Effective Demand and Its Impact on Homeownership in Wisconsin

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Effective Demand and Its Impact on Homeownership in Wisconsin

Abstract
The following study observes certain indicators that impact homeownership in the state of Wisconsin. By utilizing effective demand as the theoretical framework, it is established that the utility and budget of an individual is what creates the decision to own their home. If a home can provide a service the consumer needs and fulfills their utility, the consumer will make the decision to buy the home given they have the ability to pay. By comparing Rural vs. Non-Rural areas, it is found that when an individual lives in a rural area they are more likely to own their home. Additionally, other indicators such as race and poverty level status create an increased likelihood of homeownership. By assessing these indicators, it is made clear that certain policy implications like educational programs or cheaper housing in certain areas could help those who are less likely to obtain homeownership be given a greater opportunity to own. Additionally, these factors can assist lenders on the banking side in understanding which customers are more likely to be able to own their home.

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Effective Demand and Its Impact on Homeownership in Wisconsin
INTRODUCTION

Vast amounts of research and literature was created to observe the housing market crash of 2008. While the global fiscal crisis has always been of interest to many, it is important to add to the existing literature, but from more recent years. This study is a “10 years later” study of what the housing market is like now when it comes to demand. There is not a lot of current research after 2015 to examine housing demand. Additionally, it is not always typical to find a study based on a specific state. This study examines homeownership in the state of Wisconsin from 2015-2019.

This analysis will build upon the work of Gyourko (1998) looking at socioeconomic indicators of homeownership from 1960-1990 and Goodman’s (2008) analysis running from the 2000s to 2015. The combined research of Gyourko (1998), Goodman (2008) and my work will provide insight into the trends of ownership for the past 60 years. While not all three studies include all the same variables, they overlap on many and thus implications can be made about homeownership trends. Homeownership can impact many decisions individuals make on a day to day basis. What they spend on other goods, what policy implications they wish to see in government, or even the type of preferences they have on other long-term assets.

Housing is distinguished from other goods in the economy because of its high price, durability, and its locational fixity. Additionally, it is differentiated because of its heterogeneous nature. Also, homes are all very different; housing in general is a group of related but segmented markets that have particular packages of underlying commodities differentiated by size, quality and location. Another consideration is that housing is also a unique good because banks must extend loans before it is possible for most people to purchase a home. Therefore, even if a family desires to purchase a home, they may not be able to do so if they do not qualify for a loan.
The demand for ownership of a home can best be described via the utility that buyers wish to achieve from owning their home as well as their ability to pay for the house itself. These two determinants are what make up effective demand which is the theoretical basis for this analysis. This study will be able to provide information to not only buyers and suppliers of homes, but also to lenders who help initiate the ability to buy a home based on the credit they provide. The intent of this study is to understand the effective demand of individuals in the state of Wisconsin based out of rural vs. non-rural areas and how effective demand effects their likelihood of homeownership.

LITERATURE REVIEW

Pricing for houses is not only complex to buyers but to the market itself. Many factors affect prices, one of the most important being the location. As Quigley (1987) mentions, “At different sites, variations in prices within any sub-market cannot exceed the transport cost differentials for the marginal consumer” (1). This means that depending on where one lives there are different costs of living, but specifically, those in more rural areas may have cheaper cost of living. The price of the home may be lower in some areas than others, which in turn will lead to the further likelihood of it being owned instead of rented. As Carliner (1974) mentioned in rural areas it can be assumed that single family housing units are cheaper than their counterparts in big metropolitan areas. Green (2000) also asserted that the highest ownership rates among states are in the ones that are less urban. Additionally, differences in spatial patterns of housing defines the economic geography and can help explain urban life vs. non-urban life. This ‘economic geography’ mentioned explains the cost of living that varies between the different areas that will be examined.

