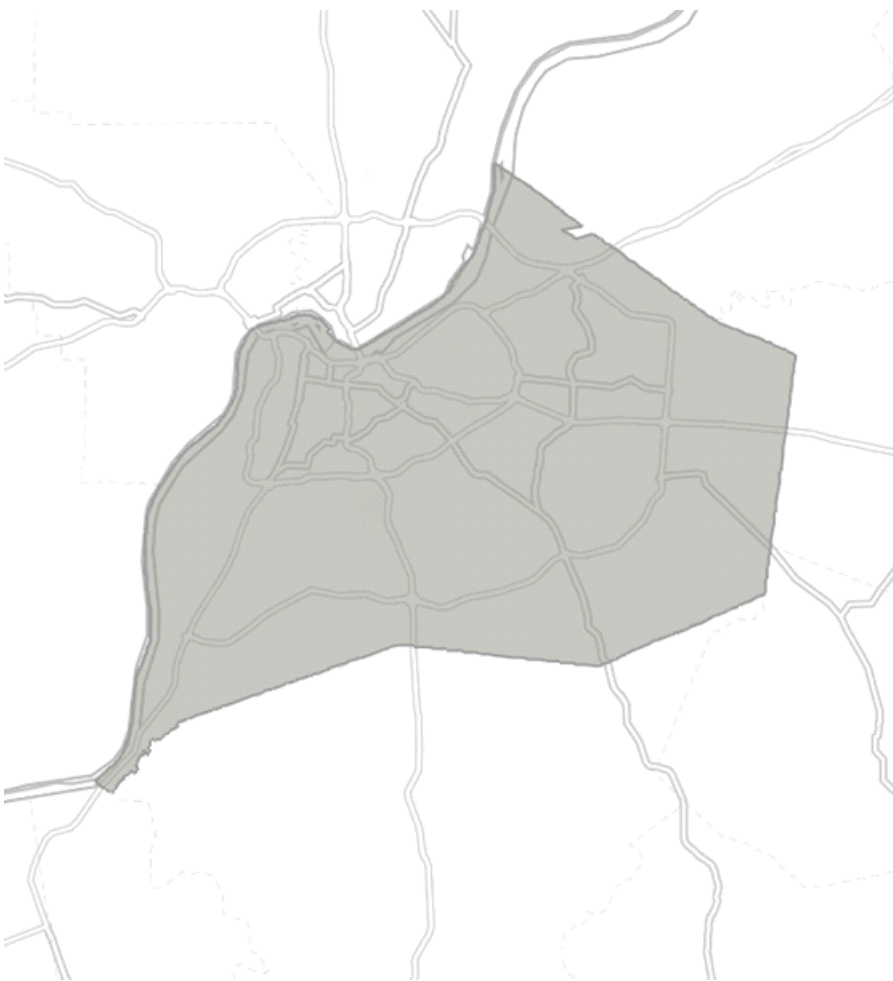


THE STATE OF FAIR HOUSING IN KENTUCKY



*Mortgage Lending
in Jefferson
County: 2021*



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Disclaimers

The KY Fair Housing Council (KFHC) is an organization that works to be inclusive. Languages change over time and we are still learning and improving in this capacity. We acknowledge that complexities are inherent in the use of racial and ethnic categories. There are significant challenges in the broad or very specific ways that public data, in particular Census and Home Mortgage Disclosure Act (HMDA) data used in this report, is gathered and reported as it relates to race and ethnicity. When possible, we have tried to be inclusive while still trying to be consistent with the data.

In this report, we have used the term “Black” to be broader than “African American.” Census and HMDA data use “Black or African American.” The Census and HMDA also use “Hispanic or Latino.” Throughout this report, the KFHC combined Hispanic and Latino statistics under “Hispanic” and mean no disrespect in doing so. The KFHC acknowledges the cultural differences between these groups, as well as the preference by some to not use these categorizations. In addition, the way in which Hispanic/Latino populations have been counted over time by the census has changed, which is reflected in the historical data we collected. Both the Census and HMDA use “Asian” instead of “Asian American” in referring to the broad demographics of that population. In addition, certain historical data combines “Asian” and “Pacific Islander” categories. We again mean no disrespect in combining categories to match data. There is also debate about whether to capitalize “white” when referring to that population. We have chosen to not capitalize “white.” We also grouped white and white non-Hispanic applicants together since not all white applicants indicated their ethnicity in the data reviewed. We have tended to use “nonwhite” or specify the predominant race(s) or ethnicities rather than utilizing the term “minority.” We also use “disability” instead of “handicap” and err toward the use of people’s first language when appropriate.

