ANALYSIS OF HOMEOWNERSHIP OUTCOMES IN THE DALLAS-FORT WORTH REGION AND GROWING DISPARITIES

AN AFRICAN AMERICAN PERSPECTIVE

by

Gwendolyn Isokpan

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Abstract

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Gwendolyn Isokpan

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Supervising Professor: Ardeshir Anjomani

Since the housing bust and Great Recession, in the United States, the homeownership gap between black and white households has widened to its largest levels in 50 years (Choi, McCargo, Neal, Goodman & Young, 2019). With overall inequality continuing to grow, policy decisions must be implemented to begin to mitigate the decreasing levels of homeownership. I argue decreased levels of homeownership are one contributing factor to inequality. More specifically, for African Americans, the homeownership rates have decreased back to the levels during the Civil Rights Era. Within the United States, owning a home is considered an important social and economic indicator, as well as a symbol of having a stake in society and contributing to the stability of the community (Collins, 2002). Research indicates, when compared to renting, homeownership for any length of time is associated with a higher level of wealth (Leigh and Huff, 2007). However, the Great Recession, fueled by the crisis in the housing and financial markets, was universally hard on the net worth of American families. But even as the economic recovery had begun to mend asset prices, not all households had benefited alike and wealth inequality had widened along racial

and ethnic lines (Kochhar and Fry, 2014). In addition, with stagnate wages and rising home prices, the American dream has become more elusive for many low to middle-income American households regardless of race and ethnicity, thus creating a more unequal society.

Spatially, economics and demographics differ significantly throughout the United States and there is a lack of in-depth regional analysis on homeownership within individual metropolitan areas. To further contribute to inequalities, housing researchers tend to neglect local homeownership analysis based on disaggregated data for cities. Disaggregating data is crucial to revealing patterns that can be masked by larger aggregate data. As a result, segments of the population are left out and inequalities continue to increase, with a disproportional impact on ethnic minorities, especially African Americans.

The purpose of this proposed study is to conduct a systematic analysis of the homeownership rates with a focus on African Americans in the Dallas-Fort Worth (DFW) region of Texas. The study will take a social equity perspective and examine the association of demographics and homeownership rates. Quantitative statistical analysis will be utilized to explain homeownership outcomes and its association to equity. Analyzing specific sub-populations can help ensure policy decisions are formulated and implemented where it is most needed and have a greater impact. This study contributes to the current housing crisis and decreased opportunities of homeownership for many households, particularly African Americans, along with the historical and social context contributing to this crisis.

Keywords: homeownership, equity, African Americans

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1 Introduction to the Research

1.1 Introduction

The purpose of this proposed study is to conduct an analysis of the homeownership rates in the Dallas-Fort Worth (DFW) region of Texas with a focus on African Americans. The study will take a social equity perspective and examine the association between demographics and homeownership rates. Quantitative statistical analysis will be utilized to explain homeownership outcomes and their association to equity.

Since the housing bust and Great Recession, nationally, the homeownership gap between black and white households has widened to its largest levels in 50 years (Choi, McCargo, Neal, Goodman, Young, 2019). Despite an abundance of studies, housing researchers tend to neglect local homeownership analysis based on disaggregated data for cities. Disaggregating data is crucial to revealing patterns that can be masked by larger aggregate data. As a result, segments of the population are left out and inequalities continue to increase, with a disproportional impact on ethnic minorities, specifically African Americans.

Analyzing specific sub-populations can help ensure policy decisions are formulated and implemented where it is most needed and have a greater impact. This study contributes to the discussion of the current housing crisis and decreased homeownership opportunities for many households, particularly African Americans, along with identifying the historical and social context contributing to this crisis.

1.2 Background of Study

The ability of African Americans to sustain homeownership reflects many and varied historical and contemporary facts. Practices such as redlining and steering historically accounted for the inability of African Americans to get loans and for African Americans only getting loans for properties in areas segregated by race, or for properties in such substandard condition that that payment delinquency seemed a valid option. Discrimination based on race continues to permeate the labor market and influence jobs acquired, incomes earned, and thereby, resources available for home-purchase down payments. Discrimination in the mortgage loan acquisition process continued to plague African American borrowers so much so that the previously growing subprime market – initially was viewed by many as a welcome source for access to mortgage credit and homeownership (Leigh and Huff, 2007a).

Historians agree that past discriminatory policies and practices continue to affect African American communities today. Massey and Denton concluded in *American Apartheid: Segregation of the American Underclass* that for at least fifty years, from 1940 through 1990, African Americans were subject to a system of institutionalized housing discrimination (Massey & Denton, 1993, p. 212). Also, historian Kenneth Jackson concluded, in *The Crabgrass Frontier, the Suburbanization of the United States,* that the lasting damage done by the national government was that it put its seal of approval on ethnic and racial discrimination and developed policies which resulted in the practical abandonment of large sections of older, industrial cities. Jackson concluded that the FHA's attempts to address its past practices had the opposite effect. The shift in the 1960s to increasing mortgage credit in the urban core had the main effect of making "it easier for white families to finance their escape from areas experiencing racial change" (Jackson, 1985 p. 217). Looser credit meant that home improvement companies could

buy properties at low cost, make cosmetic improvements, and sell the renovated homes to blacks at inflated prices approved by the FHA. Many of the minority purchasers could not afford the cost of maintenance, and the FHA repossessed thousands of homes. The result was to increase the speed with which areas went through a racial transformation and to victimize those it was designed to help.

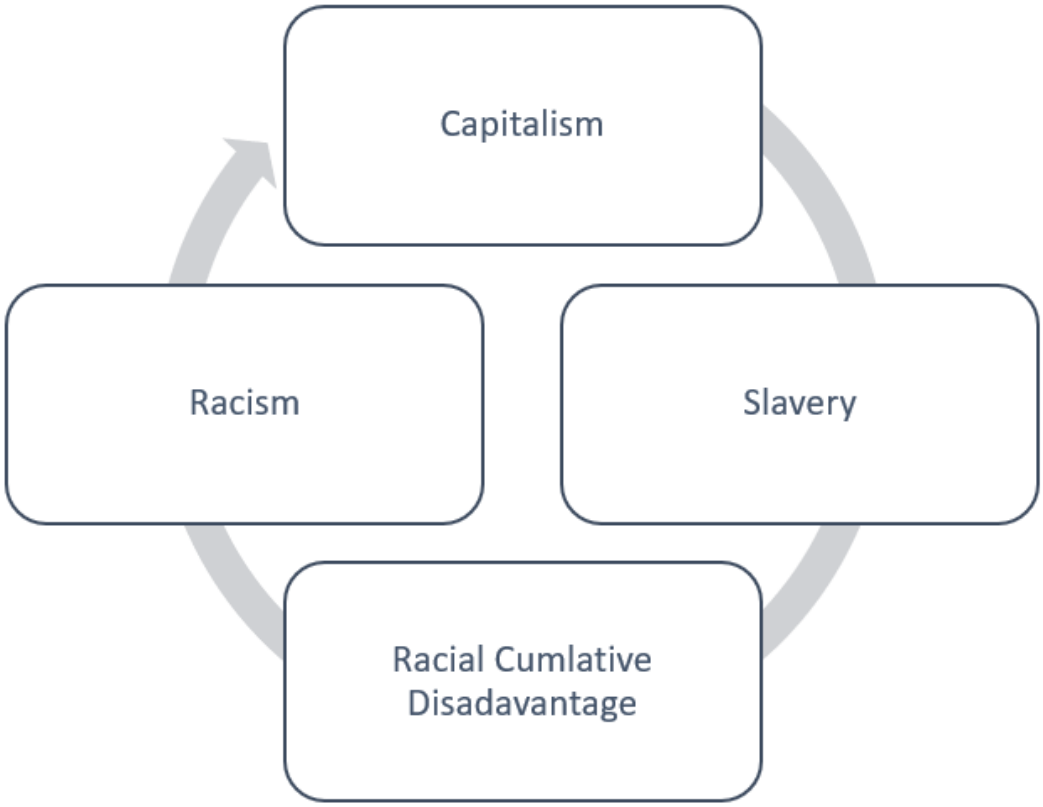
Similarly, Oliver and Shapiro *in Black Wealth/White Wealth: A New Perspective on Racial Inequality* (2006, p.18), agreed that in addition to incentivizing de facto segregation, the FHA's actions have had a lasting impact on the wealth portfolios of black Americans. Locked out of the greatest mass-based opportunity for wealth accumulation in American history, African Americans who desired and were able to afford homeownership found themselves consigned to central-city communities where their investments were affected by the "self-fulfilling prophecies" of the FHA appraisers. Cut off from sources of new investment, their homes and communities deteriorated and lost value in comparison to those homes and communities FHA appraisers deemed desirable.

Still, whether it be the implicit bias of appraisers, lenders, brokers, or strategic complicity to prey on the vulnerable communities of color, all have led to tremendous inequality that has historical and racial underpinnings from the beginning of American history. This research will overview 400 years of the cumulative racial disadvantage that has led to the past and current socioeconomic status and housing inequality for African Americans, despite their accomplishments and advancements throughout the past.

To achieve a better understanding, the literature recommends analysis should be conducted to assess the change in homeownership among individual populations and household groups based on age, income, education, household type, race, ethnicity, and metropolitan area, among other factors. Namely, in the Joint Center for Housing Studies, *The State of the Nation's Housing* 2017 report identifies homeownership trends differ meaningfully across metropolitan areas. In the nation's 50 largest metros, shares of homeowners ranged from 47.9 percent in Los Angeles to 69.2 percent in Pittsburgh (Joint Center for Housing, 2018). In Texas, the Texas A&M Real Estate Center provides many broad studies on the state and regional outlooks with wide-ranging implications. However, the center does not directly take a deep dive within a specific region at a micro-level capacity involving race and ethnicity. Therefore, taking a focused, systematic analysis into a region will provide a more succinct and contextual perspective to address issues of homeownership inequities.

1.3 Problem Statement

In relation to whites, Asians, Hispanics and blacks have historically lower homeownership rates in the United States. And more specifically, the cumulative effects of racial inequality have resulted in African Americans having the lowest rates of homeownership of all ethnic groups in the nation. From slavery, racism and capitalism, they all equated to years of cumulative racial disadvantage. The intersectionality of these dynamics shapes a self-perpetuating cycle of housing inequality among African Americans.



For centuries, the capitalist system in this country and perhaps globally, purposely promoted the underdevelopment of marginalized peoples and countries. It is in the interest of capitalist elites to keep poor people and poor countries poor. Exploitation continues to work in favor of the rich due to the unfair economic practices against the interest of the poor, as seen throughout history and in contemporary times. I argue, equitable distribution of resources in terms of health, education, and housing, would decrease the pathologies of society to a large degree. With this premise in mind, this study stems from the discipline of fair and equitable housing with an emphasis on homeownership. Unfortunately, based on empirical and anecdotal evidence, one can conclude that the capitalist system is designed to keep most citizens' renters, particularly people of color. This inequitable system will not afford them the opportunity to build a legacy of wealth through homeownership. This inequitable system will not afford their

children the benefits of being reared in a home owned by their parents. This inequitable system will not afford them a source of stability through inevitable economic and household crises. As this continues, it will cause a large portion of African Americans to be relegated to the permanent underclass.

1.4 Purpose of the Study

I argue, there has been a lack of equity planning that has led to past and current racial inequalities within the U.S. Equity planning is a framework in which planners working within government use their research, analytical, and organizing skills to influence opinion, mobilize underrepresented constituencies, and advance and perhaps implement policies and programs that redistribute public and private resources to the poor and working-class, (Metzger, 1996). Therefore, the purpose of this study is to conduct a systematic analysis of the homeownership rates of African Americans in the Dallas-Fort Worth (DFW) region of Texas. The study will take a social equity perspective and examine the association of ethnicity and homeownership rates. Quantitative statistical analysis using multivariate regression will be utilized to explain homeownership outcomes and its association to equity outcomes.

The study will demonstrate historically and empirically the socio-economic drivers, which led to cumulative racial disadvantages of African Americans over the past 400 years in the United States, which has led to their status relating to land rights and housing inequality. The study will then focus on a specific region in the United States. The Dallas Fort Worth (DFW) region.

In selecting the DFW region, the choice was based on its economic diversity and population growth. According to the 2018 US Census, the Dallas-Fort Worth-Arlington region had the largest growth in the United States (US Census, 2018). The Federal Reserve Bank of Dallas reported the DFW economy has been growing at a "blistering pace," with a net growth of 55,000 jobs during the first five months of 2018 (Assaine, 2018). As people move to DFW and may want to start families and purchase homes, what is the likelihood that homeownership is a viable option? Challenges come with any growing region and economy. The cost of housing is one of the costlier challenges. Among the issues, homeownership rates have declined steadily, with the cost of housing increasing. Home prices have increased over 50% since 2010, and the supply of starter homes for less than $200k is scarce (see Figures 1.1 and 1.2).

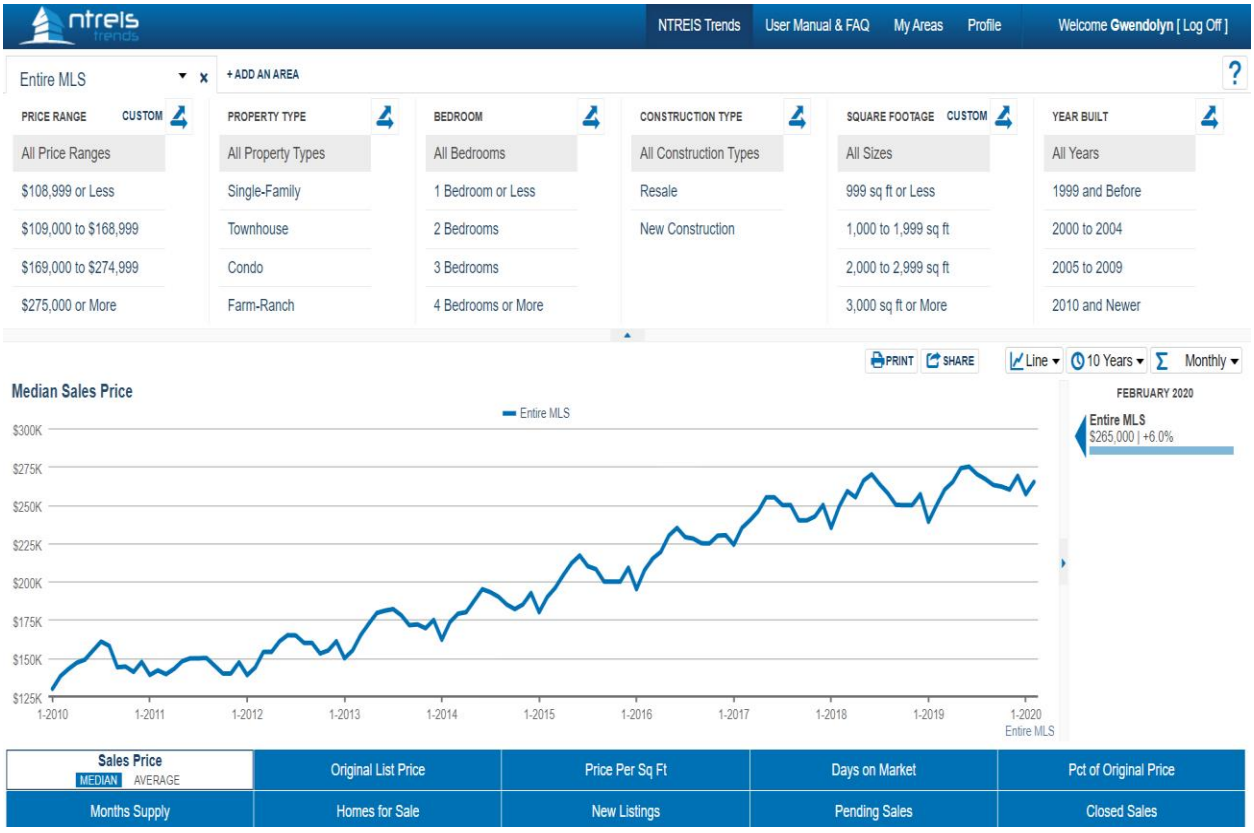


Figure 1-1 Growth of Median Sale Prices for North Texas MLS

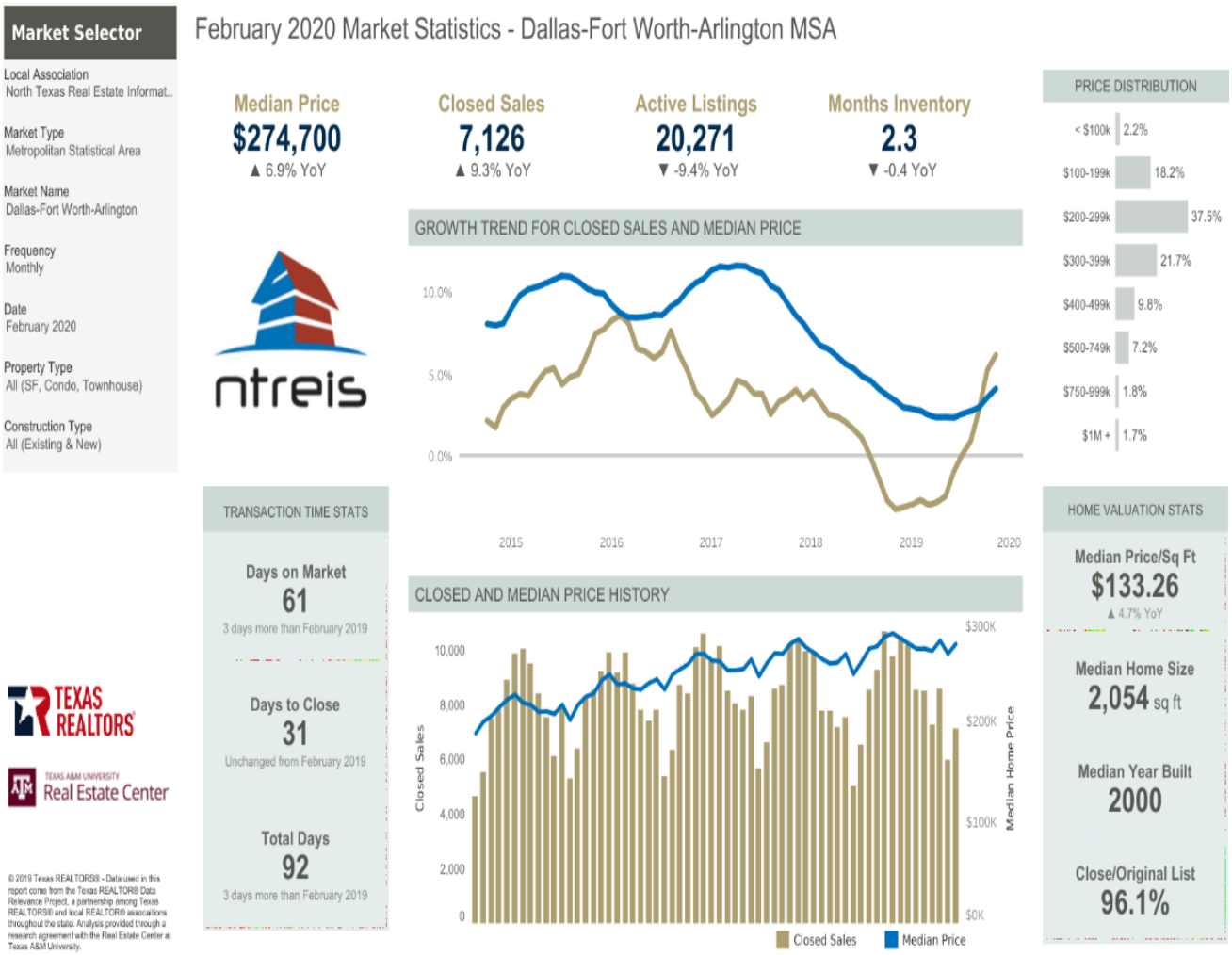


Figure 1-2 Dallas-Fort Worth-Arlington MSA Market Stats Showing Price Distribution

Homeownership is considered a building block to creating and maintaining the middle class and building wealth. But, with stagnating wages and increasing home prices, the lower and middle classes are being pushed to the fringes as home prices rise in relation to income. While this issue is a national and international problem, with the fast population growth of the Dallas-Fort Worth region, it is primed to create social and economic pathologies that have plagued the great de-industrialized cities of the United States' past. For African Americans and other ethnic minorities, the issue will become ever so critical. Therefore, planning and policymakers must

catch up and recognize the impending negative socio-economic outcomes which could be avoided.

To achieve a proper measurement of this issue, cities, zip codes, and block groups will be analyzed by homeownership rates in the DFW region annually from 2010 to present and examine correlations between homeownership rates and demographic factors. The research will examine the impact of demographic on homeownership while investigating equity issues that are trending. In addition, the research will compare the empirical works regarding non-demographic factors of declining homeownership and evaluate them in relation to the DFW study area.

To achieve desired data, the study will conduct quantitative research using multivariate regression analysis to estimate the effect of demographic attributes on homeownership rates. The dependent variable is homeownership. The independent variables are family structure, income, age, gender, race, and educational attainment to relevant housing economic indicators for unemployment, housing prices, and interest rates.

1.5 The research aims to address the following questions:

1. How do demographic factors impact homeownership in the DFW?
    a. Which factors are most and least impactful?
    b. Do the results mirror the nation?
        i. What are the similarities and differences?
2. What is the relationship between the black homeownership rate in DFW and socio-economic factors as income, education, age and family structure?

3. What is the racial gap in the DFW region in terms of homeownership?
4. Which counties, cities and zip codes have the highest levels of homeownership in DFW?
5. Which counties, cities and zip codes have the highest levels of Black homeownership?

1.6 Advancing Scientific Knowledge and Significance of the Study

This study will contribute to economic and regional research to inform housing and planning decisions. Studies generally take a broad analysis of homeownership and some with a deeper dive into demographic attributes, but mostly at a national level. However, the literature recommends future analysis should be conducted to assess the change in homeownership among individual population household groups based on age, income, education, household type, race, ethnicity and metropolitan area (Nelson, 2016). That is the aim of this study and future studies to come to other regions. This study will target the opportunities in DFW for addressing homeownership disparities. I intend this research to be a revealing analysis for policymakers and advocates to make a difference in terms of social equity and a vehicle towards greater wealth and opportunity through sustainable homeownership, thus contributing to decreasing the homeownership gap.

1.7 Limitations

This research does utilize data derived from the U.S. census. However in terms of validity of data, race and ethnicity is self-reported and the dynamics or interpretations of race and ethnicity are not standardized. In addition, many ethnic minorities who may have immigrated to

the United States, their numbers are not fully well document nor well known, therefore having empirical knowledge of the research area beyond official data is recommended.

Moreover, there are sociological and cultural factors affecting African American homeownership and their gap between other ethnicities that need to be qualitatively studied. One major factor of huge concern is "black flight," which left black communities without the human social capital needed for a social and economic agency. However, due to limited resources, this study cannot address the qualitative aspects extensively. With that said, this research will take a similar quantitative analysis approach as Goodman and Mayer (2018), where the authors were attempting to demonstrate the trends and patterns in the likelihood of owning a home in the United States based on demographic attributes. "The goal of the analysis was not determining causality but rather to summarize patterns that can be compared to previous research and may be further explored for future analysis" (Goodman & Mayer, 2018 p.38). Their model used race/ethnicity, income, age, education, and family structure for explaining differences in homeownership rates.

2 Literature Review

There are volumes of history recording the disenfranchisement of African Americans in the United States to date and, more specifically, focusing on housing inequality. I will provide all though not exhaustive, poignant times in history where land and housing rights of African Americans[1] were subjugated by violence, racism, and legislation. I will first provide a synopsis of the pre-20th century, from the beginning of the United States Slavery to Emancipation, then on to Reconstruction. Reconstruction was a pivotal point in the United States and African American history in terms of freedom, civil liberties, education and the right to own land. Unfortunately, the merits of Reconstruction for African Americans were short-lived. Secondly, I will transition into the 20th century with the origins of the Federal Housing Administration (FHA) and other structurally racist policies impacting African Americans and other ethnic minorities in terms of housing inequality. Finally, I will bring us to the present 21st century and describe the predatory inclusion efforts of bankers, lenders, and real estate brokers, which impacted people of color. Overall, I will demonstrate historically and empirically the socio-economic drivers and cumulative racial disadvantage of African Americans over the past 400 years in the United States that has led to their status relating to land rights and housing inequality.

The following sections review the literature of the history and social-economic drivers of housing inequality for African Americans, which have led to the current unequal homeownership status for African Americans.

[1] The terms “blacks”, and “African Americans” are used interchangeably throughout this paper.

2.1 Origins and Impacts of Housing Inequality for African Americans

In Howard Zinn's, *A Peoples History of the United States*, Zinn (1999) writes an excerpt from a black American writer, J. Saunders Redding, describing the arrival of a ship in North America in the year of 1619:

> The flag she flew was Dutch, her crew a motley. Her port of call an English settlement, Jamestown, in the colony of Virginia. She came, she traded, and shortly afterwards she was gone. Probably no ship in modern history has carried a more portentous freight. Her cargo? Twenty slaves (p. 23).

Zinn (1999), explains some historians think those first blacks in Virginia were considered as servants, like the white indentured servants brought from Europe. But the strong probability is that even if they were listed as "servants", they were viewed as being different from white servants, were treated differently, and in fact, were slaves. Zinn further elaborates how slavery developed quickly into a regular institution, into the normal relation of blacks to whites in the New World. With it developed that special racial feeling, whether hatred, or contempt, or pity, or patronization, that accompanied the inferior position of blacks in America for the next 350 years, that combination of inferior status a derogatory thought we call racism (Zinn, 1999).

2.1.1 The Institution of Slavery

The institution of slavery dominated the economic culture of the southern United States for many decades and led to the deadliest war in United States history (Jayne, 2005). When Republican Abraham Lincoln won the presidency in 1860, the Southern states began to secede from the union. Southerners were believing it was only a matter of time when Lincoln would

abolish slavery. The slavery issue led to the Civil War. From 1861-1865, Northern and Southern armies engaged each other on the battlefields. Throughout this period, Lincoln tried to reconcile his desire to abolish slavery with his constitutional right to do so. Only when he believed he could act, as commander in chief, did he take the step to free the slaves and issue his Emancipation Proclamation (Jayne, 2005)). Lincoln understood the Emancipation Proclamation would have to be followed by a constitutional amendment in order to guarantee to the abolishment of slavery. However, the southern states did not ratify the amendment. The 13th amendment abolishing slavery was passed at the end of the Civil War before the southern states had been restored to the Union.

The end of the Civil War occurred on April 9, 1865, at the Appomattox Courthouse in Virginia as General Lee of the Confederate army surrendered to General Grant of the Union Army. Tragically, five days later, on April 14, 1865, President Lincoln was assassinated by John Wilkes Booth. Andrew Johnson, a southern Democrat was Lincoln's Vice President now became the 1st man in U.S. history who was made president by an assassin's bullet.

2.1.2 Reconstruction and its impact on Freedmen and Slaves

Toward the end of the Civil War, Congress passed, and the states not in rebellion ratified the 13th Amendment to the Constitution, which officially abolished the institution of slavery. After the war ended, the federal government worked to bring the Southern states back into the union (Reconstruction). The experience of slavery and the place of newly freed slaves and all African Americans became the most significant issues of the time. While the 13th Amendment abolished slavery, it said nothing about the political or legal status of newly freed blacks (Jayne, 2005).

Dr. Henry Louis Gates (2018) explains how the freed longed for all things that other people enjoyed that was denied to them under slavery: the right to marry, the rights to make a home, the right to an education, the right to earn a living and the basis to be truly free is the right to own land.

2.1.2.1 The Homestead Act

Land policy plays a vital role in U.S. history. One of the most impactful legislation regarding land policy was the Homestead Act, signed into law on May 20, 1862, by Abraham Lincoln. The statute provided that anyone who is head of a household, a military veteran, or over 21 years of age was entitled to 160 acres of unappropriated land as long as they had not borne arms against the United States Government (Williams, 2000).

Blacks were ineligible for any public land prior to the Civil War because they were not considered citizens. Even after the Emancipation Proclamation and the end of the Civil War, certain white Southerners put legal obstacles in place to prevent ex-slaves from acquiring property. Magdol (1977) explains, in the provisional state governments under President Johnson's protective leniency, the Planter Class not only prohibited black landownership but enacted extreme measures of social control that virtually restored slavery.

2.1.2.2 The Freedmen's Bureau

Congress established the Bureau of Refugees, Freedmen, and Abandoned Lands in March of 1865, two months before the effective end of the Civil War. The Freedmen's Bureau was to assist in the reconstruction of the South and to aid formerly enslaved individuals' transition to freedom and citizenship (nmaahc.si.edu).

Union General Oliver Howard was appointed the commissioner of the Freedmen's Bureau, and one major assistance to the newly freedmen was the distribution of land. Though the Freedmen's Bureau had limited resources, it did have a large amount of land due to the victory of the Civil War (850,000 acres). Howard and his agents began renting out 40-acre plots to the Freedmen. The men would then have three years to buy the land outright.

Many believed President Johnson was undermining the efforts spent towards the victory of the Civil War. During this time, Congress was in recess until December of 1868, thereby allowing Johnson to handle Reconstruction as he saw fit. Johnson had pardoned confederate rebels of the Planter Class, which allowed them to vote and create laws in their favor. In September 1865, President Johnson ordered General Howard to restore almost all the land that was used for the 40-acres program back to the Confederates that were pardoned. Now the Freedmen would have to enter oppressive labor contracts with their former owners.

This devastating act was the 1st major disenfranchisement for African Americans after Emancipation. In 2019 PBS Film, Reconstruction: America After the Civil War, Dr. Edna Greene Medford, Professor of History at Howard University, could not have stated this level of subjugation more accurately: "By rescinding the distribution of land from the Freedman, it consigned most of them to a dependence that remained for decades."

2.1.2.3 Black Codes and Jim Crow

In 1865, many Southern states reorganized and created new state constitutions. These constitutions established legal regulations known as "Black Codes," which deprived freed blacks of political, social, and civil rights. With such laws, Southern states meant to maintain their

system of black subservience to white power, despite the 13th Amendment and the victory of the North in the Civil War (Jayne, 2005).

Congressional Reconstruction policy also advocated for more civil and political rights for African Americans, including the right to travel freely, execute contracts, buy and sell land, vote and hold office and generally hold full rights as U.S. citizens. In 1866, Congress passed the Civil rights Act, which established in law many of those rights. In June 1866, Congress, fearful that its Reconstructions plans might be rules unconstitutional, approved the 14th Amendment to the Constitution, which guaranteed the due process, equal protection, and privileges and immunities for all citizens.

On June 21, 1866, Congress passed the Southern Homestead. Forty-six million acres of unsold public land in Alabama, Arkansas, Florida, and Mississippi were set aside for purchase in 80-acre plots, then later 160-acre plots. The primary beneficiaries, at least in the first six months, were landless Freedman. In addition, the land was to be for settlers, not sold to speculators or those mining and timber interests. The desire for land among the former slaves was strong and they deluged local land officers with requests for homestead (Lanza, 1990). This was true even though settlement would be difficult that most quality lands had been claimed before the Civil War. What remained was primarily swamp land and pine trees that would have required much capital to improve (Gates, 1996; Magdol, 1977). Of the 67,000 homestead applications made under the Southern Homestead Act, only a few homesteads were granted to black claimants Magdol (1977). Moreover, before much land had been distributed the Southern Homestead Act, like most Reconstruction programs, was repealed in June of 1876. Oliver and Shapiro (1995) argue that outcomes of the Homestead Act are just one many examples the racialization of state

policy, economic detours to self-employment and sedimentation of racial inequality that shapes the inequality of wealth between Black and whites to date.

In 1869, Congress approved the 15th Amendment, which prohibited the federal and state governments from denying the right of a citizen to vote because of "race, color, or previous condition of servitude." This amendment was an attempt to end all obstacles to voting African Americans. However, new impediments such as literacy tests or poll taxes were later used to evade the purpose of the amendment (Jayne, 2005).

The era of Reconstruction in the South lasted from 1865 to 1877. During these years, federal troops occupied the states of the former Confederacy to ensure compliance with laws and regulations governing Southern states' re-entry to the Union. Though the protection the troops provided to African Americans was often minimal, it had been better than nothing. Newly President Rutherford Hayes ended Reconstruction in 1877 and pulled the U.S. troops out of the South. This gave the white ruling class of the South free reign to terrorize and oppress freed blacks without interference from the U.S. Army (nps.gov).

Southern states enacted many forms of oppression through Black Codes and Jim Crow, which were racist mechanisms created to continue to thedisenfranchisement of African Americans. Despite these tyrannies, there were many African Americans who persevered and created successful communities which prospered socially and economically in the South. Unfortunately, continued racism, a domestic form of terrorism, ran rampant with bombings, fires, and lynchings on African American communities. Ida B. Wells, early civil rights leader, educator and journalist expressed, "Lynching was an excuse to get rid of Negroes who were acquiring wealth and property and thus keep the race terrorized." A similar sentiment is

asserted by current-day historian, Dr. Eric Foner, “After 250 years of slavery, white Southerners could not quite accept the 4 million former slaves as equal members of their society.”

2.1.3 20th Century Disenfranchisement Continues

2.1.3.1 Restrictive Covenants

To escape the continued oppression of the South, many African Americans migrated to the North and West in the hopes of a better life. However, racial covenants did the work of what Jim Crow did in the South in terms of racial segregation in these other regions.

By 1914, the popular sentiment through the United States was that blacks should live in their own neighborhoods, and whites should live in their own neighborhoods. Thus, the exclusivity of neighborhoods brought in by the white managerial class in the early 1900s became popularized with the creation of firmly segregated neighborhoods throughout American society becoming popular urban policy by 1914 (Massey & Denton, 1993).

Restrictive covenants are mutual agreements among white property owners, real estate boards, and neighborhood associations not to sell or rent properties to people of color or to other minority groups, such as Jews. Racially restrictive covenants were formed nationwide during the 19th and 20th centuries to exclude minorities from white neighborhoods. Supports of the covenants claimed that they protected property values and neighborhood unity (Jayne, 2005). The federal government ultimately became complicit in these racially discriminatory practices.

Massey & Denton, 1993 explains, it is no coincidence that the neighborhoods that blacks lived in were extremely inferior to those of whites. The neighborhoods that blacks lived in were extremely dilapidated, with housing conditions so acrimonious that daily household reproduction was not even possible in some cases. Blacks had to deal with houses that had caved-in walls, irreparable leaking roofs, and infestations of pests like termites and cockroaches. No reputable shops or restaurants were ever set up in neighborhoods where blacks lived, and these neighborhoods were also rife with crime and vice (Massey & Denton, 1993). Indeed, the "ghettoization" of America had begun (Massey & Denton, 1993).

2.1.3.2 The Home Owners' Loan Corporation and the Federal Housing Agency Discriminatory Policies

The federal government first became directly involved in promoting homeownership in 1933 when it passed the Home Owners' Loan Corporation (HOLC). In response to mounting foreclosures during the Great Depression, this program helped homeowners refinance mortgages on the brink of default as well as provided low-interest loans to assist households who had already lost their homes to buy new ones (Jackson 1985; Massey and Denton 1993). At the same time, the HOLC initiated an appraisal system designed to assess whether particular individuals and neighborhoods in urban areas were fit to receive loans, but this "redlining" practice quickly became discriminatory as ethnic neighborhoods were deemed unacceptable sites of investment (Jackson 1985; Massey and Denton 1993). In adopting the appraisals guidelines of the HOLC, the newly formed Federal Housing Administration (1934) grew homeownership substantially but his expansion was limited largely to middle-class suburban whites, in part, because of the organization's endorsement of racially restrictive covenants to maintain residential stability and security (Massey and Denton 1993; Oliver and Shapiro 1995).

In 1934, the Roosevelt Administration also created the Federal Housing Administration, which followed the HOLC's racist lending practices; families that lived in "stable" and "desirable" neighborhoods were the only ones that were granted home mortgage loans (Massey & Denton, 1993). Predictably, these "stable" and "desirable" neighborhoods were predominantly lived in by whites. Both the HOLC and FHA were created to reinforce the influence of existing American banks during the Great Depression (Oh, 1995).

Legally enforceable restrictions based on race, ethnicity, and religion were common among private property owners. Even more, the federal government actively encouraged such restrictions through a variety of methods, including underwriting decisions of the FHA.8 The Supreme Court rejected this form of discrimination in the landmark case of *Shelley v. Kraemer* in 1948. Soon after *Shelley*, the FHA amended its rules to bar insurance for homes for which covenants "restricting the use or occupancy of the property on the basis of race, creed or color" were to be recorded prior to the recordation the FHA-insured mortgage. Notwithstanding this clear statement of the law, the FHA continued to informally support the use of racially restrictive covenants for years after *Shelley* was decided. This support was true even though the Truman Administration revised the FHA's Underwriting Manual in 1949 to include equal opportunity standards, as very little changed in practice (Reiss 2017).

Although the blatantly discriminatory practices of the HOLC and FHA were ruled to be unconstitutional by the Supreme Court in 1950, there was very little active interest in enforcing this ruling (Massey & Denton, 1993). By 1968, the Federal Government had passed the Fair Housing Act, but again, this was very rarely enforced (Oh, 1995). As a result of this severe lack of enforcement, redlining and physical violence to ensure firmly "black" and "white"

neighborhoods continued throughout the 1970s and 80s, and blacks were pushed further into the ghettos and their attached social ills (Massey & Denton, 1993).