There are many factors that need evaluation when deciding to own one’s home. The decision to rent or own depends on income, price, stability of household’s demand for housing,
and type of housing desired. Additionally, the prices of homes have a strong dependency on market conditions. These prices have affected many households’ ability or desire to own over the years. As Englund asserted, “For most households, net wealth falls far short of the value of the house they demand for consumption purposes” (3). This means that the home most people demand is out of their wealth status. Thus, many decisions that come into play when deciding to own are dependent on socioeconomic indicators that allow lenders to believe those, they loan to can pay back their loans.

Goodman (2018) mentions that access to credit has changed dramatically over time too. Leading up to the market crash, accessibility to credit had increased dramatically. But since the crash, access to credit has decreased. Additionally, the prices of homes have a strong dependence on market conditions which can greatly impact individuals’ demand for a home. This demand is very dependent on one’s financial ability to own which is part of this analysis as well.

Additionally, aspects like income can have a major effect on homeownership. “If the representative homebuyer is constrained by borrowing opportunities rather than by lifetime resources, then wealth shocks have a direct impact on housing demand. This implies that a shock to the demand and supply of housing services will be reinforced through its impact on financing constraints. A positive income shock, for example, will increase demand and housing prices, thereby releasing borrowing constraints” (Englund, 3). Zavisca (2016) indicates that housing is an indicator of socioeconomic difference especially when compounded with the housing wealth that is transferred across generations.

An important consideration is how home ownership affects individuals and families. For example, ownership can impact whether one attempts to move and find a new job (Green 2000). Homeownership can therefore constrain labor mobility and thus leads to higher unemployment.
Additionally, Zavisca (2016) described how homeownership can positively impact children’s well-being, social capital & civic engagement. However, it can also have negative effects on employment constraints, financial stress, and social intolerance. Interestingly, Zavisca’s (2016) study also showed that when controlling for income, housing quality, and health, homeowners were not happier than others and spent less time on other activities; this means, in the case of that specific study, homeownership is not necessarily an identifier of increased happiness. When it comes to demand for a home, this could be an important factor that may deter people from demanding to own if owning has the sole purpose of increasing the buyer’s happiness.

Due to the existing literature there are expectations that can be made regarding homeownership. For example, when discussing location, Quigley (1987) mentions how land prices and thus house prices should reflect transportation costs, subsequently leading to different trends of homeownership. Furthermore, when discussing where individuals choose to live in reference to urban or non-urban life, Quigley mentions, “Workers (or farmers) are willing to pay a premium for central locations to reduce transport costs, so housing (or agricultural land) must become cheaper at more distant locations” (2). This part is important because it provides some insight on the hopes of looking at rural vs. non-rural. Farmers are more than likely to live on the land they farm to reduce the cost of commuting to and from work.

Some existing research led to the inclusion or exclusion of certain variables that could influence the probability of homeownership. For example, it was proven in Ihlanfeldt’s (1983) study that taxation does not have as much of an effect on high-income households’ decision to own as it does on other income groups. Unfortunately, the ACS data did not have a property tax variable, and hence property tax is not included as a variable within this study. Yet, numerous studies (Gyourko 1998 & Goodman 2018) showed that those with educational obtainment of being a high school graduate or lower have a decreased likelihood of being homeowners. Thus,
this leads one to believe that the higher the education, the more likelihood of homeownership. The results from some studies regarding employment and ownership have not been as decisive, thus there is not much of an expectation created there.

However, the expectation that those with high income own their homes is very high. Carliner (1974) outlined the main reason for higher income leading to higher likelihood of ownership being for tax purposes, multi-family housing is cheaper, poor people have difficulty saving, and mortgage lenders are less likely to lend to poorer families, even if they have the money because they have no credit. As for race, whites have more ownership typically, but this could be because they live in more rural areas statistically compared to non-whites. Yet, Quigley (1987) ascertained that many minorities have to ‘pay for prejudices’ when it comes to homeownership. There is a segregated pattern of occupancy when it comes to homeownership. This is what led me to include race in my analysis. Additionally, some of Carliner’s (1974) findings showed that 71% of households headed by married couples own their homes compared to fewer than 46% of households with unmarried heads. Additionally, within the unmarried group analysis, the previously married women have ownership rates higher than other groups. The final additional factors to consider for increased ownership is that government programs have lowered income necessary to buy, relative price of homes have decreased, and suburbanization has increased.

