Homeownership Trends of Low-Income Americans Throughout the Current Business Cycle

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Homeownership Trends of Low-Income Americans Throughout the Current Business Cycle

Abstract
This paper will analyze current trends of homeownership amongst low income Americans. The goal of this paper is to see what groups within low-income Americans as a whole have been most affected from 2006 to 2018. This includes analysis of race, educational obtainment, age and poverty status to see each variable's effect on homeownership. This research also looks into what has caused historic and continued low-homeownership rates amongst different groups such as Black and single households. It also analyzes the lasting affect the 2008 financial crisis has on homeownership trends in America today.
Homeownership Trends of Low-Income Americans Throughout the Current Business Cycle

David O’Neil
Nov. 4, 2020
Introduction

Owning a home in America has long been seen as a part of living the “American Dream.” There is an assumed sense of wealth and success that comes with homeownership. These assumptions are drawn from the historical truth that homeownership is the leading growth factor of wealth in America (Turner, 2009). What my research sets out to analyze is how obtainable homeownership has been for low-income individuals through the 2006 – 2018 business cycle. I will analyze these homeownership rates at time of economic disaster, as well as times of great success such as 2018 - directly before the Covid-19 pandemic shook the economy once again. This research also will strive to answer which groups of people have been most effected through the 12-year cycle and what could be causing these groups to be impacted.

After realizing the importance of homeownership in growing wealth, it is pertinent to analyze how lower income households can capitalize on the opportunity. There are many challenges that low-income households face when striving to become homeowners, and this paper will analyze how different stages of the business cycle have affected their homeownership rates. This will focus directly on how the 2008 financial crisis affected homeownership amongst different groups of people within low income households. I will also analyze the change from the peak of the financial crisis (2010) to the most recent data in 2018 to show how this low-income group was affected through the recovery and expansion period.

Although an individual’s net worth is closely related to many variables such as educational obtainment and race, a recent study found that homeowners in the United States have an average median net worth that is 80 times larger than those who rent (Eggleston & Hayes, 2019). The report found that homeownership and retirement accounts make up 63% of households net worth on average. Much of this household wealth is derived from the household’s
Home equity. Homeownership is seen as one of the safest investments you can make because when looking at the change in prices of homes, homeownership has historically provided individuals a positive return on their purchase. There of course have been periods of downturn in home prices but when looking at averages over a twenty to thirty-year timeframe, as shown in Table 1, homeowners will expect to see a gain on their investment. This is especially true in times of low interest rates when individuals can use homeownership as a hedge against inflating rental prices. An argument for homeownership being an overall net positive investment is the use of leverage. This is extremely important for low-income households because with a loan such as the FHA loan and good credit, individuals can purchase a $200,000 home with just $7,000 down (Stammers, 2020). As the homeowner pays off their mortgage, they are able to gain equity from the home as well as avoiding monthly rent payments. However, it is important to note that there is inherent risk in using leverage and it can put low-income individuals at risk of default.

Table 1 –Average Sales Price of US Houses

![Table 1](https://fred.stlouisfed.org/)

Source: Federal Reserve Bank of St. Louis (Mansa, 2020)
This paper will analyze three distinct years of the recent business cycle to analyze how successful different groups, within the low-income household bracket, have been at achieving homeownership. The years being analyzed are 2006, 2010, and 2018. I chose 2006 because it works as a baseline for homeownership rates at a time when the economy was relatively stable. 2010 was chosen because it will show the peak effects on homeownership from the 2008 financial crisis and allows data to show which variable groups were disproportionately affected by the crisis. I chose 2018 as my third time period because it is the most recent data available and will allow me to analyze the recovery and expansion period following the financial crisis.

Literature Expectations

Buying a home in America often requires a lot of financial discipline, education, and planning. These traits are exacerbated for low income households and require extreme financial focus and savings. A key metric to determine how likely Americans are to obtain homeownership is household net worth. When analyzing the net worth of the lowest 10% of the population in America, The Urban Institute found that the household net worth fell from $0 to a negative $1000 in debt in the last 50 years (The Urban Institute, 2017). The normalization of debt and the lack of savings in America has also resulted in almost half of the country being unable to pay a $400 emergency. Pair this with 38% of the population having credit card debt, and it explains why many individuals are forced to live paycheck to paycheck (Hyman, 2019). The inability to save results in the inability to pursue homeownership and therefore never pursue growing their net worth through home equity.

