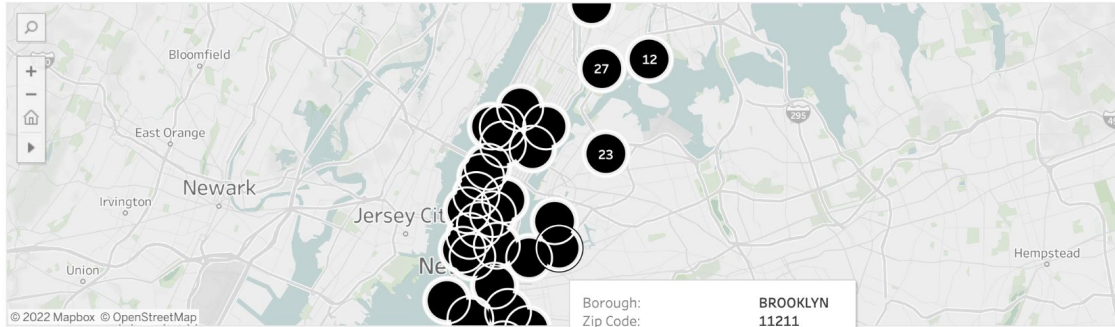


TABLEAU DASHBOARD-3

Rank of Median House Price



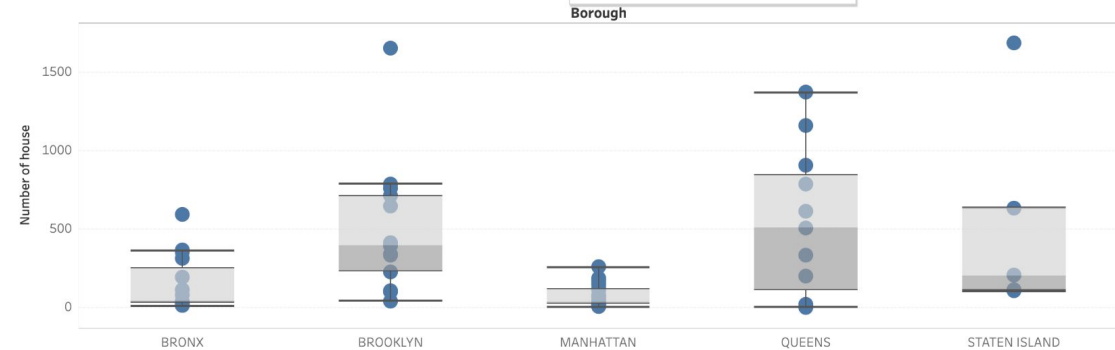
TopN

30

Borough

- ☒ (All)
- ☒ BRONX
- ☒ BROOKLYN
- ☒ MANHATTAN
- ☒ QUEENS
- ☒ STATEN ISLAND

Median Housing Price Distribution by Borough



- The map shows the 30 zip codes with the highest median house price in NYC.
- The Box-and-Whisker Plot shows the distribution of housing price in 5 boroughs.

The background is a light cream color. In the upper left, four small, dark blue birds are flying in a loose V-formation. In the upper right, there is a large, soft, beige cloud. At the bottom, there are several overlapping, wavy shapes in shades of beige and light brown, resembling a horizon or stylized ground.

THANK YOU!