Moreover, historian Kenneth Jackson and others have described the FHA's core insurance program, section 203b, systematically discriminated against African Americans. The FHA produced underwriting guidelines based on an economically and historically flawed understanding of a "natural" progression of neighborhood racial change from all-white (with high property values) to all-back (with low property value). These guidelines rated a neighborhood's suitability for insurance based on racial composition for insurance and discouraged integrated neighborhoods (Jackson, 1985).

Despite the Executive Order by President Kennedy to remedy the pervasive system of FHA did not sufficiently alleviate discrimination against African Americans. Simply making FHA-insured loans available to blacks did not compensate for the dramatic advantage that white had enjoyed for decades in the homebuying market, an advantage that may explain why the median white household has ten times as much wealth as the median black household to date. In addition, the end of discrimination in the FHA program failed to eliminate the view of neighborhood racial transition and composition that the FHA's insurance living separately from blacks, and that black moving into a neighborhood signified imminent price decline. The past acceptance of these empirically faulty characterizations as the official federal policy may help account for why American metropolitan areas remain highly segregated by race (Gordon, 2005).

2.1.4 Urban Removal

Urban Renewal began in earnest after World War II. Its origins can be traced to the Housing Act of 1949, which called for the clearing of the urban core and building public

housing. The process of urban renewal has often had drastic consequences for people who live in the areas being renewed. Entire neighborhoods are often demolished, and residents uprooted. When the renewal of an area is complete, most low-income people cannot afford to return. Because African Americans disproportionately inhabit poor areas of cities, black communities have often been the most affected by this process (Jayne 2005). Hence, the term Negro Removal, which has become synonymous with Urban Renewal.

The Housing Acts of 1949 and 1954 provided the foundation for slum clearance and urban renewal (Hirsch, 2000). The Racial Relations Service (RRS), an institutional remnant of the New Deal, tried unsuccessfully to prevent local authorities from using the new federal resources to reinforce existing "ghettos." Dr. Frank Horne of the former United States Housing Authority (USHA) was an opponent of the housing acts. Horne detailed the grave dangers posed by the initial proposed bill in a memorandum, *Racial Implications of Title I of the Housing Act of 1949*. Horne had sharp words for New York's Stuyvesant Town project, Chicago's attempt to rehabilitate its South Side Black Belt, and early slum clearance efforts in Washington, D.C. (Hirsch, 2000). Horne charged that such exercises in urban revitalization, negative examples all, had been "perverted" by their failure to face squarely the racial considerations involved (Hirsch, 2000).

None of the bill's reputed legal safeguards precluded the possibility of Federal funds and powers being utilized by localities to clear entire neighborhoods, change the location of entire population groups and crystallize patterns of racial or nationalistic separation by allowing private developers, for whose benefit the legislation is primarily drawn, to prohibit occupancy in new development merely on the basis of race (Horne, 1949).

Despite the efforts of the RRS and most notably Dr. Frank Horne, state power and money had been used to construct developments that first displaced, and then banned African Americans. Displacing marginalized peoples has continued throughout history. This process of displacement David Harvey describes as "accumulation dispossession" that also lies at the core of the urban process under capitalism (Harvey, 2003). From the origins of slavery in the U.S. to contemporary times, capitalism has equated to years of cumulative racial disadvantage, thus housing inequality for African Americans.

Massey and Denton (1993) also had strong sentiments regarding urban renewal:

> These were veiled in the rhetoric of regeneration of cities for blacks and whites alike, but this just meant removing blacks from urban centers and putting them in low-quality public housing. This did not eliminate the alleged problems of vice and crime from ghettos – it merely *relocated* them to the outskirts of cities.

At this point, displacement and discrimination had been ongoing for nearly 350 years in U.S. history for African Americans, which has only relegated segments of the African American population to a permanent underclass.

2.1.4.1 The Black Tax

The sixties were a time in U.S. history where black uprisings and civil rights were being pursued vigorously. Housing inequality was one of the major drivers. The existence of a "dual housing" market created a captive Black market where more was paid for inferior housing. Blacks are estimated to have paid tens of thousands of dollars more for substandard housing (Taylor, 2013). These payments were known as the "Black Tax." Furthermore, black

homeowners who were unable to get a mortgage due to FHA underwriting restrictions were forced to buy homes on contract at exorbitant prices, and the contracts would state the landlords could evict them if they missed a single payment.

2.1.5 Non-Enforcement of Fair Housing

Black households continued to face persistent discrimination, leaving many relegated to the rental market. Not until the passage of the Fair Housing Act of 1968 was housing market discrimination based on race finally outlawed. This landmark piece of legislation was far-reaching in that it banned all forms of discrimination in real estate transactions, including "blockbusting," the common practice of real estate agents to inform white residents that black families would soon be moving into the neighborhood, thus including a panic sell due to whites' fears of impending racial turnover (Gotham 2002; Massey and Denton 1993). Yet other types of overt discrimination, particularly in the home lending industry, continued to restrict blacks' access to homeownership. Congress subsequently passed three additional laws to combat discrimination in lending: The Equal Credit Opportunity Act (ECOA) of 1974, the Home Mortgage Disclosure Act (HMDA) of 1975, and the Community Reinvestment Act (CRA) of 1975 (Friedman and Squires 2005; Squires 1992). The HMDA and CRA were designed to curb redlining by requiring depository institutions to serve the credit needs of their communities, including minority and low-income communities (Dymski 2009; Friedman and Squires 2005).

Despite these fair housing efforts, enforcement of the laws proved especially difficult and blacks encountered exclusionary practices in the homeownership market throughout the 1970s and 1980s.

Throughout the 1990s, housing policy initiatives were designed to increase homeownership rates of underserved households and communities. In particular, the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 established performance goals for Fannie and Freddie Mac to promote minority and low-income homeownership (Shay 2006). With the Department of Housing and Urban Development (HUD), ensuring the target goals were successfully met, homeownership among black households increased. These significant developments notwithstanding, the 1990s also ushered in a new era of sophisticated mortgage markets accompanied by elevated risks of exiting homeownership and returning to renter status (Bostic and Lee 2008).

2.1.6 Friendly Neighborhood Bank or A Wolf in Sheep's Clothing

2.1.6.1 Subprime Loans

The availability of subprime loans had increased since the mid-1990s and at first seemed to provide a needed vehicle for African American and other disproportionately low-income populations to become homeowners and accumulate wealth (Leigh & Huff, 2007a).

Several factors during the mid-1990s contributed to the development of the subprime mortgage market to serve borrowers with less than A-level credit. Responses to pre-existing legislative mandates, increased demand for home equity mortgage loans, and lender marketing and monitoring all fueled the development of this market.

2.1.6.2 Legislative Mandate

The Community Reinvestment Act (1977), known as the CRA, was initially enacted as an antidote to redlining. Under the CRA, banks and other financial institutions are required to devote a certain share of their deposits to mortgages for low- and moderate-income individuals in

their communities in exchange for the benefits these institutions receive from federal deposit insurance. The desire of financial institutions to use mortgage loans made to low-and-moderate-income individuals to satisfy their CRA requirements had contributed to the development of the subprime mortgage market, as had the growth in the number of community-based organizations with the goal of increasing mortgage lending to these same populations (Leigh & Huff, 2007b).

In addition, the Depository Institutions Deregulatory and Monetary Control Act of 1980 eliminated state usury laws that had set ceilings on the interest rates that could be charged for first-lien home mortgages (i.e., original home-purchase loans). Subsequently, many states eliminated interest-rate ceilings on all mortgages, thereby paving the way for subprime lenders to offer a larger volume and greater variety of mortgage products, priced to compensate for the perceived risk of making loans to less than A-level credit scores (Leigh & Huff, 2007b).

2.1.6.3 Predatory Inclusion

Predatory inclusion is a process where lenders target minorities with exploitative terms. In the primary market, subprime mortgage loans usually were made by brokers and bank subsidiaries, entities whose standards and behavior were less closely regulated or monitored than were the standards of banks and other prime market lenders. Subprime lenders targeted lower-income and racial/ethnic communities and tended to view their products and transactions as an isolated line of business. In a 2007 study performed by Leigh & Huff suggested the following outcomes of predatory inclusion:

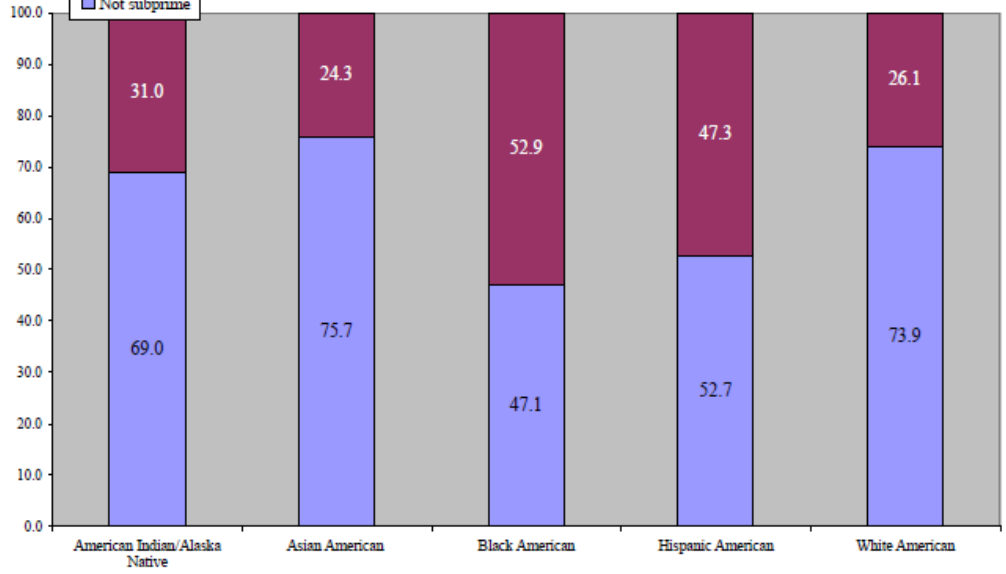
- Only 20 percent of subprime loans in 2005 were made by banks or thrift institutions, two entities that are supervised by federal regulators. More than half (51 percent) were made

by unsupervised mortgage companies, and 29 percent made by the more lightly supervised subsidiaries or supervised lenders.

- In 2005, about 60 percent of all subprime mortgages were placed through brokers, more than double the share of prime mortgages so place (25 percent).
- Seventy (70) percent of subprime mortgage loans had prepayment penalties in 2006. This is in contrast to the 2 percent of prime mortgages with these penalties. A typical penalty for prepaying more than 20 percent of the balance of a subprime loan might equal six months' interest.
- Estimates (made in the late 1990s) of the proportion of subprime borrowers who would qualify for prime mortgages range between 10 percent and 50 percent.
- Because prime mortgage lenders are often absent from low-income neighborhoods and neighborhoods in which racial/ethnic subgroups live and because these groups often live in spatially segregated neighborhoods, when subprime loans were foreclosed, there was an associated blighting neighborhood effect, as well.

Borrowers who were African American, Hispanic and American Indian, or Alaska Native were more likely than white borrowers to have subprime loans of each type, whether it be for a home purchase, home refinance, or home improvement. In contrast, Asian American borrowers were less likely than all groups, including white Americans, to have subprime loans (see figures below).

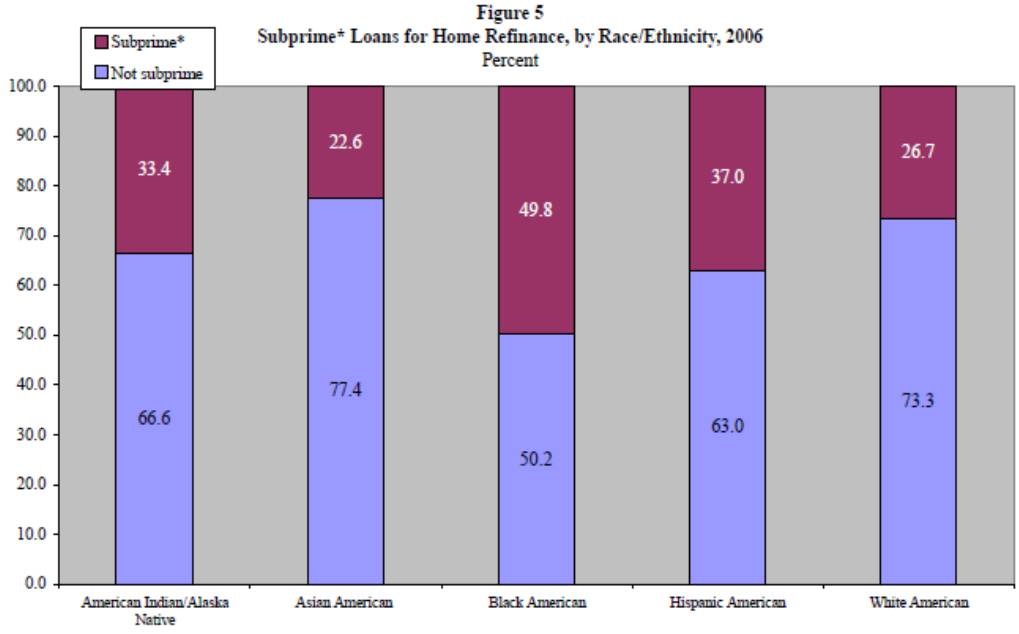
Figure 4
Subprime* Loans for Home Purchase, by Race/Ethnicity, 2006
Percent



*Loans with interest rates more than three percentage points above the rate on Treasury securities of comparable maturity

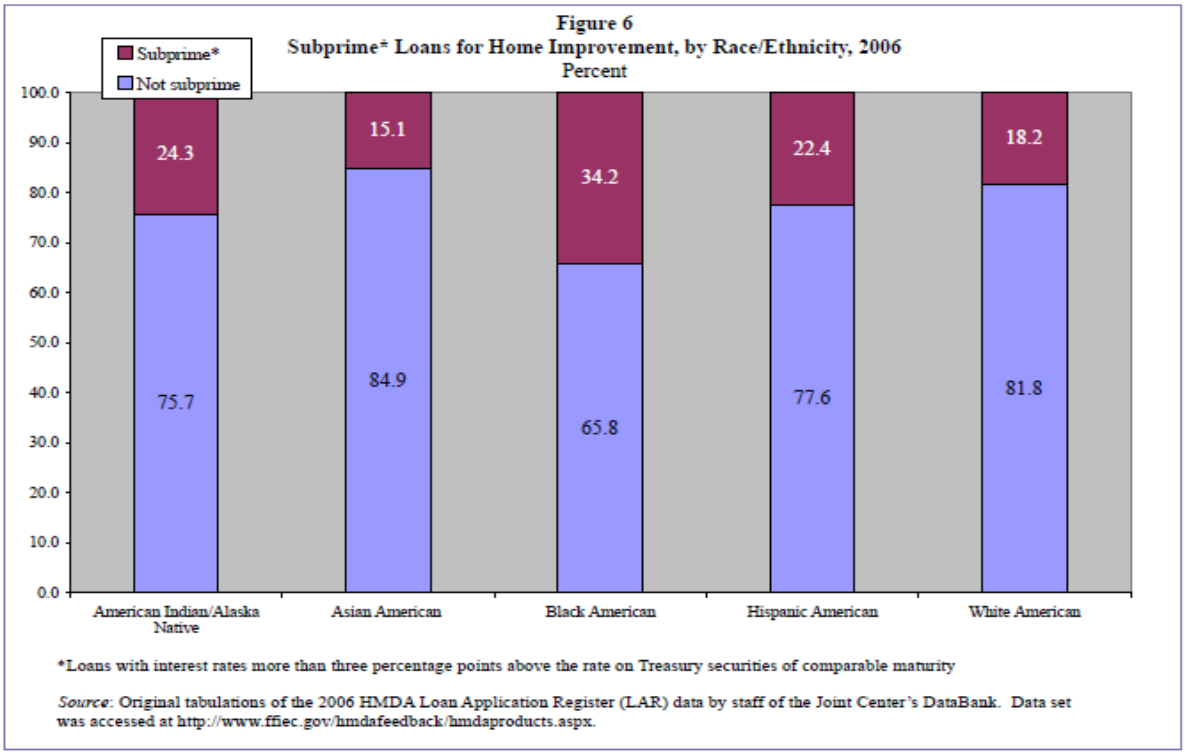
Source: Original tabulations of the 2006 HMDA Loan Application Register (LAR) data by staff of the Joint Center's DataBank. Data set was accessed at http://www.ffiec.gov/hmdafeedback/hmdaproducts.aspx.

Figure 5
Subprime* Loans for Home Refinance, by Race/Ethnicity, 2006
Percent



*Loans with interest rates more than three percentage points above the rate on Treasury securities of comparable maturity

Source: Original tabulations of the 2006 HMDA Loan Application Register (LAR) data by staff of the Joint Center's DataBank. Data set was accessed at http://www.ffiec.gov/hmdafeedback/hmdaproducts.aspx.



Consistent with the racial tenor of the time, African Americans were largely excluded from the post-World War II homeownership growth spurt in the United States. During the second major homeownership growth period (since 1995), as the subprime mortgage market had developed), even though many African Americans received home loans, their status as homeowners remained tenuous. Interest rates resetting had priced many variable-rate and interest-only mortgages out of the reach of their holders. The wave of foreclosures that had followed in the wake of these rate adjustments had abruptly removed numerous African Americans and other populations with low-incomes and limited credit access from the ranks of homeowners. Thus, the steady but modest increase in homeownership rates among African Americans between 1995 and 2004 has been reversed. In other words, the subprime market was

able to provide short-term access to homeownership for many but provided sustained homeownership for few (Leigh & Huff, 2007a).

2.1.7 Expulsive Zoning

In addition to the exclusionary actions describe earlier, communities employ many other zoning tools that are often not recognized as exclusionary mechanisms. One such concept, coined "expulsive zoning" by Yale Rabin, is the systematic use of Black neighborhoods as dumping grounds for locally unwanted land uses. These uses are most often non-residential in character (such as landfills), or they may be residential uses (drug rehabilitation units) that other neighborhoods with more political clout refuse to house. These cases that have come to court that might fit the label of expulsive zoning have been litigated as environmental justice issues.

Environmental justice is the fair treatment of people of all races, income, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulation, and policies, and their meaningful involvement in the decision-making processes of the government (Whitman, 2001)

The first environmental justice cases were brought in 1979 in Texas and in 1982 in North Carolina. In 1979, residents of Northwood Manor in East Houston alleged that the decision to place a garbage dump in their neighborhood was racially motivated in violation of their civil rights under the 1983 Civil Rights Act. The district court in Beau v. Southwestern Waste Management Corporation found that the placement of the dump would irreparably harm the community. The court specifically found that the landfill would "affect the entire nature of the community, its land values, its tax base, its aesthetics, the health and safety of its inhabitants, and

the operation of Smiley High School, located only 1700 feet from the site (United States Commission on Civil Rights, 2003).

In 1982, African Americans in Afton, Warren County, North Carolina, protested a decision to place of highly toxic polychlorinated biphenyls (PCBs) landfill in their community. Those protesting the landfill argued that the mostly African American community was selected because it was minority and poor. At the time, Afton was 84 percent African American and Warren County was one of the poorest in North Carolina (Bullard, 1990).

It was during this time in the late 1970s and early 1980s that many low-income communities of color concluded that unequal social, economic and political power relationships made them more vulnerable to health and environmental threats. Still, race and class continue to play a significant role in decisions concerning the location of polluting facilities such as landfills, toxic dumps, or other environmental hazards (Hill, 1983).

Land and housing in these areas are extremely lower in value compared to areas outside of these sites. Thus, long-time homeowners in these locations do not have a higher amount of equity or appraised values in their homes to past on to future generations. Therefore, the cumulative racial disadvantage continues.

2.1.8 Propaganda

The onset of policies that began in the 1970s was targeted to the American population as a whole and not just marginalized communities. By this, I mean, the controlling apparatus of capitalist propaganda and marketing to control people's beliefs and attitudes were much more robust. Renowned MIT linguist and Professor, Noam Chomsky, in the documentary, *Requiem for the American Dream,* (Chomsky, et al, 2015) explains that in response to the uprisings of the

Civil Rights Movement for not only blacks, but women and the working class in the 1960s, there was a major push from the capitalist elite to start redesigning the economy and influence the public. The backlash to the 60s began with the Supreme Court Justice Lewis Powell memorandum for the 1975 Trilateral Commission, *The Crisis of Democracy*. During this time, an "excess of democracy" was coined. And to counter the "excess of democracy," shaping ideology, attitudes and behavior became pivotal for the corporate class.

Interestingly, the documentary points out the push to control the public began over a century prior to the advent of public relations and the advertising industry, which was dedicated to creating consumers. The industry discovered it was not going to be easy to control the population by force. The explanation was that too much freedom had been won and the best way to control people is by fabricating consumers. The business news of the 1920s editorialized how the capital elite wanted to direct people to the superficial things of life, like fashionable consumption, so that will keep them out of their hair. To further emphasize the tone of the capitalist elite of that time, *Requiem for the American Dream,* expounded on a quote by Walter Lipton in the essay, "Society in its Place": "The public must be put in its place, so the responsible men can make decisions without interference from the bewildered herd. They are to be spectators, not participants" (as cited in Chomsky et al, 2015). The advertising industry exploded with this mission. The idea was to control everyone. The point is to make uninformed consumers make irrational choices.

What I am trying to demonstrate is not only the historical context but the cumulative effect of what shaping ideology, behavior and attitudes can result in. Essentially, people have been manipulated and along with the racist mechanisms and systems that have been implanted for centuries, African American's cumulative disadvantages have been exponential in relation to

other ethnic groups. And unfortunately, in terms of homeownership, despite the gains of the Civil Rights era, current African American homeownership rates have fallen back to the rates they were since the 1960s.

2.1.9 The Black Elite and Anomie

Overall, the key to my argument in explaining drivers affecting African Americans' level of homeownership is understanding the underlying historical and sociological contexts in addition to current quantitative data. Evidence supports that racism, policy and shaping ideology had a disenfranchising impact on the vast majority of African Americans. However, I argue there is a major component that perpetuates this disenfranchisement just as viciously, and that is: the "flight" of the "Black Elite." In a 2015 segment on *The Real News Network,* Dr. Cornell West characterizes the "flight" of the black middle and upper class:

> The Black Elite have become well-adjusted to injustice and well-adapted to indifference. They are self-promoting, not taking any risk, highly conformist, with very little courage and when it comes to battle, complacent. They contribute to the callousness and indifference of the plight and predicament of black and poor people. What took the place of collective fightback is individual upward mobility (West, 2015).

Dr. West's analysis of the abandonment of the Black Elite from its community is harsh, but I agree with his assertation based on personal experience. Specifically, to provide some foundation to support his argument, I refer to a study conducted by Robert. M. Adelman at Georgia State University. In *The Roles of Race, Class, and Residential Preferences in the Neighborhood,* (Adelman, R.M., 2015) Adelman was attempting to demonstrate that in addition

to discrimination in housing by real estate agents, banks and the lending industry, the preferential racial make-up of a neighborhood played a significant factor in where people resided. Using a "Residential Preferences Index," he demonstrated the extent to which preferences influence the racial composition of a neighborhood. The statistically significant findings showed that black college graduates and blacks with middle and upper incomes were less likely to live in segregated neighborhoods.

This "black flight" left many black communities without the human social capital needed for social and upward mobility. One cannot downplay the significance of role models, social ties and social networks. And to better understand the effects of black flight, I associate this with a phenomenon known as anomie. Emile Durkheim, known as the father of sociology, coined the term anomie, wherein society provides little moral guidance, where expectations of behavior are unclear, and the social system has broken down. Wherein Durkheim coined this term in 1898 France; it certainly applies to sociological pathologies of today. Pulitzer- Prize-winning journalist and theologian, Chris Hedges in his 2018 speech, *American Anomie,* succinctly expounds on anomie based on Durkheim. "The despair when people have a sense of worthlessness, when the society no longer values them, when they are stripped of their dignity, there is a propensity to self-destructive behavior. The loss of meaningful work, to earn a sustainable income, has deep psychological and emotional ramifications and the longer that kind of assault continues, the more the pathologies of dysfunction manifest themselves within a culture" (Hedges, 2018). I argue this manifestation is essentially what has happened to a large majority of Black Americans.

As I discuss these observations affecting African Americans' levels of inequality, it is not to disparage the socio-economic progress of middle- and upper-class black Americans but to

identify prevailing aspects to the breakdown of the black community and choices made. To better understand the push towards "flight," in the 2011 publication, *New Urban Sociology*, Gottdiener and Hutchison provide a poignant analysis of class differences and spatial location. "Thus, a significant component of socio-economic status will be determined by one's address and the symbolic reputation of particular neighborhoods within the metropolitan neighborhoods. It means something very different to live in the north shore suburb or oceanfront town than it does to be from the "hood" or to have grown up in the projects. In our society, due to stratification differences, the choice of residential location is not always voluntary. Restrictions of wealth, race, and gender are particularly potent sifters of the population across the metropolitan regions. Socio-economic difference and the system of social stratification, therefore, manifest themselves both as differences in individual lifestyles and as differences in neighborhood living" (Gottdiener & Hutchison, 2011, p.157).

We must understand socio-spatial perspectives along with the relationships among flight, real estate planning and the structure of predatory capitalism, perpetuating the continuous cycle of relegating certain races and classes of people to certain spaces. It all promotes the underdevelopment of marginalized peoples. More specifically, for blacks in America, during Reconstruction and the Civil Rights Era, Black Americans lived in tight, socially bonded communities, where they were able to uplift and encourage one another. They had homes and businesses that supported the community. Blacks had economic agency until the political and social structures began passing laws to disenfranchise them. There are currently the slices of African Americans who have overcome and made tremendous gains, despite the challenges. However, is the Black Elite cognizant of its role in the disintegration and disenfranchisement of the Black American Poor?

I address these contributing factors to reinforce the impact of cultural behavior, attitudes and beliefs. More specifically, I argue attitudes toward homeownership in the Black community are not highly favored. Culturally, with Black Americans, one has more social capital with owning a luxury car than owning a home. One has more social capital with owning a high-end handbag than owning a home. One has more social capital wearing the latest fashions than owning a home. The propaganda machine has worked and Black Americans have no collective focus on sustainable homeownership. I do not come to this conclusion lightly. I say this based on not only historical data but also my professional experience working in the mortgage and real estate industry for years, where black clients will advocate more for keeping their cars than keeping their homes.

Furthermore, I say this based on my years as an attendee of black churches, where there is praise and worship for purchasing a new car and having a luxury vehicle. On a quite personal level, I will explain. My aunt just recently paid off her home for which she spent years working hard on, with no more than a $9 an hour job. However, when she told people she was near paying her home off, she explained to me that I was the only one who was excited and proud of her. Whether there was envy involved or not, with the other's unphased responses, it should not diminish her tremendous effort and success of now owning a home to help build a legacy and foundation of equity and wealth.

Indeed, the overall impact of attitudes and cultural preferences that were mainly influenced by predatory capitalism, I argue, is a primary contributor to the decline in the homeownership rate for African Americans in the 21st century. Thus, it is my intention to use my personal and professional experience to provide a level of context to this matter. And for future research, an ethnographic study conducted by an African American with a common

background would provide more insight, where the researcher is intimately connected to the community to combat distrust and suspicion. In fact, research on inner-city neighborhoods reveals that people with limited means, such as the poor and the elderly, require "intimates" that are close at hand (Gottdiener & Hutchinson, 2011 p. 206). Intimate knowledge provides a level of understanding that quantitative data analysis just does not explain.

2.1.10 Internal Colonialism

To further examine the drivers of inequalitie, I address internal colonialism. The belief that there were domestic or internal forms of colonialism operant within nation-states was an idea that initially emerged from Latin American development economists eager to understand the unequal terms of trade between the Third World and the First, and between dominant and subordinate groups in those societies (Gutierrez, 2004). Racial minorities in the United States found these theoretical formulations particularly compelling and adapted them to their own needs. Internal colonialism offered minorities an explanation for their territorial concentration, spatial segregation, external administration, the disparity between their legal citizenship, de facto second-class standing, their brutalization by the police, and the toxic effects of racism in their lives (Guiterrez,2004).

That race relations between blacks and whites in the United States could also be characterized as "domestic colonialism," which was first coined by African American scholar Harold Cruse. In *Studies on the Left*, Cruse (1968) argued that "the Negro is the American problem of under-development" (p.74) created by the condition of domestic colonialism in which they lived. Like the poor in underdeveloped countries, the lives of American Blacks were characterized by "hunger, illiteracy, disease, broken ties to the land, urban and semi-urban slums,

cultural starvation, and the psychological reactions to being ruled over by others, not of his kind" (Cruse 1968, pp.75-76).

2.1.11 Bias in the Valuation of African American Neighborhoods

To add more context, research shows that the biggest factor in the Black-White wealth gap is years of homeownership, demonstrating how critical positive home equity is to building wealth. Racialized systems that generate lasting inequality may perpetuate a self-fulling expectation, where "structural disadvantages come to be seen as a cause, rather than a consequence, or persistent racial inequality justifying and reinforcing negative racial stereotypes" (as cited in Pager & Shepard, 2008 p. 18).

While research regarding structural impediments and disparities in housing and lending is well-documented, the research connecting implicit biases to housing and lending outcomes is less well-understood. Implicit biases, or the attitudes or stereotypes that affect our understanding, actions and decisions in an unconscious manner (Staats, 2014), are key to understanding why diverse populations were, and continue to be, subject to a wide range of discriminatory practices, purchasing, financing, and realizing equity in a home (Olinger et.al, 2017).

The Kirwan Institute for the Study of Race and Ethnicity researched implicit bias in housing. Their report argues, these implicit biases are manifest in the housing and lending economy in part due to a deeply rooted association between race and risk in the physical and social landscape of our communities, and this association helps drive neighborhood segregation and thus widen opportunity segregation (Olinger et. al., 2017).

There are many actors in housing and lending, where their implicit bias effects housing opportunities. And little research has been documented in the appraisal industry resulting in the continuation of racial inequality. However, a 2018 study conducted by Howell and Korver-Glenn suggested that variation in appraisal methods coupled with appraisers' racialized perceptions of neighborhoods perpetuates neighborhood racial disparities in home value. Their data suggest that the variation in comp selection results in appraisers selecting comps from racially comparable communities and not necessarily from areas that are similar in terms of housing stock, geography, socioeconomic status, amenities, or demand. Their data highlights that variation in comp selection provides ample room for neighborhood racial composition to become entangled in home value, in part through the (unconscious) racialized assumptions of appraisers and numerous real estate stakeholders who attempt to influence home values (Howell and Korver-Glenn, 2018). Thus, it is the system of appraisals that enables the stark racial inequality observed in the data to persist (Olinger, et.al, 2017).

Within a similar context, *The Limits of Homeownership: Racial Capitalism, Black Wealth, and the Appreciation Gap in Atlanta* described that a home's exchange value is racially-spatially structured such that homeowners living in spaces marked as Black do not enjoy the rates of home price appreciation as those living in spaces marked as not Black. From this perspective, and in firm contradistinction to the theory of change proffered by homeownership advocates, homeownership itself may perpetuate racial wealth inequality (as cited in Markley, et al., 2020, p. 2).

2.1.12 Capitalism's Cumulative Impact and the Cultural Paradigm Shift

Understanding the data and the impact of drivers of inequality leads to my overarching argument on how a psychological and sociological cultural shift in of African Americans has been a primary factor in inequality in housing as of today. Historically, during the past 400 years, Blacks were essentially denied economic agency. However, since Emancipation and the progression of civil liberties from the 1960s, the psychological and sociological cultural shift in attitudes and behavior of many Black Americans, I argue, have been influenced by the systemic corporate capitalist and the propaganda machine, which simply continues to self-perpetuate a continuous cycle that leads to inequality. And not just in housing and homeownership, but also in education, health and overall life outcomes. Where slavery, racism and the profiteering practices of capitalists in past centuries were the literal and symbolic chains that held down blacks before, I will argue culture now replaces slavery, which continues to self-perpetuate the cycle of inequality.

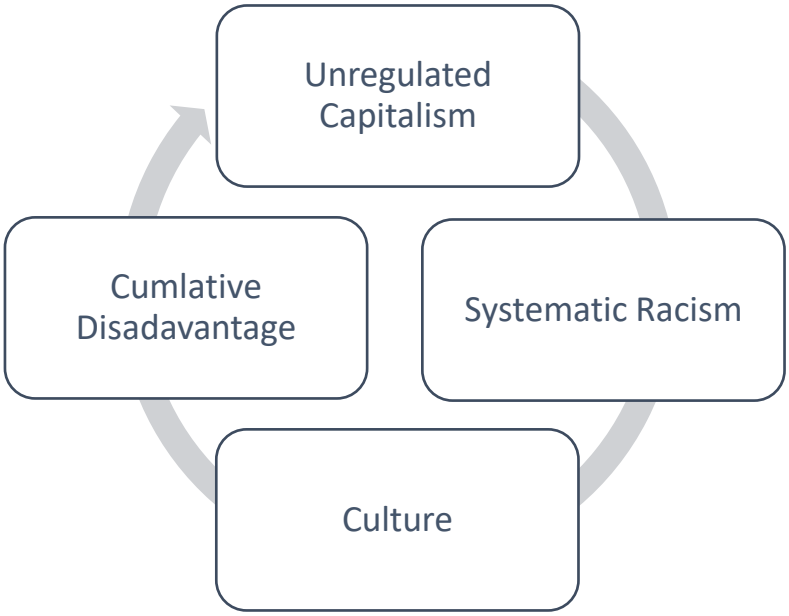
Emile Durkheim, the father of sociology, made an argument in 19th century France that resonates today. "Capitalism is antithetical to creating and sustaining the relationships that are vital to social bonds. Capitalism rewards those whose relationships are transactional and temporary (as cited in (Hedges, 2018, para.14)." Factoring in Durkheim's argument, along with years of systematic racism and the results of many studies on poverty and inequality, one can surmise, this current level of inequality was well designed. Otherwise, we still would not be researching this issue. This leads me back to the original *Housing Question* posed by Fredrich Engels in the 1800s during a shortage of housing available to workers in major industrial cities in Germany, where the growing number of the worker class created a housing crisis. Engels' central point was that the revolutionary class policy of the proletariat cannot be replaced by a

policy of reforms, because “it is not that the solution of the housing question simultaneously solves the social question, but that only by the solution of the social question, that is, by the abolition of the capitalist mode of production, is the solution of the housing question made possible” (Engels, 1873, p.1).

Therefore, do we need to stop trying to solve the housing affordability issue? Essentially, based on Engels’ central point and years of data and research, there will always be a housing affordability issue if capitalism is the primary economic model within a society. And combine it with racism and or tribalism as in many cultures, we end up with marginalized peoples who are relegated to the permanent underclass.

“The comfort of the rich depends on the abundance of the poor” (Voltaire, n.d). Unfortunately, this system of inequality is intrinsically designed to be self- sustaining.

Self-Perpetuating Cycle of Inequality



2.2 Benefits of Homeownership

Rypkema (2002) as other scholars maintain, homeownership is widely seen not only as the fulfillment of the American Dream but a crucial component of building household wealth, stabilizing neighborhoods, increasing citizen participation, improving property maintenance and revitalizing cities. In addition, the National Association of Realtors state more than 60% of a person's wealth comes from owning a home. Goodman and Mayer (2018) compute the financial returns, including tax benefits, associated with purchasing a home and they also examine the nonfinancial costs and benefits. Financially, the returns to purchasing a home in a normal market are strong, typically outperforming the stock market and an index of publicly traded apartment companies on an after-tax basis (Goodman and Mayer, 2018). Of course, many caveats are associated with this analysis, including variability in the timing and location of the home purchase, and other risks and tradeoffs associated with homeownership. There is little evidence of an alternative savings vehicle (other than a government mandated program like Social Security) that would successfully encourage low-to-moderate income households to obtain substantial savings outside of owning of home (Goodman and Mayer 2018).

In the report for the Millennial Housing Commission, *Homeownership and the Role of Federal Housing Policy* (2002), the authors highlight the benefits to homeownership given other empirical studies:

- Homes are crucial to low-income families for financial asset building. The median wealth of a low-income homeowner under age 65 is 12 times that of a similar renter. Over 66 percent of the total net worth of low-income homeowners is stored as home equity.

- Homeowners are less likely to move, staying in a community up to four times longer than renters. When neighbors stay in place longer, they have more time to get to know one another and to establish social networks. Businesses also benefit, as employees with owner-occupied housing are more likely to form a stable workforce.
- Homeowners are more willing to contribute to political campaigns and to lobby public officials than similar renters.
- Homeowners are 16 percent more likely to belong to parent-teacher organizations, block clubs, and other community organizations.
- Children of homeowners are 116 percent more likely to go to college than children of similar renter families, even after controlling for age, income, and length of stay in the community, and 59 percent more likely to become homeowners themselves.
- The construction of 1000 single-family homes supports nearly 2500 full-time jobs in construction and construction-related industries, $80 million in wages, and $43 million in combined federal, state, local revenues and fees.
- Homeownership also provides the individual investment in real estate while benefiting from having a place to live. Home price appreciation is not risk-free but exhibits lower volatility than stock or bond prices.

The key to my argument is that with all the known benefits of homeownership, why isn't there more emphasis in local planning on homeownership versus just finding housing to place residents (e.g., rental housing and or public housing).

2.3 Economic Determinants of Homeownership

Haurin, Herbert, and Rosenthal (2007) suggested other additional factors may also play a role in the homeownership gap, including higher income volatility for blacks, lower family wealth, and differences in the neighborhoods where blacks are more likely to live. Bond and Eriksen (2017) found that 65 percent of the homeownership gap between blacks and whites can be explained by adding parents' attributes like wealth and whether they were homeowners in addition to other typical demographic and income variables. Indeed, because household wealth is not accurately captured on a mortgage application, and family wealth is certainly not captured, regression results will overstate racial differences (Goodman and Mayer 2018).

