Immigration, Rents, and House Prices in American Metropolitan Areas

Abstract

The impacts of immigration have been a subject of frequent debate in American politics. Much research has been done on how immigration affects wages and employment of native US workers. Recently, there has been increased interest in investigating the effects that immigration may have elsewhere in the economy. In that vein, my thesis seeks to quantify the effect of newly arrived immigrants on local markets for both rental and owner-occupied housing using a variation of the Saiz (2007) model to predict the effect of immigration on the price of housing in American metropolitan areas.

Description

In this project, I will estimate the effect of immigration on the housing market in U.S. metropolitan areas, analyzing the effects on both the rental housing market as well as the market for owner-occupied housing. I derive my main empirical model from that of Saiz (2007). The estimation strategy is to employ a simple regression model coupled with a "shift-share instrument". This will necessitate collecting data on immigration and housing markets, along with other covariates, for more than 300 American metropolitan areas over a period from 2010 to 2022. With this project, I will provide a more up-to-date estimation of the impact of immigration on the American housing market at the national level, which could inform future U.S. housing policy.

Previous Work

Until recently, the theoretical and empirical literature exploring the impact of immigration on native-born individuals' economic well-being has been centered around how

immigration affects labor market indicators for native workers, namely wages and employment rates. Borjas (1994) and Friedberg & Hunt (1995), have found the effects of immigration on native economic outcomes to be largely inconsequential in their own analyses of the themes commonly observed in the literature concerning the economics of immigration to the U.S.

Since then, interest has grown in investigating the effect of immigration on other aspects of the receiving economy outside of the labor market. An early analysis of the impacts of immigration on another such sector – the housing market – can be seen with a case study of the effects of the 1980 Mariel boatlift, which saw tens of thousands of Cuban defectors flock to Miami, Florida. What makes an event such as the Mariel boatlift such an appealing medium for the study of the economic effects of immigration is the fact that, in this instance, migrants are, more or less, randomly assigned to a destination location. This matters because, when estimating the effect of immigration on an economic outcome, such as rental rates, in a certain area, it is often true that immigrants are attracted to areas that have more favorable economic conditions, which would include lower rental rates. Given this, any estimation of the effect of immigration on rental rates would suffer from self-selection bias because it would be capturing some of the effect that the rents have on the decision to immigrate to an area. This issue, known as "endogeneity[1]," is mitigated in a study of the effect of immigration using the Mariel boatlift, in which the destination of the immigrants is predetermined.

By replicating Card's (1990) experimental design but using the price of rental housing units as the outcome variable, Saiz (2003) takes advantage of the "natural experiment" presented by the Mariel boatlift. He finds that the boatlift increased the Miami area's renter population by

[1] When assessing the causal effect of an explanatory variable on an outcome variable, if the outcome variable has a causal effect on the explanatory variable, it is said that the outcome is "endogenous" to the explanatory variable.

9% over a 2-year span. This growth in the renter population led to the growth rate of rental prices rising 8 percentage points during that same time frame, suggesting that the Miami area's rental housing market experienced negative short-run effects due to the immigration shock. Additionally, a few similar studies have been conducted to assess the impact of sudden waves of migrants on the demand for and the price of rental housing. For example, the inflow of Syrian refugees in southeastern Turkey was found to have raised the rental rate of the average apartment by about 5.5% (Tumen, 2016). The effect of such influxes seemed to lessen as the scope of the region became larger, as was the case with Venezuelan migrants into Colombia's most populated metro areas (Forero-Vargas & Iturra, 2022). While the Mariel study and related experiments offer insights as to why the housing markets of certain areas might react negatively to immigration, not many like it exist in the body of immigration literature. This is because there few migration events exist in recent history where immigrants are randomly assigned to destination locations.

The more common type of study tends to look for the effect of a consistent flow of immigration on rental rates and the prices of owner-occupied homes over a span of several years. In such studies, immigrants settle in many different parts of the destination region at different times, meaning that endogeneity becomes an issue once again. To combat this, these studies implement one or more instrumental variables (IV), a technique that involves adding a variable to the main empirical model of a study that explains why immigrants might choose to settle in certain areas. This variable should be correlated with immigration to a destination location yet uncorrelated with housing market outcomes such as rental rates or house prices. The inclusion of an instrumental variable essentially introduces the random assignment of immigrants to destinations present in experiments like those of Saiz (2003). In the aforementioned body of

literature, two types of IV strategies arise: the usage of immigration rates from a prior year (a "past immigration" instrument), and the "shift-share" instrument.