Given these circumstances, our report primarily considers four racial/ethnic categories (white, Black, Hispanic, and Asian) and two gender categories (Male and Female). While mortgage lending data does exist for categories aside from these (e.g., Native Hawaiian, Gender-non conforming), we chose to disqualify them for two reasons. The first is that when using quantitative research methods (as we do in this report), small sample sizes tend to be prone to error. Another issue regards the ethical concerns around mapping sensitive information regarding very small populations. With this in mind, however, there is a great need for rigorous qualitative research on mortgage lending practices that is particularly relevant to the people who identify with these nondominant categories.

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Report date: August 31 2023

Executive Summary

Jefferson County's Housing Landscape, Past and Present

Redlining

- The impacts of redlining on the ability for minority communities to own a home in Jefferson County cannot be underestimated.
- Because of residential segregation on the bases of race and income that already existed at the time that redlining came about, Jefferson County's Black residents were very often denied mortgage loans, which impeded their ability to own a home and develop individual wealth. Today, the result of these strategies can be seen in the east/west divide that exists in Jefferson County.

Change In Racial Density

- Data shows that Jefferson County's Black and white populations have changed spatially over the past decade.
- White homeownership remains substantially higher than homeownership for other races/ethnicities in Jefferson County. While census tracts within northeast and west ends of the county have seen either no change or declines in Black population density, other areas have seen substantial increases in Black population density.
- White population density has increased with a similar magnitude within the downtown and West End area. Rising white population density in historically Black neighborhoods aligns with increasing concerns about gentrification.

Homeownership Rates

- Since 1980, the white homeownership rate remained steady, while the overall homeownership rate and homeownership rates for other races/ethnicities show varied changes.
- The Asian and Pacific Islander homeownership rate remained virtually unchanged (at 60 percent) between 1980 and 2021, but this homeownership rate fluctuated throughout the decades. The Asian and Pacific Islander home ownership rate was the only category to see an overall decrease between 2010-2021.
- The Hispanic homeownership rate saw an overall increase of eight percent between 2000 and 2021 (from 33 percent to 39 percent), but increased by 21 percent between 2000 and 2021.
- Of all races/ethnicities, the Black homeownership rate was the only category to see an overall decrease between 1980 and 2021. While in 1980, the Black homeownership rate was at 47 percent, this rate decreased by almost ten percent by 2021.

Lending vs. Households

- Despite accounting for around 20 percent of total households in Jefferson County, Black households account for only ten percent of loan originations.
- On the other hand, origination rates for white, Asian, and Hispanic applicants are reflective of the county's total population of each of these races/ethnicities.

Household Income- Not Keeping up with Housing Prices

- Jefferson County's Black households earn substantially less income compared to other races/ethnicities. This is a concern in the face of rapid housing cost increases.

Rising Housing Prices and Costs

- Between February 2020 and February 2023, there has been a virtually unanimous increase in home values, according to data from Zillow's Home Value Index. Of all zip codes in Jefferson County, the majority of home values increased by at least somewhere between 24 and 34 percent.
- Three zip codes located in the West End area (40210, 40211, & 40212) have had the highest home value index increases of over 60 percent.
- Between March of 2022-2023, rent cost increased in these zip codes by 16 percent, 17 percent, and 19 percent, respectively. These figures are twice the county-level and nation-level rent cost increase for these years.

- Between 2020 and 2021, the overall homeownership rate remained stable for all three Zip Codes, and overall, homeownership rates in these zip codes were between 10 and 20 percent lower than the county-wide homeownership rate.