Goodman, Pendall, and Zhu maintain, considering the great uncertainty about the household formation and homeownership, single-point forecasts of homeownership rates and housing demand could seriously mislead policymakers and obscure the potential implications of their decisions. Therefore, they examined different scenarios for household formation and homeownership that generate a range of future national housing demand projections. Their scenarios were based on the idea that household formation and homeownership are life-course events: milestones that people are more likely to pass at some ages than at others. Across an entire population of individuals born in the same year, household formation and homeownership can be measured not just at one point in time, but as a series: that is, the share of people born around the same time who form household or purchase homes over a subsequent period. Headship (head of household) and homeownership are both reversible, meaning that these transitions can be either positive or negative on the net, unlike some other life-course events like completing high school, getting married for the first time, or having one's first child. As a rule,

however, young people generate new households and homeowners, whereas old people make transitions out of headship and homeownership (Goodman Pendall, and Zhu, 2015).

To develop their scenarios of housing demand, they used observed householder and homeownership rates by age and race from 1990, 2000 and 2007-13, extending or replicating the cohort-specific changes in those rates to 2020 and 2030. Their methodology combined the use of the decennial census and the American Community Survey. To construct their scenarios, they would do two calculations for each age-race cohort: the 10-year transition rate from 2000 to 2010 and the average 10-year transition rate from 1990-2010.

In their report, they defined age groups as a group of people born within the same 10-year span and compute headship rates and homeownership rates for each group, using Census and ACS data. They used for race/ethnicity groups: Hispanic, non-Hispanic, white, non-Hispanic black, and none-Hispanic other races, a category that included Asians, Americans, Indians, Alaska Natives, Native Hawaiians, other Pacific Islanders, and multiracial individuals. For the rest of their report, they used "white" and "black" to imply non-Hispanic white and non-Hispanic black, respectively (Goodman Pendall, and Zhu 2015).

Based on Goodman, Pendall and Zhu's investigation on both headship and homeownership, they had the following conclusions:

- Household growth can be expected to be reasonably robust between 2010 and 2020 as the millennials form households. However, this growth will taper off between 2020 and 2030.
- Between 2010 and 2030, household growth will be overwhelmingly nonwhite.
- The number of senior households will expand dramatically.

- The homeownership rate will continue to decline.
- The absolute number of homeowners will grow because of net new household formation, but the absolute number of renters will grow much faster. New renter households will outnumber new owner households both between 2010 and 2020 and between 2020 and 2030.
- The new homeowners will be disproportionately minority, especially Hispanic. The homeownership gap between blacks and Hispanics is likely to grow.

Similarly, in a study conducted by Acolin, Goodman, Wachter (2016), the study examined if homeownership rates will continue to fall or return to post WWII rates based on demographic predictions of the composition of U.S. households. They sought to identify the potential impact of key drivers of homeownership on future homeownership rate outcomes. The three key drivers used were demographics (projected from the census), credit conditions (reflected in a fast and slow scenario), and rents and housing costs increases (based on California). Acolin, Goodman Wachter, extended their methodology based on demographic forecasts to 2050 and estimated further declines. The methodology used was based on historical decennial census data and projected population by age, race, and ethnicity provided by the U.S. Census Bureau. Their base case average scenario forecasted a decrease in homeownership to 57.9 percent by 2050, but their alternate simulations showed that it is possible for the homeownership rate to decline around 50 percent by 2050, 20 percentage points than at its peak in 2004 (Acolin, Goodman Wachter (2016).

An important finding of the Acolin, Goodman Wachter (2016) study was the "majority-minority" gap. The gap is about 20 percentage points (U.S. Census Bureau, 2015). The persistence of this gap has important consequences for the national homeownership rate in the future because the United States is expected to become a majority-minority nation in the next 20 years (Acolin, Goodman Wachter, 2016).

Interestingly, the change in homeownership rates among Hispanic households will be particularly impactful because of their projected contribution to household formation (Goodman, Pendall, and Zhu, 2015). The transition from most Hispanic individuals being foreign-born to most being native-born has the potential to result in substantially higher homeownership rates among Hispanic households that have been observed in the past (Coulson, 1999) and a higher aggregate homeownership rate.

Haurin and Rosenthal (2007) examined the influence of household formation on homeownership rates across time and race. Results indicated that lower headship rates tend to reduce the homeownership rate. Although the literature has largely overlooked the role of household formation when examining housing tenure, there are some important exceptions. Two papers studied the joint choice of household type and tenue choice (Borsch-Supan 1986, Haurin, Hendershott and Kim 1994). An important feature of these studies was to control for possible sample selection in the estimation tenure choice. However, neither of these studies addressed the question: what is the effect of differences in household formation on aggregate homeownership rates and racial gaps in homeownership (Haurin and Rosenthal 2007)?

Hendershott (1987) studied the impact of household formation and the aging of the population on homeownership rates in the 1960-1985 period. Hendershott concluded that increases in headship associated with the aging of the population substantially boosted homeownership rates over the 1960-1985 period. Hendershott estimated that the age distribution of the population and the propensity of a given type. However, a limitation of Hendershott's work is that he does not fully separate out the influence of changes in headship arising from the aging of the population versus changes in age-specific headship rates (Haurin and Rosenthal 2007).

Hendershott (1987) estimated that, if the age distribution of the population and the propensity of a given type of family to seek homeownership had remained unchanged from 1960 to 1985, the ownership rate would have fallen from 62.3 to 57.0 over this period, a difference of 5.3 percentage points. Instead, the observed homeownership rate rose from 62.3 to 63.8 percent because of the substantial increase in the average age of the population and changes in the homeownership tendencies of specific household types (e.g., married couples) (Haurin and Rosenthal (2007).

2.3.1 Location

Modern urban land use theory, which forms the core of urban economics, is essentially a revival of von Thünen's theory (1826) of agricultural land. The bid rent function approach, which was introduced into an agricultural land use model by von Thünen (1826) was later extended to an urban context by Alonso (1964).

Bid-rent theory explains the urban land use pattern where the further you locate from the central city, the cheaper the land. Therefore, the sectors closest to the central city have higher

rents, thus creating a propensity for households to locate away from the city center. In parallel to bid rent theory, Collins (2002) discovered homeownership rates are lower in central cities across all income groups. Overall, there was a 24-percentage point difference between central city and suburban homeownership rates, and even a 20-point difference among families in the same low-income range. Collins also asserts, there are substantial gaps in homeownership attainment between the races, even controlling for marriage, central city location age and education. For example, a white married household under 50 years of age living in a central city, without a high school education, is just as likely to own a home as an African American household in the same circumstance ***with*** a college degree (Collins, 2002).

As central cities, in which homeownership is lower and the stock more adapted to renting, has experienced a renewal (Capperis, Ellen & Karfunkel, 2015). Wherein we should expect faster population growth rates within cities relative to suburban areas, which in turn, has the potential to raise housing costs and decrease homeownership as well. Regional divergence, with metropolitan areas having housing costs growing faster than elsewhere, could contribute to increases relative to incomes in these desirable markets (Acolin, Goodman and Wachter, 2016).

Researchers do not generally study individual regional markets. For instance, Goodman and Mayer (2018) who studied national homeownership rates found there is a huge variation across the nation, with some states, particularly in the middle of the country, having much higher rates than others. There is also a difference between metropolitan and nonmetropolitan areas, with non-metro areas generally having higher homeownership rates. Finally, certain expensive cities on the coasts have homeownership rates that are lower than both their state and other metro areas (Goodman and Mayer, 2018).

2.3.2 Housing Market and the Economy

In *Waiting for Homeownership: Assessing the Future of Homeownership, 2015-2035*, Spader and Herbert examined the determinant of changes in the homeownership rate from 1985 to 2015 using the shift-share analysis to measure the extent to which changing demographics explain the rise and fall in the homeownership rate. The results show that demographic trends – aging of the population, increasing racial/ethnic diversity, delayed marriage and childbirth, and related factors- explain only a small portion of the housing market's boom and bust. Instead, the homeownership rates rise and fall has been due to broader changes in the economy, credit conditions and the housing markets (Spader and Herbert, 2017).

The authors attest, in the face of the decade-long decline in homeownership, considerable uncertainty continues to exist about the factors that have contributed to the decline and the homeownership rate's future trajectory. Discussions of the homeownership rate's decline point to multiple contributing factors includes high foreclosure rates, tightening credit standards, falling household incomes following the Great Recession, increasing student loan debt, rising rental housing costs, and changes in households' preferences and attitudes toward homeownership and renting. Existing research has not conclusively teased apart the relative contributions of each factor. Instead, the trajectory of the homeownership rates reflects the complex interplay of these factor with other demographic, economic, and housing market trends (Spader and Herbert, 2017).

Equally important, households' consumption demand is also subject to changes in households' budget constraints, making homeownership sensitive to broader economic changes in employment, incomes, and expected lifetime earnings. While broad-based employment and income growth contributed to increases in the homeownership rate during the late 1990s (Gabriel & Rosenthal, 2005), stagnating wages, rising student loan debt, and high levels of unemployment in the wake of the Great Recession may have had the opposite effect in more recent years. Beyond the direct relationship between income and housing demand, income volatility is correlated with the housing market cycle, limiting the ability of households to buy a home when prices are most affordable (Davidoff, 2005).

Moreover, because most households lack enough wealth to buy homes outright, the effective demand for homeownership is also affected by the availability of mortgage financing needed to purchase a home and by the supply of homes for sale that are within the purchasing power of would-be homeowners. In recent decades, the expansion of subprime and non-traditional lending during the housing boom and the tightening of credit during the housing bust occurred concurrently with the rise and falling home prices, making the relative impact of credit access versus home price appreciation and foreclosures difficult to tease apart. (Acolin et al. 2016).

Gabriel and Rosenthal (2016) found the homeownership rates from 2000-2010, that household attitudes, lending standards, and market conditions were the primary drivers of the boom and bust over in homeownership over that decade and not population socioeconomics. The pattern holds for nearly all age groups and is more pronounced for recent movers. Gabriel and Rosenthal (2016) explain how it is widely accepted that the boom and bust in U.S. house

prices of the past served as a catalyst for the 2007 meltdown in mortgage and capital markets and the downturn in the global economy.

From 1970 through the mid-1990s, U.S. homeownership rates varied between 64% and 65% and were essentially flat at 64% between 1985 and 1995. Homeownership rates then rose sharply to a historic high of just over 69% in late 2006. In the wake of the housing and financial crisis of 2007, homeownership rates imploded, falling all the way back to 65% in early 2013 (Gabriel and Rosenthal 2016).

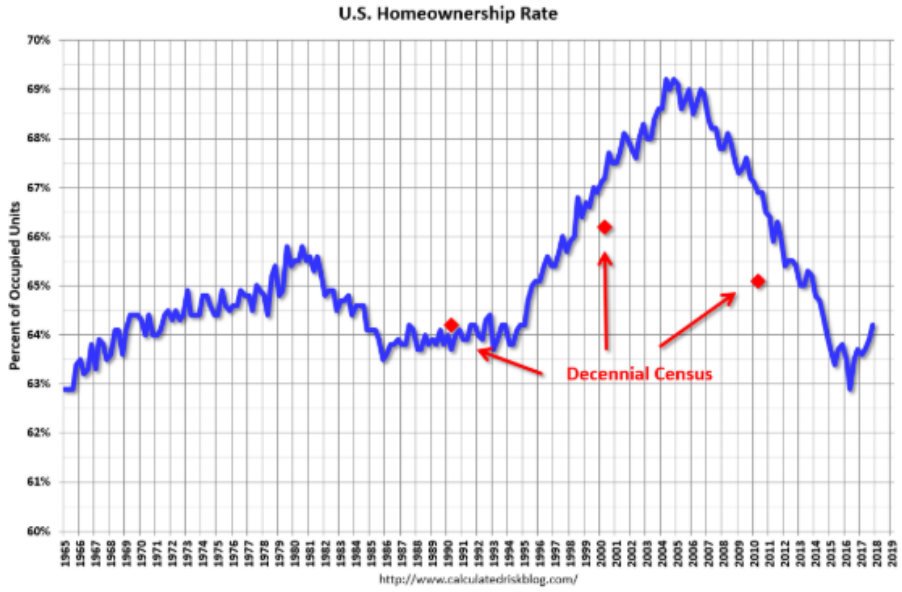


Figure 2-1 U.S. Homeownership Rate 1965-2018

As of 2018, there has been an upturn in certain housing markets in the United States, leading to many reports of optimism. However, city and regional housing markets vary widely. According to the Urban Institute (Goodman, Pendall, and Zhu, 2015), Myers and Lee (2016), and the Joint Center for Housing Studies of Harvard University (2015), the homeownership rate will continue to fall for the United States during the next several years (Nelson, 2016). Reasons

for the decline could include more stringent mortgage underwriting requirements than seen in the middle 2000s (Chan, Haughwout, and Tracy, 2015); reduced confidence that homeownership will generate equity sufficient to justify commitment (Randazzo, 2011); the desire to be mobile to move to new economic opportunities without having to sell a home first (The Council of Economic Advisors, 2014); stagnate median household income in real dollar terms (Kochhar, Fry and Rohal, 2015); student debt loads that can make it difficult to qualify for a mortgage (Harney, 2015); and an increase in multigenerational households (Fry et al., 2014).

Indeed, many other factors can change future homeownership rates. They include but are not limited to- unforeseen changes in economic conditions, national or global health or environmental catastrophes, wars or other forms of significant social change, changes in policies that alter incentives for homeownership, and changing attitudes of the benefits and burdens of homeownership, among others (Nelson, 2016).

Nelson (2016) continues to explain future analysis should be conducted to assess the change in homeownership among the individual population and household groups based on age, income, education, household type, race, ethnicity, and metropolitan area, among other factors, as this research will conduct such an analysis on the DFW metropolitan area.

2.3.3 Population Growth- Immigration and Migratory Patterns

Among many other factors, immigration will have a considerable impact on the housing market both nationally and especially at the state level in Texas. Nationally, a rebound in immigration helped to drive the recent pickup in household growth. Increased in-migration from

Asia and Africa helped to offset out-migration to Mexico and Latin America and lifted the foreign-born share of the population growth from 37% in 2011 to 45% in 2016. Immigrants are an important source of housing demand, accounting for over a third (34%) of total household growth from 1995 to 2015 nationally (Joint Center for Housing Studies of Harvard University 2017).

The Harvard Study (2017) explains that international migration has been a vital source of population growth in several major metros that would have otherwise posted losses. For example, without the influx of nearly 144,000 immigrants in 2016, the population in the New York metro area would have fallen by about 105,000 rather than increase by about 35,000. In contrast, with only 26,000 immigrants to offset a net loss of nearly 90,000 domestic out-migrants, Chicago's fell by about 19,600 in 2016 – the largest drop in any metro area.

In some metros, however, population gains from domestic in-migration and natural increase far outpace international immigration. Atlanta, Austin, Dallas, Phoenix, and Tampa are among the several metros benefitting from the resumption of north-to-south population flows in 2014-2016. Much of this movement was from Northern states to Sunbelt states, with net domestic in-migration in Florida and Texas increasing at the expense of increasingly large outflows from New York and Illinois (Joint Center for Housing Studies of Harvard University 2017).

2.3.4 Regulations- Growth Management

Otoole (2016) argues growth management laws and plans, which strictly regulate what people can do with their land in the name of controlling urban sprawl, do more harm than good and should be repealed. Otoole believes to correct the problem created by growth management, states should restrict the authority of municipal governments, especially counties, to regulate land use. Median home prices in growth-managed regions are typically two to four times more than those in unmanaged areas. Growth restrictions also dramatically increase home price volatility, making homeownership a riskier investment. Growth management slows regional growth, exacerbating income inequality, and particularly harms low-income families, especially minorities such as African Americans and Latinos (Otoole, 2016).

No statewide growth management plan exists for the state of Texas, except one that the Department of Transportation creates and updates for highways and roads. The state enables local jurisdictions to adopt a comprehensive plan and suggests elements to include, but comprehensive plans are not mandatory. However, if several municipalities choose to create a Joint Planning Commission, the Commission must adopt a master plan for the region.

Otoole (2016) compares California and Texas. California is one of 13 states which have a state growth management policy and Texas does not. Otoole describes these are the nation's first- and second-most populous states and the third- and second-largest states by land area. Both are in the Sun Belt, and both are attractive to a wide range of industries, businesses, and people. But California's land use regulation is second only to Hawaii as the nation's least affordable housing market since the 1970s. As a result, since 1990, Texas' economic growth, measured in

gross state product, has been 35 percent faster than California's. Since housing prices are part of a state's gross state product, California's high housing prices mask some of the prices with the state's economy. This is shown by Texas' annual population growth, which has been 75% faster than California's in the same period. While Texas benefits from California's loss, the effects of high real estate prices on the national economy are not a zero-sum game. They are a negative-sum game, with real estate prices dragging down the economy in growth managed regions more than any other region's benefit (Otoole, 2016). While Otoole's arguments may have credibility, as stated previously, some scholars fear, if trends continue as of current, Texas will mirror California in decades to come in terms of housing unaffordability and homelessness.

As the decline of homeownership continues, renters have become more cost-burdened. In 2016, the MacArthur Foundation studied the facilitation of preserving affordable rental housing. They first described how the composition of the renter population has evolved in terms of demographic shifts, with a focus on marital status, household size, age, income, education, and race and ethnicity. However, most importantly, their analysis showed that rents increased across almost every MSA between 2000 and 2010, even as real incomes of renters declined. This combination meant that the average renter in the United States had a substantially greater rent burden than in the decade prior. In addition, both the number and share of renters increased, which put pressure on the market and exacerbated the rent burden (Schwartz et al., 2016).

With stagnation and declining wages for most households, housing affordability overall is a major crisis throughout the United States. When families are using a large portion of their income for housing, they are left with less for other household consumption needs such food, health care and education, potentially spiraling into a cycle of decline when an unforeseen emergency occurs.

2.3.5 Unemployment and Labor Mobility

It is widely acknowledged that homeownership reduces internal migration, which has direct consequences for labor mobility (Guler and Taskin, 2018). How significant is this effect? Oswald (1996) found there is a positive correlation between aggregate homeownership and unemployment rates at the country level and argues that the lack of mobility caused by high levels of homeownership corresponds to a rise in unemployment. Several papers showed similar findings using different aggregations (Nickell and Layard (1999) for OECD countries; (Partridge and Rickman, 1997) for US states and (Pehkoonen, 1999) for Finland.). While these findings are suggestive based on macro-level analysis, it is difficult to conclude that homeownership brings strong frictions to labor markets (Guler and Taskin, 2018).

To bring more depth to previous findings Guler and Taskin (2018) modeled housing and labor markets and analyzed the relationship between individual homeownership and unemployment. They identified the conditions under which ownership affects unemployment and tested these predictions using individual-level data from the U.S. Census. It showed owning a house lowers the likelihood of finding a job, and this is especially true in regions with small local labor markets and or distressed economic conditions.

More specifically, they show owners' unemployment duration is higher in regions where the local labor demand is weak compared to regions where local labor demand is strong. Given reasonable parameter values that reflect the U.S. housing and labor markets, they show that the direct effect of housing frictions on the unemployment rate are negative but quantitively small.

However, it was found that housing frictions can have quantitatively larger amplifications effects (Guler and Taskin, 2018).

Guler and Taskin (2018) studied labor markets at the state and Metropolitan Statistical Area levels. They used average unemployment rate as a proxy for the local labor market; a high unemployment rate for a state implied weak labor demand. The unemployment hazard rate estimation using household data suggested that unemployed homeowners were less likely to find jobs in areas where the local labor demand is weak. They show that the positive relationship between homeownership and unemployment duration came from distressed regions. They found that compared to renter's post-unemployment wages of homeowners were smaller for local job offers, consistent with the predictions of their model.

Guler and Taskin (2018), analysis is closet to Head and Lloyd-Ellis (2012) and Rupert and Wasmer (2012). Head and Lloyd-Ellis (2012) analyzed the relationship between geographical mobility, ownership, and unemployment by explicitly modeling the housing (owner-renter) and labor (employed-unemployed) choices of individuals. They found that owners are more likely to be unemployed, but the aggregate effect ownership on unemployment under plausible parametrization of the U.S. economy was not quantitatively significant. They argue that one needs higher average unemployment rates and higher mobility for this effect to be quantitatively larger.

Ultimately, Guler and Taskin (2018,) found that as the local labor market weakens, homeowners become less likely to find jobs than renters. With a calibrated model, they showed that although the quantitative effects of housing frictions are small, they might have a stronger amplification effect when the unemployment rate increases during a recession.

Farber (2012) and others, argue homeownership did not have a strong impact on the rising unemployment rates during the Great Recession. Farber provides one potential explanation that is consistent with lower mobility and with difficulty of unemployed job losers to find new jobs is the Great Recession was geographically quite broad-based, so that mobility was (and remains) not particularly productive for the unemployed. Simply put, that there may not be places with jobs to which to move so that the unemployed tend to stay put, which suggests that deficient demand is more likely than structural (geographic) mismatch as an important explanation for persistent unemployment (Farber 2012).

2.3.6 Interest Rates

The relationship between interest rates and homeownership rates is an intriguing one. Chamber, Garriga & Schlagenhauf (2009), posed the question as to why lower mortgage interest rates are not the reason why homeownership rates increase. Lower mortgage rates allow homeowners to face smaller mortgage payments, thus making homeownership more potentially affordable. Lower mortgage rates do not necessarily result in more homeownership if these households are borrowing constrained because of the lack of the down payment.

Painter and Redfearn (2002) examined the role of interest rates in influencing long-run homeownership rates and found that interest rates play a little direct role in changing homeownership rates. While changes in interest rates may affect the timing of changes in tenure status from renter to owner, the long-run ownership rate appears independent of interest rates. They found housing starts are, however, sensitive to changes in the interest rate. This implies that housing supply, or at least the timing of changes in housing supply, is sensitive to interest rates.

Moreover, research has shown that non-white homeowners end up paying higher interest rates on their mortgages than their white counterparts (Charles 2003; Yinger, 1995). There is much debate as to whether this is systemic and deliberate. However, it does contribute to furthering the economic, race and class divide within the United States.

2.3.7 Debt-Student Loan

Conventional wisdom and underwriting criteria stipulate a lower the debt to income ratio is a major component in mortgage financing approval. Thus, along with increasing credit card debt, student loans have been a larger deterrent for many in securing a home.

With that said, increasing costs of obtaining a higher education with student loans has had a detrimental effect on debt to income ratios when attempting to finance a home. Research has shown, the amount of student loan debt has increased dramatically and likely contributed to a decline in the homeownership rate, especially for those who accumulated student debt but then did not graduate with a BA degree (Goodman and Mayer, 2018). From 2005 to 2015, the number of borrowers with student loan debt increased from 24.0 million to 45.3 million and the student loan debt balances grew from $378 billion to $1.9 trillion, according to the Federal Reserve Bank of New York's Consumer Credit Panel. However, 41 percent of those starting college fail to complete their degree within 6 years. Gicheva and Thompson (2015) and Allison (2015) also found student loan debt is primarily and issue for those who do not receive their degree. For those who graduate, higher-income offsets the impact of the debt and there is no net effect on homeownership (Goodman and Mayer, 2018).

2.3.8 Theoretical Overview

A review of theoretical and empirical studies regarding the evolution of housing tenure depicts outcomes of concerning socio-economic trends for hundreds of years. Friedrich Engels' central point with "The Housing Question" was that the revolutionary class of the proletariat cannot be replaced by a policy of reforms, because "it is not that the solution of the housing question simultaneously solves the social question, but that only by the abolition of the capitalist mode of production, is the solution of the housing question made possible" (Engels, 1873, para. 2).

The absence of clear private property rights as in many developing countries, is seen as one of the greatest of all institutional barriers to economic development and the improvement of human welfare (Harvey, 2005). Therefore, a nation with most of its citizens with no property rights, no homeownership, no reasonable and sound mechanism to build wealth for its citizens and their heirs has and will lead societies to a feudal system. Some argue the United States is regressing to this unequal feudalistic society now.

Moreover, Hudson (2017) theorizes the U.S. government was complicit in facilitating a means to hasten inequality through quantitative easing after the Great Recession. Hudson states:

> "Quantitative easing thus was a policy to save only the banks and bondholders, not the economy at large. The effect since 2008 has been to sharply increase the power of the One Percent over the rest of the economy. In the United States, 95% of the population has seen its real income and net worth decline during 2008-2016, despite the soaring

> stock and bond markets. And while real estate hedge funds such as Blackstone[2] have made a killing by buying up foreclosed properties, homeownership rates have fallen back from 69% to 63.5%. The decline has been especially sharp for blacks, who were the major victims of junk-mortgage loans, and for individuals under 35 years old, who cannot afford to buy homes, as long as they remain saddled with student debts and other obligations in the face of a falling-wage economy. The "easing" in Quantitative Easing has thus been only for the top of the economic pyramid" (p. 191).

The growing wealth and income inequality in the U.S. have been well documented and studied. Many scholars argue unregulated capitalism is the main driver of this inequality. To remain a capitalist, some surplus must be reinvested to make even more surplus. The politics of capitalism are affected by the perpetual need to find more profitable terrains for capital surplus production and absorption (Harvey, 2008).

Capitalists such as hedge funds investors have used their surplus capital to acquire single-family residential property as asset commodities to add to their portfolios and turn them into rentals to create continuous net cash flow income. The impact of capital investor acquisitions in the single-family residential home market has essentially led to increased home prices and decreased opportunities for lower-to middle-income households.

[2] Blackstone is an American multinational private equity, alternative asset management and financial services firm based in New York City. As the largest alternative investment firm in the world, Blackstone specializes in private equity, credit and hedge fund investment strategies.

Engels in the nineteenth century offered perceptive critiques to the urban personas then emerging in response to rapid urbanization (Harvey, 2008). In addressing the "Housing Question" during the rebuilding of central Paris, Engels pointed out in 1872:

> "The bourgeoisie has only one method of solving the housing question after its fashion- that is to say of solving it in such a way that the solution perpetually renews the question anew. This I mean, the practice that has now become general of making breaches in the working-class quarters of our big towns, and particularly in areas which are centrally situated, quite apart from whether this is done from considerations of public health or for beautifying the town, or owing to traffic requirements, such as the laying down of railways, streets (which sometimes seem to have the aim of making barricade fighting more difficult)…No matter different the reasons may be, the result is always the same; the scandalous alleys disappear to the accompaniment of lavish self-praise by the bourgeoisie on account of this tremendous success, but they appear again immediately somewhere else….The breeding places of disease, the infamous holes and cellars in which the capitalist mode of production confines our workers night after night, are not abolished; they are merely shifted elsewhere! The same economic necessity that produced them in the first place, produces them in the next place (as cited in Harvey, 2008, p.10)."

Harvey (2008) explains it took more than a hundred years to complete the embourgeoisement of central Paris, with the consequences of uprisings and mayhem in those isolated suburbs of Paris within which the marginalized immigrants and the unemployed workers and youth are increasingly trapped. "The sad point here, of course, is this process Engels described recurs again and again in capitalist urban history (Harvey, 2008 p. 10)."

2.4 Demographic Impediments of Homeownership for African Americans

2.4.1 Income and Educational Attainment

The consensus is the higher the household income and or educational attainment, there is the likelihood of higher homeownership. Thus, an individual with a higher level of educational attainment will often have a better job with a higher salary. A higher-income provides an individual with the funds to cover the initial costs incurred through home buying. Also, an individual with more education often saves more of his income, which creates the capital and wealth to secure a loan. Therefore, one will have a greater ability to be approved for a mortgage. Due to this link between education, income and savings, and individual's educational attainment will influence homeownership (Hood, 1999).

Schuetz (2017) found by income and educational attainment, new homeowners are much more similar to established homeowners than they are to renters. The median income of new homeowners ($69,000) was nearly double that of renters ($34,000); new homeowners had completed more education than most renters, with nearly 40 percent of owners having a college degree, compared to 26 percent of renters. Also, in terms of income, Fuller (2005) found that households in the bottom 20 percent of income have a homeownership rate of 30 percent nationally, while those in the top 20 percent have a homeownership rate of 87 percent (Schuetz, 2017).

However, the caveat to the consensus where higher income and educational attainment have a higher the likelihood of homeownership is race. With similar and or higher income

and educational attainment for black households, the black homeownership rate remains at a much lower level than their white counterparts nationally.

2.4.2 Age and Household Formation

Demographers and economists view age as the primary factor associated with household formation and homeownership attainment. Transitions from one stage in the life to another often provide the impetus for relocation and housing change (Clark and Dielenman, 1996). Gabriel and Rosenthal (2015) examined the change in the homeownership rate in 2000, 2005 and 2009. They found the changes in headship[3] (household formation) rates and access to homeownership among young households drove the changes in homeownership during those years.

With regards to racial difference and headship, the study conducted for the U.S. Department of Housing and Urban Development, *Homeownership Gaps Among Low-Income and Minority Borrowers and Neighborhoods* (2005) found that black and Hispanic homeownership rates are sensitive to differences in headship behavior relative to white individuals, although primarily only for individuals in their 20s, 30s and 40s. The study concludes, among blacks, headship rates for these age groups are higher than among white individuals, and that difference serves to narrow the observed white-black gap in homeownership

[3] The census defines both households and household heads. Each household has a single head as identified by the census, and each head belongs to a household. A household includes all individuals living in a given housing unit, and it may consist of a single individual, a family or a group of unrelated individuals. The number of households is therefore equal to the total number of occupied housing units except for group-living units (e.g., prison, dormitories, nursing homes, etc.), which are excluded from the count of housing units (Haurin and Rosenthal (2007).

rates by roughly three percentage points. Interestingly, the study found among Hispanics, headship rates for those under 40 are lower than among white individuals, and that difference serves to widen the observed white-Hispanic gap in homeownership rates. Moreover, controlling for headship behavior, white-black homeownership gaps are somewhat more severe than previously recognized, while the reverse is true for white-Hispanic gaps in homeownership (Herbert et. al., 2005).

2.4.3 Family Structure

In *The Housing Bubble and the Evolution of the Homeownership Gap*, Oberg (2015) asserts that by far, the largest contributor to homeownership is family structure, particularly marital status. Oberg explains this is one of the few things statistically significant and it is strongly so. Even a substantial and statistically significant contribution by geography does not offset the family structure contribution.

Oberg contends that family structure may have contributed to the divergence in the homeownership gap in a couple of ways. Financial difficulty for non-whites may trigger the dissolution of marriages (or amplify existing difficulties), leading to lower homeownership. This could be compounded if the financial stability which results from marriage is especially important for non-whites.

The effect of family structure may not just be due to the dissolution of marriages, but also their prevention. One such argument could be Wilson's (1987) well-known claimed that the on-going process of deindustrialization has caused a retreat from the traditional family, with the

greatest impact on urban minorities. This disproportionate impact could make minority men "unmarriageable." Those men who are still "marriageable" may choose to "hold out" for a very strong prospect. If this is the case, it appears not even the effect of the improved relative employment of non-whites helped offset it.

Moreover, minority homeownership rates were hit much harder by the collapse of the housing market. Almost all the divergence in homeownership rates during the crash is largely attributable to observable characteristics which contribute to the divergence, particularly family structure. Surprisingly, divergence also occurred during the boom period. This is despite the contribution of many factors aiding convergence in the homeownership gap. Again, the most economically and at the time statistically as a well-significant factor promoting the divergence was family structure: differences in marriage rates themselves and how these differences translate into homeownership (Oberg 2015).

Further, in *Homeownership Among Millennials: The Deferred American Dream*, the authors explain how several studies have shown a relationship between marital formation or dissolution and housing decisions (Flowerdew & Al-Hamad, 2004), Greinstein-Weiss et al., 2011; Mulder, 2006; Rindfuass & Brauner-Otto; 2008). First-time homeownership is more likely among individuals who form households or families (Drew, 2015; Flowerdew Almad, 2014; Holland, 2012). This finding is largely explained by the preference of couples to have a more stable living situation compared to singles, reflecting their commitment to a long-term relationship (Clark & Huang, 2003; Grinstein-Weiss et al., 2011). Some evidence shows dual incomes to be an explanatory factor- greater resources make homeownership more affordable and accessible (Hendershott, Ong, Wood, Flatau, 2009).

Equally, in *In Homeownership Among Millennials: The Deferred American Dream*, the authors found how studies have shown an association between homeownership and marital stability, with homeownership reducing the risk of divorce among couples (Jalovaara, 2001; Lauster, 2008). This is because a couple's investment in a home purchase creates a greater commitment to the marriage as well as the financial stability that goes along with marriage (Hendershott et al., 2009; Holland, 2012; Lauster, 2008). A study in Great Britain showed that homeownership reduced the risk of divorce (Murphy, 1985). Separation was found to be negatively associated with homeownership (Lersch & Vidal, 2014). A study of Swedish couples found the risk of separation was reduced among couples who had better financial access to housing, but couple stability increased when there was a greater supply of detached single-family houses (Lauster, 2008).

Overall, it is found that being married is a critical determinant of homeownership. Married households typically have higher household incomes and more financial assets, which strengthens underwriting criteria (Choi et al., 2019). But black households are more than 50 percent less likely to be married. Whether this is partially because of individual preferences, studies find that structural factors, such as economic instability and high incarceration rates among black men, have depressed marriage rates (Raley and Ba 2009; Raley, Sweeney, and Wondra, 2015). Choi et. al. (2019) explains if black households were married at the same rate as white households, holding constant homeownership rates in each category of marital status, the black homeownership rate would 9 points higher.

2.4.4 Gender – Single Men vs. Single Women

There has been the traditional theory that because men generally have higher incomes than women and most likely, never leave the workforce for such expected events as childbearing and rearing, therefore maintaining a certain level of income, they are more likely to secure a mortgage and more willing to commit to homeownership, Hood (1999). However, in terms of single men and single women, the traditional notions of past archetypes are diminishing. With that said, the number of non-married women has been on the rise for decades, where homeownership is concerned. Non-married women are among the fastest-growing segment of first-time homebuyers (Martin, 2010). Similarly, in a recent study, single women have been found to have a higher ownership rate than men according to a 2020 study conducted by Tendayi Kapfidze, the chief economist of Lending Tree, one of the nation's leading online loan marketplaces. Kapfidze found in total, single women own more than 1.5 million more homes than single men do in America's 50 largest metros. Moreover, there is not a single metro area where single men own more homes than single women (Kapfidze, 2020).

Even though studies show that homeownership among women is growing especially for non-married women, minority women, because of their dual-minority group status, may not fare as well as their white counterparts (Martin, 2010). Previously, Allen's (2002) study on non-married women and homeownership examines this intersection of race and gender. Allen ascertains that even though the sociological literature on non-married, non-white women in the U.S. has focused upon socio-economic indicators such as income, poverty, unemployment, labor force participation, family structure, and education;

although these factors are important, homeownership is a key measure for understanding race and gender inequality, (Allen, 2002).

2.4.5 Race Matters

Is it race or racism? Even though a Housing and Urban Development report contends race discrimination continues to play a major role in homeownership (Herbert et al., 2005), some scholars have competing viewpoints. Notably, Gyourko and Linneman (1995) found that race discrimination was not the cause of the homeownership outcome. Rather, the cause is more likely associated with the increasing cost of housing (due to large down payments, fees and zoning) and the inability of black households to meet the wealth constraint. Gyourko and Linneman argues this is related to the lack of intergenerational wealth transfers from their parents, transfers to which white households with similar characteristics may have access. Basically, suburban land-use policies have raised the cost of homeownership and disproportionately punished members of the middle class whose parents cannot transfer wealth for down payments. Choi et al. (2018) agree that whites are more apt to rely on intergeneration wealth transfers or gain information on accessing homeownership via family and neighborhood networks than similarly situated black people. Similarly, Charles and Hurst (2002) point to smaller down-payment assistance from relatives and a higher likelihood of mortgage rejection as additional factors that contribute to lower homeownership rates for blacks, but still find a significant gap in the willingness of blacks to apply for a mortgage relative to whites. Haurin, Herbert, and Rosenthal (2007) suggested other additional factors may also play a role in the homeownership gap, including higher income volatility for blacks, lower family wealth, and differences in the neighborhoods where blacks are more likely to live. Bond and Eriksen (2017)

found that 65 percent of the homeownership gap between blacks and whites can be explained by adding parents' attributes like wealth and whether they were homeowners in addition to other typical demographic and income variables. Indeed, because household wealth is not accurately captured on a mortgage application, and family wealth is certainly not captured, regression results will overstate racial differences (Goodman and Mayer 2018).

Despite their findings, overall, research has shown that Blacks as a group, are disadvantaged when compared with Whites on a host of sociological indicators including on income, education, and occupational status (Avery and Rendell 2002; Denton 2001; Feagin and Vera 1995, Keister 2000, Oliver and Shapiro 1995; Shapiro 2004). Importantly, the intersection of race, family structure and gender is a critical relationship wherein, when the black race is part of the equation, the outcomes have led to lower-income, education and labor market participation.