We can use household wealth as a strong indicator for whether or not a group will have a greater likelihood of home ownership. As I form a hypothesis, I turn to the US median household
wealth as my leading predictor. When analyzing household wealth by race, the disparity is quite extreme. In a 2015 US Census report, they found non-Hispanic White households had a median net worth of $139,300 (Eggleston & Hays, 2019). The median amount fell drastically when looking at minority groups. Black households had a median net worth of $12,780 and Hispanic households were only slightly higher at $19,990. The highest net value race was Asian Americans with a median household wealth of $156,300. As previously explained, homeownership is a leading growth factor of net worth, this extreme disparity in average net worth could be caused from lower homeownership levels amongst Black and Hispanic households.

Another key variable I will analyze is educational attainment. Educational attainment not only affects an individual’s expected income levels, but also their level of financial literacy. Only 16.4% of US high schools require any personal finance class and that number falls to just 5.5% in low-income schools (Hyman, 2019). As previously stated, purchasing a home takes a savings plan and a path towards credit worthiness. Without the knowledge of low down payment mortgage options and how to grow their credit, it only makes it harder for many Americans, specifically low-income individuals, to obtain the opportunity to purchase a home. Higher-educated individuals often have a greater chance of gaining this financial knowledge while expecting a higher mean wage than those who are less educated. Households in which the most educated member held a bachelor’s degree had a median wealth of $163,700, compared with just a $38,900 median for households where the most educated member had a high school diploma (Eggleston & Hayes, 2019).

As I have and will continue to discuss in this paper, there are many positive financial outcomes of owning a home. In addition to mortgages being a leveraged and annual investment,
it is impossible to neglect the great return on investment real estate has historically had in America. Over the last 80 years, the median home value has increased at an annualized rate of 5.5% or 1.5% when accounting for inflation (Frankel, 2019). This number is important to note because as home prices rise, wages must also grow at a consistent rate. For example, if the average cost of low-priced homes rises faster than the wages of low-income individuals, it essentially prices out many low-income Americans. This phenomenon is heavily driven by the lack of wage growth over the last 40 years.

While Americans in the top 95th percentile of earners have seen their real hourly wage increase by over 63% since 1979, the bottom 10% have only seen a growth of 3.3% over the span of 40 years (Gould, 2020). When comparing the consistent increase in the price of homes with the stagnant levels of wage growth, there is a great effect on purchasing power. There has also historically been a direct parallel between educational attainment and income, with lower levels of educational attainment resulting in an average lower pay. This leads me to hypothesize that there will be decreasing homeownership levels amongst those with lower education throughout the business cycle.

I hypothesize that homeownership for low-income households throughout the 2006-2018 business cycle will change drastically as the economy shifts. I expect to see homeownership fall to its lowest value amongst the group as a whole in 2010 and then see a slight rebound in 2018, but still fail to reach 2006 levels. This expectation stems primarily from the stricter lending practices following the 2008 financial crisis. I also hypothesize that race coefficients alone will not grow at a significant amount neither negative nor positive throughout the business cycle. Instead, I expect declining homeownership rates in lower-educated individuals and lower-aged individuals as the job market becomes increasingly competitive and wages stay stagnant. I also
expect to see one of the highest correlations to be amongst marital rates and homeownership rates. This means that I expect Married households to have a higher Homeownership coefficient compared to single households.

**Theory: Latent Demand**

When analyzing drastic changes of a business cycle coupled with a decrease in purchasing power, demand is most affected. These issues specifically cause latent demand, which occurs when there is demand for a product or service that a consumer cannot satisfy because they do not have enough money, because the product or service is not available, or because they do not know that it is available (Cambridge Dictionary). This theory’s three components will also help magnify how financially vulnerable low-income households are to unexpected changes in the business cycle.