The Lending Landscape

Top 50 Lenders

- Jefferson County had over 500 home mortgage Lenders between 2019 and 2021, yet during this time, the top 50 lenders accounted for almost 85 percent of all loans.
- The top lenders in Jefferson County that received the highest number of loan applications were Republic Bank and Trust Company, Fifth Third Bank, Rocket Mortgage, PNC Bank, United Shore Financial Services, and Freedom Mortgage Corporation.
- Of around 50 thousand home loan applications created through the top 50 lenders, around 30 thousand were approved.
- Of all of the top 50 lenders, the average loan origination amount was around \$200,000, with loans ranging from around \$150,000 to \$350,000.

Applications

- Mortgage loan applications are most concentrated in the eastern half of the county, and low application rates are concentrated in the West End.
- White applicants vastly outnumber other races/ethnicities in terms of the overall share of mortgage loan applications.
- The spatial distribution of applications for each racial/ethnicity generally reflects the overall population distribution (2020 Census).
- Even for lenders accepting the highest rates of nonwhite applicants, the share of white applicants for these lenders tends to far outweigh them.
- Unsurprisingly, among the bottom lenders for nonwhite applicants, the share of white applicants for these lenders outweighs them even more.

Denials

- High rates of application denials overall are most prominent in the West End. Overall denial rates are also high in the southwestern corner of Jefferson county, which has seen the most significant growth in Black population density over the past decade.
- Black applicants had the highest overall denial rates in 2021, and this pattern appears fairly consistent among the majority of the top 50 lenders.
- Black applicants were denied at the highest rates in census tracts that were dispersed across the county, but significant concentrations of Black denials are located in the West End and central county area.
- High denial rates for white applicants are also most concentrated in the West End and central county area.
- Applications and denials for both Hispanic and Asian Applicants were located generally in the same areas.
- For the top ten lenders with the highest denial rates for nonwhite applicants, denial rates from these same lenders for white applicants were much lower.

Originations

- White applicants had substantially higher loan origination rates than other races/ethnicities. For the top ten lenders with the highest origination rates for nonwhite applicants, white origination rates for virtually all of those same lenders was much higher.
- There were no statistically significant concentrations of Black origination rates. In other words, census tracts with the highest origination rates were spread throughout the county, rather than being concentrated in certain areas.
- While significant concentrations of high origination rates for white applicants appear on the east side of the county, individual census tracts with the highest origination rates for white applicants were located in both the East End and West End.
- For Asian and Hispanic Applicants, the locations of origination rates generally matched the locations of their application and denial rates.

Interest Rates, Subprime Lending

- Of all originated mortgages in 2021, the average interest rate spread was highest on the West side of the county, with a statistically significant concentration of census tracts with high interest rates in the West End. Census tracts with the lowest average spread, on the other hand, were dispersed throughout the north central and eastern half of the county.
- Black applicants had the highest spread amount compared to other races/ethnicities.
- As the percent of the minority population increases by census tract, its share of subprime mortgages increases. Black applicants received the highest share of subprime loans in 2021.

FHA Loans

- Statistically significant concentrations of FHA loans were located on the western half of the county. It is likely that many homes on the East side of the county were priced out of FHA loan eligibility, especially in the face of rapid home price increases in recent years.

Patterns by Gender

- Among homeowners in Jefferson County (2021 5-Year ACS estimates), the homeownership rate for male-identified heads of household with no spouse was 55 percent, while the homeownership rate for female-identified heads of household with no spouse was 43 percent. Both of these figures are much lower than the average homeownership rate of 82 percent for married couples.
- Despite a 10 percent disparity in homeownership rates between male and female-headed households, additional disparities exist across race within both genders. For both genders individually, denial rates by race match county-wide denial rates by race.

Appraisal Discrimination

- Our analyses show that appraisal discrimination may be occurring for those who apply for mortgages in areas with the highest concentrations of minority residents.

Our Approach to this Report

For this report, the Kentucky Fair Housing Council (KFHC) reviewed mortgage lending data in Jefferson County using several datasets. In particular, we drew upon data from the Home Mortgage Disclosure Act (HMDA) available from the Federal Financial Institutions Examination Council (FFIEC), as well as data from the U.S. Census Bureau and Zillow.