**THEORY**

Understanding the complexity of the housing market is crucial for this study. Again, the research within this analysis is based on homeownership in Wisconsin. It will compare the ownership rates among numerous different socioeconomic indicators while focusing specifically on the rural vs. non-rural populations. The goal is to have an indicator that predicts the likelihood of ownership dependent upon certain economic and demographic indicators. Thus, this leads to
the research question, “What are the differences in the probability of home ownership across rural vs. non-rural areas and how do demographic and economic indicators determine home ownership in these areas?”

The theory that will be utilized to assist this study is the effective demand theory. While the typical law of supply and demand shows how supply and demand interact to determine the equilibrium price of a good, the theory of effective demand goes further into analyzing the decisions of the consumer. Since I do not consider the supply side of the housing market, the traditional supply and demand model is not appropriate. Instead, the focus is on the determinants of effective demand that determine the likelihood of ownership based on characteristics of the buyer.

The main idea behind effective demand is that when an individual decides to buy, it is a dichotomous variable decision, either yes or no. Or as represented in this study, 0 or 1. This is different from typical demand when usual purchased products that are divisible such as food or clothing can be demanded for a specific quantity. In order for a consumer’s demand to be effective for a home they must have both utility from the home as well as enough income to be able to purchase that home.

The theory of effective demand is the willingness and ability of consumers to purchase goods at different prices. It helps show the amount of goods consumers are actually buying based off their legitimate ability to pay. To effectively demand a home, a utility must be received from the purchase and there must be sufficient income to make the purchase. Utility is the satisfaction that a person gets from the good, while budget is what one can afford. So, as the literature has shown, certain indicators can predict homeownership. Those indicators are what makes one likely to demand that ownership. Under budget constraints aspects like income, employment status and prices of homes due to location would impact this variable. For utility, one should
think that a home is a service that is provided to the family that needs it. A family's demographic make-up will change what service they require from their home. For example, an individual’s race, education, marital status, and children are all variables that can change one’s preference for what they need or want from the home they own. All these variables effect individuals’ ability to have effective demand when it comes to homeownership. Essentially, the purpose of using effective demand is to examine what causes shifts of the demand curve. This can be illustrated here:

Demand for homeownership should shift to the right effectively when there is a rise in income, or a change in preferences due to the service needed from the house. The effective demand theory focuses our attention on shifts of the demand curve line. It is important to note, that these shifts typically occur when the family’s demographic make-up changes; thus the utility derived from the home and ability to pay for the home change as well. For example, a large family may receive more utility from owning a home than a single person because they are fully able to utilize the space.

Effective demand is also defined as the demand for a product that occurs when consumers are constrained. For example, if one lives in a larger city, the cost of living and the price of housing is higher compared to smaller cities. Additionally, housing is also valued as a source of wealth because housing works as a self-assurance against the hard times of the labor market. Also, the financial risk of a single asset lock-in is something many families consider. It should not be ignored that ownership is very dependent on inflation and the market in general. While the
acknowledgement of these factors is legitimate, they will not be further incorporated within this study.

The following is the set of hypotheses created for the purposes of this study.

Hypothesis 1: Certain conditions such as being married, poverty status, educational attainment, employment, and being older can make individuals more likely to own their home.

Hypothesis 2: There is a stronger likelihood that if one lives in a rural area, they have an increased likelihood of homeownership because the prices of homes and cost of living in rural areas is lower.