The first component of the latent demand theory states that a consumer can not satisfy demand because of a pure lack of money. This ties directly to the change in business cycles because it explains how a sudden change of income can drive out consumers. It is also most prevalent amongst low income households due to their low amount of savings and free cashflow. In a report done by the Consumer Federation of America leading up to the 2008 recession, they found that less than one third of low-income households even had a savings account (Brobeck, 2008). Additionally, 74% of that same low-income group also carried an outstanding balance on one or more credit cards. This would lead to the expectation that any surprise to these individual’s financial situation, such as unemployment, would drastically magnify their instability. We would expect the financial crisis to cause this effect which would lead to even lower homeownership rates after the financial crisis for the low-income group as a whole.
The second component in the latent Demand theory says consumers are unable to obtain the product or service due to the product or service not being available. When looking at low income housing, we can analyze the supply and demand with two key metrics. The first is the supply of affordable homes compared to the average low-income households purchasing power. The second is the ability for low-income households to obtain credit worthiness to obtain a loan.

When analyzing supply of affordable housing, we must again look back at the real purchasing power amongst low-income households. As wages stagnate and more individuals are considered in the low-income bracket, the supply of affordable housing must grow in addition to prices remaining relatively stable. However, the median price for homes in the lowest price tier have actually risen much more rapidly than higher-cost units (Andrews & Sisson, 2019). Production of affordable homes are also lagging as new production has focused on high margin, luxury homes. From 1980 - 2016, only 22% of single-family homes built were under 1,800 square feet, often considered starter homes for first time purchasers. Much of this is caused by restrictive zoning which is said to “suppress house supply, drive up housing costs, and widen racial and economic disparities,” (Green & Gonzalez, 2019).

As highlighted earlier in the paper, a 2008 survey showed the vast majority of low-income respondents possess excess credit card debt. Credit card debt is a leading factor in most low credit score ratings and a recent report from LendingTree confirms the expected poor credit score ratings. The report shows that the bottom half of the average median family income has an average score of 664 (Resendiz, 2020). It is also important to note that after the 2008 crisis, lenders were held to a much higher standard.

After the financial crisis showed the flaw in the loose lending standards, often given through private market subprime loans, measures were put in place to assure a higher standard.
This caused lenders to be much more selective and offer less mortgages overall and drastically decrease lending to lower credit and often lower income individuals. Following this trend, we can expect that after the 2008 financial crisis our low-income group being analyzed will have a much harder time gaining mortgages. This should lead to a substantial decrease in homeownership rates amongst the group.

The third component of Latent Demand states that consumers cannot satisfy demand because they do not know it is available. In terms of the housing market, this can be described as the knowledge of how to obtain a house. This draws on the knowledge of building a credit score, the existence of a low-down payment FHA loan, and the savings required to purchase a home. This all stems from an individual’s level of financial literacy, which as I will analyze, is often lower amongst low-income households.

**Data & Empirical Model**

The data I will use for this research comes from the American Community Survey. This survey contains data from each year and is considered the premier source for population and housing data in the United States. I will use IPUMS to collect and download this data. I will start by using the data variable POVERTY to limit my sample. This poverty variable is the ratio of total family income to the poverty level of income for families of that size. This ratio is multiplied by 100 to put it in percentage term. Meaning if the variable POVERTY for a family is 100, the family is living at the poverty line level of income.

If the ratio is 200, the family is living at twice the poverty line level of income. This variable is perfect for my analysis through this twelve-year period because it also adjusts for inflation. My sample is restricted to those who have a POVERTY value of 200 or less to assure I
am only analyzing a low-income group. After limiting my general data, my variable data begins with my dependent variable, homeownership. This variable is dichotomous, meaning it results in a simple yes or no conclusion (value of 1 or 0). Homeowners include any household that has either paid off their home completely or currently has a mortgage on the home they are living in.

I will then collect four different independent variable groups for my analysis. The first is Educational Attainment which will be broken into four categories, high school dropout or lower, high school graduate, some college, and undergraduate college graduate or higher. I combined all college graduates because I do not expect a significant group of individuals with a graduate degree or higher to be earning less than twice the poverty level. As previously stated, there is a strong correlation in America between educational obtainment and average income as well as financial literacy, so this variable will likely show a lower likelihood of homeownership for individuals with lower educational obtainment against their higher educated peers.

