HOW PROXIMITY TO A UNIVERSITY AFFECTS HOUSING AFFORDABILITY FOR STUDENTS IN NEW YORK

JOYCE LIN

Introduction

Subject: the need for more affordable housing is a top priority among students, yet more and more students are finding it increasingly difficult to find housing for their studies.

Objective: assess the impact of the vicinity of a university in New York state on housing affordability
- **Why New York?** New York houses the largest city in the US and numerous prominent universities

Primary Dataset: 67,157 housing prices in USA collected from realtor.com
- **Variables**: housing prices (dependent variable); distance to nearest university (primary independent variable)
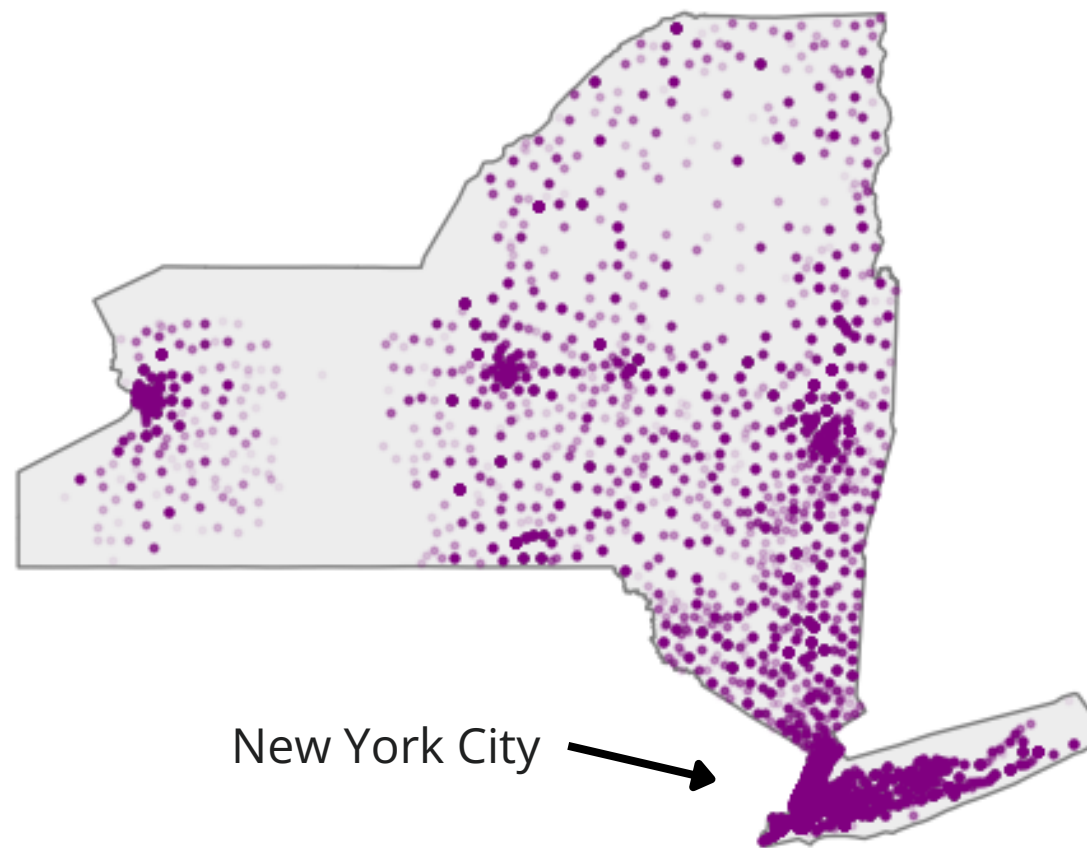
Summary Tables