**EMPIRICAL MODEL**

The data that will be utilized for this analysis is the American Community Survey and is retrieved through the Integrated Public Use Microdata Series. This data base collects United States census microdata and utilizes documentation so that individuals can create data extracts from this site. By selecting certain variables, a sample of data is created. Additionally, by omitting unidentifiable variables useless data that would not contribute to the analysis is eliminated.

For this study, the location is specified to just look at the state of Wisconsin from the years of 2015-2019. The population is then segmented into rural vs. non-rural which is the main independent variable under evaluation. The non-rural area is all respondents considered to be living in the metropolitan area. Those classified as rural would be those who are nonmetropolitan & rural areas. The additional dummy variables Race, Education, Poverty, Marital Status, Employment Status, Age and Sex. The dummy variables utilized for race is white. The reference group includes all races besides white in the non-white category. Employment is a dummy
variable that equals 1 if employed and zero otherwise. Additionally, education uses high school
dropout as the reference variable compared to dummy variables for those with a high school
degree (HSgrad), some college (SomeCollege), college degree (College) and advanced degree
(Advanced) by combining masters, graduate and doctoral degrees. The Poverty variable is total
family income as expressed by a percent of the poverty threshold identified by the social security
administration. This poverty threshold takes into account family size and number of children.
Then four dummy variables are created, those below 100% of the poverty line (POOR), greater
than or equal to 100% and less than 200% (nearPOOR), greater than or equal to 200% and less
than 500% (middle) and greater than or equal to 500% (upper). The upper income group is the
reference group. The dummy variables utilized for marital status is not married which is anyone
who is divorced, separated, or widowed. The reference group includes those who are married.
Similarly, there was dummy variable created for not married yet and the reference group includes
those who are married. The age population is segmented into 18-75 years old and sex is
male/female.

The Ordinary Least Squares method is utilized for this analysis. This method helps find
the effects that independent variables have on the dependent variable. By creating a linear
equation, this finds the coefficient of the likelihood of ownership for each variable while
controlling for all the other variables mentioned. Homeownership in the equation is a
dichotomous variable, where 1 is assigned to homeowners and 0 to non-homeowners. The
equation to predict ownership can be seen below.

\[
\text{Ownership} = b_1 + b_2(RURAL) + b_3(POOR) + b_4(nearPOOR) + b_5(middle) + b_6(White) +
\]
\[
b_7(divorced) + b_8(NeverMarried) + b_9(HSgrad) + b_{10}(someCollege) + b_{11}(college) + b_{12}(advanced) +
\]
\[
b_{13}(employed) + b_{14}(sex) + b_{15}(age)
\]
By utilizing SPSS, a statistical computerized software, the multi-variate equation is generated. Additionally, significance tests are provided to demonstrate the accuracy of the results. Those can be found in the section below.

**Results & Findings**

To set the scene regarding ownership in Wisconsin we begin by looking at homeownership rates based on certain demographics and economic indicators. In Table 1 below one can see the description of the variable on the left side column and the percentage of those individuals own their home given they have that trait. For example, the first row indicates that 85.6% of people living in a rural area own their home and the remaining 24.4% do not. Also 81.3% of whites own their home, while simultaneously only 40.1% of non-whites own their home. An interesting finding to note is that in the un-employed group 79.5% own their home while of those who are employed 79.3% own their home. Additionally, the percentage difference in non-rural to rural is nearly 9% which supports our hypothesis being true.