In theory, areas that have received many immigrants in a past year will also receive large numbers of immigrants in the present, thereby making immigration in a previous year a functional instrument as it explains in a current year while being uncorrelated with rental rates or house prices. Some studies have made use of past immigration, often in a year before the beginning of the time period of the panel in question, as an instrumental variable. One example can be seen in Partridge, et. al.'s (2009) panel of all U.S. metropolitan counties (counties that are classified to be part of a metropolitan statistical area, or MSA) from 2000 to 2005. They instrument their immigration variable with the 1970 share of each county's population that was foreign-born, as well as the 1980 share of each county's foreign-born population. Using this strategy, it was found that a 1% increase in immigrant concentration decreased rental rates in metropolitan U.S. counties by 0.23%. While this type of IV approach is adequate, it fails to capture the nuances of why an immigrant might elect to settle in a certain location.

The shift-share instrument, the most common IV technique in the modern literature on the effects of immigration on the housing market, better addresses the nuances in immigrants' choices of destination. Bartel (1989) notes that, not only do immigrants, particularly immigrants to the U.S., tend to settle in areas where immigrant presence is strong, but they tend to opt for areas where large numbers of immigrants from their country of origin have settled. This phenomenon, later termed "enclave effects" (Borjas, 2002), is based on the idea that a network of other linguistically and culturally similar immigrants is a significant factor in an immigrant's choice of location. The shift-share instrument takes advantage of enclave effects to create a version of the "past immigration" instrument that should be more correlated with current

immigration. In the implementation of this IV approach, a base year, often the first year of a time frame of a panel, is chosen. For each geographical unit of interest, the proportion of the total immigrant inflow that came from each country of origin is calculated. For all subsequent years and geographical units, immigrant inflow from each country of origin is predicted using the proportions calculated for the base year. To calculate the shift-share instrument, the predicted figures are summed up and given as a proportion of the total population for each geographical unit. Immigration predicted by the calculations of the shift-share variable should still be correlated with real-life immigration, and it has the added benefit of explaining immigration at a far deeper level than "past immigration" instruments.

Even among studies that utilize some form of a shift-share instrument in their experimental designs, there does not seem to be a consensus on the true effect of immigration on the housing market. Saiz (2007) finds that, with a sample of the 306 American metropolitan areas classified as "metropolitan statistical areas" (MSAs) in 1983, a 1% increase in the inflow of immigrants as a proportion of the MSA population led to a 0.96% increase in rental rates the following year, as well as almost a 3% increase in home prices. A 1% increase in immigrant inflow equated to about a 3% increase for a panel of 50 Spanish provinces from 2001-2012 (Sanchis-Guarner, 2023), and a near 7% increase in Switzerland from 1998 to 2016 (Helfer, et. al., 2023). The effect of immigration on house prices varies more in terms of both direction and magnitude, with a 1% increase in immigrant concentration having impacts ranging from slight reductions in house prices in a sample of 170 regions in England and Wales (Sá, 2015) to more noticeable increases, such as 4% increases in the value of owner-occupied homes in the United States (Saiz, 2007) and Switzerland (Helfer, et. al., 2015).

Significance

At the turn of the 21st century, right around the time when labor economists began to take interest in the effect of immigration on the American housing market, immigration accounted for almost half of the population growth in the U.S. (Borjas, 2002). Although the COVID-19 pandemic temporarily brought down migration numbers, this trend has by and large continued into the current year, with net immigration accounting for more than 80% of the U.S. population growth in 2024 (Congressional Budget Office, 2024). As a result, immigration is a primary driver of not only demographic changes in the United States, but also of changes in economic trends. The immigration literature has acknowledged this trend and extensively analyzed the effect of changes in labor supply driven by immigration. However, it has done relatively little to document the changes in demand for commodities like housing that may be occurring as a result of these same immigration trends, despite the state of the housing market being regarded as a pivotal barometer of the country's economic health.

Concern has arisen, especially in recent years, about the stark increases in rental rates and house prices in the U.S. In particular, low-income individuals with less education have been hit hardest by these rising costs. While immigrants do tend to consume less housing per capita than U.S. citizens of the same demographic characteristics, the type of housing that they consume is often the same as those of individuals of color with lower income and less education, both in the markets for rental (Greulich, et. al., 2004) and owner-occupied housing (Finney, 2024). This has led some studies to surmise that immigrants compete with low-income individuals for housing. With much evidence having been found in the economic literature against the idea that immigrants generally compete with native workers for employment and bring down their wages,

a larger body of evidence is needed to make any sort of similar claim about immigrants' effect on the housing market.