The second independent variable group is Race. This group will consist of four racial groups: White, Black, Asian, and Other. These variables are vital because this analysis levels the playing field of income distribution amongst races. This means that despite White Americans making more than African Americans, on average, this analysis will analyze homeownership rates between races at the same income levels (Pew Research Center, 2016). It also allows me to analyze what percentage the total low-income group each race makes up.

My third variable group is Age. My initial data pulled from IPUMS included ages 18-65 to include the entire adult working class. After running my initial regressions, I changed this to include 30-65 year old individuals and created four subcategories. This was because my educational group “College Graduate or Higher” includes many individuals still in college, graduate school, or recent graduates with no income yet. I increased the age minimum to 30 to
assure no students would skew the results. I then created three age groupings, 30-40, 40-50, and 50-65.

The fourth variable is Marital Status. This variable allows me to see the relationship status of the household. Despite common logic that having two heads of the house present should relate directly to higher homeownership rates due to an increase in income potential, it is important to remember the groups poverty status is measured as the total income of all household members. I will also include POVERTY as an independent variable in my regression. This will show how much impact each “unit” of poverty has on homeownership levels. This will show how much better off individuals living at twice the poverty line, a poverty variable of 200, to those living at the poverty line, a poverty variable of 100.

My initial analysis begins with an OLS regression of equation 1. This will also show the affect each variable has independently on homeownership during these business cycle periods. I will run this regression in all three business cycle periods (2006, 2010, 2019) to analyze the changes in each variable’s coefficient over this time frame. My reference group is made up of white, high school dropouts, single households, Aged 51 to 65.

Equation 1:

- Ownership = $\beta(POVERTY) + \beta(High \ School \ Grad) + \beta(Some \ College) + \beta(College \ Graduate) + \beta(Married) + \beta(Asian) + \beta(Black) + \beta(RaceOther) + \beta(Age \ 30 - 40) + \beta(Age \ 41 - 50) + \beta(Hispanic)$

Results

I began using my data by running a frequency analysis of my subset to see overall trends amongst the group throughout the business cycle. The results from this frequency analysis can be seen in Table 2. Although I expected a decrease in homeownership rates from 2006 to 2010, the
continued decline into 2018 was a surprise. I expected low unemployment and the expansion of the US economy to directly correlate to higher homeownership rates which was proven false through these trends.

Table 2: Low Income Homeownership Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Homeownership rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>53.4</td>
</tr>
<tr>
<td>2010</td>
<td>50.5</td>
</tr>
<tr>
<td>2018</td>
<td>45.8</td>
</tr>
</tbody>
</table>

I then compared this subset’s change over the business cycle to the national homeownership rates of all Americans, seen in Table 3. As you can observe that they followed similar trends with the national average, falling only slightly more through the time period. It is also interesting to note that up until about 2005, homeownership rates climbed consistently but that trend ended around 2006 even before the recession began. You see that the decline of homeownership has been fairly consistent and finally turned positive in 2016.

Table 3: National Homeownership Rates

Figure 2: Quarterly Homeownership Rates and Seasonally Adjusted Homeownership Rates for the United States: 1995-2018

I would argue this is caused by two leading factors, the first of which was discussed previously and comes from much stricter lending practices following the 2008 financial crisis. I believe the second leading cause is the drastic increase in non-housing related debt in America over the last decade. As previously discussed, savings rates have drastically decreased for low-income individuals, but extends to almost all income brackets. Table 4 shows the economic recovery and expansion period of the United States Economy was built heavily upon consumer debt. Unfortunately, this debt did not go towards homeownership, the majority of it was from Credit Card and Student Loan debt (Federal Reserve, 2019).