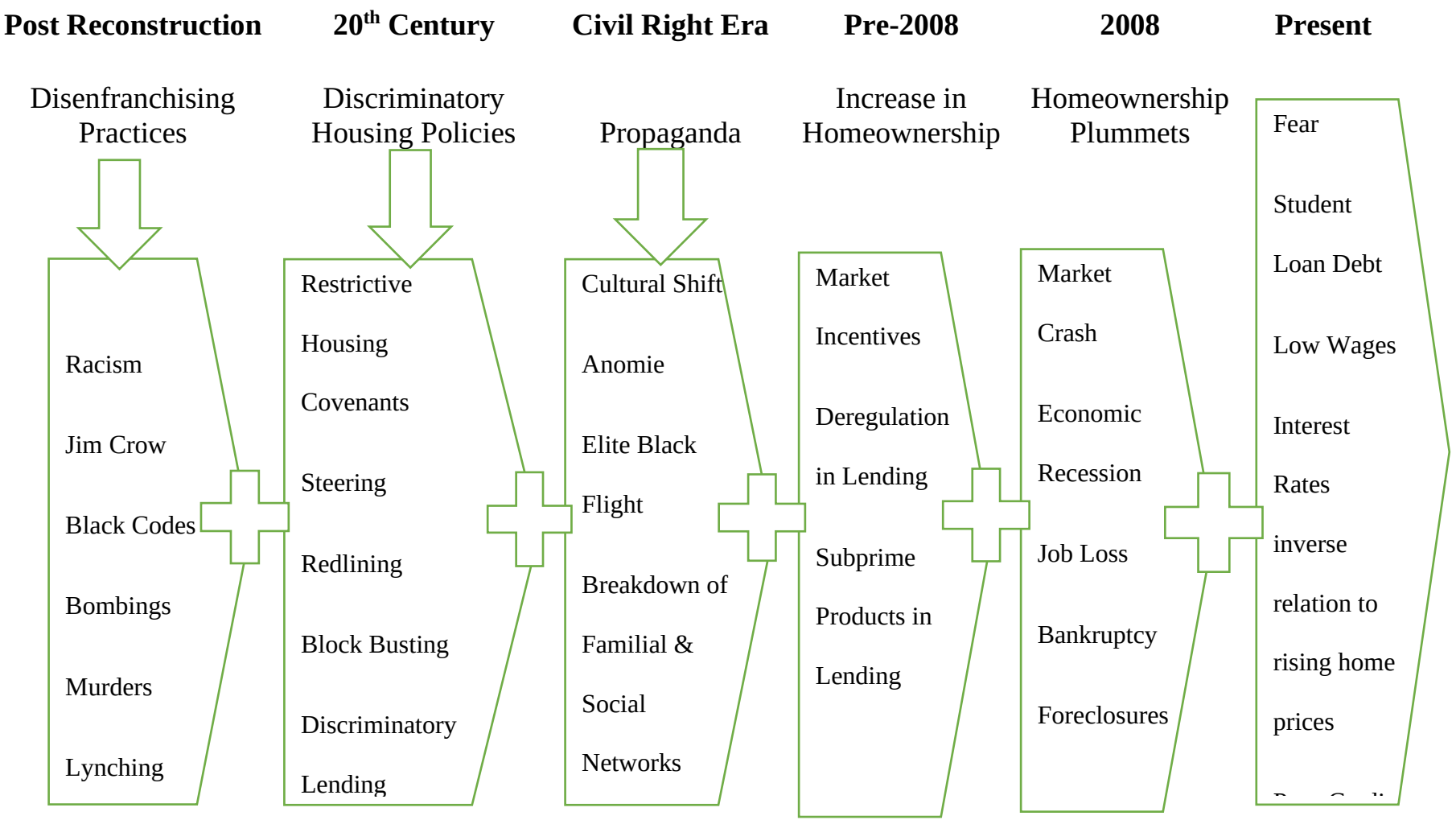
Comparatively, the one group of this intersectionality, which nationally has the lowest homeownership rate, is the single Black mother. In terms of marital status, studies show, that single Black mothers were more likely to never have been married than any other non-married category. In 2000, 65 percent of single black mothers had never been married while 17 percent were divorced, and 3 percent were widowed and 15 percent were married but no spouse present (Martin, 2010). Conversely, only 30 percent of white women were never married, 48 percent were divorced, and 4 percent were widowed. About 16 percent of single white mothers were married, but their spouse was absent (Martin, 2010). A greater proportion of single black mothers live below the poverty line than single white mothers. In fact, 44 percent of single black mothers were living below the poverty line in 2000, compared to 25 percent of single white

mothers (Sykes, 2008). As this trend continues, the outcome of single, black mothers and their children will continue to have negative social and economic outcomes.

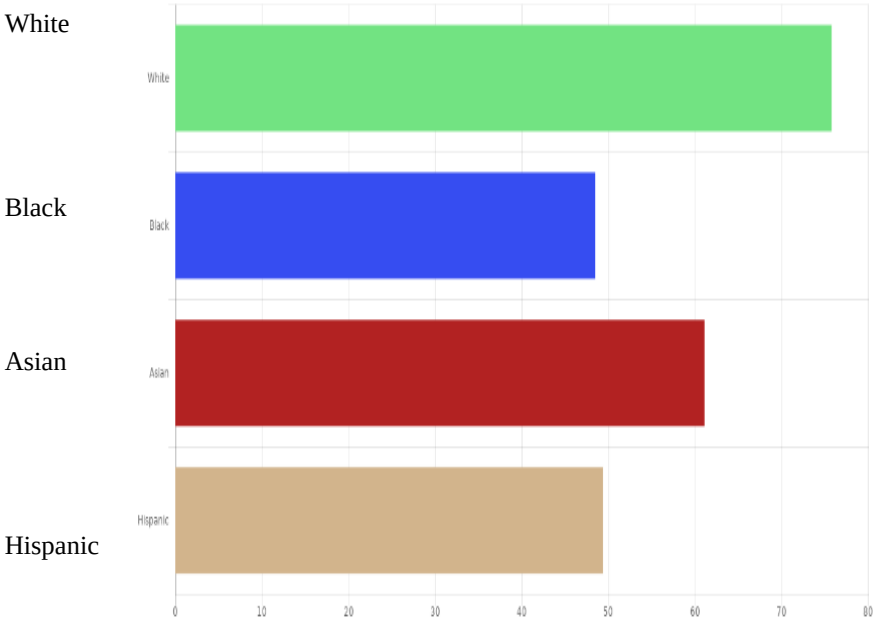
2.4.6 Theoretical Overview

Racial cumulative disadvantage for blacks in the U.S. began from the arrival of slaves in Jamestown, Virginia through Emancipation, then through the Reconstruction period, resulting in ongoing disenfranchisement of African Americans. Racialized terrorism continued into the 20th century with murders, lynchings, and bombings. In a 2019 Roland Martin News Segment, *Everybody is Making Bank Off of Black Culture* (Martin & Malveaux, 2019), Dr. Julienne Malveaux, economist and President Emerita of Bennett College for Women, argued, lynching was not about raping white women, it was about economic envy. The tenor of the times diminished African Americans' economic mobility.

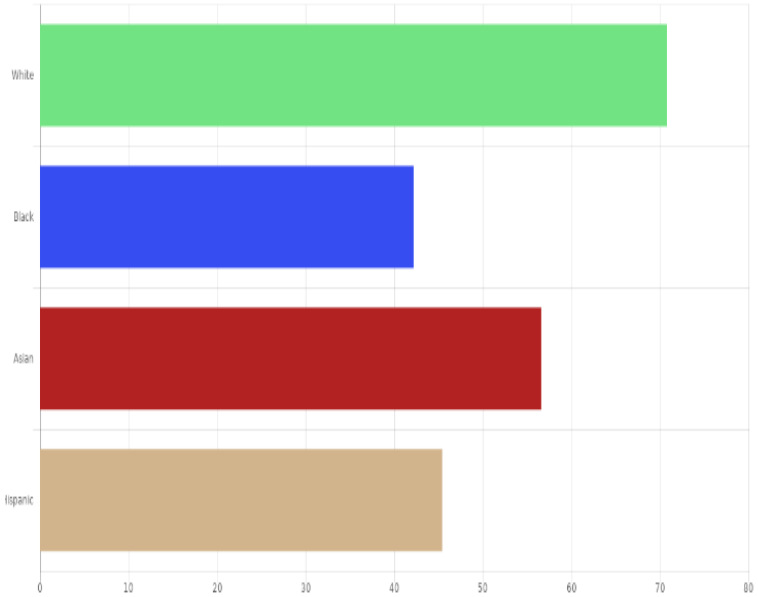
The obstacles which affected homeownership for African Americans were not only socially constructed but also mandated by a policy with discriminatory exclusionary zoning, deceitful housing contracts and racially segregated land use. In addition to racially restrictive covenants, redlining, blockbusting and steering people away from specific neighborhoods were all coordinated attempts to keep people of color segregated from white communities. As inequality for African Americans was socially and economically engineered for centuries, it ultimately has a considerable impact on their past and current levels of homeownership. Cumulative years of disenfranchising practices have prevented sustainable homeownership for African Americans as diagramed below.


Post Reconstruction
20th Century
Civil Right Era
Pre-2008
2008
Present
Disenfranchising Practices
Discriminatory Housing Policies
Propaganda
Increase in Homeownership
Homeownership Plummets
Racism
Jim Crow
Black Codes
Bombings
Murders
Lynching
Restrictive Housing Covenants
Steering
Redlining
Block Busting
Discriminatory Lending
Cultural Shift
Anomie
Elite Black Flight
Breakdown of Familial & Social Networks
Market Incentives
Deregulation in Lending
Subprime Products in Lending
Market Crash
Economic Recession
Job Loss
Bankruptcy
Foreclosures
Fear
Student Loan Debt
Low Wages
Interest Rates
inverse relation to rising home prices

2005 Homeownership %



2018 Homeownership %



All homebuyers have faced a tough housing market as prices rise and affordability declines. Larger shares of black and Hispanic buyers had to surmount other obstacles such as lower incomes, more student debt and mortgage approval troubles, beyond what their white counterparts faced, according to the National Association of Realtor data. The result? Nationally, homeownership rates of black and Hispanic buyers remain far below that of non-Hispanic whites, with black homeownership suffering the most since the Great Recession (USA Today, Nov. 14, 2018).

3 Methodology

This chapter explains how the research is to be conducted in detail regarding the impact of socioeconomics on homeownership rates in DFW in the past decade, with a focus on African Americans. As African American homeownership rates have shown a decline, at this same time, many middle- and lower-income households have been losing the homeownership battle as well. The gap in research has shown a lack of in-depth regional analysis to help address this issue. It is the intention of this study to fill this gap for the DFW region. This chapter will start with providing the data sources for which the study will utilize and then defining the study area and units of analysis. Next, the chapter will provide the construction of the multivariate regressions model to test.

3.1 Data Sources

As stated previously, the research will analyze homeownership rates between 2008-2018. In addition, to provide a better historical context, it will also provide broader historical data from the 1900s to the present in terms of homeownership. Therefore, the study will utilize two major data sources: The North Texas Real Estate Information Systems (NTREIS) and the U.S. Census Bureau using SimplyAnalytics.

3.1.1 North Texas Real Estate Information Systems

The North Texas Real Estate Information System (NTREIS) is a real estate information and technology solution provider serving the real estate community in a coverage area exceeding 48,000 square miles in North Texas, including the Dallas Fort Worth Metropolitan Area (NTREIS, 2018). It provides an exhaustive amount of real estate data for North Texas, including home sales, mortgage, listing data, distressed property data, certified tax data, and overall real

estate statistics and trends. NTREIS can narrow down to the parcel and lot level of homes. However, due to fair lending laws, there is no personal demographic information nor aggregate racial information linked to the data. This data source will provide spatial agglomeration of data at each level of analysis. NTREIS has an integration Geographic Information System (GIS) built into its primary system, thereby allowing this research to provide a more spatially and graphically informative analysis.

3.1.2 SimplyAnalytics

SimplyAnalytics is a mapping, data visualization, spatial analysis GIS application. It provides socio-economic, transportation, housing, consumer behavior, health, crime, quality of life, weather, technology, finance and business data where one can apply data variables down to the granular block level group. Their back-end databases utilize data sets from various origins including the U.S. Census for which much of this study will operate from using the socioeconomics and housing data.

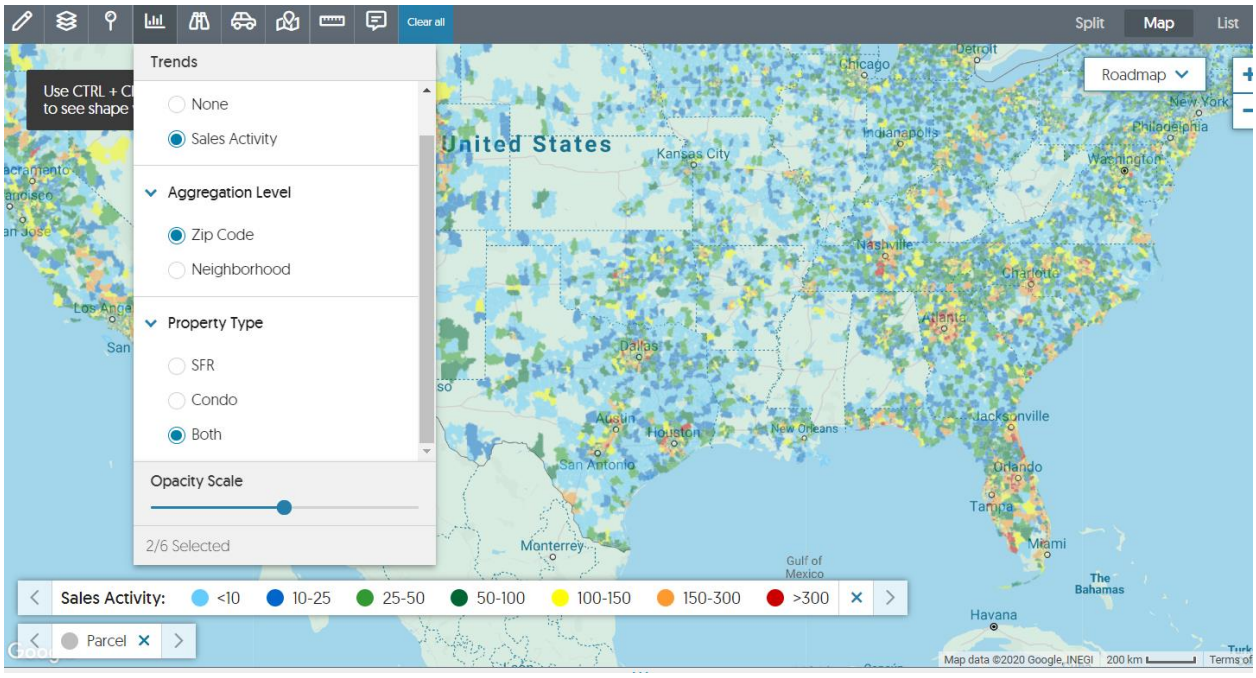
3.1.3 U.S. Census Bureau Surveys

Many relevant studies about the impact of demographics on homeownership use household-level data from the U.S. Census, use the American Housing Survey (AHS), and use the American Community Survey (ACS) to complement their research. The census of population and housing is taken every 10 years and is called a complete census count, with its aim is to reach every household in the country. The census provides information down to the smallest geographic level called a census block. The most cited measure of homeownership comes from the Current Population Survey (CPS), as reported by the U.S. Census Bureau. However, many studies choose to use data from the (AHS), which is a nationally representative longitudinal survey conducted every two years. The AHS data closely mirrors the CPS data in

overlapping, but the AHS provides additional detail on households and housing units (Goodman and Mayer, 2018).

3.2 Study Area and Unit of Analysis

The study area for this study will be conducted on the counties of Dallas, Tarrant, Collin and Denton versus a nationwide analysis that is traditionally researched. Figures 3.1 to 3.4 illustrates the concentration of homes sold in the United States narrowing down to the North Texas Region counties. The concentrations are darker as sales activity increase at the zip code level for both single family residences and condominiums sold within the past three months from the date of this study. I am using these maps to illustrate the variety and differences within the United States down to the regional level, furthering my argument to conduct a more succinct level of analysis.



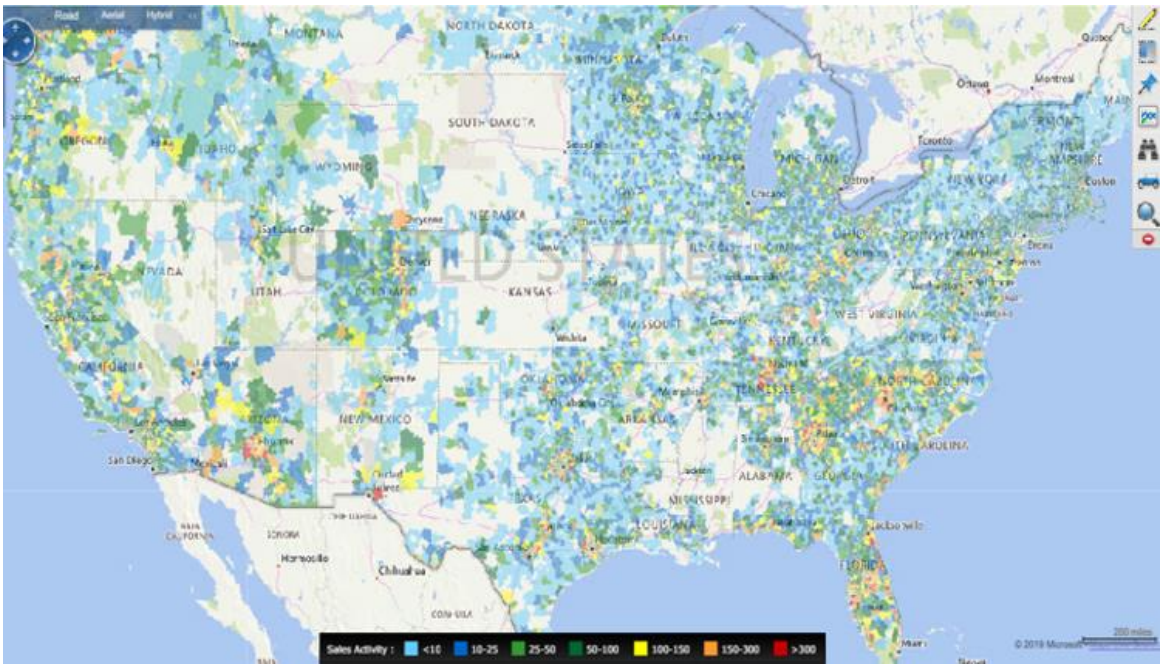


Figure 3-1 Nation's Concentration of Sales at the Zip Code Level for SFR and Condos

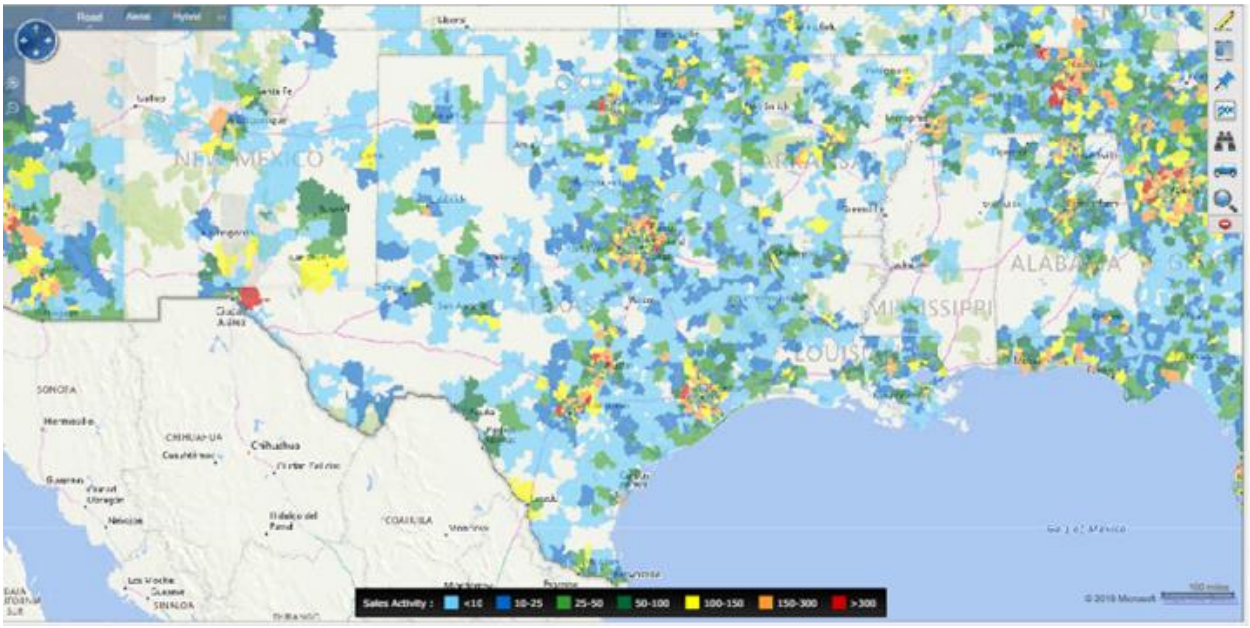


Figure 3-2 Texas and Surrounding States' Concentration of Sales at the Zip Code Level for SFR and Condos

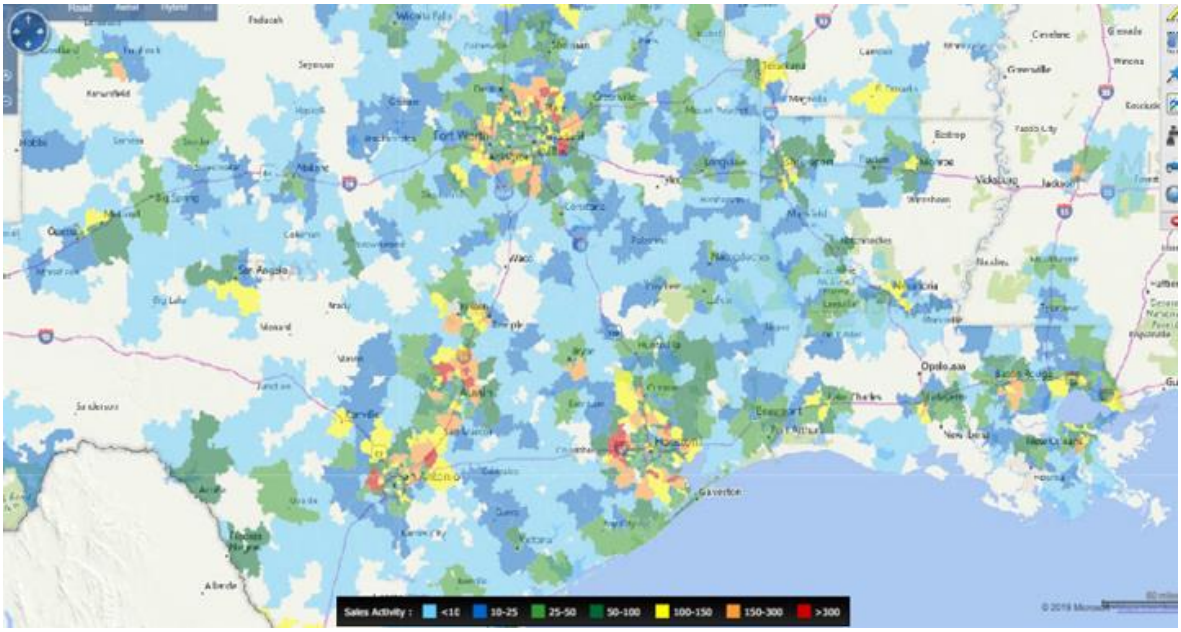


Figure 3-3 Major Texas Metropolitan Areas' Concentration of Sales at the Zip Code Level for SFR and Condos

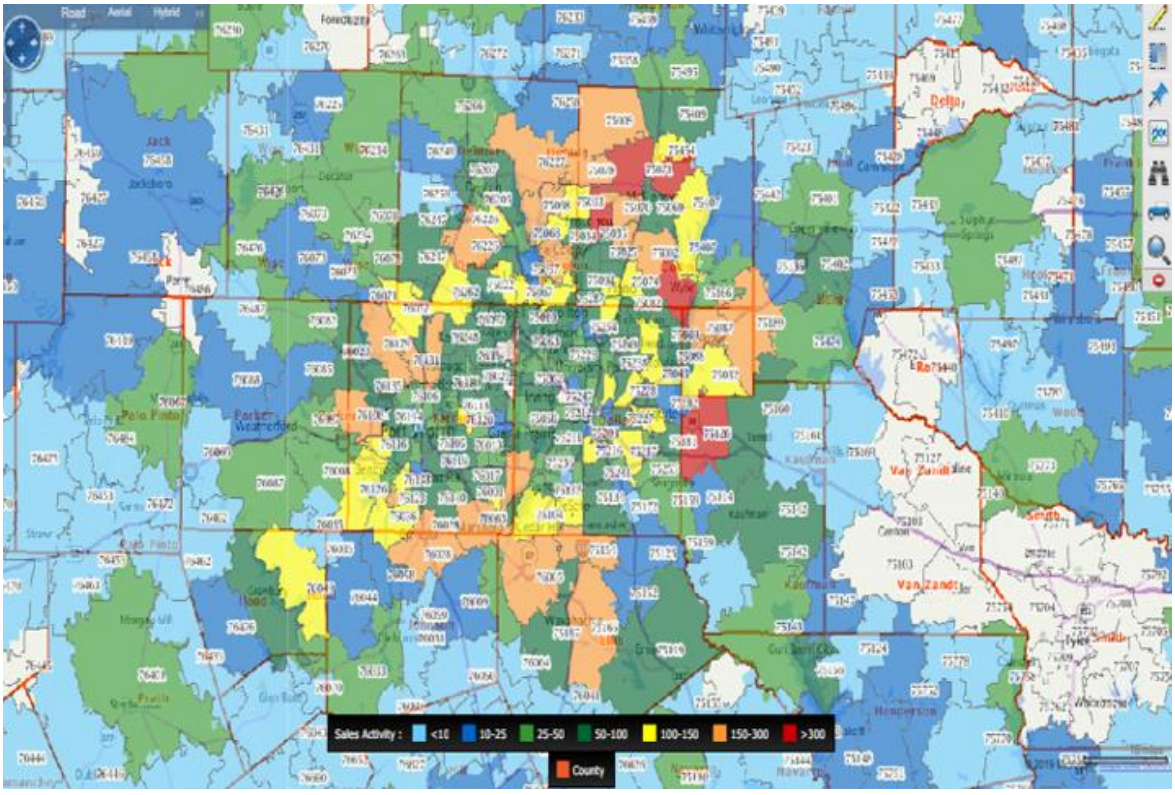
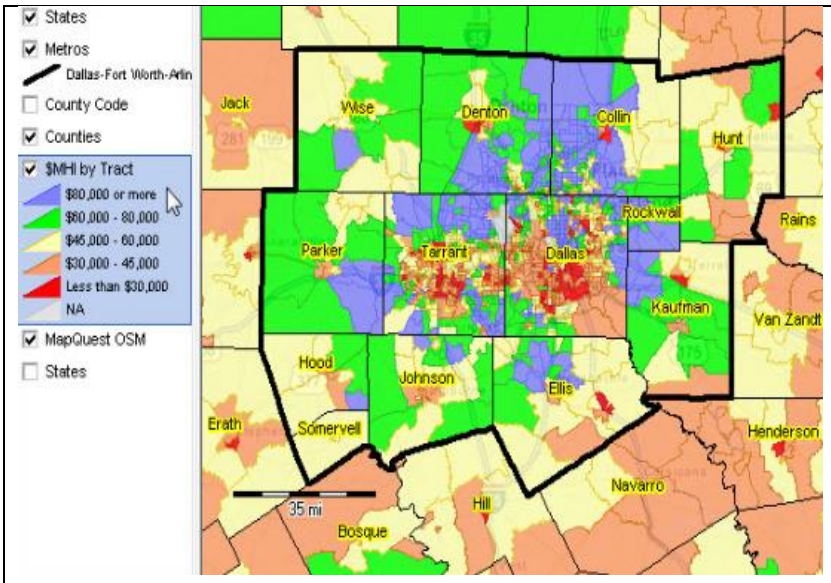


Figure 3-4 North Texas' Concentration of Sales at the Zip Code Level for SFR and Condos

The Dallas Fort Worth MSA contains the counties of Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Somervell, Tarrant & Wise counties as shown below. This study will analyze the larger counties with a population of over 800,000, which are Dallas, Tarrant, Collin, and Denton. As the data shows in Figure 3.5, the remaining counties of Ellis, Johnson, Parker, Kaufman, Rockwall, Hunt, Wise, Hood, and Somervell are considerably less populated. All are under 200,000. Also, these are more rural counties with higher homeownership rates and research concludes rural areas tend to have higher homeownership rates than urban areas.



DFW MSA Counties	Population
Dallas County, TX	2,636,716
Tarrant County, TX	2,091,073
Collin County, TX	1,013,081
Denton County, TX	867,686
Ellis County, TX	181,306
Johnson County, TX	172,983
Parker County, TX	140,032
Kaufman County, TX	130,324
Rockwall County, TX	101,926
Hunt County, TX	97,367
Wise County, TX	69,093
Hood County, TX	61,306
Somervell County, TX	9,095

Figure 3-5 DFW MSA Outline

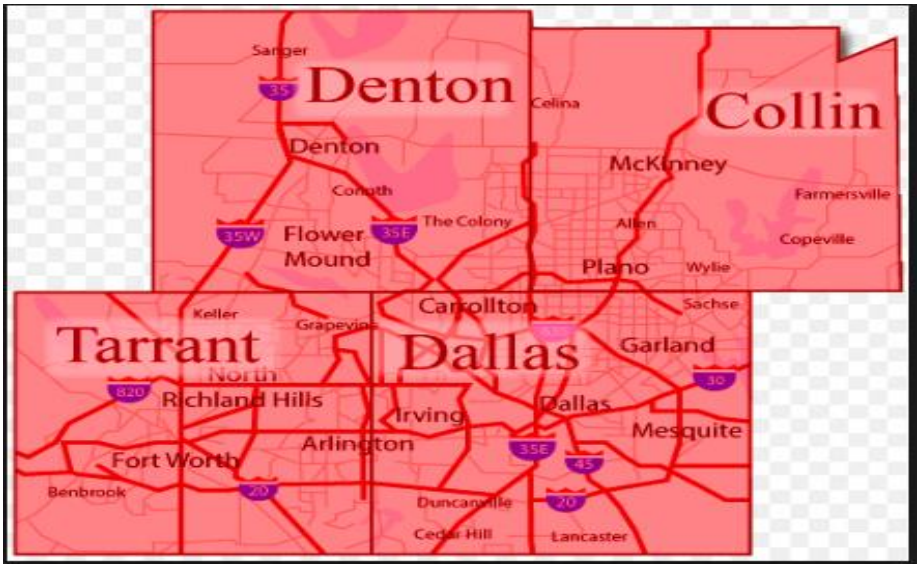


Figure 3-6 Area of Research Counties of Dallas, Tarrant, Collin & Denton

The unit of analysis for the regressions will be block groups for the year of 2019. Also, the study will conduct descriptive analysis for counties and cities. Categorization and ranking the counties and cities will demonstrate the strengths and weaknessesses among the areas. But to avoid the possibility of interpreting skewed data from larger or smaller areas, analysis will also be conducted at the zip code level. With targeting the disparate areas, municipalties can utilize federal funding promoting homeownership through Community Block Grants and various other funding mechanisms.

3.3 Research Design

Because there are several determinants for the dependent variable (homeownership), the method of multiple regression analysis will be implemented to specify how the predictor demographic variables influence homeownership rate. A multiple regression equation describes the extent of linear relationships between the dependent variable and a number of independent or control variables. Researchers use equations to determine the extent of these relationships. Just as the partial correlation coefficient measures the effect of one independent variable on the

dependent variable while controlling for another, the multiple regression coefficients measure the amount of the change in the dependent variable with one unit change in the independent variable while controlling for all other variables in the equation (Franfort-Nachmias and Nachmias, 2000).

For research, where the concern is over notions of change, predication, and causality, regression analysis is the most suitable and effective technique. The regression model is the major technique for testing impact models in which some of the policy variables (or independent variables) would not only bring about a change in the target variable (or dependent variable) but would also affect other policy variables (Nachmias, 1979).

` This research will utilize multiple regression to explain black and overall homeownership rate outcomes in the research area by demographics categories of race, age, education levels, family structure and income levels. Homeownership rate is defined by the U.S. Census as the overall proportion of households that are owners and is computed by dividing the number of households that are owners by the total number of occupied households.

3.3.1 Definitions

Variable	Code	Definition	Variable Type	Source
Homeownership Rate	HomeownershipRate	The overall proportion of households that are owners. It is computed by dividing the number of households that are owners by the total number of occupied households.	Dependent	Census Bureau
White Homeownership Rate	WhiteHomeownershipRate	Occupied Housing Tenure by Race reported at White. The proportion of white households are owners. It is computed by dividing the number of households that are owners by the total number of occupied households.	Dependent	Census Bureau
Black Homeownership Rate	BlackHomeownershipRate	Occupied Housing Tenure by Race reported as Black. The proportion of black households are owners. It is computed by dividing the number of households that are owners by the total number of occupied households.	Dependent	Census Bureau
Age	AGE_25_34	% Household Head is between the ages of 25 and 34	Independent	Census Bureau
Age	AGE_35-44	% Household Head is between the ages of 35 and 44	Independent	Census Bureau
Age	AGE_45-54	% Household Head is between the ages of 45 and 54	Independent	Census Bureau
Age	AGE_55-64	% Household Head is between the ages of 55 and 64	Independent	Census Bureau

Age	AGE_65-74	% Household Head is between the ages of 65 and 74	Independent	Census Bureau
Age	AGE_75_84	% Household Head is between the ages of 75 and 84	Independent	Census Bureau
Age	AGE_85plus	% Household Head is age 85 or older	Independent	Census Bureau
Race/Ethnicity White	White	% Household Head who report their race as “White” but do not have any "Hispanic," "Spanish," "Latino," origins.	Independent	
Race/Ethnicity Black	Black	% Household Head who report their race as “Black” but do not have any "Hispanic," "Spanish," "Latino," origins.	Independent	Census Bureau
Race/Ethnicity Hispanic	Hispanic	% Household Head who indicate their race as who reported their origin as "Hispanic," "Spanish," "Latino," or other variations of Hispanic general terms without identifying a specific country of origin.	Independent	Census Bureau
Race/Ethnicity Asian	Asian	% Household Head who indicate their race as who reported their origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.	Independent	Census Bureau
Race/Ethnicity American Indian or Alaska Native	AI_AK	% Household Head who indicate their race as who reported their origins as American Indian or Alaska Native	Independent	Census Bureau

Families, Married w/ No Children Under 18	Married_No_ Children	% Families, Married w/ No Children Under 18 The householder and his or her spouse are enumerated as members of the same household with no children under 18.	Independent	Census Bureau
Families, Married w/ Children Under 18	Married_with _Children	% Families, Married w/ Children Under 18 The householder and his or her spouse are enumerated as members of the same household with one or more children under 18.	Independent	Census Bureau
Families, Male Householder, No Wife Present w/ No Children Under 18	Single_Male	% Families, Male Householder, No Wife Present w/ No Children Under 18. A family with a male maintaining a household with no wife of the householder present with no children under 18.	Independent	Census Bureau
Families, Male Householder, No Wife Present w/ Children Under 18	Single_Male_ with_Children	% Families, Male Householder, No Wife Present w/ Children Under 18. A family with a male maintaining a household with no wife of the householder present with one or more children under 18.	Independent	Census Bureau
Families, Female Householder, No Husband	Single_Femal e	% Families, Female Householder, No Wife	Independent	Census Bureau

Present w/ No Children Under 18		Present w/ No Children Under 18. A family with a female maintaining a household with no husband of the householder present with no children under 18.		
Families, Female Householder, No Husband Present w/ Children Under 18	Single_Female_with_Children	% Families, Female Householder, No Husband Present w/ Children Under 18 A family with a female maintaining a household with no wife of the householder present with one or more children under 18.	Independent	Census Bureau
Educational Attainment	EducLessHS	% Education Attainment, < High School (Pop 25+). This category includes people who are not high school graduates. These people may be referred to as "high school dropouts." However, there is no criterion regarding when they "dropped out" of school, so they may have never attended high school.	Independent	Census Bureau
Educational Attainment	EducHS	% Education Attainment, High School (Pop 25+). This category includes people whose highest degree is a high school diploma or its equivalent	Independent	Census Bureau
Educational Attainment	EducSomeCol	% Education Attainment, Some College (Pop 25+). This category includes people	Independent	Census Bureau

		whose highest degree is some college but no college degree.		
Educational Attainment	EducBachelors	% Education Attainment, Bachelor's Degree (Pop 25+). This category includes people whose highest degree is a Bachelor's Degree.	Independent	Census Bureau
Educational Attainment	EducMastersPlus	% Education Attainment, College, Master's or Doctorate Degree. This category includes people whose highest degree is either a College, Master's or Doctorate Degree.	Independent	Census Bureau
Income	Inc15k_24999	% Households w/ Income $15,000 to $24,999	Independent	Census Bureau
Income	Inc25k_34999	% Households w/ Income $25,000 to $34,999	Independent	Census Bureau
Income	Inc35k_49999	% Households w/ Income $35,000 to $49,999	Independent	Census Bureau
Income	Inc50k_74999	% Households w/ Income $50,000 to $74,999	Independent	Census Bureau
Income	Inc75K_99999	% Households w/ Income $75,000 to $99,999	Independent	Census Bureau
Income	Inc100K_124999	% Households w/ Income $100,000 to $124,999	Independent	Census Bureau
Income	Inc125k_149999	% Households w/ Income $125,000 to $149,999	Independent	Census Bureau
Income	Inc150K_199999	% Households w/ Income $150,000 to $199,999	Independent	Census Bureau
Income	Inc200kplus	% Households w/ Income $200,000 and Over	Independent	Census Bureau

3.3.2

Regression Equation

The regression and correlation model is used when both the independent and the dependent variable are measured at the interval or ratio level and the relationship described is an associative (linear) one (Lin, 1976). To answer the research question of how demographic factors impact homeownership in the 4-county research area do the following equation will be used.

