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Data 400

Professor Bilen

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Mini-Project Research Question Proposal

Research Question: What demographic and economic factors, such as race, ethnicity, age, citizenship status, income levels, and unemployment rates, are the strongest predictors of increasing rent prices in the Bronx, New York?

My research examines the relationship between rent prices and demographic and economic trends in the Bronx, New York with a focus on understanding gentrification. I will analyze variations in race, ethnicity, age, sex, citizenship status, income, and unemployment rates at the census tract level to identify which factors are the strongest predictors of increasing rent prices. By tracking trends over time, I aim to determine whether gentrification has reached the Bronx, which areas have been most impacted, and how rapidly it is progressing. Ultimately, this analysis will provide valuable insights into the evolving demographics of the area and help predict future shifts in the population.

I sourced my data from three annual American Community Surveys conducted by the U.S. Census: Demographic and Housing Estimates, Selected Economic Characteristics, and Gross Rent Prices. To prepare the data for analysis, I will first merge the datasets for each survey across all available years, creating one consolidated dataset per survey. Then, I will combine the three consolidated datasets into a single master dataset for analysis. Key variables I will examine include gross rent prices, race and ethnicity, citizenship status, average annual salary, unemployment rate, and year.

I plan to run a linear regression model to identify the variables most strongly correlated with increasing rent prices in the Bronx. This model will allow me to examine the relationships between rent prices and several independent variables, such as race, ethnicity, age, citizenship status, income levels, and unemployment rates. By analyzing the statistical significance of each variable, I can identify the strongest predictors of rent price changes. This analysis will help uncover the key demographic and economic factors driving rent increases and provide insights into how the area's demographics are evolving.

The findings will be particularly valuable to Bronx residents as they will be able to quantify the shifting neighborhood dynamics they have witnessed. Additionally, policymakers can use this data to better comprehend the extent of gentrification in the area and devise strategies to ensure that these neighborhoods remain affordable for long-time residents. Understanding these trends is crucial for addressing displacement and promoting racial harmony in gentrified neighborhoods.