- A total of 60,847 houses are in New York state
- More variation in price with smaller acre size and larger house size
- Direct relationship with house eize; inverse relationship with acre size
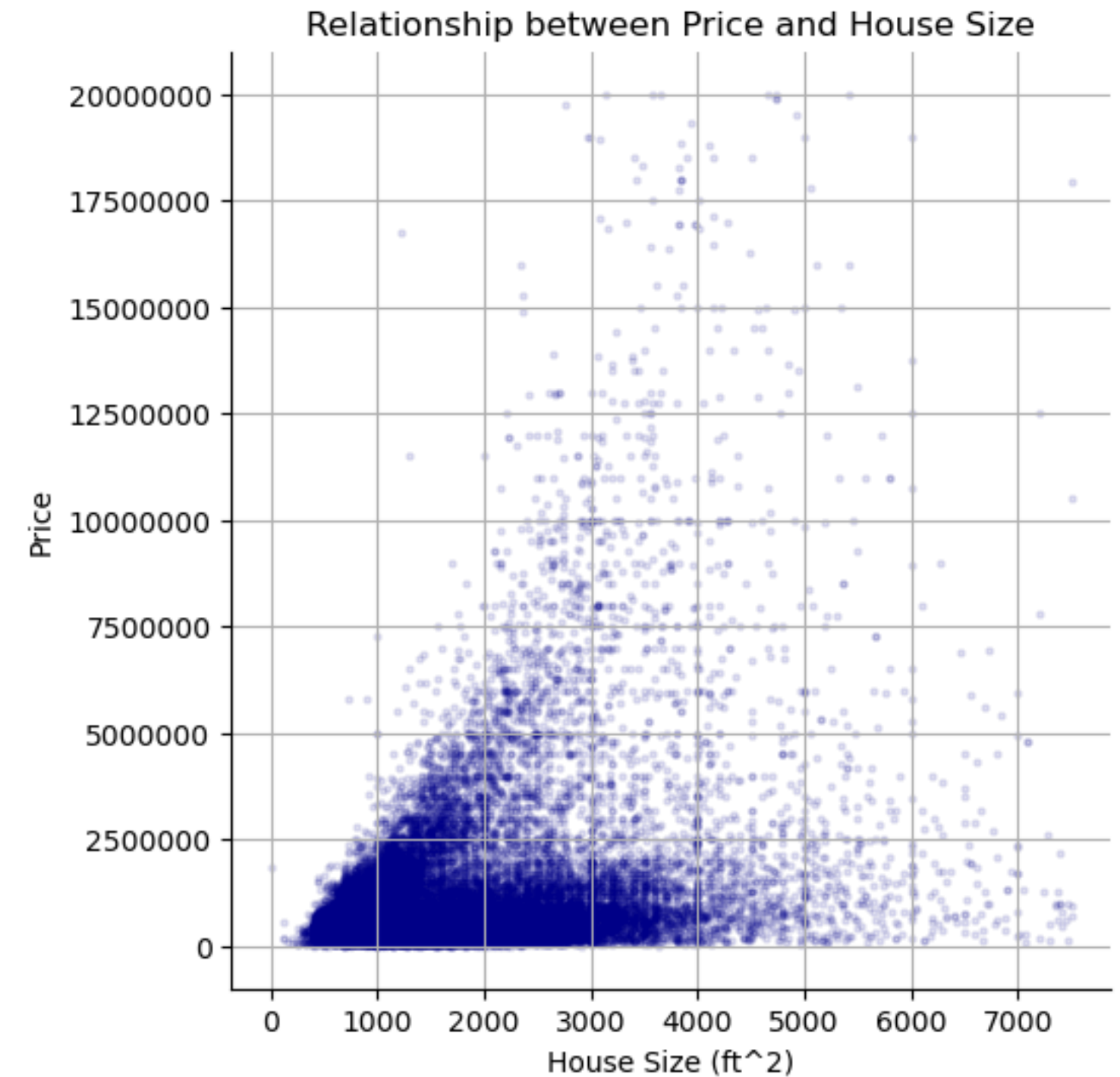