Regression equation:

$$Y_t = a_1 + b_1 X_{1+} + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_{5=\epsilon t}$$

Y_t =HomeownershipRate

X_1 =age

X_2 = income

X_3 = race

X_4 = education

X_5 =family structure

ϵ_t = error term

4 Analysis

4.1 Regional Concentrations

Figure 4.1 is a representation of the U.S. where larger concentrations of black homeownership are located. The southern and eastern portions of the nation have higher concentrations of black homeownership. The highest concentrations are in what is considered the deep south. By the United States Federal standards, Texas is considered a southern state. However, colloquially it not considered the deep south.

Table 4.1 compares the black homeownership rate among the southern states from 2010 to 2019. Throughout the past decade, the rates remain steady with no increase or decrease beyond a percentage point. Topping the list with the highest black homeownership rate is Mississippi, at 19.41%. Maryland comes in second at 15.36% and Louisiana, third at 15.19%. Texas does not rank particularly high among the southern states in terms of black homeownership. Texas ranks 13th among the sixteen southern states in black homeownership.

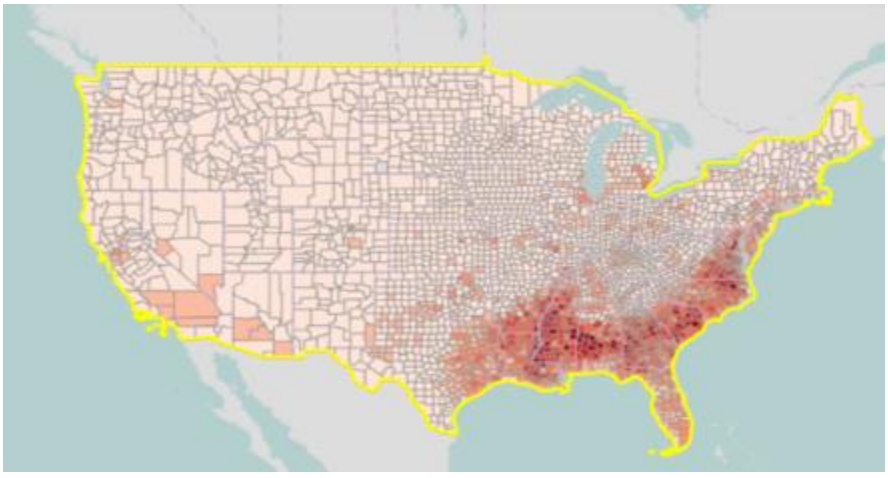


Figure 4-1 Concentration of Black Homeownership

Table 4-1 Southern States Black Homeownership Rates

Southern States Black Homeownership Rates	2010	2014	2015	2016	2017	2018	2019
Mississippi	19.50%	19.39%	19.41%	19.45%	19.48%	19.39%	19.41%
Maryland	14.99%	15.10%	15.17%	15.15%	15.29%	15.25%	15.36%
Louisiana	15.08%	15.44%	15.32%	15.20%	15.15%	15.15%	15.19%
Georgia	14.91%	14.98%	14.87%	14.87%	14.91%	14.97%	15.13%
South Carolina	14.36%	14.50%	14.50%	14.33%	14.45%	14.37%	14.36%
Alabama	13.52%	13.60%	13.60%	13.54%	13.56%	13.52%	13.55%
Delaware	10.33%	11.20%	11.40%	11.19%	11.27%	11.19%	11.22%
North Carolina	10.17%	10.23%	10.16%	10.19%	10.20%	10.22%	10.29%
Virginia	9.30%	9.30%	9.25%	9.27%	9.29%	9.29%	9.39%
Tennessee	7.43%	7.44%	7.37%	7.36%	7.35%	7.30%	7.30%
Florida	6.48%	6.45%	6.49%	6.47%	6.46%	6.47%	6.50%
Arkansas	6.67%	6.88%	6.75%	6.70%	6.68%	6.54%	6.46%
Texas	5.45%	5.44%	5.45%	5.46%	5.48%	5.51%	5.55%
Kentucky	2.95%	3.00%	3.02%	3.04%	3.06%	3.06%	3.10%
Oklahoma	3.00%	3.12%	3.08%	3.06%	3.05%	3.08%	3.08%
West Virginia	1.44%	1.49%	1.53%	1.59%	1.64%	1.66%	1.68%

4.2 Housing Market in Research Area

Figure 4.2 was produced to illustrate where the growth of home sales are occurring in the North Texas region. As land is less expensive in the outlying and more rural areas, this is where more homes sales have occurred as the map shows.

A good indicator of the housing market is a 5-6-month supply of inventory. The conventional wisdom in real estate is that a 5-6 month housing supply is considered a balanced market. However, for Dallas, Tarrant, Denton and Collin counties the market supply for all property types and price ranges began to decrease precipitously since 2011 (figure 4.3), which correlates with the recovery of the economy from the Great Recession.

The median sales prices for the past decade nearly doubled in large portions of the market share and continue to rise due to the current low supply and demand for homes in the North Texas region (figure 4-4). The median days on the market is a key indicator of such demand, wherein the height of the boom in real estate in North Texas from 2016 to 2018, median days on the market were less than 20 days (figure 4.5). During those years, many homes under $200k had a sales contract within 24 hours of its listing. In January 2015 54% of homes in the DFW MSA were priced under $200k, as of July 2020 less than 14% of homes sold were priced under $200k (see Appendix A).

However, at the current time of the production of this research the nation is under a pandemic and many key economic indicators have decreased. It is unknown how the pandemic will fully impact the economy, due to many current outbreaks and stay at home orders from public health and government officials. During this pandemic, unemployment is high and pending sales have decreased. Since, unemployment is a lagging indicator of the economy and pending contracts are a leading indicator of the economic outlook, the pandemic will have varied effects to the housing market.

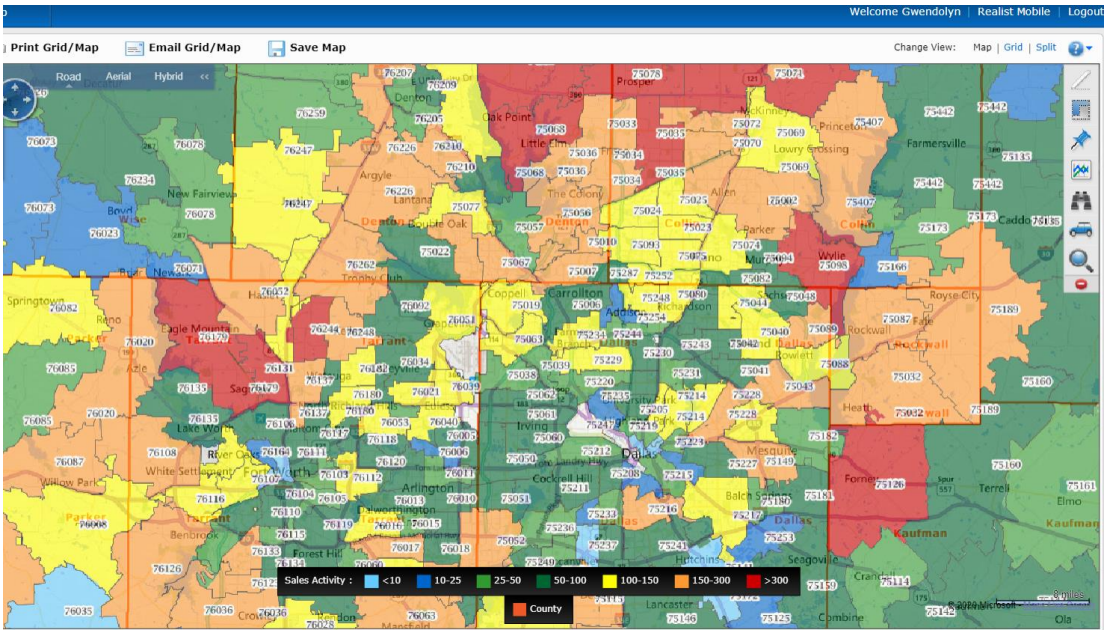


Figure 4-2 Home Sales Growth in North Texas

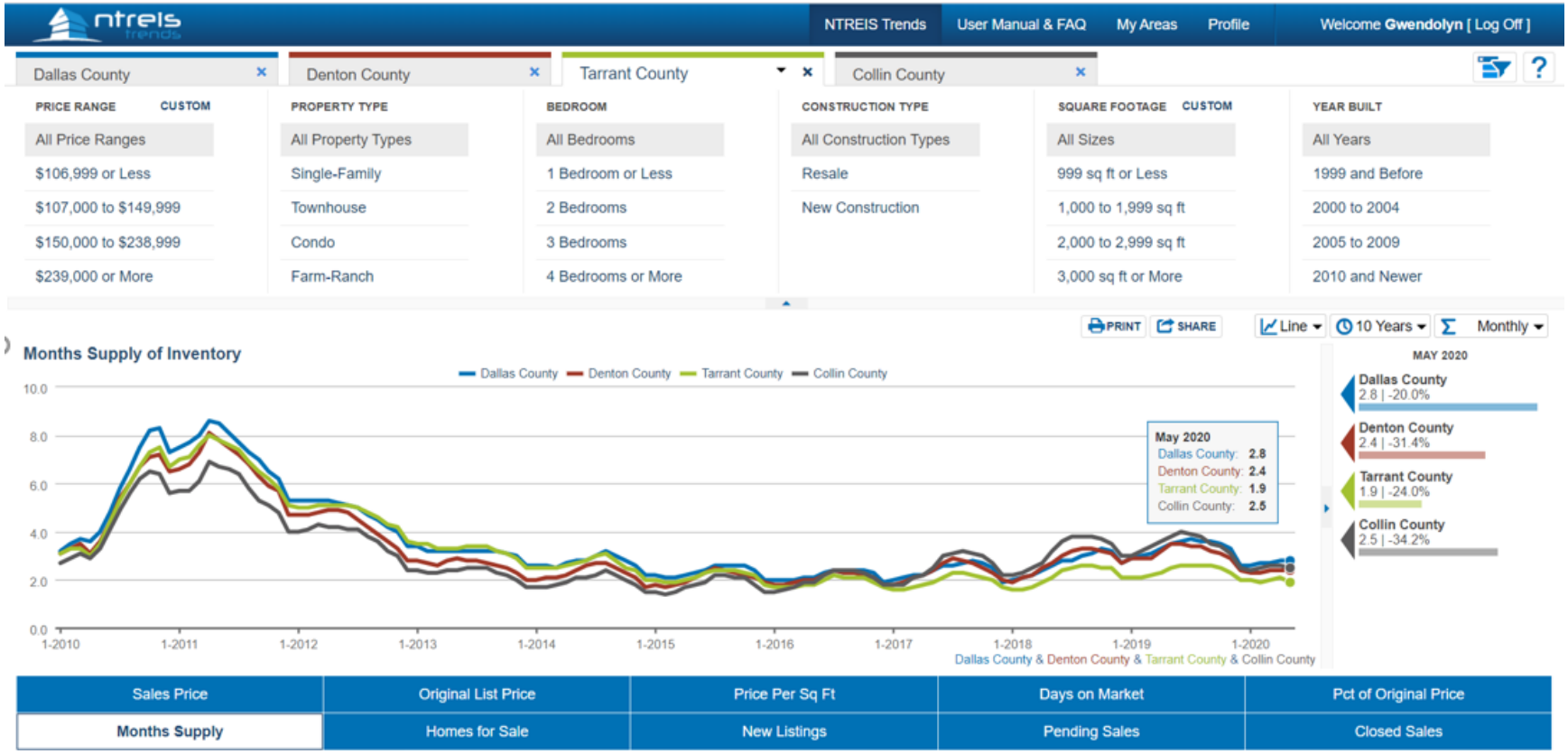


Figure 4-3 Monthly Supply of Housing Inventory in Dallas, Tarrant, Collin and Denton Counties

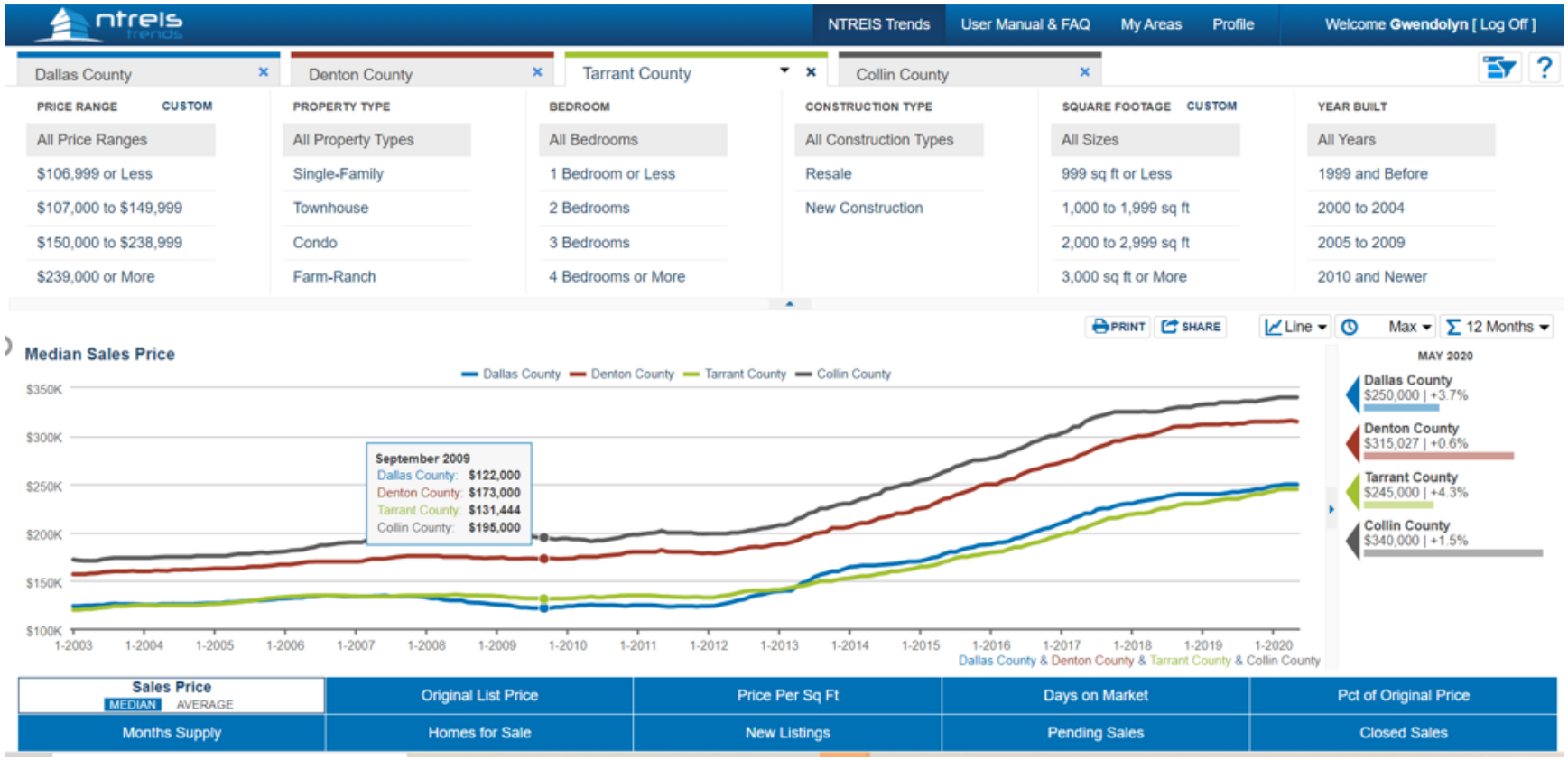


Figure 4-4 Median Sale Price Growth for Dallas, Tarrant, Denton and Collin Counties

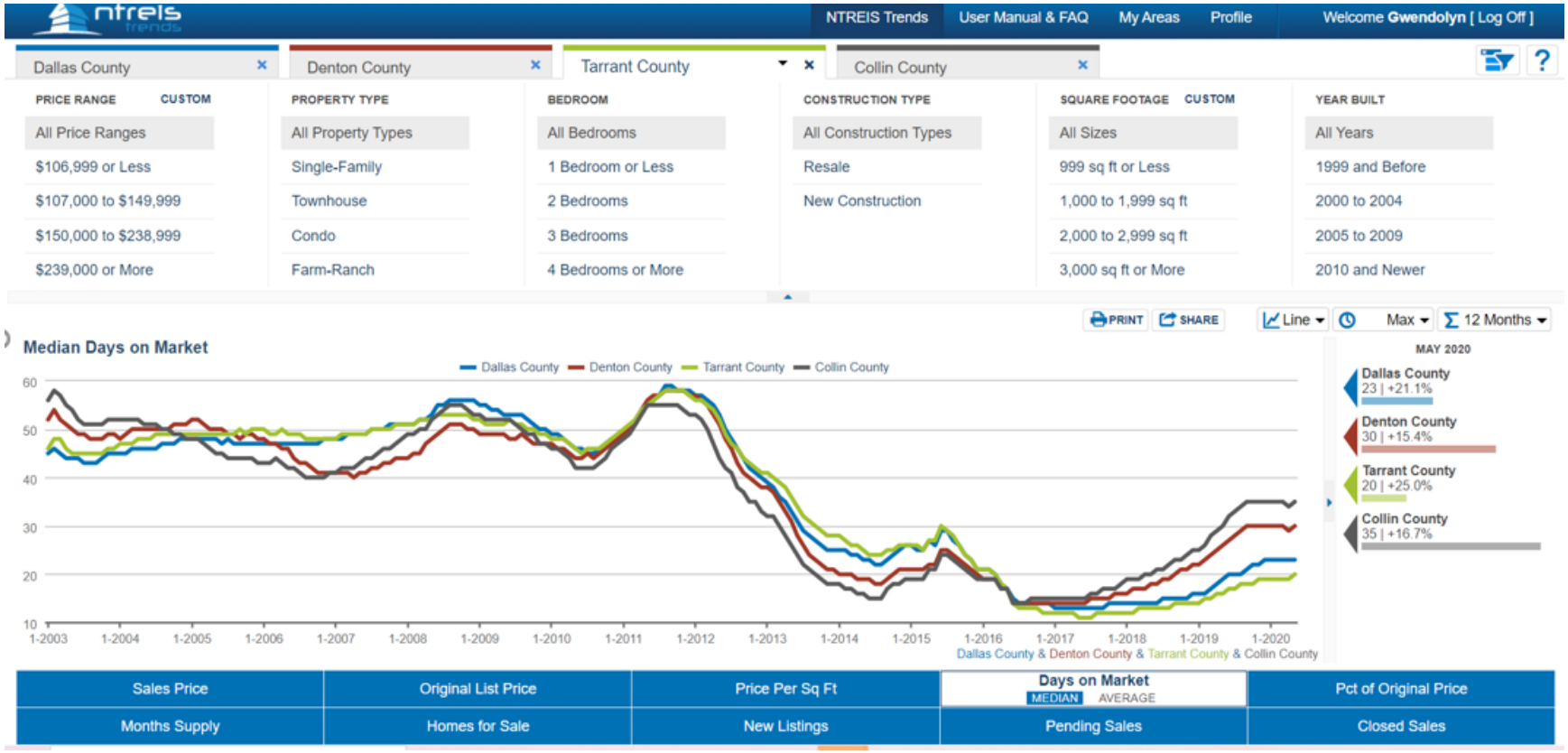


Figure 4-5 Median Days on Market Trend Line

4.3 Black Homeownership in North Texas

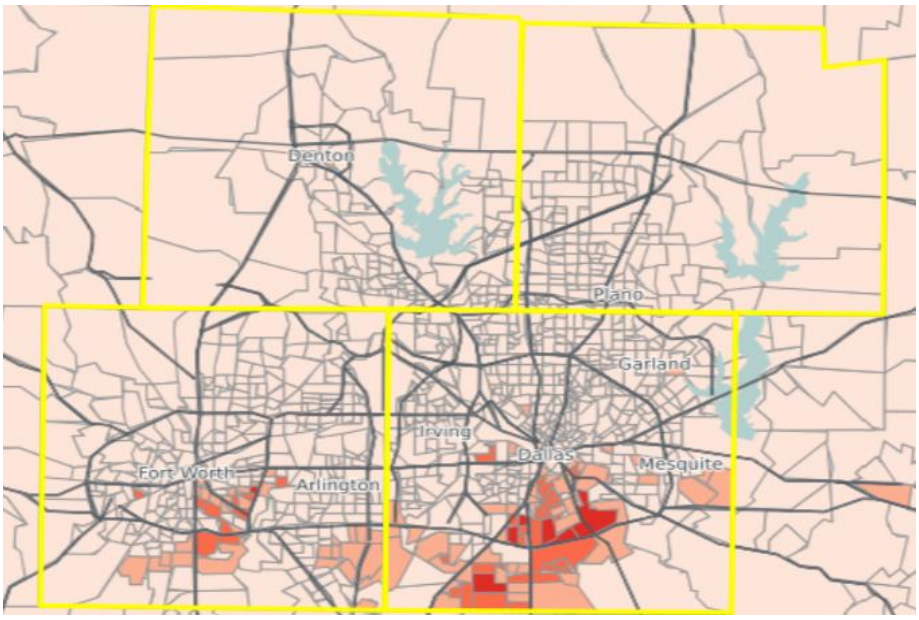


Figure 4-6 Concentration of Black Homeownership in North Texas

Figure 4.6 was produced to spatially locate the larger concentrations of black homeownership in the North Texas Region. Throughout the North Texas region, Tarrant and Dallas county both show more black homeownership concentrations in the southern sectors of each county. Even though Dallas County has the largest percentage of black homeownership it is the only county of the four counties of Dallas, Tarrant, Collin and Denton, where the black homeownership decreased over the past decade. To come to this determination, I extrapolated the homeownership rates for each of the years between 2010 and 2019, then calculated the change of homeownership rate from 2010 and 2019 to get the difference. Using extrapolated U.S. Census data for county homeownership rates, figure 4.7 and table 4.3 indicate a 9.46% black homeownership rate for Dallas County, 6.86% for Tarrant County, 4.37% for Collin County and Denton County with the lowest at 3.96%.

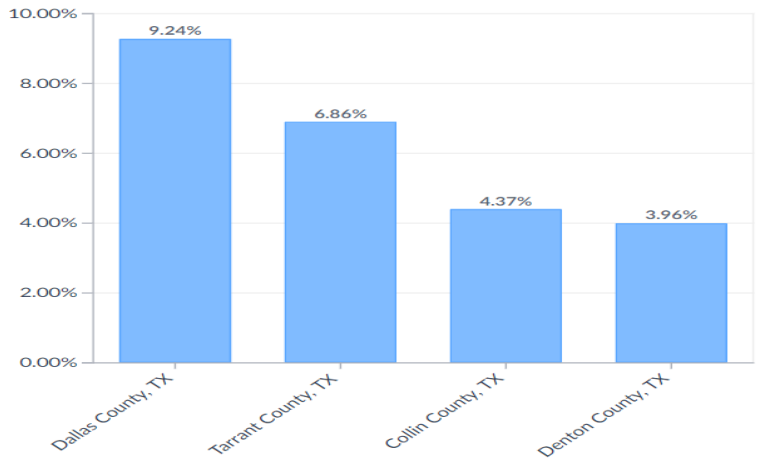


Figure 4-7 Homeownership Rate by County- Source U.S. Census

Table 4-3: 4-County Research Area Black Homeownership Rate- Source U.S. Census

Black Homeownership Rate		Dallas County	Tarrant County	Collin County	Denton County
	2010	9.42%	6.46%	3.92%	3.48%
	2014	9.39%	6.35%	4.12%	3.81%
	2015	9.36%	6.52%	4.23%	3.86%
	2016	9.25%	6.56%	4.20%	3.87%
	2017	9.13%	6.66%	4.35%	3.93%
	2018	9.18%	6.73%	4.40%	3.95%
	2019	9.24%	6.86%	4.37%	3.96%
Change in Homeownership Rate		**-0.18%**	**0.40%**	**0.45%**	**0.48%**

4.4 Homeownership Rate by Racial Group

Figures 4.8-4.11 were created to illustrate the racial composition of homeownership for Dallas, Tarrant, Collin and Denton counties. Despite North Texas being a diverse region in terms of race and ethnicity, the results show each county has more white households who own

homes than households of color. A large part of the gap in homeownership among minorities can be attributed to differences in economic circumstances and the composition of minority populations (Urban Institute, 2017).

In terms of homeownership rate, in Dallas County, 25.68% of households are white, 9.24% are black, 13.36% are Hispanic and 2.52% are Asian. In Tarrant County, 39.17% households are white, 6.86% are black, 10.95% are Hispanic and 2.80% are Asian. In Collin County, 47.52% households are white, 4.37% are black, 5.72% are Hispanic and 7.67% are Asian. Collin County has the highest Asian homeownership among the 4 counties. Finally, in Denton County, 48.66% households are white, 3.96% are black, 7.06% are Hispanic and 4.33% are Asian.

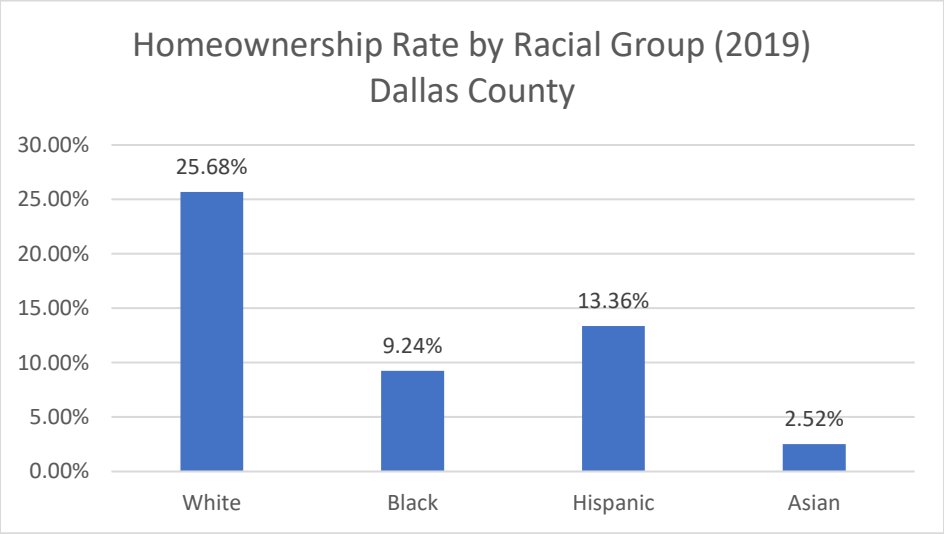


Figure 4-8 Homeownership by Racial Group in Dallas County- Source U.S. Census

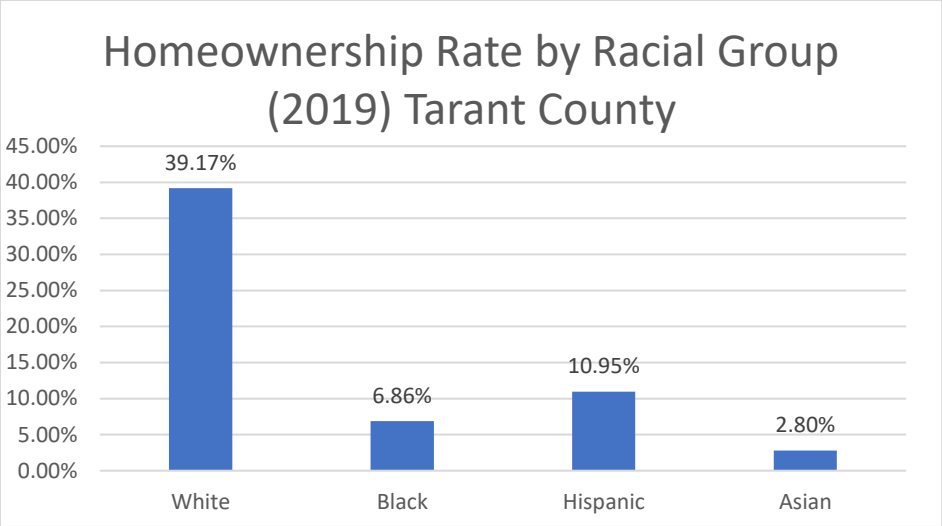


Figure 4-9 Homeownership by Racial Group in Tarrant County- Source U.S. Census

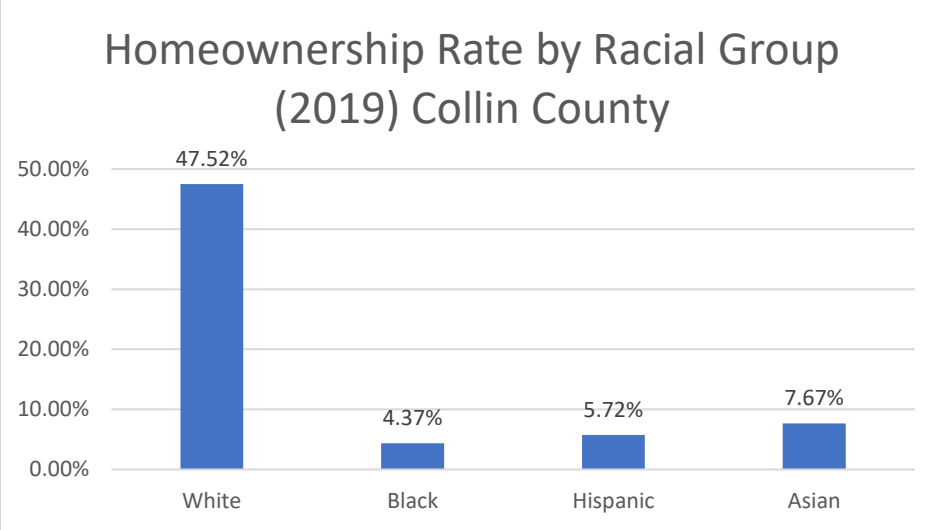


Figure 4-10 Homeownership by Racial Group in Collin County-Source U.S. Census

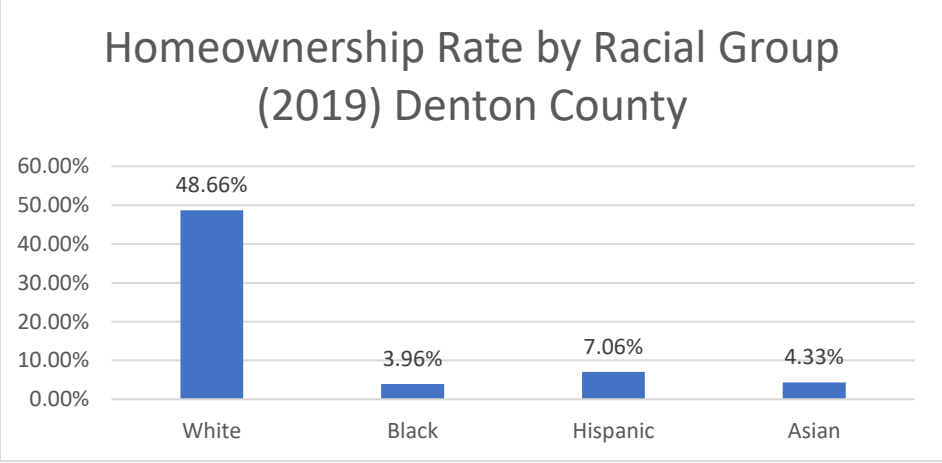


Figure 4-11 Homeownership by Racial Group in Denton County- Source U.S. Census

4.5 Homeownership by City

In the 4-county research area of Dallas, Tarrant, Collin and Denton counties, there are over 130 cities, including unincorporated areas. Table 4.3 was created to examine the homeownership rates of the cities and the change in the overall homeownership rate for the past two decades. The cities are listed from the most populated to the least populated. On average, many cities have a decline in homeownership from 1 to 2 percentage points. Which this decline is the result of the various economic factors affecting the housing markets.

Tables 4.4 and 4.5 lists the top 10 cities in the 4-county research area with lowest and highest homeownership rates. The city of Addison tops the list with the lowest homeownership rate of 21.92%. Second is Irving, with a homeownership rate of 36.56% and third is Dallas with a 41.99% homeownership rate. Both Addison and Irving are both diverse cities in terms of ethnicity and could be one of many factors leading to lower homeownership rates. In fact, according to the real estate company, Trulia, the zip code 75038, which is located within the city limits of Irving, was considered in 2013 the most diverse zip code in the nation. Heterogeneity plays a role along within cities' development. As with Dallas, it is the county seat and typically the county seats do overall have lower homeownership rates compared to the inner and outer ring cities. Conversely, Murphy, Highland Village and Colleyville, top the list for highest homeownership with rates at 95.32%, 94.98% and 93.65% respectively. Higher income for these cities do aide in explaining the higher homeownership rates. For example, Murphy's median household income is $146,647. Colleyville's median household income is $198,375. Likewise, Southlake's median household income is $226,516.