Unsurprisingly, the poor category is vastly different from most other variables with only 39.6% of poorer individuals owning their home. When bumping up one poverty bracket to nearPOOR we can see that 58.2% own their home which is a jump of nearly 20 points. Interestingly, the different groups of higher education somewhat revealing. The changes in percentages of ownership of each respective educational attainment group are all in range of 15 points. Most of this jump in percentage comes from examining high school dropouts in which 67% own their homes and high school graduates who 79% own their home. This means that those with less than a high school degree have lower rates of homeownership.
### TABLE 1—DESCRIPTIVE STATISTICS

<table>
<thead>
<tr>
<th>Variable</th>
<th>Own</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>85.6%</td>
</tr>
<tr>
<td>Non-Rural</td>
<td>77%</td>
</tr>
<tr>
<td>White</td>
<td>81.3%</td>
</tr>
<tr>
<td>Non-white</td>
<td>40.1%</td>
</tr>
<tr>
<td>Married</td>
<td>90.3%</td>
</tr>
<tr>
<td>Divorced</td>
<td>68.8%</td>
</tr>
<tr>
<td>Never Married</td>
<td>57.2%</td>
</tr>
<tr>
<td>HS Dropout</td>
<td>66.7%</td>
</tr>
<tr>
<td>HS Grad</td>
<td>79.2%</td>
</tr>
<tr>
<td>Some College</td>
<td>77.6%</td>
</tr>
<tr>
<td>College</td>
<td>81.9%</td>
</tr>
<tr>
<td>Advanced</td>
<td>86.8%</td>
</tr>
<tr>
<td>Employed</td>
<td>79.3%</td>
</tr>
<tr>
<td>Not Employed</td>
<td>79.5%</td>
</tr>
<tr>
<td>Poor</td>
<td>39.6%</td>
</tr>
<tr>
<td>Near Poor</td>
<td>58.2%</td>
</tr>
<tr>
<td>Middle</td>
<td>80.9%</td>
</tr>
<tr>
<td>Upper</td>
<td>93.7%</td>
</tr>
<tr>
<td>Male</td>
<td>80%</td>
</tr>
<tr>
<td>Female</td>
<td>78.7%</td>
</tr>
</tbody>
</table>

### TABLE 2—Multivariate Regression

<table>
<thead>
<tr>
<th>Sample Size</th>
<th>124,344</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-Squared</td>
<td>.248</td>
</tr>
<tr>
<td>Variable</td>
<td>Likelihood</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------</td>
</tr>
<tr>
<td>(Constant)</td>
<td>54.5%</td>
</tr>
<tr>
<td>RURAL</td>
<td>5.9%</td>
</tr>
<tr>
<td>POOR</td>
<td>-41%</td>
</tr>
<tr>
<td>nearPOOR</td>
<td>-28.4%</td>
</tr>
<tr>
<td>Middle</td>
<td>-10.2%</td>
</tr>
<tr>
<td>White</td>
<td>23.2%</td>
</tr>
<tr>
<td>Age</td>
<td>.4%</td>
</tr>
<tr>
<td>HSgrad</td>
<td>2.4%</td>
</tr>
<tr>
<td>someCollege</td>
<td>1.6%</td>
</tr>
<tr>
<td>College</td>
<td>.5%</td>
</tr>
<tr>
<td>Advanced</td>
<td>.7%</td>
</tr>
<tr>
<td>Divorced</td>
<td>-13.8%</td>
</tr>
<tr>
<td>NeverMarried</td>
<td>-14.9%</td>
</tr>
<tr>
<td>Employed</td>
<td>-2.3%</td>
</tr>
</tbody>
</table>
Next, we can see the main findings of this study shown in Table 2 above. The multivariate regression that was run on SPSS shows the likelihood of ownership, the t-statistic and the significance. The likelihood percentage is based on the unstandardized coefficient. Meaning it was multiplied by 100 to translate it into percentage terms but it would be left as the decimal for the equation. The t-statistic represents if there is evidence of a null hypothesis being rejected. So, in this case, the null would be the individual independent variable’s estimated coefficient equaling 0. Thus, a high t-statistic signifies that the independent variable’s coefficient is significantly different than 0. The significance level is the probability of rejecting the null hypothesis when it is true. So, if the significance level was .05, there would be a 5% that if one rejects the null hypothesis, they are wrong in doing so.