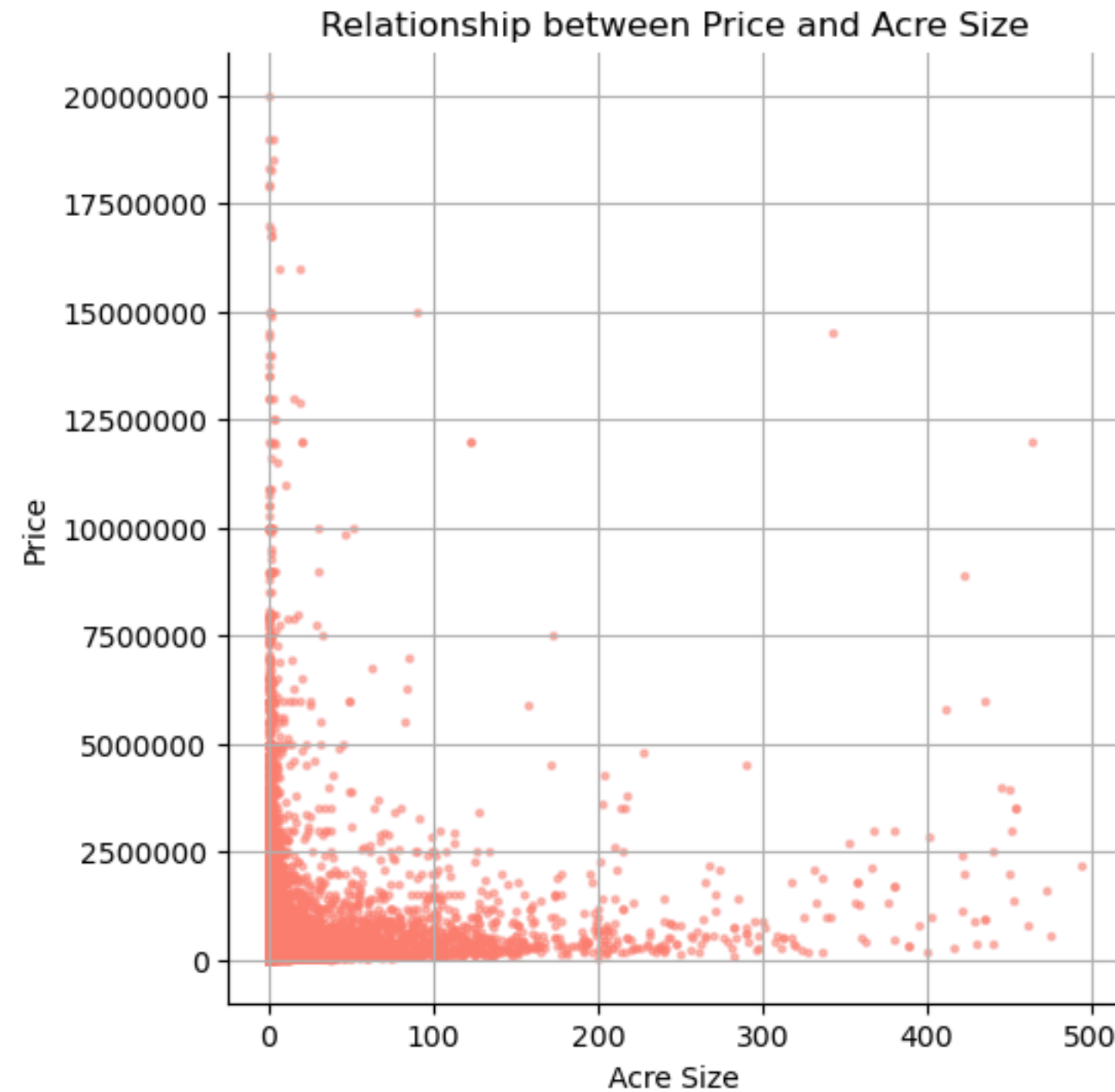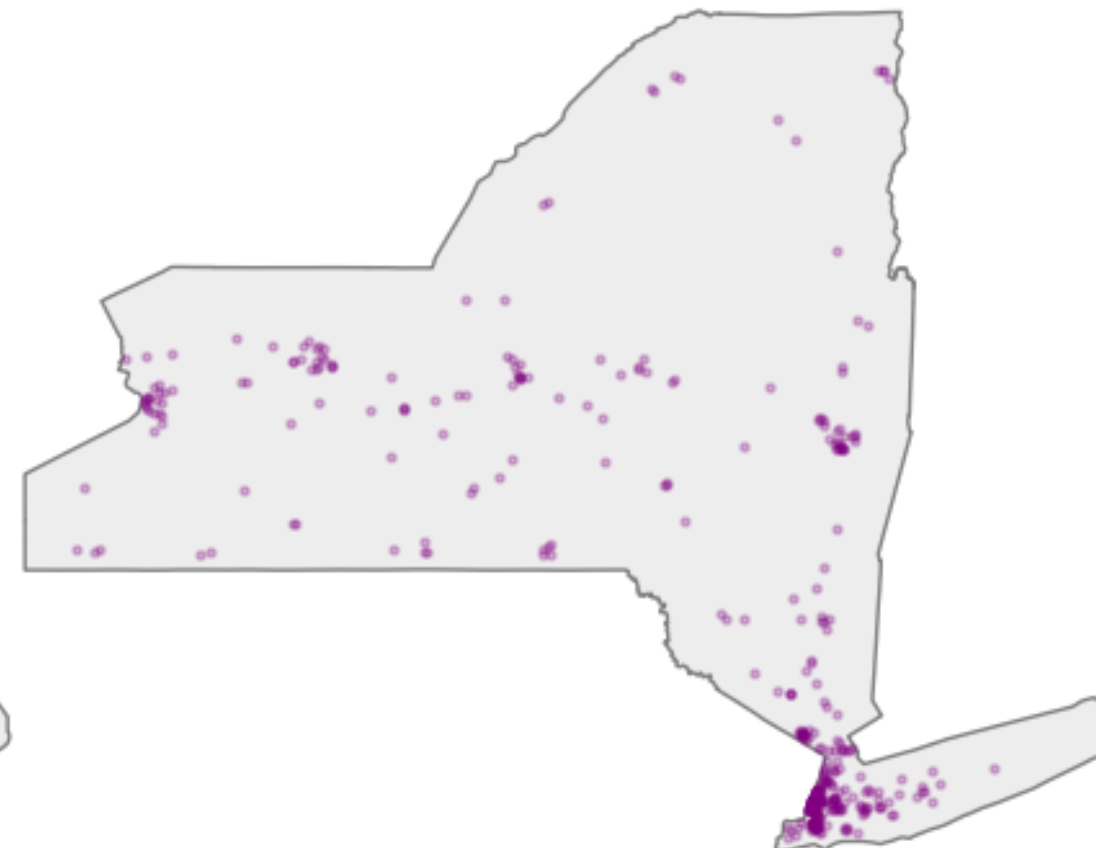
Summary Tables