Table 4: Consumer Debt

<table>
<thead>
<tr>
<th>Non-Housing Consumer Debt</th>
<th>Not Seasonally Adjusted, in $ billions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 2018</td>
<td>$4.01 trillion</td>
</tr>
</tbody>
</table>

Source: Fed Board of Governors, WOLFSTREET.com

After analyzing potential financial trends that lead to the general decline in homeownership from 2006 to 2018, I wanted to see how certain groups of people within my low-income group were affected throughout the period. I ran my regression (Equation 1) and found...
there to be significant effects in homeownership rates based on multiple characteristics. My results from the regression are shown below in Table 5.

Table 5: Regression

<table>
<thead>
<tr>
<th>Variables</th>
<th>2006 – Coefficient (Std Error)</th>
<th>2010 – Coefficient (Std Error)</th>
<th>2018– Coefficient (Std Error)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty Status</td>
<td>.002 (.000)</td>
<td>.002 (.000)</td>
<td>.002 (.000)</td>
</tr>
<tr>
<td>Hs Grad</td>
<td>.046 (.004)</td>
<td>.055 (.004)</td>
<td>.045 (.004)</td>
</tr>
<tr>
<td>Some College</td>
<td>.054 (.005)</td>
<td>.054 (.004)</td>
<td>.053 (.004)</td>
</tr>
<tr>
<td>College Grad</td>
<td>.067 (.006)</td>
<td>.098 (.006)</td>
<td>.093 (.005)</td>
</tr>
<tr>
<td>Race – Other</td>
<td>-.050 (.006)</td>
<td>-.065 (.005)</td>
<td>-.064 (.005)</td>
</tr>
<tr>
<td>Asian</td>
<td>-.161 (.009)</td>
<td>-.153 (.008)</td>
<td>-.091 (.007)</td>
</tr>
<tr>
<td>Black</td>
<td>-.182 (.005)</td>
<td>-.190 (.004)</td>
<td>-.212 (.004)</td>
</tr>
<tr>
<td>Age 41-50</td>
<td>-.063 (.004)</td>
<td>-.060 (.004)</td>
<td>-.083 (.004)</td>
</tr>
<tr>
<td>Age 30-40</td>
<td>-.132 (.004)</td>
<td>-.146 (.004)</td>
<td>-.157 (.004)</td>
</tr>
<tr>
<td>Married</td>
<td>.164 (.003)</td>
<td>.160 (.003)</td>
<td>.153 (.003)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>-.118 (.005)</td>
<td>-.112 (.004)</td>
<td>-.114 (.004)</td>
</tr>
</tbody>
</table>

The first variable, Poverty Status, is quite complex and must be understood to realize the meaning of these results. As discussed previously, this poverty variable is the ratio of total family income to the poverty level of income for families of that size. This ratio is multiplied by 100 to put it in percentage term. Meaning if the variable Poverty Status for a family is 100, the family is living at the poverty line level of income. This is important to understand because despite the coefficient looking small, it affects homeownership drastically. This .002 coefficient means that for every 10 points higher a family’s Poverty Status variable is, they have a 2% higher chance of homeownership. To go even further, a family with a poverty status variable of 200 has a 20% greater probability of homeownership than a family at 100, or the poverty line.

The next group of coefficients are all based upon educational obtainment and they are compared to High School Dropout’s homeownership rates. Each variable follows the general
expectation that higher educational obtainment would equate to higher homeownership rates. The three groups listed show small variations between each other, but they do prove the greatest change in homeownership rates is based upon whether or not the individual drops out or graduates high school. After that, the increase in homeownership rates is less drastic but do support my hypothesis that higher educational obtainment increases the probability of homeownership.

The next four variables look at the affect race has on homeownership. These variables’ coefficient shows the individual race’s likelihood of homeownership compared to white individuals. As expected, even low-income White Americans have a greater chance of homeownership compared to Black, Asian, and Other races. These coefficients are independent of all other variable impact and will show if any low-income racial groups were disproportionately affected through this business cycle, such as Black Americans decreasing their likelihood of homeownership compared to White Americans.

Before analyzing each specific race’s coefficient, I wanted to analyze the frequencies of each race in this low-income group. These results are presented in Table 6. Additionally, the percentage of those who identify as White & Hispanic is presented in Table 7. Table 7 tells a drastically different story than Table 6. Table 6 shows that the racial make-up of this low-income group analyzed has stayed relatively stable. Table 7 shows that despite White individuals making up a consistent 67 to 68% of this low-income group, that is not true when looking at different subsets of the general White race. This low-income group is increasingly made up of Hispanic white individuals and a declining amount of Caucasian white individuals.

