

Summary of the article 'Determinants of New York City Residential Rental Prices'

1. Dataset

This article obtained its dataset from The Furman Center for Real Estate and Urban Policy: State of New York City's Housing and Neighborhoods 2005, containing results of the NYU Furman Center's annual collection of data on housing and demographics in New York City.

Dependent Variable: Median Monthly Rent (measured in 2005).

Independent Variables: Include borough dummy variables (Bronx, Brooklyn, Manhattan, Queens, Staten Island), crime rate, income diversity ratio, median household income, number of housing units, percentage of immigrant households, percentage of public housing, percentage of rent-regulated housing, population, poverty rate, racial diversity index, and rental vacancy rate.

2. Data set cleaning process

No data cleaning process is mentioned in this article. The possible reason may be that the data was obtained from an academic publication which has conducted data cleaning process. But some actions were taken to ensure accuracy of the results. First, the Dependent Variable used is the Median value of the Monthly Rent. This can decrease influence of the highest and the lowest and relieves potential bias. Also, log transformation of certain variables conducted to improve normality and reduce skewness.

3. Research method

The goal of this paper is to identify the independent variables, such as location, crime rate, percentage of immigrant household that can explain the difference in median monthly rent of different region in New York city. To achieve this purpose, it conducted OLS analysis and regressed the dependent variable median monthly rent against the dependent variables.

4. Results

The study finds that:

- Different region has different level of rental premium. Manhattan commands the highest rental premiums compared to other boroughs.

- Higher median household income is positively correlated with higher rents.

An increase in rent-regulated housing initially increase rental price until a certain breakpoint, after which the dominance of subsidized housing starts to reduce rental price.

- Unexpectedly, high crime rate is associated with higher rental prices. The author consider the reason as those richer area are more lucrative for crimes.

5. Contribution to our project

- 1) Dataset from an academic publication may have conducted data cleaning and save our effort on this.
- 2) Factors that may influence rental price are clear.