- Housing location is plotted by zip codes; university location is obtained directly from the National Center for Educational Statistics
- New York City sees highest concentration of houses
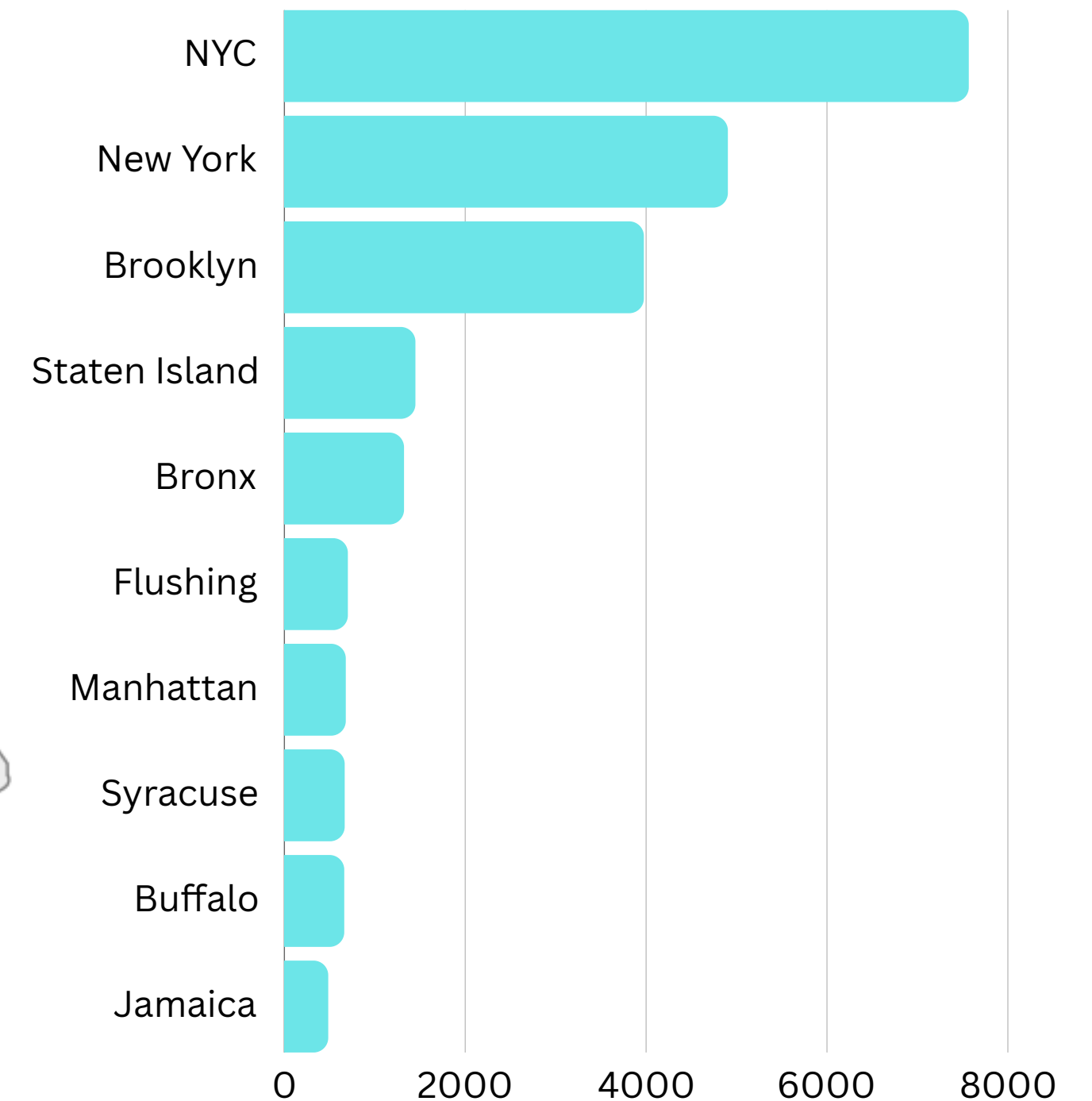- Smaller clusters across mid-New York