At large, our report provides a snapshot of the state of housing in Jefferson County at the outset, as well as three years into, the COVID-19 pandemic. The COVID-19 global health crisis exacerbated and is synonymous with the global housing crisis (Peters & Halleran 2021). Society's most vulnerable groups have experienced heightened vulnerability due to the impacts of COVID-19 (Hall et al. 2020; Patel et al. 2020; Rosenberg et al. 2020). Where this report illustrates a snapshot in time regarding housing and mortgage lending in Jefferson County, we encourage future projects that provide insight into the longer-term impacts of the pandemic on the dynamics of housing discrimination in Jefferson County.

HMDA Data

As defined by the Consumer Finance Protection Bureau (CFPB), HMDA requires many financial institutions to maintain, report, and publicly disclose loan-level information about mortgages. This data helps show whether lenders are serving the housing needs of their communities; it gives public officials information that helps them make decisions and policies; and it sheds light on lending patterns that could be discriminatory. The public data is modified to protect applicant and borrower privacy. The FFIEC requires that most mortgage lenders collect and report on around 100 datapoints from mortgage loan applications. The data is made available at the loan level for more detailed analysis. Datapoints provided in HMDA data can be generally broken down into three categories:

1. Borrower specific characteristics such as race, ethnicity, income, age, and gender.
2. Loan specific information such as loan amount, loan type, property type, interest rate, points and fees, and loan outcome.
3. Neighborhood factors including population, housing, income, and other demographic characteristics of census tracts in which a loan is originated.

For this report, the KFHC looked at mortgage lending disparities across various demographic groups in application volume, loan approval and denial trends, origination rates, and interest rates for 1-4 single family home applications in Jefferson County using the LendingPatterns database. We used 3-year lending averages to determine the “Top 50 Lenders.”, as well as 1-year “Snapshot” data for the year 2021 for maps and tables.

To look for locations with high or low rates of mortgage lending data, we mapped data at the census tract level using 2010 Census Tract boundaries (note that 2020-2021 data from LendingPatterns uses 2010 census tract boundaries). We also include results from statistical analyses to highlights areas with concentrations of high or low rates of a certain factor. To do this, we ran two tests in ArcGIS Pro: one test that told us if there is statistically significant clustering of high and low values in general, and another that showed us where those concentrations of high and low rates are and how they compare to the county average. These tests are useful because they can tell us if the patterns we see at face value are due to random chance or not, and they can also uncover important patterns that we don’t see initially. For additional details, please see the appendix.

It must also be noted that the HMDA data that we describe is not comprehensive on mortgage lending practices. The data exempts some lenders and also lacks crucial information that would be helpful in uncovering housing discrimination, such as credit scores. Future analyses can look deeper into the practices of individual lenders, providing insight into how, and for whom, different lenders take factors like credit scores into consideration. In addition, as the lending industry has moved away from human underwriters to algorithms and programs, this information is also lacking. Finally, not all lenders are required to provide data in the same ways.

In our analysis, we also excluded loan applications involving a loan that was purchased by another lender. For example, a loan purchase is defined as the purchase of a loan by a lender that was originated by another lender. We also excluded data when the race/ethnicity of the applicant or borrower was either not known or part of a small-population group.

Zillow Data

For housing prices, we examined how home prices (using the Zillow Home Value Index or “ZHVI”) and rental costs (Zillow Observed Rent Index or “ZORI”) have changed for Jefferson County from 2020-2023 and 2021-2023, respectively. The housing market across the United States has surged during this time and in some areas of Jefferson County, costs have surged even more than national averages. We provide introductory information on this within this report; however, future studies can provide more targeted and comprehensive accounts in this area.

Census Data

Finally, we used demographic data from the U.S. Census Bureau’s American Community Survey Five Year Estimates (2010, 2020, and 2021 data), as well as data from the 2010 and 2020 Decennial Census, to gain insights into homeownership, household income, and other neighborhood trends. We also used the National Historic GIS (NHGIS) platform to retrieve and analyze historical census data. Key data is missing in some areas, or simply unavailable. We reference these barriers when known.