Most importantly, it is initially identified that living in a rural area is in fact an indicator of homeownership. If one lives in a rural area, they are 6% more likely to own their own home than someone who does not live in a rural area. Thus, the hypothesis is confirmed to be true.

The findings also show that one’s poverty level is an important predictor of homeownership. In reference to the upper-class group of the poverty index, if a family is poor, they are 41% less likely to own their home. If a family is near poor, they are 28% less likely to own while if they are middle, they are 10% less likely to own. With a t-statistic of -93 and -78 for poor and near poor this indicates that those two variables are likely to be significantly different from 0. Thus, if one is in the upper class, as predicted, they are more likely to own their home.

It may come as a surprise that race is such a high indicator of homeownership; if one is white, they are 23% more likely to own their home. This is especially interesting since the
regression controls for factors such as poverty and educational attainment. Thus, this result agrees with Quigley’s findings that something is occurring in which minorities must ‘pay for prejudices’ when it comes to homeownership. However, Wisconsin is not that diverse thus perhaps the data skewed due to the infrequency of minorities in the state. If one is divorced, they are nearly 14% less likely to own their home in reference to those who are married. Additionally, those who have never been married are 21% less likely to own their home.

Some surprising outcomes are that the education significance levels are rather high for those with a college degree and those with an advanced degree. Meaning, that the likelihood of accuracy is very minimal. Additionally, it is surprising, regardless of the significance level that having a college degree, or an advanced degree is a small increase in the likelihood of ownership. Yet, the most shocking variable was the employment variable. Not only is it significant, but it shows that if one is employed, they are 2.3% less likely to own their home. However, this could be explained by the aspect that those who are employed does not ensure an income that can support ownership of a home or access to credit to own. While the poverty variable is controlled for, it does not control for credit score. And a credit score can be a major deciding factor when being granted a loan.

The age variable is very telling because it shows that for every year older an individual is, their likelihood of owning increases by 0.4%. This means that if someone is 60 years old, they have a 24% greater chance of owning their home compared to someone starting out their life. As for being a male or female, it does not have a changed effect. This could be because we are controlling for all other variables so subsequently controlling for someone being single when being a male or female could impact this, yet it is controlled for, so we see no difference. Additionally, men and women cohabitate, specifically those who are married so this could impact the aspect that there is 0% difference.
To have a visual idea of the coefficient effect of each of these variables the original multivariate equation is shown here:

Ownership

\[ \text{Ownership} = 0.545 + 0.059(\text{RURAL}) - 0.410(\text{POOR}) - 0.284(\text{nearPOOR}) - 1.025(\text{middle}) + 0.232(\text{White}) \]

\[ - 0.138(\text{divorced}) - 1.49(\text{NeverMarried}) + 0.024(\text{HSgrad}) + 0.016(\text{someCollege}) + 0.005(\text{college}) \]

\[ + 0.007(\text{advanced}) - 0.023(\text{employed}) + 0(\text{sex}) + 0.004(\text{age}) \]

To compare the type of effect certain socioeconomic indicators can have on a person’s likelihood of owning we compare two individuals. One that has all the negative indicators and one that has all the positive indicators. Individual A will have positive, and Individual B will have negative. Thus, individual A lives in a rural area, is white, married, high school graduate, upper class (poverty reference group), is retired, a man, and 45 years old. This individual’s likelihood of owning a home comes out to be 101.7%. While Individual B lives in a metropolitan area, is non-white, has never been married, a high school dropout, is in the poor group for poverty level, is employed, is a woman and is 35 years old. This individual’s likelihood of owning is 12.6%. Obviously, the likelihood of something occurring cannot be greater than 100% hence this points to the downfall of using the OLS regression. However, the fact that there is a difference of almost 90 point is telling as to how one’s demographics and economic conditions impact their chances of owning. Additionally, their preferences to own would be extremely different based on the type of utility they would get out of the house.