<table>
<thead>
<tr>
<th>Race</th>
<th>2006</th>
<th>2010</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>67.2%</td>
<td>68.8%</td>
<td>68.1%</td>
</tr>
</tbody>
</table>
When looking at the coefficients from each Race, both Asian and Black individuals are at a clear disadvantage. The Asian group was the only racial group with a positive trend in their coefficient through the business cycle analyzed and appear to be closing their homeownership gap relative to low-income whites. It is also important to note that Asian individuals make up a very small portion of the general low-income group being analyzed, just around 4% each year. However, the Black variable group does not see this same decline, they actually see a concerning increase in their homeownership gap with whites from 2006 to 2018. It is important to analyze what may potentially be causing the high coefficient for low-income Black individuals.

There are multiple hypotheses for why Black individuals have lower homeownership rates even when all other variables are accounted for. The most common explanation and what I believe to be a leading impact is the lingering effect from discriminatory housing policies that were eliminated in 1968. This includes issues such as redlining, a practice in which lenders assigned color codes to neighborhoods to indicate the areas lending reliability (Lerner, 2020). This resulted in racial bias, in which predominantly Black communities were marked as high credit risk making individuals unable to obtain a mortgage.

This caused a large majority of Black Americans to rent, resulting in a net loss to generational wealth due to the lack of home equity capitalization. Many also argue that these racial biases in lending still disproportionately effect Black homeowners. In a recent study by the

<table>
<thead>
<tr>
<th>Race</th>
<th>2006</th>
<th>2010</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Hispanic</td>
<td>6.8%</td>
<td>9.8%</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

Table 7: White Hispanic Frequency Analysis
LendingTree, Black home buyers get denied of a mortgage 12.64% of the time while the overall denial average is just 6.15% (Kapfidze, 2020). The root of this issue may come from the growing importance of an individual’s credit score when requesting a loan.

Black Americans historically use credit less, therefore resulting in lower credit scores and therefore lower mortgage acceptance. This correlation directly relates back to my theory of latent demand. One condition of latent demand is that the consumer does not have the knowledge of a good. I correlated this directly to financial literacy which is shown through this credit dilemma amongst Black Americans. Although they know buying a home exists, they may have not gained the required knowledge (building credit) to put themselves in a position to buy the home.

After analyzing the Black coefficient, I wanted to find the correlation between race and the second most significant coefficient, household marital status. To find the correlation between race and marital status, I ran a cross tabs evaluation to find marriage rates of each race in my low-income group. These results are listed in Table 8 and show the drastic difference between each racial group. Despite each racial group having different marriage rates, one trend is shown through every group; marriage rates of low-income individuals are falling quickly. As shown in the regression, marriage is a leading indicator of homeownership and if marriage rates continue to fall, I would also expect to see a continued decline in homeownership rates.

<table>
<thead>
<tr>
<th>Race</th>
<th>2006</th>
<th>2010</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>46.8%</td>
<td>46.1%</td>
<td>40.47</td>
</tr>
<tr>
<td>Black</td>
<td>26.4%</td>
<td>25.6%</td>
<td>22.9%</td>
</tr>
<tr>
<td>Asian</td>
<td>71.2%</td>
<td>67.4%</td>
<td>64.1%</td>
</tr>
<tr>
<td>Other</td>
<td>53.5%</td>
<td>48.2%</td>
<td>41.5%</td>
</tr>
</tbody>
</table>

I also wanted to analyze the shift of homeownership amongst different levels of educational obtainment in my low-income group. Table 9 shows the frequencies of
homeownership of each educational group over the business cycle and shows a familiar trend. I say familiar because Table 9 shows yet again that homeownership rates of low-income Americans are consistently declining from 2006 to 2018 even for groups that had much higher coefficients than their reference group variable such as college graduates.