Our ultimate aim is to offer some clarity to the data through this report and make the information from the data more user friendly. There are many lending reports issued each year. However, they are mainly meant for the lending industry. It was important to the KFHC that this report be for the consumer and provide data in a way that was easy for the consumer to review.

Homeownership in Jefferson County Over Time

Chart 1 shows that in 2021, Jefferson County had a lower total homeownership rate compared to the state and nation (62 percent vs 68 percent and 65 percent). White homeownership is significantly higher than homeownership for other races/ethnicities across the county, state, and nation.

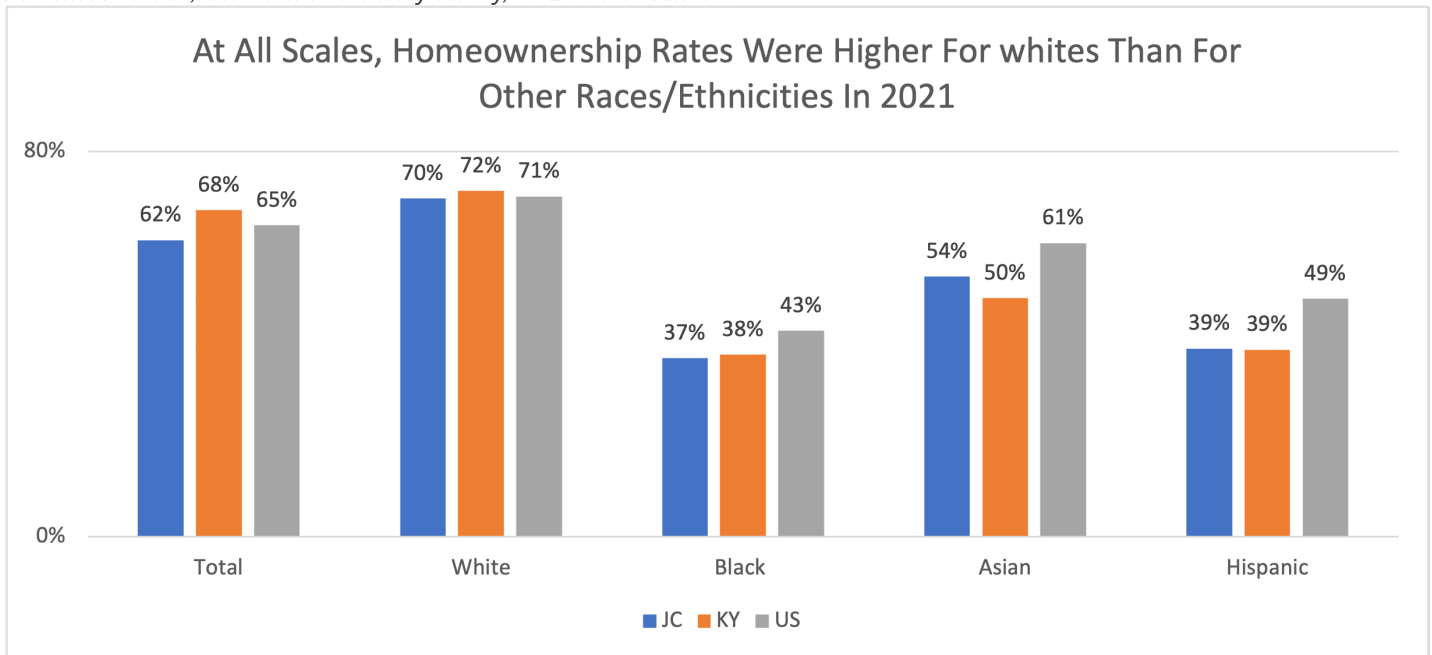
Jefferson County's Asian homeownership rate is the second highest of all races/ethnicities, at 54 percent. At the county level, the Asian homeownership rate is four percent higher than that of the state. However, the Asian homeownership rates for the county and state fall below the national rate of 43 percent.