Table 4-2 Homeownership Rates by City and Change in Rates- Data derived from U.S. Census

Homeownership Rates by City and Change in Rate in Past Two Decades

			Change in Homeownership Rate 2000-2010		Change in Homeownership Rate 2010-2019
	2000	**2010**	**2000-2010**	**2019**	**2010-2019**
Dallas	43.58%	44.14%	0.56%	41.99%	-2.15%
Fort Worth	56.76%	59.11%	2.35%	57.56%	-1.55%
Arlington	54.58%	57.45%	2.87%	56.08%	-1.37%
Plano	68.90%	62.88%	-6.01%	61.13%	-1.76%
Garland	65.56%	65.07%	-0.49%	62.73%	-2.34%
Irving	37.67%	38.41%	0.75%	36.56%	-1.85%
Grand Prairie	63.91%	62.88%	-1.03%	60.99%	-1.89%
McKinney	70.80%	71.15%	0.35%	68.91%	-2.24%
Mesquite	65.89%	62.39%	-3.50%	60.23%	-2.16%
Frisco	83.38%	76.53%	-6.86%	75.57%	-0.96%
Carrollton	63.78%	62.96%	-0.81%	62.68%	-0.29%
Denton	44.20%	46.54%	2.35%	46.68%	0.14%
Lewisville	55.12%	45.87%	-9.25%	45.83%	-0.03%
Richardson	65.62%	62.20%	-3.42%	60.62%	-1.58%
Allen	86.35%	79.47%	-6.88%	77.89%	-1.59%
Flower Mound	92.78%	89.69%	-3.09%	89.70%	0.01%
North Richland Hills	66.11%	63.49%	-2.62%	61.94%	-1.55%
Mansfield	85.80%	78.65%	-7.15%	77.56%	-1.10%
Rowlett	91.86%	88.06%	-3.80%	86.77%	-1.29%
Euless	45.75%	44.89%	-0.86%	43.76%	-1.14%
DeSoto	74.24%	69.25%	-4.99%	67.16%	-2.09%
Bedford	55.36%	56.17%	0.81%	54.56%	-1.61%

Grapevine	61.81%	59.40%	-2.41%	58.14%	-1.27%
Wylie	84.90%	82.74%	-2.15%	80.78%	-1.97%
Cedar Hill	80.71%	73.53%	-7.18%	71.14%	-2.39%
Haltom City	61.66%	55.64%	-6.03%	53.91%	-1.73%
The Colony	78.95%	69.30%	-9.65%	69.29%	-0.02%
Keller	92.66%	84.35%	-8.31%	83.31%	-1.04%
Coppell	73.15%	73.32%	0.17%	71.85%	-1.47%
Hurst	66.55%	65.46%	-1.09%	64.07%	-1.39%
Duncanville	69.42%	66.11%	-3.31%	63.72%	-2.39%
Burleson	76.85%	77.47%	0.62%	76.34%	-1.13%
Lancaster	65.62%	65.86%	0.24%	63.41%	-2.45%
Little Elm	83.13%	82.65%	-0.49%	82.63%	-0.02%
Farmers Branch	66.08%	60.27%	-5.81%	58.06%	-2.21%
Southlake	95.84%	93.08%	-2.76%	92.51%	-0.57%
Watauga	85.80%	81.08%	-4.72%	79.63%	-1.45%
Colleyville	95.05%	94.14%	-0.91%	93.65%	-0.49%
Balch Springs	58.90%	55.09%	-3.81%	52.52%	-2.57%
Corinth	93.95%	84.46%	-9.49%	84.49%	0.02%
University Park	68.69%	75.88%	7.19%	73.90%	-1.98%
Benbrook	66.07%	69.45%	3.39%	68.21%	-1.24%
Sachse	86.96%	87.13%	0.17%	85.65%	-1.48%
Saginaw	78.07%	81.80%	3.73%	80.51%	-1.30%
Murphy	94.58%	95.93%	1.35%	95.32%	-0.61%
Highland Village	96.02%	95.01%	-1.01%	94.98%	-0.03%
White Settlement	55.21%	55.50%	0.30%	53.52%	-1.98%
Seagoville	76.95%	67.95%	-9.01%	64.97%	-2.98%
Crowley	81.49%	72.89%	-8.59%	71.05%	-1.84%
Rendon	86.82%	86.39%	-0.43%	85.27%	-1.12%
Addison	18.84%	23.45%	4.60%	21.92%	-1.53%

Forest Hill	83.02%	76.43%	-6.59%	74.74%	-1.69%
Glenn Heights	76.96%	74.60%	-2.36%	72.22%	-2.38%
Azle	74.98%	72.65%	-2.33%	70.85%	-1.81%
Prosper	84.10%	79.27%	-4.83%	78.21%	-1.06%
Royse City	76.19%	82.24%	6.05%	81.94%	-0.30%
Anna	77.05%	81.29%	4.23%	79.10%	-2.19%
Trophy Club	89.61%	90.39%	0.78%	90.38%	-0.01%
Highland Park	78.53%	82.15%	3.62%	80.32%	-1.83%
Fairview	88.54%	88.09%	-0.44%	86.97%	-1.13%
Sanger	72.34%	69.33%	-3.01%	69.45%	0.12%
Lake Dallas	69.17%	70.58%	1.41%	70.57%	-0.01%
Lantana	92.28%	93.94%	1.66%	93.95%	0.01%
Richland Hills	69.27%	65.39%	-3.87%	63.57%	-1.82%
Princeton	74.75%	72.29%	-2.46%	69.74%	-2.55%
River Oaks	71.43%	69.20%	-2.23%	67.34%	-1.85%
Roanoke	71.20%	54.92%	-16.27%	54.93%	0.00%
Kennedale	60.35%	73.02%	12.67%	71.31%	-1.71%
Celina	77.55%	79.59%	2.03%	77.60%	-1.99%
Everman	77.74%	73.10%	-4.64%	71.44%	-1.66%
Lucas	92.48%	93.22%	0.74%	92.32%	-0.91%
Briar	85.77%	84.30%	-1.47%	82.51%	-1.79%
Melissa	82.04%	85.32%	3.28%	83.59%	-1.73%
Hutchins	80.54%	71.02%	-9.52%	68.17%	-2.84%
Sunnyvale	80.38%	80.90%	0.53%	79.00%	-1.90%
Krum	83.72%	82.40%	-1.32%	82.42%	0.02%
Sansom Park	71.43%	69.33%	-2.10%	67.32%	-2.00%
Lake Worth	79.13%	75.62%	-3.51%	74.06%	-1.56%
Parker	96.23%	94.92%	-1.32%	94.13%	-0.79%
Pilot Point	72.06%	69.50%	-2.56%	69.64%	0.14%

Pecan Acres	81.51%	85.21%	3.70%	83.05%	-2.16%
Cockrell Hill	53.95%	56.69%	2.75%	53.49%	-3.20%
Argyle	88.79%	88.26%	-0.53%	88.26%	0.01%
Savannah	77.53%	87.52%	10.00%	87.62%	0.10%
Farmersville	68.54%	65.74%	-2.79%	62.73%	-3.01%
Hickory Creek	84.63%	91.17%	6.54%	91.22%	0.05%
Justin	81.38%	82.68%	1.30%	82.64%	-0.05%
Wilmer	71.16%	65.00%	-6.16%	62.05%	-2.95%
Ovilla	95.77%	93.25%	-2.53%	92.31%	-0.94%
Oak Point	86.65%	84.05%	-2.60%	84.19%	0.14%
Paloma Creek South	80.85%	92.74%	11.89%	92.71%	-0.03%
Double Oak	97.86%	96.16%	-1.71%	96.18%	0.02%
Aubrey	82.54%	73.80%	-8.73%	73.78%	-0.02%
Shady Shores	90.07%	86.93%	-3.14%	86.95%	0.02%
Paloma Creek	76.92%	83.23%	6.30%	83.19%	-0.04%
Edgecliff Village	95.59%	92.21%	-3.38%	91.55%	-0.66%
Ferris	72.76%	66.93%	-5.84%	63.50%	-3.43%
Lavon	90.24%	90.90%	0.66%	89.61%	-1.28%
Blue Mound	87.13%	78.95%	-8.19%	77.49%	-1.46%
Westworth Village	59.56%	48.66%	-10.91%	47.79%	-0.87%
Pantego	85.54%	78.13%	-7.41%	76.50%	-1.64%
Dalworthington Gardens	65.38%	67.99%	2.62%	66.86%	-1.14%
Combine	88.64%	87.41%	-1.23%	86.65%	-0.76%
Northlake	70.79%	56.80%	-13.98%	57.02%	0.21%
Krugerville	81.98%	88.96%	6.98%	88.97%	0.01%
Lowry Crossing	87.17%	83.54%	-3.62%	81.54%	-2.00%
Cross Roads	85.07%	86.89%	1.82%	86.84%	-0.05%
Bartonville	87.44%	87.86%	0.42%	87.92%	0.06%
Ponder	82.12%	81.95%	-0.17%	81.97%	0.02%

Pelican Bay	68.99%	66.55%	-2.44%	64.38%	-2.16%
Haslet	95.29%	93.60%	-1.70%	93.02%	-0.58%
Copper Canyon	94.39%	93.76%	-0.62%	93.88%	0.11%
Lakeside, Tarrant County	91.39%	89.24%	-2.15%	88.34%	-0.90%
St. Paul, Collin County	92.71%	85.09%	-7.62%	83.04%	-2.05%
Hackberry	88.43%	87.35%	-1.08%	87.28%	-0.07%
Newark	80.51%	80.17%	-0.34%	76.66%	-3.51%
Westlake	95.16%	90.77%	-4.39%	89.92%	-0.85%
Westminster	88.30%	86.13%	-2.18%	84.37%	-1.76%
Blue Ridge	84.19%	80.00%	-4.19%	77.72%	-2.28%
Josephine	88.93%	88.69%	-0.25%	86.98%	-1.71%
Nevada	89.69%	89.12%	-0.57%	87.60%	-1.52%
New Hope	86.55%	84.95%	-1.60%	83.15%	-1.80%
Westover Hills	73.32%	97.48%	24.16%	97.14%	-0.34%
Hebron	82.61%	84.33%	1.72%	84.75%	0.42%
Lincoln Park	80.00%	68.80%	-11.20%	68.75%	-0.05%
DISH	85.11%	81.16%	-3.95%	80.65%	-0.51%
Corral City			0.00%		0.00%
Providence Village			0.00%		0.00%

Table 4-3 Top Ten Cities with Lowest Homeownership Rates- Calculated from Data Sourced from the U.S. Census

Top Ten Cities in DFW with the Lowest Homeownership Rate	
Addison	21.92%
Irving	36.56%
Dallas	41.99%
Euless	43.76%
Lewisville	45.83%
Denton	46.68%
Balch Springs	52.52%
White Settlement	53.52%
Haltom City	53.91%
Bedford	54.56%

Table 4-4 Top Ten Cities with Highest Homeownership Rates- Calculated from Data Sourced from the U.S. Census

Top Ten Cities in DFW with the Highest Homeownership Rates	
Murphy	95.32%
Highland Village	94.98%
Colleyville	93.65%
Southlake	92.51%
Trophy Club	90.38%
Flower Mound	89.70%
Rowlett	86.77%
Sachse	85.65%
Rendon	85.27%
Corinth	84.49%

4.6 Cities with the Highest Black Homeownership Rates

The investigation of the cities with the highest black homeownership was conducted and figure 4.6 displays the top ten cities in the 4-county research area with the highest black homeownership rates. Topping the list is the city of Desoto at 43.84% black homeownership rate. Second is Lancaster with 42.6% black homeownership rate and third is Forest Hill with 41.10%. With further investigation, I extrapolated all the cities with at least a 20% black population and tabulating the differential of its black population minus the black homeownership. The calculation is to reveal any great disparities in terms of homeownership rate within a highly populated black city. The tabulation concluded the same top 3 cities in terms of black homeownership, Desoto, Lancaster and Forest Hill, they also were the top 3 cities with the highest differentials. Therefore, I concluded the research needed to delve further to the zip code level.

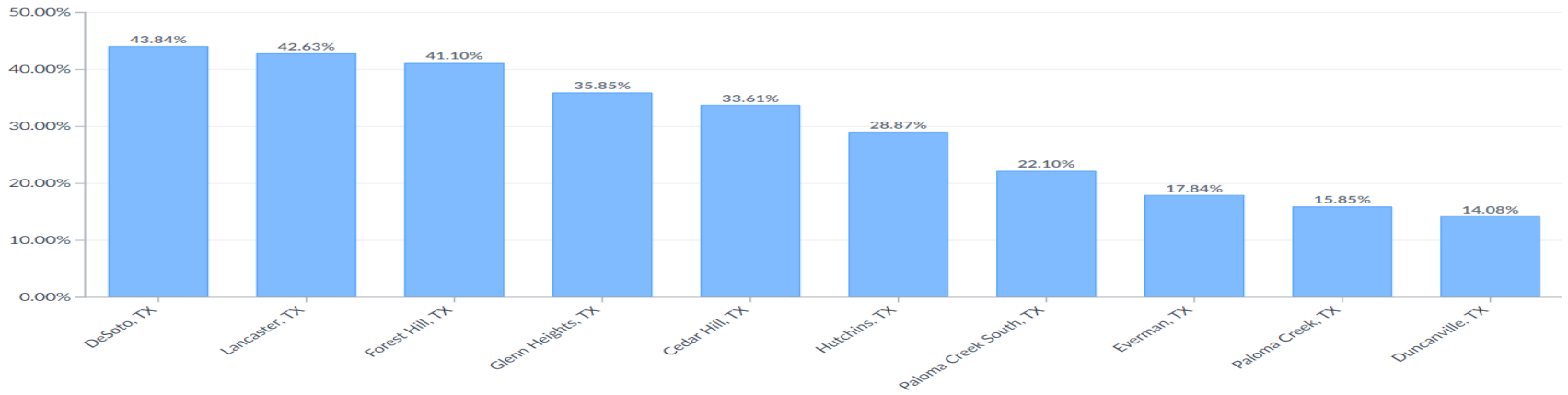


Figure 4-12 Highly Populated Black Cities and their Homeownership Rates- Data Derived from U.S. Census

Table 4-5 Cities with at Least 20% Black Population, their Homeownership Rates and Differentials- Calculated from Data Sourced from the U.S. Census

City	Population	Median Household Income	Black Population %	Black Homeownership Rate	Differential
DeSoto	54,842	$83,469.00	70.41%	43.84%	26.57%
Lancaster	40,617	$71,431.00	70.71%	42.63%	28.09%
Forest Hill	14,475	$61,245.00	51.45%	41.10%	10.35%
Glenn Heights	12,880	$78,689.00	51.77%	35.85%	15.92%
Cedar Hill	50,213	$90,797.00	52.84%	33.61%	19.24%
Hutchins	5,909	$46,588.00	41.38%	28.87%	12.51%
Paloma Creek South	3,717	$135,117.00	22.63%	22.10%	0.52%
Everman	7,068	$48,043.00	29.91%	17.84%	12.07%
Duncanville	42,842	$73,417.00	31.82%	14.08%	17.74%
Wilmer	4,085	$48,730.00	21.18%	13.15%	8.03%
Grand Prairie	197,608	$71,183.00	21.97%	11.58%	10.38%
Balch Springs	26,395	$48,767.00	26.14%	10.17%	15.97%
Mesquite	155,227	$69,431.00	23.05%	9.55%	13.50%
Fort Worth	858,361	$67,257.00	20.56%	9.14%	11.42%
Dallas	1,346,137	$57,257.00	26.23%	8.15%	18.08%
Arlington	421,443	$70,682.00	20.70%	7.50%	13.20%

4.7 Zip Codes with Highest Black Homeownership Rates

To provide a better understanding spatially of higher concentrations of black homeownership, my analysis dug further down to the zip code level. Table 4.7 lists ordinally the top 25 zip codes with the black homeownership rates along with the population, median household income, percentage of black population and total homeownership rate. I chose to include income in this table to show the wide variations of income levels of black households. (The full table is included in Appendix B). To understand disparities within the zip codes Table 4.8 was created based on the highest differentials in terms of the percentage of black population minus the black homeownership rate. The goal was to essentially pinpoint which areas need the most attention in terms of focusing on increasing homeownership among the black community. After tabulating the differentials, I sorted the zip codes from the highest to lowest differentials. The table shows the top 5 are all located in the city of Dallas and the worst of them is the zip code 75237 with a 71.37% differential. Even though the 75237-zip code has 82.10% black population, the homeownership rate is a dismal 10.73%. This stark finding cannot just be postulated that this is due to race and income, as both tables show the variations in income among blacks.

Table 4-6 Zip Codes with the Highest Black Homeownership Rates- Calculated from Data Sourced from the U.S. Census

Zip Codes with the Highest Black Homeownership Rates

Location	Population	Median Household Income	% Black Population	Black Homeownership Rate	Total Homeownership Rate
75241, Dallas	30,872	$40,204.00	88.50%	51.86%	57.68%
75232, Dallas	30,261	$54,947.00	70.73%	49.99%	65.52%

75134, Lancaster	23,002	$67,931.00	73.03%	44.55%	61.74%
75115, Desoto	57,711	$80,393.00	69.60%	41.93%	65.12%
75216, Dallas	52,922	$31,236.00	68.09%	40.14%	53.31%
75146, Lancaster	19,503	$75,537.00	63.64%	38.30%	66.37%
75249, Dallas	15,584	$79,335.00	51.15%	37.33%	74.83%
75104, Cedar Hill	49,494	$90,577.00	53.36%	33.97%	71.05%
76002, Arlington	35,604	$107,881.00	34.64%	30.21%	87.57%
76119, Fort Worth	49,261	$36,702.00	46.78%	28.94%	54.72%
75141, Hutchins	6,077	$47,191.00	41.25%	27.99%	67.41%
76123, Fort Worth	34,478	$102,539.00	38.45%	27.47%	81.66%
75181, Mesquite	28,616	$102,794.00	32.51%	27.21%	88.19%
75215, Dallas	15,467	$33,686.00	80.95%	27.17%	32.51%
75054, Grand Prairie	7,061	$119,714.00	30.52%	26.24%	87.83%
76140, Fort Worth	30,267	$65,479.00	38.46%	26.03%	72.75%
76105, Fort Worth	27,158	$31,803.00	41.51%	26.00%	54.12%
76104, Fort Worth	19,308	$27,983.00	49.56%	25.34%	42.36%
75210, Dallas	8,492	$19,212.00	72.83%	22.98%	25.99%
76134, Fort Worth	26,926	$65,665.00	39.16%	21.65%	65.46%
76018, Arlington	28,060	$84,508.00	28.92%	20.45%	76.90%
75137, Duncanville	19,142	$81,510.00	39.19%	20.10%	66.32%
76112, Fort Worth	43,097	$49,912.00	49.93%	18.71%	50.07%
75052, Grand Prairie	99,624	$85,863.00	27.39%	17.72%	72.08%
75233, Dallas	16,147	$50,922.00	36.99%	16.63%	49.39%

Table 4-7 Zip Codes with the Highest Differentials- Calculated from Data Sourced from the U.S. Census

Zip Codes with the Highest Differential Between Percentage of Black Population and Black Homeownership Rate

	Population	Median Household Income	% Black Population	Black Homeownership Rate	Differential
75237, Dallas	17,036	$40,705.00	82.10%	10.73%	71.37%
75215, Dallas	15,467	$33,686.00	80.95%	27.17%	53.78%
75210, Dallas	8,492	$19,212.00	72.83%	22.98%	49.86%
75247, Dallas	228	$30,556.00	54.39%	13.68%	40.70%
75241, Dallas	30,872	$40,204.00	88.50%	51.86%	36.64%
75243, Dallas	59,068	$50,532.00	41.07%	5.34%	35.74%
76120, Fort Worth	18,401	$60,310.00	46.06%	11.75%	34.30%
75236, Dallas	19,952	$49,247.00	42.72%	10.01%	32.71%
76112, Fort Worth	43,097	$49,912.00	49.93%	18.71%	31.21%
76006, Arlington	25,636	$60,234.00	30.64%	1.59%	29.05%
76102, Fort Worth	8,497	$61,872.00	31.42%	2.80%	28.63%
75134, Lancaster	23,002	$67,931.00	73.03%	44.55%	28.48%
75216, Dallas	52,922	$31,236.00	68.09%	40.14%	27.96%
75115, Desoto	57,711	$80,393.00	69.60%	41.93%	27.66%
75038, Irving	33,826	$60,805.00	27.50%	1.76%	25.74%
75146, Lancaster	19,503	$75,537.00	63.64%	38.30%	25.34%
75287, Dallas	65,905	$64,887.00	25.65%	1.28%	24.37%
76104, Fort Worth	19,308	$27,983.00	49.56%	25.34%	24.22%
75231, Dallas	41,258	$41,962.00	24.55%	1.47%	23.08%
76011, Arlington	25,138	$46,374.00	24.28%	1.28%	23.00%

75203, Dallas	17,833	$37,108.00	36.04%	13.73%	22.31%
75232, Dallas	30,261	$54,947.00	70.73%	49.99%	20.75%
76014, Arlington	38,676	$52,522.00	27.91%	7.16%	20.74%
75233, Dallas	16,147	$50,922.00	36.99%	16.63%	20.36%

4.7.1 Deepest Disparity in Black Homeownership

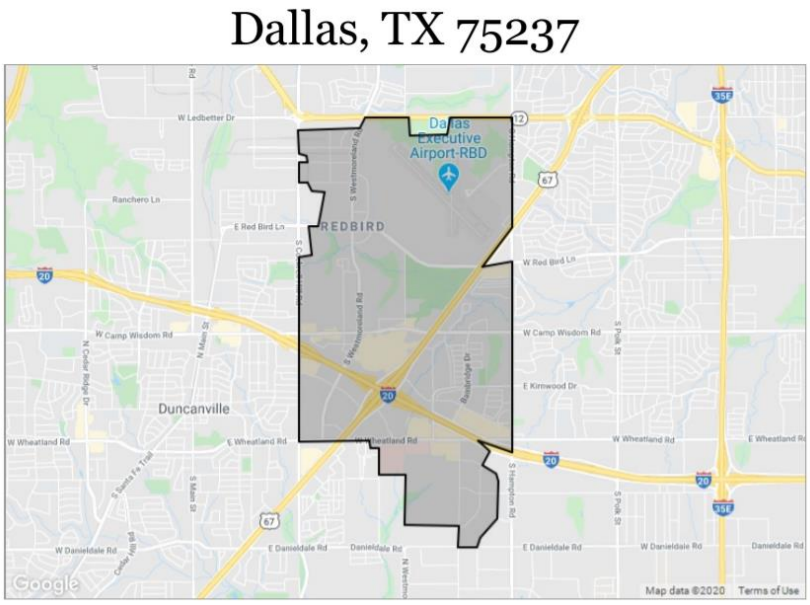


Figure 4-13 Zip Code 75237-Source NTREIS-RPR

The zip code 75237 has an 82.10% black population, with only a 10.73% black homeownership rate. This is the worst of all zip codes examined in the 4-county research area. The zip code is located in southern Dallas. There are two major highways (Interstate 20 and Highway 67) which bisect this zip code. History has proven the devastating effects of highway construction that run through the heart of urban centers and its it lasting decimating impact on close-knit communities. Nonetheless, zip code 75237 has a population as of 2019 of 17,036, with a median household income of $40,705. Figure 4-14 illustrates the racial composition with a majority black population at 82.10%, Hispanics at 15.01%, white at 2.31%, Asian at .59% and American Indian and Alaska Native population at .28%. Measuring in comparison to the city of Dallas, Dallas county, the state of Texas and U.S, the 75237 zip code is low on many scales of the socio-economic spectrum (Table 4-8).

To gain a better understanding of the housing market for this zip code, I created a targeted market analysis for the 75237-zip code with the National Realtors Association's analytics software Realtor's Property Resource tool (RPR) (Figures 4.15-4.17). The population growth for 75237 has increased by 9.25% and based on the data shown in the figures below, 75237 appears to be gentrifying. The change in the median estimated home value over the past 36 months has increased by 41.27%. While in the last 24 months, the median list price has increased by 21.32% and the median sales price has increased by 11.31%. There is a current drop in sales prices within the past current months (at the time of this study), which is most likely due to the current pandemic crisis which is affecting the economy nationally as well. However, the overall analysis leads to a growing issue for potential homeowners with low-to moderate income, where the median household income is only $40,705 in this zip code.

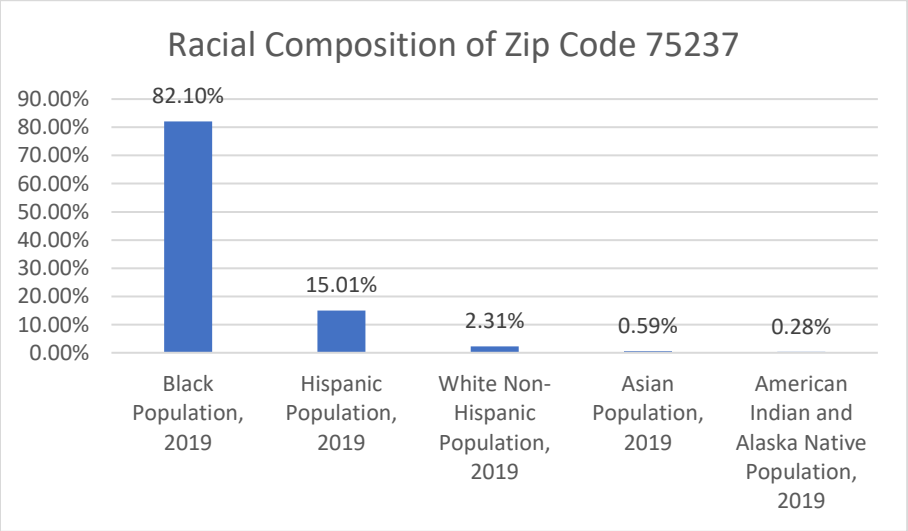


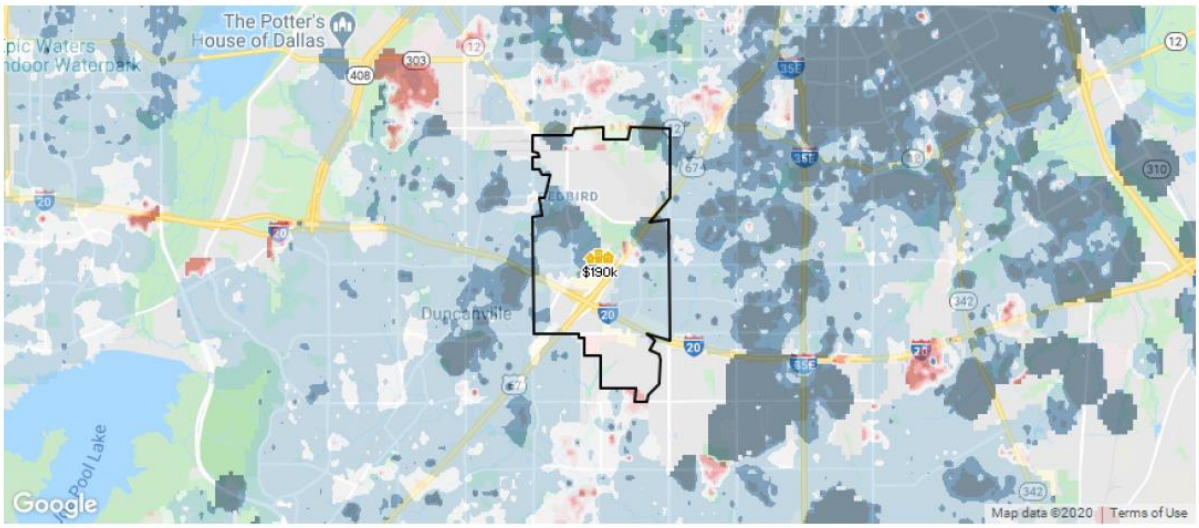
Figure 4-14 Racial Composition of Zip Code 75237- Derived from U.S. Census Data

Table 4-8 Zip Code 75237 - Comparison Statistics

Comparison Statistics	75237	Dallas, TX	Dallas County	Texas	USA
Poverty Rate	29.33%	23.53%	18.86%	16.79%	15.36%
Median Household Income	$40,705	$52,257	$66,016	$69,667	$71,720
Race/Ethnicity Composition					
White	2.31%	26.22%	30.12%	42.66%	60.41%
Black	82.10%	25.28%	22.68%	12.02%	12.68%
Hispanic	15.01%	43.17%	39.47%	38.23%	17.42%
American Indian_ Alaska Native	0.28%	0.19%	0.24%	0.36%	0.80%
Asian	0.59%	3.14%	5.40%	4.40%	5.54%
Two or More Races	1.20%	1.22%	1.49%	1.63%	2.48%
Education					
Less than High School	18.14%	25.10%	21.95%	17.72%	13.22%
High School	29.46%	21.91%	22.92%	24.73%	27.13%
Some College	32.80%	18.57%	20.51%	23.52%	21.50%
Associate's Degree	4.88%	4.72%	5.74%	6.68%	8.14%
Bachelor's Degree	11.90%	18.83%	18.84%	18.18%	18.73%
Master's Degree	2.06%	7.20%	7.13%	6.57%	7.95%
Doctorate Degree	0.54%	1.06%	0.87%	1.05%	1.31%
Professional Degree	0.23%	2.61%	2.07%	1.55%	2.02%
Family Structure					
Married w/ No Children	15.13%	30.00%	31.94%	35.93%	40.86%
Married w/ Children	16.33%	31.59%	33.96%	35.94%	31.29%
Single Male w/ No Children	4.29%	4.78%	3.99%	3.20%	3.40%
Single Male w/ Children	6.22%	5.83%	5.42%	4.60%	4.50%
Single Female w/ No Children	15.57%	9.22%	8.09%	6.62%	7.43%
Single Female w/ Children	42.48%	18.58%	16.60%	13.71%	12.52%
Housing Tenure					
Owner Occupied	14.90%	41.99%	51.19%	62.35%	63.39%
Renter Occupied	85.10%	58.01%	48.81%	37.65%	36.61%

Dallas, TX 75237

Market Snapshot: 12-Month Change in Estimated Value



-15% 2.5% +20%

This map layer shows the change in estimated home values over the past 12 months, based on the AVMs and RVMs® for properties in an area. Source(s): Public records and MLS data where licensed; updated Quarterly.

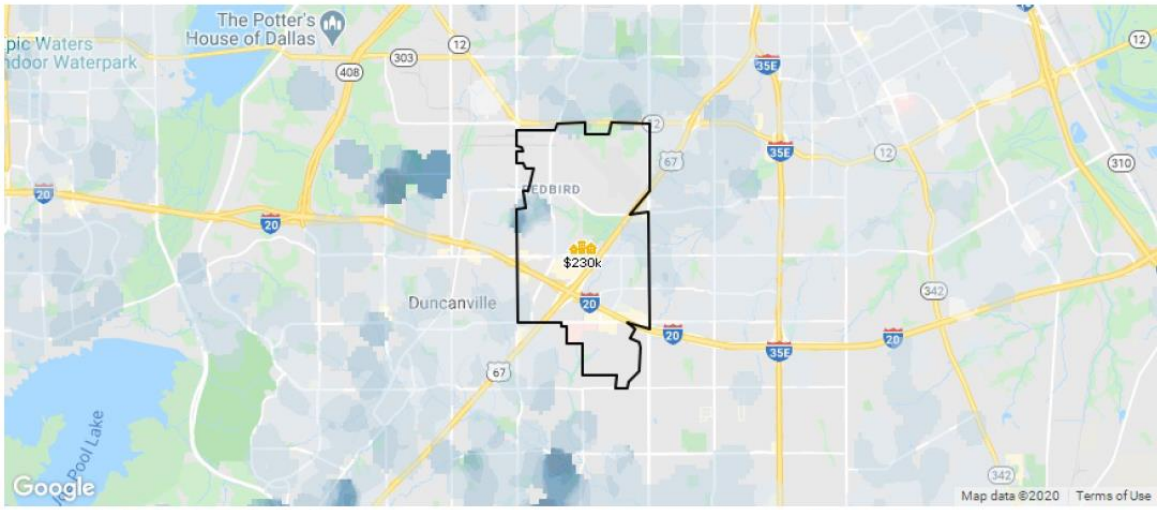
Median Est. Home Value	Change Over Last 12 Months	Change Over Last 24 Months	Change Over Last 36 Months
$190K	6.96%	25.49%	41.27%
Updated: 6/30/2020			

Figure 4-15 Median Change in Estimated Home Values

About this Data: Estimated home values are generated by a valuation model and are not formal appraisals. Valuations are based on public records and MLS data where licensed. The metrics shown here reflect ***All Residential Properties*** *data.*

Dallas, TX 75237

Market Snapshot: List Price



This map layer shows the average listing price for properties in the previous six months, in areas where RPR has MLS data. Source(s): MLS data; updated Quarterly.

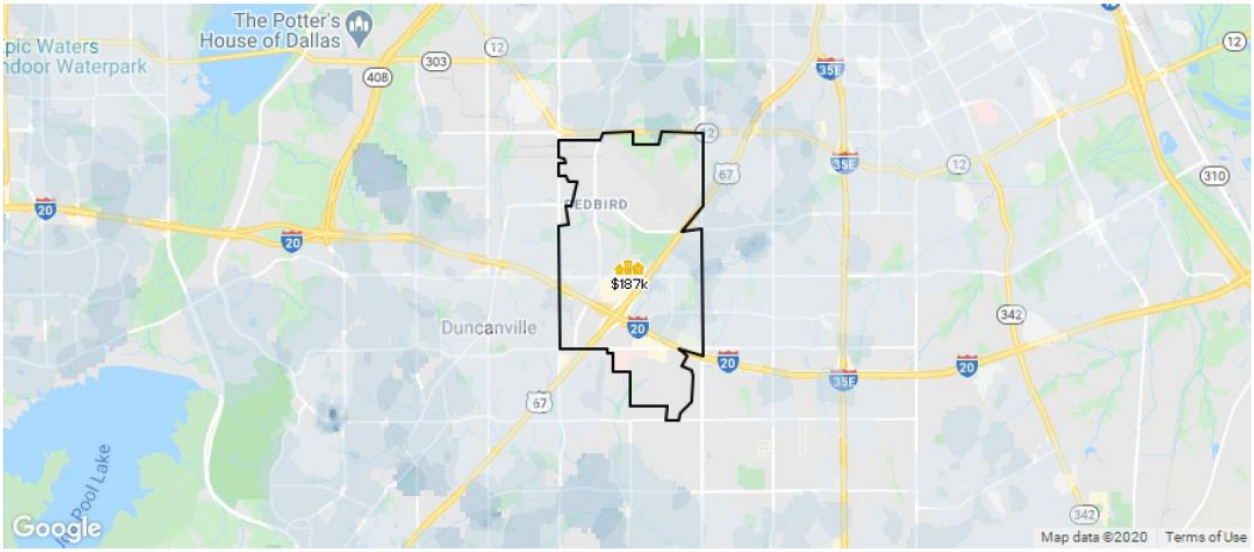
Median List Price	Change Over Last Month	Change Over Last Quarter	Change Over Last 12 Months	Change Over Last 24 Months
$230K	6.93%	14.95%	19.62%	21.32%
Updated: 5/31/2020				

Figure 4-16 Median List Price

*About this data: The Metrics displayed here reflect median sales price for **All Residential Properties** using **MLS listing** data.*

Dallas, TX 75237

Market Snapshot: Sales Price



This map layer shows the average sales price for properties sold in the previous six months, in areas where RPR has MLS data. Source(s): MLS data; updated Quarterly.

Median Sales Price	Change Over Last Month	Change Over Last 12 Months	Change Over Last 24 Months
$187K Updated: 5/31/2020	↓ 4.1%	↓ 6.5%	↑ 11.31%

Figure 4-17 Median Sale Price

*About this data: The Metrics displayed here reflect median sales price for **All Residential Properties** using **MLS listing** data.*

4.8 Patterns in DFW MSA Homeownership Rates

Using the U.S. Census American Community Survey (ACS) detailed estimate data from 2010, 2014 and 2018 (2008 data is no longer available on the ACS[4]), I created a table (Table 9) of homeownership rates by race, age, education and family structure for the DFW MSA. The data revealed the overall DFW MSA homeownership rate declined from 61.65 percent to 59.15 percent in 2018, a 2.50 percent drop. The drop is most likely a result of the Great Recession, in combination with student loan debt, tight credit and a subtle change in attitudes toward homeownership (Goodman and Mayer, 2018). Most notably, of all the races, black homeownership declined the most from 40.68 percent in 2010 to 35.07 percent in 2018, a 5.61 percent decline. Interestingly, though, American Indian and Pacific Islander had a marked increase of 3.52 percent during the same period. In addition, the Hispanic and Latino homeownership rate increased slightly at.46 percent from 2010 to 2018.

In terms of homeownership rates by age, all age groups declined during that period except for the 75 to 84 age group with a 1.32 percent increase. This is not too surprising due to older households being more financially established. However, their next age group cohort, 85 and older, had the highest decline of 9 percent. The decrease can be attributed to ailing health and alternative living situation for the elderly population.

Educational attainment for homeownership rate in the DFW MSA shows an interesting outcome, wherein the cohort who did not complete high school had an increase in homeownership rate, a 2.04 percent increase. Thus, all other higher education levels showed a

[4] 2008 data had been available in the past. In an effort to relocate the data, I contacted the census bureau directly. It was explained the census website had a major overall July 2019. According to communication from W.S. Chapin, Statistician, of the Housing Statistics Branch, Social, Economic, & Housing Division of the U.S. Census Bureau, "The data is now only available from 2010 to present."

decline in homeownership rates from 2010 to 2018. Based on this researcher's anecdotal knowledge of the area, there is a large number of intergenerational transfer of land and property for the white and Hispanic population, which thereby can contribute to more wealth and assets to purchase homes in a down market when homes were much more affordable.

Family structure and or household composition in the DFW MSA may have the most critical implications for patterns of homeownership rates. Overall, they all had a decline in homeownership rates except for the male householder without kids, with a 3.52 percent increase from 2010 to 2014 but lost ground from 2014 to 2018 with a decrease of 3.04 percent, almost making their groups overall increase negligible with an overall increase of .48 percent for the time period studied. More consequently, it is the female householder with and without kids who both had the highest and second highest decrease, respectively, in homeownership rates. The largest decrease for both groups is between 2010 and 2014. There are many socio-economic factors which make a female householder overall living and economic conditions more precarious than other groups. Unfortunately, the female householder with kids continues to be the cohort with the lowest homeownership rates, also the largest decrease of 7.12 percent from 2010 to 2018 relative to the other household composition.

Clearly, demographics have exerted various pushes and pulls over homeownership (Goodman & Mayer, 2018). For the four largest counties in the DFW MSA, (Dallas, Tarrant, Collin and Denton), this research continues with descriptive regression of these factors.

Table 4-9 Calculated from Data Sourced from the American Community Survey

Homeownership Rates DFW MSA

	2010	2014	2018	Change from 2010-2018
Overall	61.65%	59.19%	59.15%	-2.50%
Race				
Black or African American	40.68%	37.42%	35.07%	-5.61%
American Indian or Alaska Native	62.14%	61.06%	65.66%	3.52%
Asian	61.08%	59.40%	60.82%	-0.26%
Native Hawaiian and Pacific Islander	57.59%	33.61%	54.14%	-3.45%
Some other Race	46.95%	46.71%	44.71%	-2.24%
Two or more Races	48.66%	45.74%	55.40%	6.74%
White Alone, Not Hispanic or Latino	71.15%	69.19%	69.57%	-1.58%
Hispanic or Latino	51.64%	50.41%	52.09%	0.46%
Age				
15 to 24	10.25%	8.87%	8.67%	-1.59%
25 to 34	37.38%	32.61%	31.77%	-5.61%
35 to 44	59.13%	55.84%	54.78%	-4.35%
45 to 54	70.59%	68.72%	67.24%	-3.36%
55 to 59	76.34%	74.04%	73.84%	-2.50%
60 to 64	79.28%	75.94%	77.17%	-2.11%
65 to 74	81.23%	79.06%	78.71%	-2.52%
75 to 84	75.76%	78.28%	77.08%	1.32%
85+	69.70%	67.43%	60.70%	-9.00%
Education				
Less than high school graduate	48.40%	48.40%	50.44%	2.04%
High school graduate (including equivalency)	52.07%	52.07%	51.23%	-0.84%
Some college or Associate's degree	56.05%	56.05%	55.42%	-0.63%
Bachelor's degree or higher	69.91%	69.91%	68.56%	-1.35%
Household				
Married couple with kids	74.67%	71.29%	71.76%	-2.92%
Married couple without kids	83.25%	80.99%	81.46%	-1.80%
Male householder with kids	43.24%	43.79%	42.44%	-0.80%
Male householder without kids	49.98%	53.50%	50.46%	0.48%
Female householder with kids	34.10%	27.16%	26.98%	-7.12%
Female householder without kids	62.14%	59.71%	57.39%	-4.75%

4.9 Regressions

Multi-variate regressions were conducted to examine the relationships between homeownership and race, education, age, income, gender and family structure and which variables significantly predict the rate and impact on the homeownership rate in the 4-county research area of Dallas, Tarrant, Collin and Denton counties. There were 3697 observations, which represent the block groups for the 4-county research area.

This research used a similar approach to that of Goodman and Mayer (2018), where the authors were attempting to demonstrate the trends and patterns in the likelihood in owning a home in the United States based on demographic attributes. "The goal of the analysis was not determining causality but rather to summarize patterns that can be compared to previous research and may be further explored for future analysis" (Goodman & Mayer, 2018 p.38). Their model used race/ethnicity, income, age, education and family structure for explaining differences in homeownership rates.

A drawback to their model assumed the individual categories did not interact. By this I mean, households are multifaceted and have multiple components of each category. Their R^2 results were 0.260 for the overall model. R^2 is a goodness of fit measure for linear regression models. It indicates the percentage of variance of the dependent variable (homeownership) that the explanatory variables (race, income, age, education, household structure), explain collectively. It measures the strength of the relationship between the model and the dependent variable on a 0-100 percentage scale.