It is important to realize that while this regression controls for many effects there are some variables that could not be controlled for nor considered. For example, factors such as taxation level, or the interest rate at the time of owning a home. Yet, the biggest takeaway
shown, is that while some of these indicators such as race or age individuals cannot have control over, the ability to live in a rural area is an option for everyone. And doing so raises the probability of owning one’s home.

**IMPLICATIONS & FURTHER RESEARCH**

When evaluating this study, it is important to realize that the goal was to build upon existing literature examining the effect of socioeconomic conditions on one’s ability to own their home. There are many aspects that play into an individual’s effective demand when it comes to the housing market. Housing can impact family’s economic circumstances more than other indicators of wealth at times. Additionally, whether one owns their home can decide what they demand from the government. Whether that be social assistance programs, specific taxation policies, or even assistance on demanding other goods from the market.

In Gyourko’s (1998) work he too found that those with lower education, specifically high school dropouts, were less likely to own their home; this analysis found this too. If there is an educational indicator of homeownership this should be focused on. Public policy makers should focus on access to education for the families who are generally less educated leading to an increase in homeownership. Additionally, many times income is an indicator or in this case, poverty level of ownership. If policy makers could create more low-quality housing stock in suburban areas, then lower income families could migrate out of city centers into affordable homes.

This leads to the main implication that I think further research could be created to strengthen this rural-homeownership connection. If there were programs encouraging possible buyers to buy homes in rural areas this could perhaps increase homeownership rates. If people understood that their likelihood of owning was increased by simply living in an area out of the
main city center, then maybe they would be researching buyable options more than instead sticking to their apartments in the city. One downside of this to consider is the transportation costs that make it difficult for one to commute to a job or resources that a city can provide.

Finally, many times, lending choices are made based on regulations imposed on lenders. A main indicator of whether an individual is ready to own is their credit score. However, many times individuals in lower classes have the inability to build a credit score due to their income level. Thus, perhaps if individuals could be granted loans by showing steady income from their employment this could be an alternative method to reach lower income areas and grant them opportunity to own.

**CONCLUSION**

When this study began the intention was to determine certain indicators that create an increased likelihood of homeownership in the state of Wisconsin. As predicted, there were certain indicators that led to such an increase. Aspects such as living in a rural area, being white, married, educational attainment, higher income, and age were all variables that increased this chance. All variables seemed to agree with the literature. However, the level at which educational attainment had an impact in previous studies (Gyourko 1998 & Goodman 2018) was not as great in this one. Yet, the negative impact of being a high school dropout holds true amongst most of the studies. Surprisingly, employment was not a positive correlation with homeownership. However, as mentioned in the literature review, homeownership can have a hinderance on employment as well as financial constraints. Thus, this agrees with the literature in terms of employment in homeownership not being positively correlated.

Some of the negative indicators such as poverty level and marital status held true with the literature and the hypothesis. Poverty level which as mentioned, is a function of total family income and number of individuals in a family is highly indicative of a negative likelihood of
owning one’s home compared to those in the high class of poverty levels. However, the impact of being divorced or windowed I had though based on the literature would increase the likelihood of ownership. This was proven to be false and thus changes the outlook on this trend.

By examining the theory of effective demand, it was made comprehensible that certain variables can make individuals demand to own their home. Interestingly, one might not have thought living in a rural area would create such an increase of demand, however, by assuming cost of living it is feasible. It should also be noted that the majority of Wisconsin is rural areas, thus this could have skewed the data slightly in the favor of those who live in rural areas. Yet, these results are still impactful because it can show the additional housing trends for the past 5 years. It would be extremely interesting to expand this study to the entire nation and see if the rural affect holds true throughout the entire United States. For now, one of the most important aspects to note is that rural areas do in fact increase one’s likelihood of owning a home in Wisconsin. Thus, there could be policy implementations in this state that encourage possible owners to migrate to the rural areas.
References


