# **Data Visualization Project Proposal**

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# Rental Housing Crisis across US

### **Group C**

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#### **Abstract**

With dramatic increase in urban population in past decade, the city agencies have been having a hard time managing their resources. One of the most common problems that cities like NYC face is lack of affordable housing and rent burden. People in these urban areas spend as much as 40% of their salaries on rent which increases their rent burden. For our project, we'll be assessing the rent data, property sales data and household income data to analyze how much rent people pay in different cities, and then come up with an affordability factor for each city. It would also be interesting to classify cities and their affordable housing plans to see which city is doing better with their intended goals.

Many of our data sources concern NYC, and as such, we will be aiming to take a more in-depth look at NYC.

#### **Datasets**

- US Census Bureau Housing Data
  - https://www.census.gov/topics/housing/data/tables.All.html
  - All sorts of data related to housing. Ex:
    - Average Sales Price of New Manufactured Homes 2014-2017
    - Average and Median Square Feet of Floor Area for Manufactured Homes
- NYC Open Housing & Development Data
  - https://data.cityofnewyork.us/browse?category=Housing+%26+Development&pr ovenance=official&g=&sortBy=newest&utf8=%E2%9C%93
  - Rent
    - https://data.cityofnewyork.us/City-Government/Revised-Notice-of-Proper ty-Value-RNOPV-/8vgb-zm6e/data
    - Property Value
    - Address
    - Post code
  - Housing New York Units by Building (2014-)
    - Street
    - Post Code
    - Lat, lon
    - # units per income level
  - o Complaint Log Historical
    - Lat, lon
    - Type of work (as string)
    - Date
- New York City Housing Authority
  - https://data.cityofnewyork.us/Housing-Development/NYCHA-Development-Data-Book/evjd-dqpz/data
  - Affordable Housing Data for New York City
- City of Chicago
  - https://data.cityofchicago.org/Community-Economic-Development/Affordable-R
    ental-Housing-Developments/s6ha-ppgi/data
  - Affordable Housing Data for City of Chicago

- Zillow Rental Values
  - https://www.zillow.com/research/data/
  - Zillow Rental Index (Monthly, 2010-)
    - Index
    - Zip code
  - Median List Price per Square Feet (Monthly, 2010-)
    - Price
    - Zip code
- StreetEasy
  - <a href="https://streeteasy.com/blog/download-data/">https://streeteasy.com/blog/download-data/</a>
  - NYC Rent Index
  - Resale Price Index

## **Plots**

Although it is too early to decide on the exact nature of the plots before beginning the project, due to the geographical nature of our idea, we will definitely be including some map plots. There is bound to be some trial and error involved, and we will keep our eventually discarded plots in GitHub. The final deliverable will be a R Markdown file that contains our story and our final plots, and a webpage with interactive plots, which we plan to generate using R Shiny.