In their model, the predictor variables explained 26% of the variance in the model. In other words, the differences in homeownership rates can be explained by 26% variability in demographics.

So, do we infer by the low R^2 to conclude their model is insufficient? Not necessarily, regression models with low R-squared values can be perfectly good models. Other studies do suggest that demographics alone do not explain the gap in homeownership among ethnic groups in comparison to "whites." As with some fields of study, they have an inherently greater amount of unexplained variation. In these areas, the R^2 values are bound to be lower. Such as, in studies that attempt to explain human behavior, they generally have lower R^2 values – less than 50%. Frost (2019), "People are just harder to predict than things like physical processes" (para. 14). Attitudes, behaviors and cultural norms that contribute to household decisions are better ascertained through qualitative and more ethnographic studies to give context or a better understanding of the issue. Again, restrictions of time and resources prohibit this study from conducting such research, but to begin with quantitative analysis, and then the findings can be used for future qualitative studies.

4.9.1 Income

A multi-variate analysis was conducted to examine how well different income levels could predict the change in homeownership rate of the 4-county research area. The analysis results were as expected as the household income increase the higher likelihood of homeownership. The correlations among all the income groups and homeownership rate were statistically significant. The correlation is negative for household income levels below $75,000. The model

indicates that household income has a moderate relationship to homeownership. The impact of household income accounted for 44% of the variability in homeownership rates.

Descriptive Statistics

	Mean	Std. Deviation	N
HomeownershipRate	60.004329	30.3922750	3697
Income_less_than_15k	8.456253	9.2016718	3697
Income_15K_24999	7.330261	6.3127922	3697
Income_25K_34999	7.876182	6.1118912	3697
Income35K_49999	11.323944	7.2958843	3697
Income_50K_74999	15.424435	7.3137719	3697
Income_75K_99999	12.887043	6.3159416	3697
Income_100K_124999	9.779322	6.7091602	3697
Income_125K_149999	7.532548	6.5918159	3697
Income150K_199999	7.788153	7.6746742	3697
Income_100K_over	36.593686	25.0080344	3697
Income_200K_over	11.493665	15.1320613	3697

Correlations

	HomeownershipRate	Income_less_than_15k	Income_15K_24999	Income_25K_34999	Income35K_49999	Income_50K_74999	Income_75K_99999	Income_100K_124999	Income_125K_149999	Income150K_199999	Income_100K_over	Income_200K_over
HomeownershipRate	1.000	-.500	-.561	-.499	-.447	-.251	.057	.297	.427	.517	.646	.488
Income_less_than_15k	-.500	1.000	.718	.387	.225	-.054	-.313	-.390	-.439	-.473	-.610	-.405
Income_15K_24999	-.561	.718	1.000	.786	.390	.030	-.298	-.442	-.523	-.586	-.751	-.520
Income_25K_34999	-.499	.387	.786	1.000	.572	.140	-.197	-.385	-.489	-.579	-.737	-.541
Income35K_49999	-.447	.225	.390	.572	1.000	.422	-.053	-.312	-.442	-.558	-.716	-.569
Income_50K_74999	-.251	-.054	.030	.140	.422	1.000	.458	-.054	-.248	-.418	-.544	-.555
Income_75K_99999	.057	-.313	-.298	-.197	-.053	.458	1.000	.301	.044	-.097	-.124	-.308
Income_100K_124999	.297	-.390	-.442	-.385	-.312	-.054	.301	1.000	.301	.172	.386	-.023
Income_125K_149999	.427	-.439	-.523	-.489	-.442	-.248	.044	.301	1.000	.401	.608	.233
Income150K_199999	.517	-.473	-.586	-.579	-.558	-.418	-.097	.172	.401	1.000	.778	.527
Income_100K_over	.646	-.610	-.751	-.737	-.716	-.544	-.124	.386	.608	.778	1.000	.822
Income_200K_over	.488	-.405	-.520	-.541	-.569	-.555	-.308	-.023	.233	.527	.822	1.000

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	7.480E-5	11.335		.000	1.000	-22.224	22.224
	Income_less_than_15k	.019	.130	.006	.146	.884	-.236	.274
	Income_15K_24999	.087	.181	.018	.478	.632	-.269	.442
	Income_25K_34999	.422	.167	.085	2.522	.012	.094	.749
	Income35K_49999	.272	.133	.065	2.040	.041	.011	.533
	Income_50K_74999	.427	.131	.103	3.262	.001	.170	.684
	Income_75K_99999	.663	.134	.138	4.951	.000	.400	.925
	Income_100K_124999	.972	.128	.215	7.570	.000	.720	1.224
	Income_125K_149999	1.091	.130	.237	8.392	.000	.836	1.345
	Income150K_199999	1.139	.129	.288	8.844	.000	.887	1.392
	Income_200K_over	.964	.117	.480	8.245	.000	.735	1.194

a. Dependent Variable: HomeownershipRate

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.667[a]	.445	.444	22.6707550	.445	295.642	10	3686	.000	1.940

a. Predictors: (Constant), Income_200K_over, Income_100K_124999, Income_125K_149999, Income_75K_99999, Income150K_199999, Income_50K_74999, Income35K_49999, Income_25K_34999, Income_15K_24999, Income_less_than_15k

b. Dependent Variable: HomeownershipRate

4.9.2 Educational Attainment

A multi-variate analysis was conducted to examine how well different income levels could predict the change in homeownership rate of the 4-county research area. The analysis results were slightly less than expected. While as expected, having some post-secondary education has a positive relationship on the likelihood of homeownership rate, meaning, the higher levels of education do not necessarily increase to the same extent. For example, the analysis indicates that having a doctorate degree does not increase the likelihood of homeownership than just by obtaining a bachelor's degree. Moreover, the model reveals the impact of education accounted for just 10.3% of the variability in homeownership rates.

Descriptive Statistics

	Mean	Std. Deviation	N
HomeownershipRate	60.004329	30.3922750	3697
LessThanHighSchool	17.711683	18.3945525	3697
HighSchool	21.916645	12.0508601	3697
SomeCollege	21.769057	9.6150322	3697
Associates	6.288282	4.8158280	3697
Bachelors	21.405015	15.2731814	3697
Masters	7.944128	7.5887970	3697
Professional	1.830740	3.3500862	3697
Doctorate	1.053305	2.0149508	3697

Correlations

		HomeownershipRate	LessThanHighSchool	HighSchool	SomeCollege	Associates	Bachelors	Masters	Professional	Doctorate
Pearson Correlation	HomeownershipRate	1.000	-.301	-.155	.047	.084	.279	.216	.166	.128
	LessThanHighSchool	-.301	1.000	.312	-.362	-.314	-.712	-.586	-.340	-.303
	HighSchool	-.155	.312	1.000	.006	-.096	-.692	-.601	-.429	-.332
	SomeCollege	.047	-.362	.006	1.000	.190	-.105	-.159	-.216	-.114
	Associates	.084	-.314	-.096	.190	1.000	.057	-.008	-.098	-.046
	Bachelors	.279	-.712	-.692	-.105	.057	1.000	.645	.435	.329
	Masters	.216	-.586	-.601	-.159	-.008	.645	1.000	.447	.370
	Professional	.166	-.340	-.429	-.216	-.098	.435	.447	1.000	.322
	Doctorate	.128	-.303	-.332	-.114	-.046	.329	.370	.322	1.000

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	.000	16.622		.000	1.000	-32.589	32.588
	LessThanHighSchool	.261	.168	.158	1.548	.122	-.069	.591
	HighSchool	.621	.171	.246	3.636	.000	.286	.956
	SomeCollege	.562	.172	.178	3.270	.001	.225	.900
	Associates	.724	.193	.115	3.743	.000	.345	1.104
	Bachelors	.814	.171	.409	4.757	.000	.479	1.150
	Masters	.605	.187	.151	3.237	.001	.238	.971
	Professional	1.012	.235	.112	4.306	.000	.551	1.472
	Doctorate	.844	.307	.056	2.746	.006	.242	1.447

a. Dependent Variable: HomeownershipRate

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.323[a]	.105	.103	28.7898261	.105	53.861	8	3688	.000	1.904

a. Predictors: (Constant), Doctorate, Associates, SomeCollege, Bachelors, Professional, Masters, HighSchool, LessThanHighSchool

b. Dependent Variable: HomeownershipRate

4.9.3 Age

A multi-variate analysis was conducted to examine how well different age ranges could predict the change in homeownership rate of the 4-county research area. The analysis revealed the positive relationship between homeownership rate and most age groups, for the exception of the youngest age group between 25 to 34, where there is a negative relation. This is most likely due to household formation. Transitions from one stage in life to another often provide the impetus for relocation and housing change (Clark and Dielenman, 1996). Also, the likelihood of homeownership for the age groups beyond 75 begins to decrease, which is most likely due to transitions to other alternative care situations. Age has a moderately strong relationship to homeownership. The impact of age accounts for 61.6% of the variability in homeownership.

Descriptive Statistics

	Mean	Std. Deviation	N
HomeownershipRate	60.004329	30.3922750	3697
Age_25_34	16.404418	7.9339975	3697
Age_35_44	13.806558	3.5366043	3697
Age_45_54	12.458247	3.5153754	3697
Age_55_64	11.398100	4.5764521	3697
Age_65_74	7.430208	4.6886710	3697
Age_75_84	3.165848	2.8374559	3697
Age_85_over	19.81	30.666	3697

Correlations

		HomeownershipRate	Age_25_34	Age_35_44	Age_45_54	Age_55_64	Age_65_74	Age_75_84	Age_85_over
Pearson Correlation	HomeownershipRate	1.000	-.687	.131	.569	.519	.412	.219	.017
	Age_25_34	-.687	1.000	.168	-.548	-.562	-.520	-.412	-.197
	Age_35_44	.131	.168	1.000	.102	-.345	-.473	-.480	-.264
	Age_45_54	.569	-.548	.102	1.000	.612	.221	.045	-.045
	Age_55_64	.519	-.562	-.345	.612	1.000	.669	.405	.131
	Age_65_74	.412	-.520	-.473	.221	.669	1.000	.662	.265
	Age_75_84	.219	-.412	-.480	.045	.405	.662	1.000	.601
	Age_85_over	.017	-.197	-.264	-.045	.131	.265	.601	1.000

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	17.773	2.775		6.405	.000	12.332	23.214
	Age_25_34	-1.900	.055	-.496	-34.667	.000	-2.007	-1.792
	Age_35_44	2.897	.109	.337	26.519	.000	2.683	3.111
	Age_45_54	1.054	.138	.122	7.617	.000	.783	1.326
	Age_55_64	1.051	.123	.158	8.536	.000	.809	1.292
	Age_65_74	1.161	.116	.179	9.993	.000	.933	1.389
	Age_75_84	.357	.186	.033	1.917	.055	-.008	.723
	Age_85_over	-.074	.013	-.075	-5.705	.000	-.100	-.049

a. Dependent Variable: HomeownershipRate

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.785[a]	.616	.616	18.8403548	.616	846.986	7	3689	.000	1.924

a. Predictors: (Constant), Age_85_over, Age_45_54, Age_35_44, Age_65_74, Age_25_34, Age_75_84, Age_55_64

b. Dependent Variable: HomeownershipRate

4.9.4 Family Structure and Gender

A multi-variate analysis was conducted to examine how well family structure could predict the change in homeownership rate of the 4-county research area. The analysis shows the importance of household formation and marital status. The correlations among all household structure and homeownership rates were statistically significant. Married with children as expected is more likely to have higher rates of homeownership than any other family structure. Whether being married with children or no children, they all had a positive relationship with homeownership outcomes. Conversely, every single category had a negative correlation in the likelihood of homeownership. Single parents of either gender are least likely to obtain homeownership. The model indicates that family structure has a moderately strong relationship with homeownership. The impact of family structure accounted for 62.5% of the variability in homeownership rates.

Descriptive Statistics

	Mean	Std. Deviation	N
HomeownershipRate	60.004329	30.3922750	3697
Families_No_Children	45.503263	13.2756839	3697
Families_Married	69.540011	15.5629212	3697
Married_w_Children	35.027215	12.0915681	3697
Married_w_No_Children	34.512795	14.0730780	3697
Single_Male_with_Children	4.983491	2.8161984	3697
Single_Male_with_no_Children	3.722398	2.6293022	3697
Single_Female_with_Children	14.350787	9.4413668	3697
Single_Female_with_no_Children	7.268072	4.4608634	3697

Correlations

		HomeownershipRate	Families_No_Children	Families_Married	Married_w_Children	Married_w_No_Children	Single_Male_with_Children	Single_Male_with_no_Children	Single_Female_with_Children	Single_Female_with_no_Children
Pearson Correlation	HomeownershipRate	1.000	.219	.711	.430	.417	-.564	-.558	-.667	-.335
	Families_No_Children	.219	1.000	.359	-.585	.900	-.471	-.001	-.468	.138
	Families_Married	.711	.359	1.000	.506	.671	-.668	-.602	-.890	-.693
	Married_w_Children	.430	-.585	.506	1.000	-.300	-.128	-.380	-.379	-.570
	Married_w_No_Children	.417	.900	.671	-.300	1.000	-.629	-.339	-.659	-.277
	Single_Male_with_Children	-.564	-.471	-.668	-.128	-.629	1.000	.503	.553	.286
	Single_Male_with_no_Children	-.558	-.001	-.602	-.380	-.339	.503	1.000	.358	.479
	Single_Female_with_Children	-.667	-.468	-.890	-.379	-.659	.553	.358	1.000	.475
	Single_Female_with_no_Children	-.335	.138	-.693	-.570	-.277	.286	.479	.475	1.000

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	10.000	8.328		1.201	.230	-6.327	26.328
	Families_No_Children	.655	.085	.286	7.703	.000	.488	.821
	Married_w_Children	1.207	.085	.480	14.135	.000	1.040	1.374
	Single_Male_with_Children	-1.254	.170	-.116	-7.394	.000	-1.587	-.922
	Single_Male_with_no_Children	-3.739	.151	-.323	-24.782	.000	-4.034	-3.443
	Single_Female_with_Children	-.884	.094	-.275	-9.435	.000	-1.067	-.700
	Single_Female_with_no_Children	1.485	.093	.218	15.912	.000	1.302	1.668

a. Dependent Variable: HomeownershipRate

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.791[a]	.625	.625	18.6213683	.625	1025.907	6	3690	.000	1.992

a. Predictors: (Constant), Single_Female_with_no_Children, Families_No_Children, Single_Male_with_no_Children, Single_Male_with_Children, Single_Female_with_Children, Married_w_Children

b. Dependent Variable: HomeownershipRate

4.9.5 Race

A multi-variate analysis was conducted to examine how well race could predict the change in homeownership rate of the 4-county research area. The analysis shows disparities between white households and households of color. The correlations among the races and homeownership rate were statistically significant, except for two or more races head of households. Whites have the highest likelihood of homeownership than any other racial group. In addition, American Indian and Alaska Native had small positive correlation to homeownership. Conversely, black, Hispanic and Asian households had decreased likelihood to homeownership comparatively to their white counterpart. The model indicates that race accounted for 24.7% of the variability in homeownership rates.

Descriptive Statistics

	Mean	Std. Deviation	N
HomeownershipRate	60.004329	30.3922750	3697
White_NonHisp_HH	50.902539	28.6300013	3697
Black_NonHisp_HH	17.532013	21.0944384	3697
Hispanic	23.898072	21.8976899	3697
Asian_HH	5.274882	7.4465941	3697
AmeriIndian_AlaskaNT_HH	.393377	.3634308	3697
TwoOrMoreRaces_HH	1.860328	1.0233014	3697

Correlations

		HomeownershipRate	White_NonHisp_HH	Black_NonHisp_HH	Hispanic	Asian_HH	AmeriIndian_AlaskaNT_HH	TwoOrMoreRaces_HH
Pearson Correlation	HomeownershipRate	1.000	.460	-.293	-.284	-.044	.088	-.014
	White_NonHisp_HH	.460	1.000	-.652	-.677	.035	.239	.337
	Black_NonHisp_HH	-.293	-.652	1.000	-.044	-.140	-.222	-.172
	Hispanic	-.284	-.677	-.044	1.000	-.251	-.083	-.412
	Asian_HH	-.044	.035	-.140	-.251	1.000	-.089	.375
	AmeriIndian_AlaskaNT_HH	.088	.239	-.222	-.083	-.089	1.000	.165
	TwoOrMoreRaces_HH	-.014	.337	-.172	-.412	.375	.165	1.000

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-17.517	12.903		-1.358	.175	-42.814	7.781
	White_NonHisp_HH	1.160	.130	1.093	8.926	.000	.905	1.415
	Black_NonHisp_HH	.618	.130	.429	4.760	.000	.364	.873
	Hispanic	.606	.134	.437	4.518	.000	.343	.869
	Asian_HH	.646	.145	.158	4.460	.000	.362	.930
	AmeriIndian_AlaskaNT_HH	.276	1.262	.003	.218	.827	-2.199	2.751
	TwoOrMoreRaces_HH	-5.572	.504	-.188	-11.058	.000	-6.560	-4.584

a. Dependent Variable: HomeownershipRate

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.499[a]	.249	.247	26.3666601	.249	203.459	6	3690	.000	.468

a. Predictors: (Constant), TwoOrMoreRaces_HH, AmeriIndian_AlaskaNT_HH, Black_NonHisp_HH, Asian_HH, Hispanic, White_NonHisp_HH

b. Dependent Variable: HomeownershipRate

4.10 Regression with Model Building

Previously, I ran individual regressions based on individual demographic categories. However, to provide a comprehensive analysis, I will run an all-inclusive multivariate regression. Building a regression model is an arduous process, and it requires prior knowledge of the independent variables that are to be included in the model. The Anjomani's version of model building (Anjomani, 2016), along with stepwise, backward and forward selection methods, which are stepwise regression model building methods, are used to build the most appropriate regression model. Figure 4.18 summarizes steps involved in Anjomani's version of model building. The approach is based on Anjomani's (2016) model building, in which the regression model should be run with only the independent variables related to the research questions first and then make a hierarchy of independent variables from the literature. Add those independent variables one by one, into the regression and run the model with the added variable (Anjomani, 2016). There are three criteria Anjomani recommends deciding whether to keep or drop the added independent variable: evaluation of the significance of the variable, the improvement of the t-value and the improvement of the adjusted R square.

The stepwise method adds the independent variables to the model one at a time. The variable with the lowest p-value is added first and continues sequentially until there is no longer any variable with a p-value of less than .05. Also, the forward selection method adds one variable one at a time. However, the variable with the highest partial correlation is considered for entry, then looks at the significance value. If the p-value is less than .05, it includes the variable and then repeats the process. It stops when there are no more variables that meet the criteria for entry. Lastly, the backward method enters all the variables first into the model, then the independent variable with the smallest partial correlation is considered for removal. If the p-

value of this variable is less than .05 it is removed. A new model is created with all the remaining variables and the process is repeated. It stops when there are no more variables that meet the criteria to be removed.

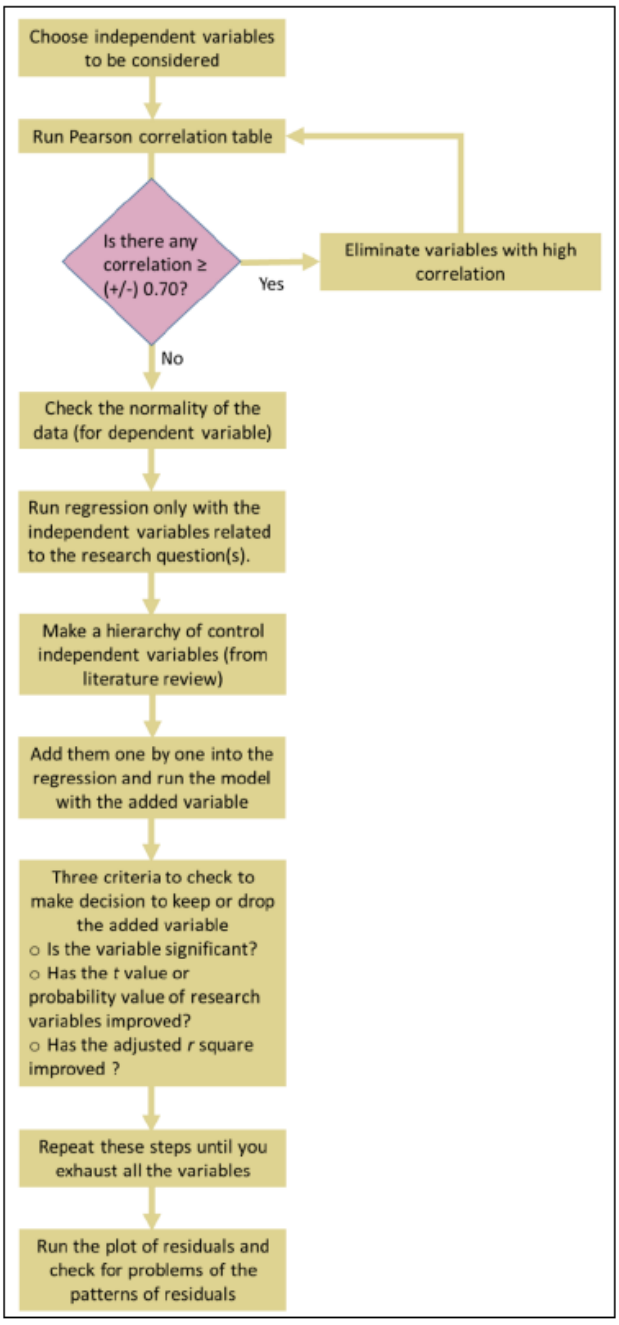


Figure 4-18 Anjomani's Model Building Steps

4.10.1 Regression of Overall Homeownership Rate and Demographics

In mathematic terms, the regression model is written as:

$$\text{HomeownershipRate} = a + \beta_1(\text{White}) + \beta_2(\text{Black}) + \beta_3(\text{Hispanic}) + \beta_4(\text{Asian}) + \beta_5(\text{AI\_AKN}) + \beta_6(\text{EducLessHS}) + \beta_7(\text{EducHS}) + \beta_8(\text{EducSomCol}) + \beta_9(\text{EducBachelors}) + \beta_{10}(\text{EducMastersPlus}) + \beta_{11}(\text{Married\_No\_Children}) + \beta_{12}(\text{Married\_with\_Children}) + \beta_{13}(\text{Single\_Male}) + \beta_{14}(\text{Single\_Female}) + \beta_{15}(\text{Single\_Male\_with\_Children}) + \beta_{16}(\text{Single\_Female\_with\_Children}) + \beta_{17}(\text{Age\_25\_34}) + \beta_{18}(\text{Age\_35\_44}) + \beta_{19}(\text{Age\_45\_54}) + \beta_{20}(\text{Age\_55\_64}) + \beta_{21}(\text{Age\_65\_74}) + \beta_{22}(\text{Age\_75\_84}) + \beta_{23}(\text{Age\_85plus}) + \beta_{24}(\text{Inc15k\_24999}) + \beta_{25}(\text{Inc25K\_34999}) + \beta_{26}(\text{Inc35K\_49999}) + \beta_{27}(\text{Inc50K\_74999}) + \beta_{28}(\text{Inc74k\_99999}) + \beta_{29}(\text{Inc100K\_124999}) + \beta_{30}(\text{Inc125K\_149999}) + \beta_{31}(\text{Inc150k\_199999}) + \beta_{32}(\text{Inc200Kplus}) = €$$

Descriptive Statistics

	Mean	Std. Deviation	N
HomeownershipRate	60.004329	30.3922750	3697
White	43.894495	28.5939112	3697
Black	16.514757	19.6985876	3697
Hispanic	30.497402	24.8350948	3697
Asian	6.197627	8.5042208	3697
AI_AKN	.354342	.3187037	3697
EducLessHS	17.711683	18.3945525	3697
EducHS	21.916645	12.0508601	3697
EducSomCol	21.769057	9.6150322	3697
EducBachelors	21.405015	15.2731814	3697
EducMastersPlus	30.402445	21.8178600	3697
Married_No_Children	34.512795	14.0730780	3697
Married_with_Childre n	35.027215	12.0915681	3697

Single_Male	3.722398	2.6293022	3697
Single_Female	14.350787	9.4413668	3697
Single_Male_with_Children	4.983491	2.8161984	3697
Single_Female_with_Children	7.268072	4.4608634	3697
Age_25_34	16.404418	7.9339975	3697
Age_35_44	13.806558	3.5366043	3697
Age_45_54	12.458247	3.5153754	3697
Age_55_64	11.398100	4.5764521	3697
Age_65_74	7.430208	4.6886710	3697
Age_75_84	3.165848	2.8374559	3697
Age_85plus	1.311753	2.5020208	3697
Inc15k_24999	7.330261	6.3127922	3697
Inc25K_34999	7.876182	6.1118912	3697
Inc35K_49999	11.323944	7.2958843	3697
Inc50K_74999	15.424435	7.3137719	3697
Inc74k_99999	12.887043	6.3159416	3697
Inc100K_124999	9.779322	6.7091602	3697
Inc125K_149999	7.532548	6.5918159	3697
Inc150k_199999	7.788153	7.6746742	3697
Inc200Kplus	11.493665	15.1320613	3697

Pearson's Correlation table[5] results are similar to the individual categorical regressions. Whites, as expected, revealed a moderate positive correlation to homeownership. American Indian and Alaska Native, was the only colored ethnic group that had a slight positive correlation to homeownership. Blacks, Hispanics and Asians have a weak negative relationship to homeownership. Non-high school graduates and high school graduates were both negatively correlated to the likelihood of homeownership. Whereas higher levels of education show a higher likelihood of homeownership. Marital status has the strongest positive correlation. Both married with children and married without children had moderate positive correlations with the age groups 45 and over. Conversely, there is a low negative correlation for ages under 45 for both

[5] The full Pearson's Correlation table for the comprehensive regression is too large to include.

married cohorts. However, being single has the strongest negative correlation. Thus, the youngest age group of 25-34 has a negative correlation and the subsequent age groups are positively correlated until the 85 and older group. Finally, the household income groups of less than $75,000 were all negatively correlated and above $75,000 were positively correlated.

Correlations

		HomeownershipRate
Pearson Correlation	HomeownershipRate	1.000
	White	.454
	Black	-.287
	Hispanic	-.279
	Asian	-.026
	AI_AKN	.127
	EducLessHS	-.301
	EducHS	-.155
	EducSomCol	.047
	EducBachelors	.279
	EducMastersPlus	.282
	Married_No_Children	.417
	Married_with_Children	.430
	Single_Male	-.558
	Single_Female	-.667
	Single_Male_with_Children	-.564
	Single_Female_with_Children	-.335
	Age_25_34	-.687
	Age_35_44	.131
	Age_45_54	.569
	Age_55_64	.519
	Age_65_74	.412
	Age_75_84	.219
	Age_85plus	-.006
	Inc15k_24999	-.561
	Inc25K_34999	-.499
	Inc35K_49999	-.447
	Inc50K_74999	-.251
	Inc74k_99999	.057
	Inc100K_124999	.297
	Inc125K_149999	.427
	Inc150k_199999	.517
	Inc200Kplus	.488

In running multiple regressions with the model building process, the main difference is the order in which the variables were added to the model. After conducting multiple methods, the outcome of adjusted R-square were all approximately between .845 and .844. As with the stepwise method outcome shown, the independent variables were added to the model one at a time. The variable with the lowest p-value is added first and it continues until there are no longer any variables with a p-value of less than .05. Those with a p-value higher than .05 would be excluded from the last model.

Asian, AI_AKN, EducBachelors, EducMastersPlus, Married_No_Children, Age_35_44, Inc25K_34999 and Inc35K_49999were eliminated from the analysis by the stepwise procedure

because they failed to meet the statistical criteria for inclusion in the analysis, which is a p-value less than .05.

As the research model has ultimately predicted an adjusted R-square (.844). Thus, 84.4 percent of the total variability is explained by the predictors. Approximately similar adjusted R-squares were the outcome with different stepwise methods. Therefore, it is concluded the best model has been constructed.

Model Summary[ae]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.687[a]	.472	.472	22.0770985	.472	3309.456	1	3695	.000
2	.826[b]	.682	.682	17.1310373	.210	2442.647	1	3694	.000
3	.851[c]	.723	.723	15.9897121	.041	547.167	1	3693	.000
4	.865[d]	.749	.748	15.2467099	.025	369.704	1	3692	.000
5	.871[e]	.759	.759	14.9227108	.011	163.060	1	3691	.000
6	.879[f]	.773	.772	14.5074707	.013	215.315	1	3690	.000
7	.887[g]	.786	.786	14.0716701	.014	233.098	1	3689	.000
8	.893[h]	.797	.797	13.7095121	.011	198.476	1	3688	.000
9	.897[i]	.804	.804	13.4609851	.007	138.439	1	3687	.000
10	.900[j]	.810	.810	13.2564696	.006	115.641	1	3686	.000
11	.903[k]	.816	.816	13.0477377	.006	119.877	1	3685	.000
12	.906[l]	.821	.821	12.8711952	.005	102.781	1	3684	.000
13	.908[m]	.825	.825	12.7264539	.004	85.275	1	3683	.000
14	.911[n]	.829	.829	12.5817107	.004	86.228	1	3682	.000
15	.912[o]	.832	.832	12.4745612	.003	64.524	1	3681	.000
16	.914[p]	.835	.834	12.3780476	.003	58.626	1	3680	.000
17	.914[q]	.836	.835	12.3299193	.001	29.785	1	3679	.000
18	.916[r]	.839	.838	12.2247234	.003	64.589	1	3678	.000
19	.917[s]	.840	.839	12.1810010	.001	27.451	1	3677	.000

Model Summary[ae]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
20	.917[t]	.841	.840	12.1516146	.001	18.806	1	3676	.000
21	.918[u]	.842	.841	12.1199587	.001	20.228	1	3675	.000
22	.918[v]	.842	.842	12.0978256	.001	14.459	1	3674	.000
23	.918[w]	.843	.842	12.0806973	.000	11.426	1	3673	.001
24	.918[x]	.843	.842	12.0668586	.000	9.430	1	3672	.002
25	.918[y]	.843	.842	12.0665828	.000	.832	1	3672	.362
26	.919[z]	.844	.843	12.0560050	.000	7.448	1	3672	.006
27	.919[aa]	.844	.843	12.0508377	.000	4.150	1	3671	.042
28	.919[ab]	.845	.844	12.0087066	.001	26.804	1	3670	.000
29	.919[ac]	.845	.844	12.0073145	.000	.149	1	3670	.700
30	.919[ad]	.845	.844	12.0062675	.000	.360	1	3671	.549

Durbin-Watson 1.653

4.10.2 Regression Outcome for Determinants of Black Homeownership

In mathematic terms the regression model is written as:

BlackHomeownershipRate= a+ β_1(EducLessHS) + β_2(EducHS) + β_3(EducSomCol) + β_4(EducBachelors) + β_5(AI_AKN) + β_6(EducMastersPlus) + β_7(Married_No_Children) + β_8(Married_with_Children) + β_9(Single_Male) + β_{10}(Single_Female) + β_{11}(Single_Male_with_Children) + β_{12}(Single_Female_with_Children) + β_{13}(Age_25_34) + β_{14}(Age_35_44) + β_{15}(Age_45_54) + β_{16}(Age_55_64) + β_{17}(Age_65_74) + β_{18}(Age_75_84) + β_{19}(Age_85plus) + β_{20}(Inc15k_24999) + β_{21}(Inc25K_34999) + β_{22}(Inc35K_49999) + β_{23}(Inc50K_74999) + β_{24}(Inc74k_99999) + β_{25}(Inc100K_124999) + β_{26}(Inc125K_149999) + β_{27}(Inc150k_199999) + β_{28}(Inc200Kplus) =€

The correlation of the independent variables and black homeownership rate were all relatively very low to weak, except for Single_Female_with_Children which has a moderate to low positive correlation of .452.

Correlations

		BlackHomeownershipRate
Pearson Correlation	BlackHomeownershipRate	1.000
	EducLessHS	.051
	EducHS	.229
	EducSomCol	.122
	EducBachelors	-.196
	EducMastersPlus	-.200
	Married_No_Children	-.178
	Married_with_Children	-.080
	Single_Male	.056
	Single_Female	.155
	Single_Male_with_Children	-.026
	Single_Female_with_Children	.452
	Age_25_34	-.158
	Age_35_44	-.025
	Age_45_54	.026
	Age_55_64	.095
	Age_65_74	.104
	Age_75_84	.071
	Age_85plus	-.019
	Inc15k_24999	.044
	Inc25K_34999	.027
	Inc35K_49999	.015
	Inc50K_74999	.023
	Inc74k_99999	.064
	Inc100K_124999	.094
	Inc125K_149999	.009
	Inc150k_199999	-.058
	Inc200Kplus	-.153

The coefficients table is next for interpretation. However, I will provide an explanation of the regression coefficients for the black homeownership rate to provide a better understanding of their impact and importance. The regression coefficients express the amount of change in black homeownership rate with the effect of all other independent variables in the equation controlled. Thus, each of the regression coefficients would express the unique contribution of the relevant variable to black homeownership rate. I want to predict the likelihood level of black homeownership rate based on the predictors. While the ability to make such predictions is my interest, the strength of multiple regressions lies primarily in its use as a means of establishing the relative importance of independent variables to the dependent variable (Bryman and Cramer, 1994). However, I cannot say that simply because the regression coefficient for one independent variable is larger than another, that it means it is more important than the other. This is because independent variables may be derived from different units of measurement that cannot be directly compared (Bryman and Cramer, 1994). Thus, the magnitude of an unstandardized coefficient is affected by the nature of the measurement scale for the variable itself (Bryman and Cramer, 1994). In order to affect a comparison, it is necessary to standardize the units of measurement involved which is known as the standardized regression coefficient or beta weight. These coefficients can, therefore, be compared to establish which of the two or more independent variables is the more important factor in relation to the dependent variable. They essentially explain how many standard deviation units the dependent variable will change for a one standard deviation change in the independent variable (Bryman and Cramer, 1994).

EducBachelors, EducMastersPlus, Married_with_Children, Single_Male, Single_Female, Age_85plus, Inc15k_24999, Inc25K_34999, Inc35K_49999, and Inc50K_74999 were eliminated

from the analysis by the stepwise procedure because they failed to meet the statistical criteria for inclusion in the analysis, which is a p-value less than .05.

However, it is the relative impact of each of the independent variables on black homeownership rate that is this study's main interest. The following coefficient table presents the regression coefficients for independent variables remaining in the equation and corresponding standardized regression coefficients.

When we see the standardized regression coefficients (the beta) we can conclude that Single_Female_with_Children has the greatest impact on black homeownership rate at a .546 Beta. Married_No_Children has the next highest impact, which is negative (-.347 Beta), indicating the more Married_No_Children households in the block group implies lower rate of black homeownership.

Thus, the Beta for Single_Female_with_Children means that for each one-unit change in Single_Female_with_Children households, there is a standard deviation change in black homeownership rate of .546, with the effects of the other independent variables on black homeownership controlled. Moreover, for everyone-unit increase in Single_Female_with_Children households in the block group, there is a 1.534 (B) increase in the black homeownership rate. Conversely, for every one-unit increase in Married_No_Children households, there is a .309 (B) decrease in the black homeownership rate.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
21	(Constant)	-7.201	2.209		-3.260	.001	-11.531	-2.871					
	Single_Female_with_Children	1.534	.056	.546	27.278	.000	1.424	1.644	.452	.410	.356	.425	2.351
	Age_25_34	-.191	.043	-.121	-4.426	.000	-.276	-.107	-.158	-.073	-.058	.228	4.392
	Age_35_44	.262	.069	.074	3.802	.000	.127	.397	-.025	.063	.050	.451	2.220
	Inc100K_124999	.253	.029	.136	8.656	.000	.196	.311	.094	.141	.113	.694	1.442
	Age_75_84	-.256	.095	-.058	-2.704	.007	-.442	-.070	.071	-.045	-.035	.371	2.697
	Single_Male_with_Children	-.741	.096	-.166	-7.753	.000	-.928	-.553	-.026	-.127	-.101	.370	2.705
	Married_No_Children	-.309	.032	-.347	-9.752	.000	-.372	-.247	-.178	-.159	-.127	.134	7.444
	Age_55_64	.511	.076	.187	6.737	.000	.362	.660	.095	.110	.088	.222	4.504
	Inc150k_199999	.236	.031	.145	7.507	.000	.174	.298	-.058	.123	.098	.459	2.178
	Inc125K_149999	.199	.031	.105	6.419	.000	.138	.260	.009	.105	.084	.639	1.565
	Inc74k_99999	.194	.031	.098	6.202	.000	.133	.255	.064	.102	.081	.687	1.455
	Age_45_54	-.421	.080	-.118	-5.287	.000	-.577	-.265	.026	-.087	-.069	.341	2.928
	Inc200Kplus	.141	.024	.170	5.911	.000	.094	.188	-.153	.097	.077	.205	4.884
	Age_65_74	.142	.067	.053	2.119	.034	.011	.274	.104	.035	.028	.270	3.708
	EducHS	.113	.019	.109	5.987	.000	.076	.150	.229	.098	.078	.515	1.942
	EducSomCol	.115	.021	.088	5.354	.000	.073	.157	.122	.088	.070	.628	1.592
	EducLessHS	.082	.017	.120	4.895	.000	.049	.114	.051	.080	.064	.285	3.508

The model summary for black homeownership follows. Despite using the best model based on literature and previous model outcomes, demographic factors account for only 37.1 percent of the variability in black homeownership in the 4-county research area.

