

## **Correlation between home price and entertainments in New York City**

### ***Background***

The price of a property could be affected by many factors, including property size, age and condition, the market, and its location. Among which, location is one of the most important influencers. For example, both school system quality and crime rates in a neighborhood are correlated with home price. Besides, nearby features, such as shopping centers, restaurants and other public entertainments could also affect home price.

However, the significance of correlation between neighborhood and home price could vary with different areas. For example, nearby facilities might have less impacts on home price in less developed areas than other factors such as crime rates.

Here, we will use New York City as an example, to examine how the count of entertainments, restaurants and shops affect home price in different neighborhoods. New York City is described as the cultural, financial and media capital of the world, and it is a prominent location for the American entertainment industry. Therefore, entertainment might be an important component in New Yorker's daily life. We will explore whether entertainments and restaurant density could affect home price in New York City.

### ***Data***

The home price data in New York City will be used in this project is from NYC OpenData website (<https://data.cityofnewyork.us/City-Government/DOF-Summary-of-Neighborhood-Sales-by-Neighborhood-/5ebm-myj7>). Home price data was collected and maintained by the Department of Finance, covering sales of family homes in each borough, and this is a summary of neighborhood sales for 1, 2 and 3 family homes.

The location and venue data is from Foursquare (<https://foursquare.com>). We will mainly use venue location and category data in our project because we will explore the count and density of entertainments, shops and restaurants in each neighborhood in New York City.