Proposed Methodology

My main empirical model in this thesis will be derived from that of Saiz (2007), which seeks to establish a link between a change in immigrant concentration in a metropolitan statistical area (MSA) and a change in rental rates or house prices in a panel of over 300 U.S. metropolitan areas from 2010 to 2022. Similar to Saiz (2007), I will define "immigrant concentration" as the lagged change in the foreign-born population of an MSA as a proportion of the double-lagged total population of the same MSA. Data on the foreign-born and total population of each MSA will come from the merging of two datasets from the U.S. Census Bureau (USCB) American Community Survey (ACS) Selected Social Characteristics in the United States Tables (SSCUS)[2] and the USCB Metropolitan and Micropolitan Statistical Area Population Tables, respectively. Statistics on the median contract rent and median value of owner-occupied houses in each MSA will be supplied from other USCB ACS datasets. To better isolate the effect of changes in immigrant concentration on rental rates and house prices, I will implement time-variant controls, such as the per capita personal income, unemployment level, and educational attainment of the workforce for each MSA. These variables, which all have strong correlations with housing market indicators, will also be sourced online from the databases of the Bureau of Economic Analysis, Bureau of Labor Statistics, and the USCB ACS data tables. Additional, though less essential variables that have been found to be linked to changes in rents and house prices may be included in the model later in the process.

[2] For all USCB ACS Tables, most data are presented as 5-year estimates, which is the average of data collected over the current year and the previous 4 years. The USCB recommends using 5-year estimates for increased accuracy.

In my model, I will include a shift-share instrument, a technique implemented by Saiz (2007), as well as many other studies in the immigration literature. This will entail finding a publicly available online data source on the places of origin of immigrants to the United States throughout the duration of my panel. The most likely source of this data will be the USCB ACS SSCUS Tables, though I will continue my search for other potential sources, as the aforementioned tables do not specifically list the origin countries of foreign-born persons, but rather the region of the world from which they originate.

Another theme frequently acknowledged in the literature yet seldom quantified is the effect that outmigration of native-born individuals occurring as a result of immigration can skew the estimate of the effect of immigration on housing. Following Sanchis-Guarner (2023), in a potential extension of my main empirical model, I will attempt to decompose the total effect of new immigration on rental rates and housing prices into the short-run and long-run effects. Additional data from the USCB ACS SSCUS Tables will allow me to accomplish this.

Timeline

Literature review	Most relevant literature will be collected and analyzed by the **end of September 2024**.
Data collection	Data for explanatory, outcome, and most relevant control variables should be completed by **mid-November 2024**. Other controls may be added throughout the process if data is available.
Writing	The first draft of this thesis should be completed in **early March 2025** and submitted to Professor Sicotte for feedback.
Editing and revision	After the submission of the first draft, I will re-submit and revise subsequent drafts as necessary. Final revisions will be made by **mid-April.**

References

Bartel, A. (1989). "Where do the new US immigrants live?" Journal of Labor Economics, *7*(4), 371-391.

Borjas, G. J. (1994). The Economics of Immigration. *Journal of Economic Literature*, *32*(4), 1667-1717.

Borjas, G. J. (2002). Homeownership in the immigrant population. *Journal of Urban Economics*, 52, 448-476.

Card, D. (1990). The Impact of the Mariel Boatlift on the Miami Labor Market. *Industrial and Labor Relations Review*, *43*(2), 245-257.

Congressional Budget Office (2024). The Demographic Outlook: 2024 to 2054. https://www.cbo.gov/publication/59697

Finney, M. M. (2024). Immigration and the demand for urban housing. *The Annals of Regional Science*, 72, 601-616.

Forero-Vargas, D. & Iturra, V. (2022). Assessing the impact of recent Venezuelan immigration on housing rents in Colombia. *Spatial Economic Analysis*, *17*(4), 520-537.

Friedberg, R. M., & Hunt, J. (1995). The Impact of Immigrants on Host Country Wages, Employment and Growth. *Journal of Economic Perspectives*, *9*(2), 23-44.

Greulich, E., Quigley, J. M., Raphael, S., Tracy, J., & Jasso, G. (2004). The Anatomy of Rent Burdens: Immigration, Growth, and Rental Housing. *Brookings-Wharton Papers on Urban Affairs*, 149-205.

Helfer, F., Grossmann, V. & Osikominu, A. (2023). How does immigration affect housing costs in Switzerland? *Swiss Journal of Economics and Statistics*, *159*(5).

Partridge, M. D., Rickman, D. S., & Ali, K. (2009). Recent Immigration: The Diversity of Economic Outcomes in Metropolitan America. *Cityscape*, *11*(3), 29-57.

Sá, F. (2015). Immigration and house prices in the UK. *The Economic Journal*, 125(587), 1393-1424.

Saiz, A. (2003). Room in the Kitchen for the Melting Pot: Immigration and Rental Prices. *The Review of Economics and Statistics*, *85*(3), 502-521.

Saiz, A. (2007). Immigration and housing rents in American cities. *Journal of Urban Economics*, *61*, 345-371.

Sanchis-Guarner, R. Decomposing the impact of immigration on house prices. *Regional Science and Urban Economics*, *100*.

Tumen, S. (2016). The Economic Impact of Syrian Refugees on Host Countries: Quasi-Experimental Evidence from Turkey. *The American Economic Review*, *106*(5), 456-460.