Model Summary[v]

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.452[a]	.204	.204	11.1847285	.204	948.863	1	3695	.000	
2	.506[b]	.256	.255	10.8200413	.051	254.276	1	3694	.000	
3	.541[c]	.293	.292	10.5467959	.037	194.887	1	3693	.000	
4	.558[d]	.311	.310	10.4111072	.018	97.890	1	3692	.000	
5	.565[e]	.319	.318	10.3536932	.008	42.060	1	3691	.000	
6	.569[f]	.324	.323	10.3164620	.005	27.689	1	3690	.000	
7	.578[g]	.334	.333	10.2407462	.010	55.766	1	3689	.000	
8	.584[h]	.341	.340	10.1849122	.007	41.557	1	3688	.000	
9	.584[i]	.341	.340	10.1851404	.000	1.165	1	3688	.280	
10	.589[j]	.347	.345	10.1432057	.006	31.566	1	3688	.000	
11	.594[k]	.353	.351	10.0990949	.006	33.287	1	3687	.000	
12	.598[l]	.357	.356	10.0644345	.005	26.439	1	3686	.000	
13	.601[m]	.361	.359	10.0339833	.004	23.407	1	3685	.000	
14	.604[n]	.365	.363	10.0076535	.004	20.416	1	3684	.000	
15	.608[o]	.369	.367	9.9751529	.004	25.045	1	3683	.000	
16	.608[p]	.370	.368	9.9689267	.001	5.602	1	3682	.018	
17	.609[q]	.371	.369	9.9618312	.001	6.247	1	3681	.012	
18	.610[r]	.372	.369	9.9569533	.001	4.608	1	3680	.032	
19	.611[s]	.373	.370	9.9512322	.001	5.233	1	3679	.022	
20	.612[t]	.374	.371	9.9439841	.001	6.365	1	3678	.012	
21	.611[u]	.374	.371	9.9460941	.000	2.561	1	3678	.110	.986

I conducted other analyses to compare the impact of demographics on other ethnic groups and it revealed the wide-ranging variations with respect to different ethnic groups. The model summaries are as follows. With white homeownership rate, demographic factors account for 82.1 percent of variability, Hispanic, 60.1 percent, Asian 37.6 percent and American Indian and Alaska Native 22.7 percent.

Model Summary[b]

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.907[a]	.822	.821	11.9745824	.822	628.227	27	3669	.000	1.183

a. Predictors: (Constant), Inc200Kplus, Age_85plus, Inc100K_124999, EducSomCol, Age_65_74, Inc125K_149999, Inc74k_99999, Married_with_Children, EducHS, Inc150k_199999, Age_45_54, Single_Male, Inc50K_74999, Single_Female_with_Children, Inc35K_49999, Age_35_44, Single_Male_with_Children, Single_Female, Inc25K_34999, Age_25_34, EducLessHS, Age_75_84, Age_55_64, EducBachelors, Inc15k_24999, Married_No_Children, EducMastersPlus

b. Dependent Variable: WhiteHomeownershipRate

Model Summary[b]

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.777[a]	.604	.601	8.6492397	.604	207.533	27	3669	.000	1.304

a. Predictors: (Constant), Inc200Kplus, Age_85plus, Inc100K_124999, EducSomCol, Age_65_74, Inc125K_149999, Inc74k_99999, Married_with_Children, EducHS, Inc150k_199999, Age_45_54, Single_Male, Inc50K_74999, Single_Female_with_Children, Inc35K_49999, Age_35_44, Single_Male_with_Children, Single_Female, Inc25K_34999, Age_25_34, EducLessHS, Age_75_84, Age_55_64, EducBachelors, Inc15k_24999, Married_No_Children, EducMastersPlus

b. Dependent Variable: HispanicHomeownershipRate

Model Summary[b]

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.617[a]	.381	.376	4.3533389	.381	83.522	27	3669	.000	1.172

a. Predictors: (Constant), Inc200Kplus, Age_85plus, Inc100K_124999, EducSomCol, Age_65_74, Inc125K_149999, Inc74k_99999, Married_with_Children, EducHS, Inc150k_199999, Age_45_54, Single_Male, Inc50K_74999, Single_Female_with_Children, Inc35K_49999, Age_35_44, Single_Male_with_Children, Single_Female, Inc25K_34999, Age_25_34, EducLessHS, Age_75_84, Age_55_64, EducBachelors, Inc15k_24999, Married_No_Children, EducMastersPlus

b. Dependent Variable: AsianHomeownershipRate

Model Summary[b]

					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.483[a]	.233	.227	.3317654	.233	41.279	27	3669	.000	1.826

a. Predictors: (Constant), Inc200Kplus, Age_85plus, Inc100K_124999, EducSomCol, Age_65_74, Inc125K_149999, Inc74k_99999, Married_with_Children, EducHS, Inc150k_199999, Age_45_54, Single_Male, Inc50K_74999, Single_Female_with_Children, Inc35K_49999, Age_35_44, Single_Male_with_Children, Single_Female, Inc25K_34999, Age_25_34, EducLessHS, Age_75_84, Age_55_64, EducBachelors, Inc15k_24999, Married_No_Children, EducMastersPlus

b. Dependent Variable: AI_AK_HomeownershipRate

5 Synthesis and Conclusions

5.1 Introduction

This chapter of the dissertation synthesizes and reports the importance of the research findings in perspective to the study's research questions, literature review and data analysis, and presents the conclusion based on the culmination of the findings. This chapter also describes the contribution to the existing body of knowledge in housing through the lens of equity planning. The chapter will begin with the summary of the findings and the implications of those findings in the broader regional context of ethnic minorities, especially African Americans. Following, will include policy recommendations at the federal and local levels. Thereafter, the final section of this chapter will include future research possibilities.

5.2 Summary of Findings

As with many other metropolitan areas of the country, the Dallas Fort Worth region has a housing supply crisis, which contributes to rising home prices, thus making homeownership less obtainable for low-to-middle income borrowers. Of the 4-county research areas of Dallas, Tarrant, Collin and Denton counties, home sales are increasing at a faster pace in the outlying rural areas and counties. Median sales prices nearly doubled in large areas of the housing market share and continue to rise due to the current low supply and demand for homes.

Of the all the 16 southern states, Texas comes 13th in terms of black homeownership. And of the 4 counties of Dallas, Tarrant, Collin and Denton, Dallas County has the highest percentage of black homeowners at 9.46%. On the other hand, Dallas County has also been the only county among the four counties which have experienced a decrease in black

homeownership. Despite North Texas being a diverse region in terms of race and ethnicity, the results show in each county has more white households who own homes than households of color. A large part of the gap in homeownership among minorities can be attributed to differences in economic circumstances and the composition of minority populations (Urban Institute, 2017).

The cities with the lowest homeownership rates were Addison, which top the list with the lowest homeownership rate of 21.92%. The second was Irving with a homeownership rate of 36.56% and third is Dallas with 41.99%. All three of these are very ethnically diverse in contrast to the cities with the highest homeownership rates, which were more homogeneous in terms of income and race.

The cities with high black homeownership, were also the cities with high a majority black population. But more revealing was the investigation of the zip codes with majority black populations. It revealed that even though there is a majority black population, it does not equate to higher black homeownership. Specifically, even though the 75237-zip code has 82.10% black population, the homeownership rate is a dismal 10.73%. To partly contribute to urban issues that this zip code is plagued with is a policy decision made decades ago to have not one, but two highways bisect this urban center. The population growth for 75237 has increased by 9.25% in the past 10 years and based on a target market analysis I conducted, 75237 appears to be gentrifying. The change in the median estimated home value over the past 36 months has increased by 41.27%. While in the last 24 months, the median list price has increased by 21.32% and the median sales price has increased by 11.31%. There is a current drop in sales prices within the current past months (at the time of this study), which is most likely due to the current pandemic crisis, which is affecting the economy overall. However, the overall data indicates a

growing issue for potential low-to moderate-income homeowners, where the median household income is only $40,705 in this zip code.

A multi-variate analysis was conducted to examine how well demographics play a role in homeownership rate of the 4-county research area. The analysis illustrated the importance of household formation and marital status. Being married with children as expected is more likely to have higher rates of homeownership than any other family structure. Whether being married with children or no children, they all had a positive relationship to homeownership outcomes. Conversely, every single category had a negative correlation in the likelihood of homeownership. Single parents of either gender are least likely to obtain homeownership. The impact of family structure accounted for 62.5% of the variability in homeownership rates.

There was a positive relationship between homeownership rate and most age groups, for the exception of the youngest age group between 25 to 34, where there is a negative correlation. This is most likely due to household formation. Transitions from one stage in life to another often provide the impetus for relocation and housing change (Clark and Dielenman, 1996). Also, the likelihood of homeownership for the age groups beyond 75 begins to decrease, which is most likely due to transitions to other alternative care situations. The impact of age accounts for 61.6% of the variability in homeownership rates.

As expected, as household income increases, the higher likelihood of homeownership. However, the correlation is negative for household income levels below $75,000. The impact of household income accounted for 44% of the variability in homeownership rates.

The analysis revealed the disparities between white households and households of color. The correlations among the races and homeownership rate were statistically significant, except

for two or more races head of households. Whites have the highest likelihood of homeownership than any other racial group. Conversely, black, Hispanic and Asian households have decreased likelihood to homeownership comparatively to their white counterparts. The model indicates that race accounted for 24.7% of the variability in homeownership rates.

In terms of educational attainment, the analysis results were slightly less than expected. While as expected, having some post-secondary education has a positive relationship on the likelihood of homeownership rate, meaning, the higher levels of education do not necessarily increase to the same extent. For example, the analysis indicates that having a doctorate degree does not increase the likelihood of homeownership than just by having a bachelor's degree. Even more surprising, the model reveals the impact of education accounted for just 10.3% of the variability in homeownership rates.

Conducting the comprehensive regression analysis, revealed similar patterns and outcomes as the individual regressions. However, for black homeownership rate, demographic factors accounted for only 37.1 percent of the variability in black homeownership in the 4-county research area. As other factors may contribute to the variability of black homeownership, this level of analysis is important.

Even though, studies show that homeownership among women is growing especially for non-married women, minority women, because of their dual-minority group status may not fare as well as their white counterparts (Martin, 2010). As my analysis revealed, single females with children have the greatest impact on black homeownership rate, which anecdotally this researcher can attest to. However, the challenges for single black women with children are particularly unique, especially in this pandemic era.

5.3 Implications of Findings

One of the many takeaways of this study is that marital status is important. Marital Status is most determining. It is more important than income, more important than education and more important than race. However, even when blacks are married, they still have a lower homeownership rate than their white counterparts.

Historians agree that past discriminatory policies and practices continue to affect African American communities today. Massey and Denton concluded in *American Apartheid: Segregation of the American Underclass* that for at least fifty years, from 1940 through 1990, African Americans were subject to a system of institutionalized housing discrimination (Massey & Denton, 1993, p. 212). Also, historian, Kenneth Jackson concluded, in *The Crabgrass Frontier, the Suburbanization of the United States,* that the lasting damage done by the national government was that it put its seal of approval on ethnic and racial discrimination and developed policies which resulted in the practical abandonment of large sections of older, industrial cities.

Analyzing specific sub-populations can help ensure policy decisions are formulated and implemented where it is most needed and have a greater impact. This study contributed by identifying the most needed areas within the region for planners and policymakers to address. For example, with the zip code 75237 is beginning to gentrify. Local planners must focus on the principles of equity planning. If not addressed, the population will be displaced. Unfortunately due to the low median income, and rising housing costs, the potential for growing homelessness is imminent.

5.4 Policy Recommendations

5.4.1 Mortgage Credit Certificate Increase

Income is a potential element for which policy can address low homeownership rates. I recommend the increase of the Mortgage Credit Certificate (MCC) from $2000 to $10,000. The MCC program is an underutilized housing assistance mechanism that is available to help low-to-moderate-income households become homeowners. The MCC program is funded by the federal government but is administered at either the state or local level. It offers tax credits to eligible households, thereby reducing their federal income tax liability (McClure, 1993). The credit reduces the household's tax burden (annually) and therefore makes more money available to the household to pay the carrying costs of the home (McClure, 1993). MCCs may be granted to provide federal tax credit at rates varying from 10 to 50% of the mortgage interest paid per year. At rates exceeding 20%, the credit for any homeowner is capped at $2000 per year (Greulich and Quigley, 2009).

Surprisingly, this $2000 cap has remained the same since the origination of the MCC program in 1980. It has not increased, even with the cost of inflation, this is why I recommend this cap be increased to $10,000. Increasing the cap of the MCC will help first-time homeowners with debt to income issues when qualifying for a mortgage. The MCC is included as income during the underwriting process, thereby increasing a borrower's monthly income. Furthermore, the MCC tax credit can often result in greater tax refunds since it is a tax credit and not a deduction. With this potential increase in funds annually it allows for the continued sustainability of the home. The credit remains as long as the homeowner resides in the home.

5.4.2 Racial Equity Impact Policy

A racial equity impact assessment (REIA) is a systematic examination of how difference racial and ethnic groups will likely be affected by a proposed action or decision and are used to minimize unanticipated adverse consequences, such as preventing institutional racism (raceforward.org). Thus, I am proposing that city officials enact a Racial Equity Impact Policy that would require city staff and developers to create a Racial Equity Impact Report for all development projects that receive public funding. My dissertation methodology is a foundational template that can specifically be used to target specific areas and groups to prevent ongoing disparities. The use of Racial Equality Impact Assessments in the U.S. is relatively new and still somewhat limited, and the United Kingdom has been using them with success for nearly a decade (raceforward.org).

As housing policies of the past have created racial inequities, we must create new policies to mitigate inequities. For example, despite the warnings from Dr. Frank Horne to the passing of the Housing Acts of 1949 and 1954, which provided the foundation for slum clearance and urban renewal (Hirsch, 2000), the acts were passed. Horne detailed the grave dangers posed by the initial bill in the memorandum, *Racial Implications of Title I of the Housing Act of 1949*. Horne had sharp words for New York's Stuyvesant Town project, Chicago's attempt to rehabilitate its South Side Black Belt, and early slum clearance efforts in Washington, D.C. (Hirsch, 2000). Horne charged that such exercises in urban revitalization, negative examples all, had been "perverted" by their failure to face squarely the racial considerations involved (Hirsch, 2000).

Not considering the racial impacts of policy has produced inequitable outcomes for African Americans. Essentially, history has shown a desperate need to place race at the center of housing policy and the need for specific measures to protect, if not advance, African American

interests (Hirsch, 2000). Therefore, to represent this effort, African Americans and, more specifically, females should have a seat at the table during this policy process when promulgating the Racial Equity Impact Assessment. As my research has shown, single black females with children are most important in terms of black homeownership outcomes. Thus, their input during the decision-making process and implementation of the REIA is mandatory.

5.5 Future Research Recommendations

Outside of demographics and economic challenges, attitudes and cultural preferences need to be investigated in terms of homeownership outcomes for African Americans. The sociological and cultural factors affecting African American homeownership and their gap between other ethnicities need to be more qualitatively studied. The unexplained gap that quantitative studies continue to reveal could be paired with qualitative study and just not by any researcher.

An ethnographic study conducted by an African American, with common links, would provide more insight. If the researcher is intimately connected to the community, it should combat distrust and suspicion. In fact, research on inner-city neighborhoods reveals that people with limited means, such as the poor and the elderly, require "intimates" that are close at hand (Gottdiener & Hutchinson, 2011 p. 206). Intimate knowledge provides a level of understanding that quantitative data analysis just does not explain.

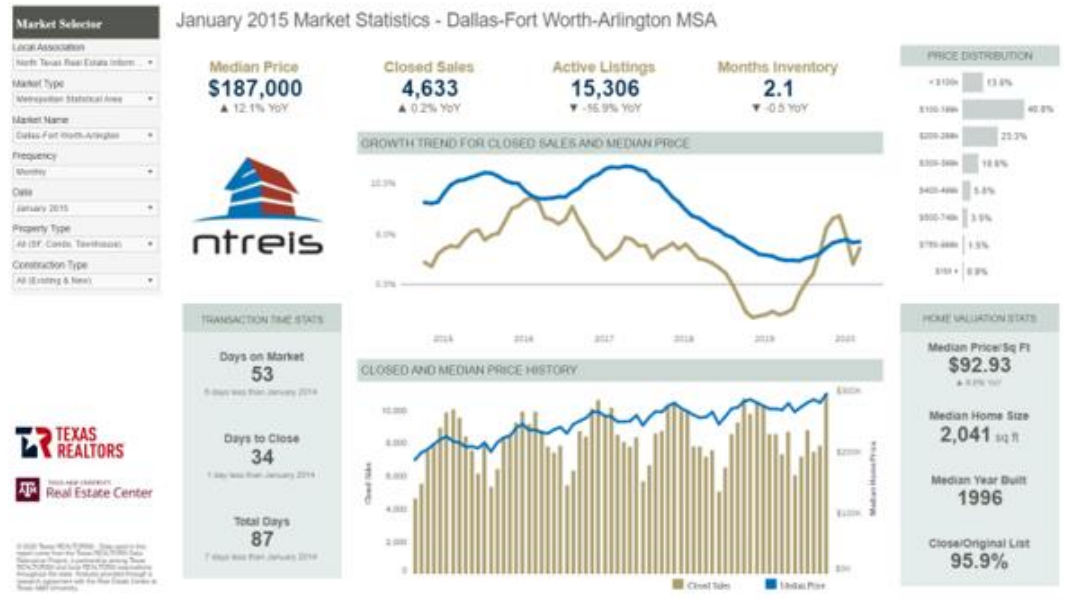
Additionally, as this study found, that single black females with children have the most impact on black homeownership outcomes in the 4-county research area, a call for additional research to further tease apart the ethnic differences among this group within regions is vital.

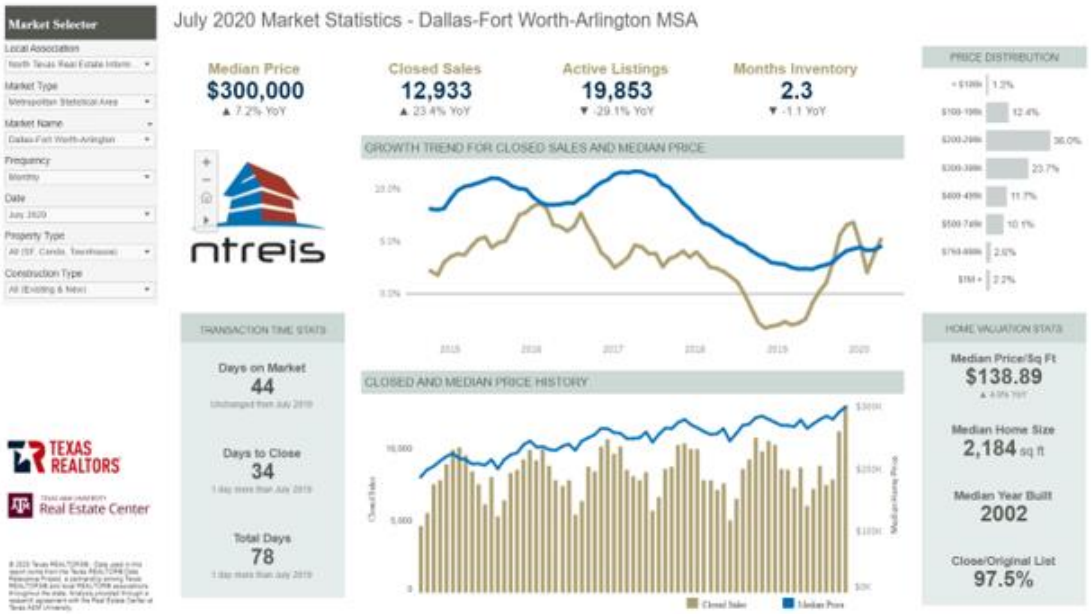
Black ethnic groups including those with roots in the Caribbean or from Africa have been shown to have higher rates of homeownership and higher housing values than native-born Blacks (Alba and Logan 1992; Logan and Deane 2003). If ethnicity does matter for blacks, regional differences need to be observed to gain better insight and understanding to avoid generalizations of specific populations.

6 Appendix

6.1 Appendix A

Compiled from Texas Real Estate Data Relevance





6.2 Appendix B

Compiled from data sourced from U.S. Census

Zip Codes with the Highest Differential Between Percentage of Black Population and Black Homeownership Rate					
	Population	Median Household Income	% Black Population	Black Homeownership Rate	Differential
75237, Dallas	17,036	$40,705.00	82.10%	10.73%	71.37%
75215, Dallas	15,467	$33,686.00	80.95%	27.17%	53.78%
75210, Dallas	8,492	$19,212.00	72.83%	22.98%	49.86%
75207, Dallas	9,307	$99,603.00	48.44%	0.00%	48.44%
76155, Fort Worth	4,890	$57,297.00	41.64%	0.07%	41.57%
75247, Dallas	228	$30,556.00	54.39%	13.68%	40.70%
75241, Dallas	30,872	$40,204.00	88.50%	51.86%	36.64%
75243, Dallas	59,068	$50,532.00	41.07%	5.34%	35.74%
76120, Fort Worth	18,401	$60,310.00	46.06%	11.75%	34.30%
75236, Dallas	19,952	$49,247.00	42.72%	10.01%	32.71%
76112, Fort Worth	43,097	$49,912.00	49.93%	18.71%	31.21%
76006, Arlington	25,636	$60,234.00	30.64%	1.59%	29.05%
76102, Fort Worth	8,497	$61,872.00	31.42%	2.80%	28.63%
75134, Lancaster	23,002	$67,931.00	73.03%	44.55%	28.48%
75216, Dallas	52,922	$31,236.00	68.09%	40.14%	27.96%
75115, Desoto	57,711	$80,393.00	69.60%	41.93%	27.66%
75038, Irving	33,826	$60,805.00	27.50%	1.76%	25.74%
75146, Lancaster	19,503	$75,537.00	63.64%	38.30%	25.34%
75287, Dallas	65,905	$64,887.00	25.65%	1.28%	24.37%
76104, Fort Worth	19,308	$27,983.00	49.56%	25.34%	24.22%
75231, Dallas	41,258	$41,962.00	24.55%	1.47%	23.08%
76011, Arlington	25,138	$46,374.00	24.28%	1.28%	23.00%
75203, Dallas	17,833	$37,108.00	36.04%	13.73%	22.31%
75232, Dallas	30,261	$54,947.00	70.73%	49.99%	20.75%
76014, Arlington	38,676	$52,522.00	27.91%	7.16%	20.74%
75233, Dallas	16,147	$50,922.00	36.99%	16.63%	20.36%
75228, Dallas	73,016	$46,789.00	24.10%	3.98%	20.13%
75254, Dallas	25,153	$64,689.00	20.85%	1.19%	19.66%
75104, Cedar Hill	49,494	$90,577.00	53.36%	33.97%	19.39%
75137, Duncanville	19,142	$81,510.00	39.19%	20.10%	19.09%

76132, Fort Worth	27,714	$63,779.00	20.14%	1.17%	18.97%
75116, Duncanville	20,906	$66,393.00	26.90%	8.32%	18.58%
76119, Fort Worth	49,261	$36,702.00	46.78%	28.94%	17.83%
76134, Fort Worth	26,926	$65,665.00	39.16%	21.65%	17.51%
76127, Naval Air Station/ Jrb	1,110	$79,688.00	18.02%	0.64%	17.38%
75212, Dallas	27,886	$32,080.00	31.97%	15.07%	16.90%
75226, Dallas	3,859	$53,629.00	17.72%	0.89%	16.83%
75180, Balch Springs	27,517	$48,592.00	26.17%	9.60%	16.57%
75238, Dallas	33,662	$74,252.00	17.40%	0.93%	16.47%
75227, Dallas	57,442	$46,115.00	32.23%	15.83%	16.40%
75202, Dallas	2,124	$97,500.00	17.89%	1.97%	15.92%
75246, Dallas	2,964	$57,866.00	16.87%	0.98%	15.89%
75224, Dallas	38,736	$43,380.00	30.87%	15.22%	15.65%
75150, Mesquite	64,686	$63,326.00	19.15%	3.63%	15.52%
76105, Fort Worth	27,158	$31,803.00	41.51%	26.00%	15.51%
76133, Fort Worth	54,408	$67,641.00	23.98%	8.50%	15.48%
75043, Garland	62,164	$73,823.00	22.42%	7.36%	15.07%
75201, Dallas	9,725	$95,992.00	15.67%	0.63%	15.04%
76015, Arlington	19,002	$66,230.00	17.78%	2.74%	15.04%
76103, Fort Worth	16,974	$48,846.00	23.12%	8.30%	14.83%
76040, Euless	29,259	$65,312.00	18.55%	3.80%	14.75%
75217, Dallas	90,287	$41,943.00	30.01%	15.91%	14.11%
75204, Dallas	28,262	$80,082.00	14.97%	0.87%	14.10%
75149, Mesquite	61,268	$62,790.00	22.81%	8.93%	13.88%
75249, Dallas	15,584	$79,335.00	51.15%	37.33%	13.82%
75063, Irving	37,815	$90,203.00	15.48%	1.66%	13.82%
76010, Arlington	62,347	$40,605.00	15.49%	2.07%	13.42%
75141, Hutchins	6,077	$47,191.00	41.25%	27.99%	13.27%
76205, Denton	23,922	$50,528.00	16.89%	3.80%	13.09%
76140, Fort Worth	30,267	$65,479.00	38.46%	26.03%	12.44%
76116, Fort Worth	51,969	$55,939.00	13.36%	1.03%	12.33%
75050, Grand Prairie	44,597	$60,308.00	14.45%	2.32%	12.13%
75001, Addison	11,998	$77,614.00	12.57%	0.51%	12.06%
75251, Dallas	3,245	$79,153.00	11.90%	0.25%	11.65%
75235, Dallas	18,560	$53,486.00	13.13%	1.89%	11.23%
76123, Fort Worth	34,478	$102,539.00	38.45%	27.47%	10.98%
76201, Denton	31,382	$31,860.00	11.20%	0.24%	10.96%
75240, Dallas	28,669	$47,604.00	12.31%	1.39%	10.93%
75062, Irving	49,504	$62,317.00	12.90%	2.09%	10.81%
76012, Arlington	29,985	$80,854.00	13.33%	2.54%	10.79%

76017, Arlington	51,362	$90,032.00	18.59%	7.82%	10.77%
75252, Dallas	28,541	$80,451.00	11.85%	1.25%	10.60%
75039, Irving	12,749	$95,082.00	11.12%	0.54%	10.58%
76013, Arlington	34,563	$64,613.00	11.73%	1.24%	10.49%
75081, Richardson	36,222	$86,364.00	14.04%	3.62%	10.43%
75051, Grand Prairie	43,464	$49,109.00	16.33%	6.16%	10.17%
75067, Lewisville	78,985	$72,763.00	13.68%	3.55%	10.13%
75052, Grand Prairie	99,624	$85,863.00	27.39%	17.72%	9.68%
75219, Dallas	25,804	$85,226.00	10.28%	0.94%	9.35%
75057, Lewisville	16,699	$62,829.00	10.62%	1.69%	8.92%
76107, Fort Worth	28,860	$69,517.00	15.41%	6.49%	8.92%
76039, Euless	39,999	$81,549.00	10.52%	1.77%	8.74%
75069, Mckinney	42,055	$61,342.00	11.56%	2.89%	8.66%
76018, Arlington	28,060	$84,508.00	28.92%	20.45%	8.47%
75218, Dallas	25,972	$83,061.00	9.13%	0.70%	8.43%
75042, Garland	42,430	$53,276.00	11.97%	3.60%	8.36%
75044, Garland	44,944	$89,073.00	13.75%	5.39%	8.36%
75074, Plano	56,921	$72,549.00	13.10%	4.77%	8.33%
75209, Dallas	16,577	$99,075.00	17.19%	8.88%	8.31%
75010, Carrollton	29,665	$102,659.00	11.98%	3.75%	8.23%
76209, Denton	30,084	$65,764.00	10.43%	2.49%	7.94%
75244, Dallas	14,892	$93,704.00	9.05%	1.22%	7.83%
76022, Bedford	15,809	$75,152.00	9.18%	1.74%	7.44%
75061, Irving	55,676	$49,203.00	9.43%	2.00%	7.43%
75248, Dallas	35,503	$100,198.00	8.29%	0.93%	7.37%
75172, Wilmer	4,108	$47,540.00	20.96%	13.75%	7.21%
76207, Denton	14,601	$74,475.00	9.08%	2.12%	6.96%
75230, Dallas	28,620	$94,038.00	7.78%	0.90%	6.88%
76053, Hurst	33,620	$63,086.00	8.74%	2.01%	6.72%
76001, Arlington	34,042	$96,344.00	22.05%	15.41%	6.63%
75159, Seagoville	19,637	$59,647.00	13.75%	7.15%	6.60%
75041, Garland	33,958	$59,407.00	10.02%	3.45%	6.57%
75223, Dallas	15,513	$41,631.00	13.44%	7.01%	6.43%
75023, Plano	57,759	$97,324.00	9.60%	3.20%	6.40%
76036, Crowley	26,366	$89,132.00	15.19%	8.81%	6.37%
76021, Bedford	38,339	$86,915.00	7.64%	1.37%	6.27%
75024, Plano	46,690	$115,563.00	8.36%	2.16%	6.20%
75211, Dallas	79,174	$43,330.00	7.61%	1.57%	6.04%
75206, Dallas	39,940	$71,581.00	6.49%	0.45%	6.04%
75071, Mckinney	44,279	$107,813.00	13.92%	7.90%	6.02%
75182, Sunnyvale	6,158	$103,256.00	12.68%	6.77%	5.91%

76115, Fort Worth	24,438	$33,824.00	8.44%	2.65%	5.80%
76137, Fort Worth	62,418	$90,766.00	9.52%	3.86%	5.67%
76180, North Richland Hills	39,617	$71,205.00	6.70%	1.11%	5.59%
75080, Richardson	51,327	$82,620.00	6.70%	1.14%	5.57%
76208, Denton	26,970	$84,732.00	8.65%	3.14%	5.52%
76063, Mansfield	72,766	$115,009.00	15.02%	9.60%	5.42%
76109, Fort Worth	27,794	$80,810.00	5.53%	0.23%	5.31%
75181, Mesquite	28,616	$102,794.00	32.51%	27.21%	5.29%
75093, Plano	57,122	$128,630.00	6.83%	1.56%	5.27%
75006, Carrollton	49,192	$75,088.00	8.04%	2.79%	5.25%
75040, Garland	65,632	$73,810.00	15.52%	10.29%	5.22%
75075, Plano	45,930	$97,557.00	6.87%	1.74%	5.13%
75214, Dallas	37,620	$88,072.00	5.59%	0.51%	5.08%
75007, Carrollton	63,143	$102,717.00	9.14%	4.13%	5.01%
76131, Fort Worth	32,736	$92,290.00	11.33%	6.83%	4.51%
76002, Arlington	35,604	$107,881.00	34.64%	30.21%	4.44%
75070, Mckinney	99,385	$128,521.00	10.34%	5.94%	4.39%
75253, Dallas	21,757	$44,789.00	14.62%	10.23%	4.39%
75034, Frisco	63,543	$136,675.00	8.54%	4.17%	4.37%
75025, Plano	66,020	$134,166.00	7.58%	3.23%	4.35%
76060, Kennedale	7,997	$96,709.00	9.53%	5.21%	4.32%
75054, Grand Prairie	7,061	$119,714.00	30.52%	26.24%	4.28%
75060, Irving	51,417	$59,902.00	6.42%	2.21%	4.21%
75056, The Colony	64,184	$106,250.00	8.55%	4.65%	3.90%
75082, Richardson	27,612	$139,534.00	8.31%	4.48%	3.83%
75088, Rowlett	28,233	$105,958.00	12.02%	8.28%	3.74%
76106, Fort Worth	40,541	$36,667.00	6.72%	3.04%	3.67%
76108, Fort Worth	44,860	$79,868.00	6.76%	3.17%	3.59%
75002, Allen	81,263	$119,915.00	10.67%	7.08%	3.59%
75035, Frisco	60,468	$132,389.00	10.25%	6.77%	3.47%
75208, Dallas	31,222	$50,502.00	4.93%	1.54%	3.40%
75234, Dallas	31,762	$73,206.00	4.47%	1.20%	3.27%
75220, Dallas	46,074	$43,413.00	3.77%	0.64%	3.14%
75089, Rowlett	33,162	$114,323.00	16.15%	13.01%	3.14%
75019, Coppell	45,419	$138,825.00	5.13%	2.01%	3.12%
76016, Arlington	35,969	$107,337.00	8.56%	5.46%	3.10%
76117, Haltom City	36,004	$51,293.00	3.64%	0.55%	3.09%
76135, Fort Worth	22,530	$69,041.00	4.82%	1.75%	3.07%
76118, Fort Worth	15,413	$84,343.00	8.59%	5.55%	3.04%
75098, Wylie	64,089	$104,692.00	12.64%	9.65%	2.99%
75125, Ferris	7,371	$60,856.00	12.22%	9.46%	2.77%

76210, Denton	51,257	$110,118.00	8.33%	5.57%	2.76%
75068, Little Elm	45,900	$101,193.00	14.84%	12.09%	2.75%
76177, Fort Worth	9,904	$103,927.00	9.30%	6.56%	2.74%
75013, Allen	40,076	$165,311.00	6.41%	3.84%	2.57%
76114, Fort Worth	28,554	$50,169.00	3.09%	0.54%	2.55%
76110, Fort Worth	35,284	$47,569.00	5.52%	2.97%	2.54%
76051, Grapevine	52,042	$100,701.00	3.77%	1.25%	2.52%
76148, Fort Worth	27,132	$79,836.00	4.52%	2.19%	2.33%
75048, Sachse	23,469	$114,418.00	9.57%	7.33%	2.24%
75077, Lewisville	46,220	$124,639.00	6.92%	4.69%	2.23%
76244, Keller	68,046	$118,482.00	9.24%	7.11%	2.12%
75229, Dallas	35,089	$96,968.00	3.78%	1.67%	2.10%
75078, Prosper	14,131	$141,042.00	6.28%	4.20%	2.07%
76182, North Richland Hills	31,877	$110,202.00	4.48%	2.46%	2.02%
76179, Fort Worth	57,440	$96,485.00	6.24%	4.25%	1.99%
75442, Farmersville	11,480	$71,069.00	4.85%	2.89%	1.96%
76266, Sanger	18,031	$74,380.00	3.06%	1.20%	1.86%
75087, Rockwall	37,301	$110,622.00	5.09%	3.24%	1.85%
76111, Fort Worth	24,517	$51,533.00	5.04%	3.31%	1.73%
75407, Princeton	19,504	$74,808.00	3.96%	2.24%	1.72%
76262, Roanoke	34,515	$117,425.00	4.07%	2.43%	1.64%
75164, Josephine	383	$102,778.00	4.70%	3.15%	1.55%
75065, Lake Dallas	13,261	$98,122.00	4.96%	3.44%	1.53%
75409, Anna	15,957	$85,386.00	7.08%	5.57%	1.51%
76227, Aubrey	31,713	$100,432.00	6.81%	5.38%	1.43%
76164, Fort Worth	18,649	$45,941.00	2.43%	1.13%	1.30%
75454, Melissa	8,334	$102,208.00	4.70%	3.41%	1.29%
75205, Dallas	24,016	$144,466.00	1.50%	0.24%	1.26%
76126, Fort Worth	23,392	$98,662.00	3.30%	2.06%	1.24%
76258, Pilot Point	5,577	$83,807.00	3.32%	2.11%	1.21%
75166, Lavon	3,142	$100,000.00	5.19%	3.98%	1.20%
75495, Van Alstyne	9,152	$86,117.00	2.63%	1.48%	1.16%
75009, Celina	10,393	$123,898.00	4.07%	2.95%	1.12%
76248, Keller	41,862	$143,700.00	3.45%	2.38%	1.08%
76247, Justin	17,489	$101,167.00	4.99%	4.05%	0.94%
76052, Haslet	19,803	$121,386.00	5.22%	4.32%	0.90%
76249, Krum	9,184	$90,060.00	2.04%	1.19%	0.85%
75094, Plano	25,946	$146,635.00	12.41%	11.57%	0.83%
75028, Flower Mound	54,002	$144,573.00	4.21%	3.49%	0.72%
76054, Hurst	13,464	$126,667.00	2.83%	2.12%	0.71%

75225, Dallas	24,009	$185,367.00	0.67%	0.13%	0.54%
76226, Argyle	25,634	$146,218.00	3.14%	2.66%	0.48%
76092, Southlake	30,228	$226,121.00	2.62%	2.14%	0.48%
76259, Ponder	4,957	$96,494.00	1.55%	1.09%	0.46%
76272, Valley View	4,240	$74,789.00	0.87%	0.44%	0.43%
76071, Newark	4,155	$73,351.00	0.89%	0.47%	0.42%
76034, Colleyville	24,681	$196,793.00	2.37%	2.00%	0.37%
76020, Azle	30,720	$79,076.00	0.90%	0.57%	0.33%
75022, Flower Mound	30,847	$182,601.00	3.00%	2.68%	0.32%
75424, Blue Ridge	4,283	$76,373.00	0.77%	0.46%	0.31%
76008, Aledo	17,206	$133,260.00	0.89%	0.66%	0.23%
75173, Nevada	5,617	$93,000.00	2.10%	1.88%	0.22%
75270, Dallas	0	$0.00	0.00%	0.00%	0.00%
75390, Dallas	0	$0.00	0.00%	0.00%	0.00%
76129, Fort Worth	0	$0.00	0.00%	0.00%	0.00%

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