Table 9: Educational Homeownership Rates

<table>
<thead>
<tr>
<th>Educational Obtainment</th>
<th>2006</th>
<th>2010</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School Dropout</td>
<td>46.3%</td>
<td>42.5%</td>
<td>38.2%</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>55.5%</td>
<td>52.3%</td>
<td>45.9%</td>
</tr>
<tr>
<td>Some College</td>
<td>56.5%</td>
<td>52.1%</td>
<td>47.6%</td>
</tr>
<tr>
<td>College Graduate</td>
<td>59.7%</td>
<td>59.6%</td>
<td>54.5%</td>
</tr>
</tbody>
</table>

Finally, I analyzed how these coefficients impact the low-income homeownership rate frequencies of each race through the business cycle. The results are presented in Table 10 and show a substantial decline in homeownership rates of roughly 8 to 9% for all races except amongst Asians. It is fascinating to note that Asian individuals were the only variable group to keep homeownership rates within 1% from 2006 to 2018. Even more alarming is the growing gap between low-income Black individuals and all other races. As previously analyzed, this may be attributed to lower educational obtainment, declining marriage rates, historical restrictions such as redlining, as well as increasing debt levels.

Table 10: Homeownership by Race

<table>
<thead>
<tr>
<th>Race</th>
<th>2006</th>
<th>2010</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>59.7%</td>
<td>56.5%</td>
<td>51.7%</td>
</tr>
<tr>
<td>Black</td>
<td>35.4%</td>
<td>32.8%</td>
<td>26.3%</td>
</tr>
<tr>
<td>Asian</td>
<td>49.2%</td>
<td>46.7%</td>
<td>48.8%</td>
</tr>
<tr>
<td>Other</td>
<td>45.0%</td>
<td>40.9%</td>
<td>37.2%</td>
</tr>
</tbody>
</table>

Conclusions & Policy Implications

All in all, we see many expectations from literature affecting homeownership rates even
more than previously expected. As debt has increased and savings has decreased, Americans have lower spending power when it comes to purchasing a home. This phenomenon paired with the tightening of lending requirements following the 2008 financial crisis meant many Americans, and specifically low-income individuals with weaker credit ratings, were no longer mortgage worthy in the eyes of lenders. This was shown in my regression through the POVERTY coefficient. As explained, this coefficient shows how drastic income effects homeownership and how income is an important determinant of homeownership especially in my sample group of low-income Americans.

The most concerning results I can conclude from these findings are associated with Black and single households. Not only are their coefficients two of the leading negative factors on homeownership, the Black coefficient has actually risen since 2006. When combining the negative effect of being Black with extremely low marriage rates (Table 8), Black Americans are becoming less and less likely, on average, of being homeowners. As discussed in the literature review this is cause for major concern because homeownership acts as a leading tool of growing generational wealth. As the coefficient for Black Americans continues to fall along with marriage rates, we only expect to see continued declining homeownership rates in years to come.

There are many areas of this paper that can be subject to further research and potential policy implication. Further research could include a deeper analysis of financial literacy amongst different low-income groups, why marriage rates are so much lower with low-income Americans, or how race plays an impact on lending practices today. These topics could all be subject to new policy, but I believe the effect of low-income Americans being priced out of the housing market is most prevalent. There are two policy ideas I can see changing this issue in the short to medium-term future. The first of which is incentivizing low-income individuals to buy
homes through grants, tax incentives, and easier lending requirements. The second policy implication has to do with increasing low-income Americans earnings. This is currently occurring throughout the country in the form of increased minimum wages and proposed tax breaks for those living near the poverty line.

When analyzing my hypotheses, I was incorrect in the idea that low-income homeownership rates would recover from 2010 to 2018. I believe what I failed to acknowledge was the slow effects the recession would cause for the next 10+ years. For example, if low income individuals were already in a home, they would not lose the home strictly due to new lending standards. However, as the low-income group in America grew, new purchasers would have been subject to the stricter lending standards therefore causing higher rates of mortgage denials. Although there are many political arguments going on in America about growing wealth inequality and a lack of affordable homes, this research can help show what Americans have been disproportionately impacted and what factors, such as declining marriage rates, are pushing homeownership lower.
References