Housing Location Distribution in New York

New York City →

Universities in New York

Top 10 Cities in New York by Housing Count

City	
NYC	
New York	
Brooklyn	
Staten Island	
Bronx	
Flushing	
Manhattan	
Syracuse	
Buffalo	
Jamaica	

0   2000   4000   6000   8000

Results

- Distance to nearest university is calculated with numpy
- Inversely logarithmic relationship between price and university distance
- Higher price variation when closer to university

Relationship between Price and University Closeness

Relationship between Price and (Log) University Closeness
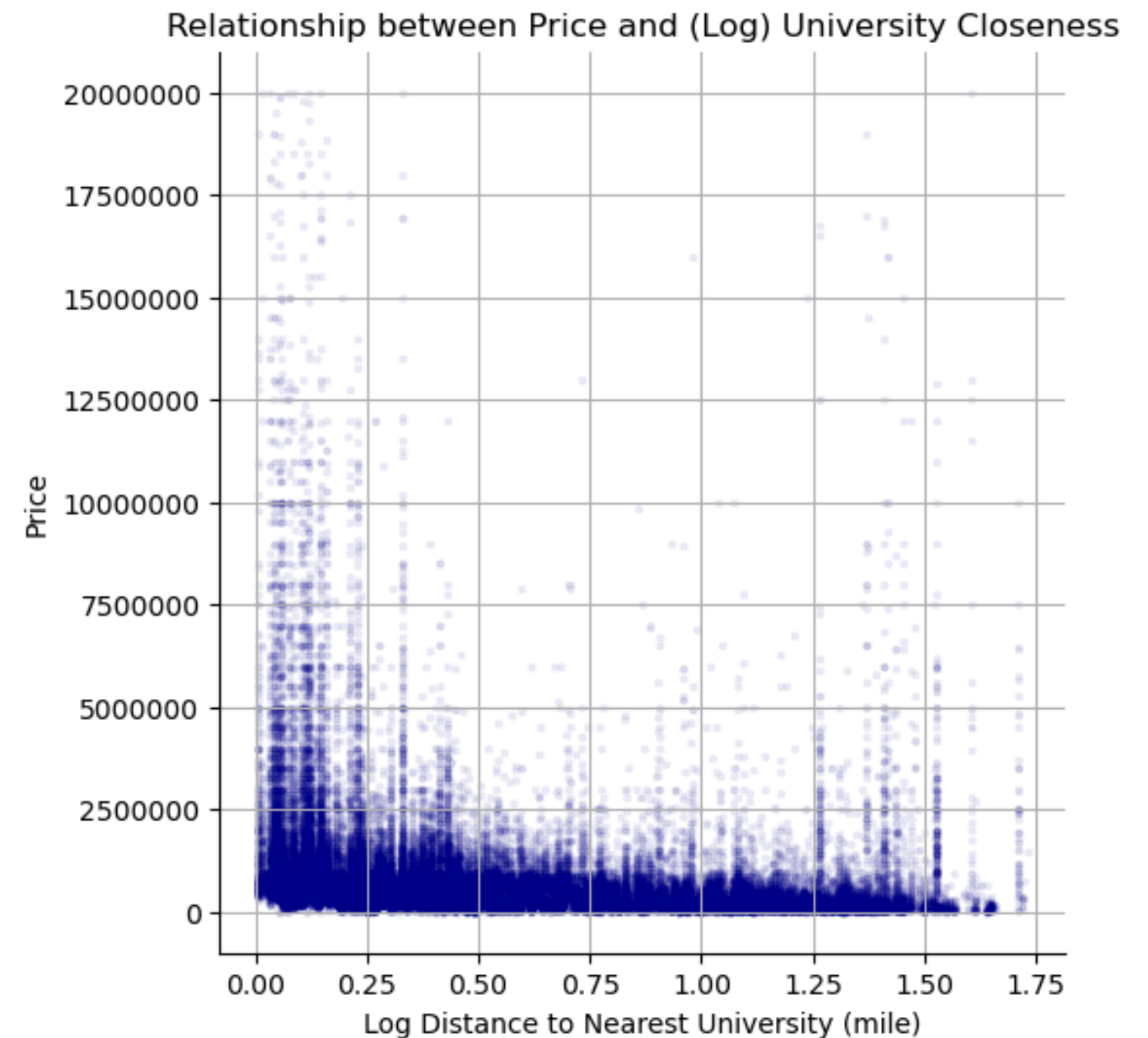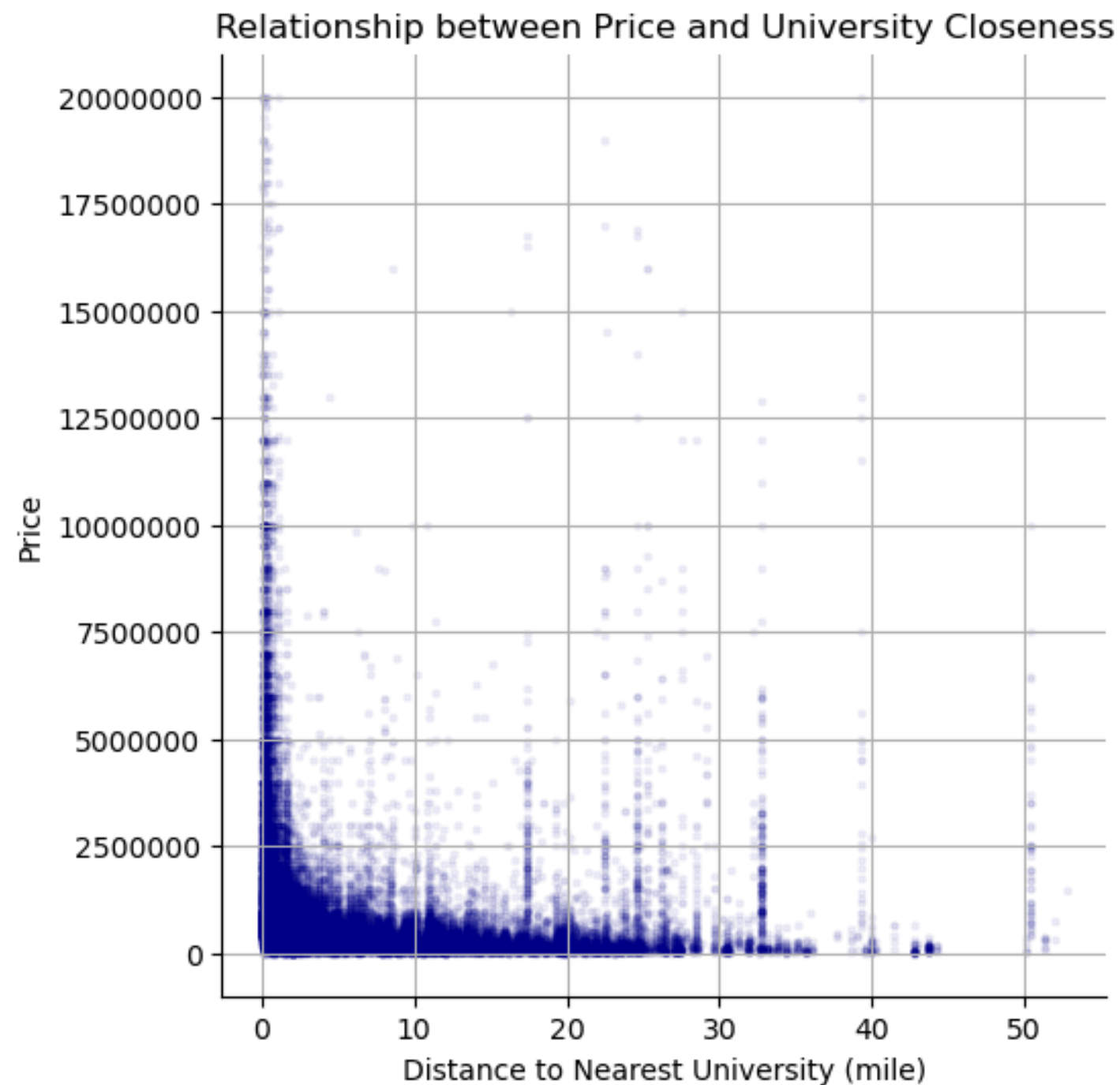
Conclusion

Findings:
- Significant correlation between housing prices and university distance
- Skewed distribution in scatter plots as well as in geography
  - i.e. high concentration of observations in New York City

Significance:
- Cannot extrapolate definite causal effect; skewed distribution implies other factors influencing housing prices

Future Steps:
- Explore other factors, e.g. account for university rating & rankings, city demographics