At 37 percent, the Black homeownership rate was almost half of the white homeownership rate in Jefferson County (70 percent). Both Jefferson County and Kentucky share a Black homeownership rate that is 5 percent lower than that of the nation (43 percent).

Jefferson County's Hispanic homeownership rate is similar to the county and state's Black homeownership rate at 39 percent. However, this is ten percent lower than the national rate (49 percent).

The disparities illustrated in Chart 1 are resultant from generations of racially discriminatory housing practices that have prevented nonwhite residents from gaining access to appropriate housing. For centuries, Indigenous and other nonwhite residents – particularly Black residents – have been subject to displacement and dispossession under public policies aimed at combating urban blight and sparking economic development. These policies have prevented nonwhite and lower-income residents from gaining the long-term benefits of wealth creation and financial stability that property ownership can contribute to.

Chart 1: Homeownership Rates by Race and Ethnicity in Jefferson County, Kentucky, and the U.S.
U.S. Census Bureau, American Community Survey, 2021 5-Year Estimates

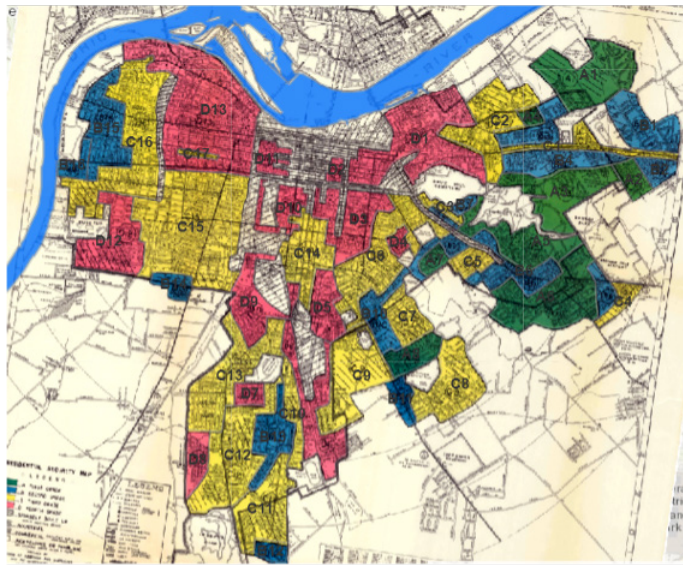


History of Redlining in Jefferson County

The story of housing in the United States, and by proxy, of Jefferson County, cannot be told without a discussion of Redlining. Redlining dates back to 1933, when the U.S. government created the Homeowner's Loan Corporation (HOLC) to strengthen the housing market and homeownership opportunities across the nation. Redlining is the historic process by which different neighborhoods are classified by riskiness for mortgage lending. Map 1 is from the Jefferson County neighborhood grading process from 1938. Often, these classifications aligned with racial and income segregation that existed in cities and communities. Green and Blue, with classes of "A" and "B" respectively, were used to designate the neighborhoods that were the least risky to lend mortgages to. They were typically wealthier white neighborhoods. Neighborhoods classified as "C" were deemed moderately risky to lend to, and these neighborhoods typically consisted of working-class white residents. Finally, "D"-rated neighborhoods, which are depicted in the color red, indicate very risky to lend to, and these neighborhoods typically consist of Black and Brown residences.

Map 1: Redlining Patterns in Louisville.

Source link: <https://louisvilleky.gov/government/redevelopment-strategies/redlining-community-dialogue>



The impacts of redlining on the ability for minority communities to own a home cannot be underestimated. Because of residential segregation on the bases of race and income that already existed at the time that redlining came about, Black residents were very often denied home ownership loans, which impeded their ability to own a home and develop individual wealth. Today, it is clear how the effects of redlining have played out in present-day effects of evictions, segregation, income, poverty, race, vacant properties, property values, homeownership rates, mortgage lending, and development trends (Poe n.d.).

Within Jefferson County, we have constructed a dividing line between the eastern and western sides of the county. This divide was made possible in part due to the process of redlining in Jefferson County as illustrated in the pictured map. The history of redlining and racial zoning in Jefferson County stems from the desire to “protect” property values

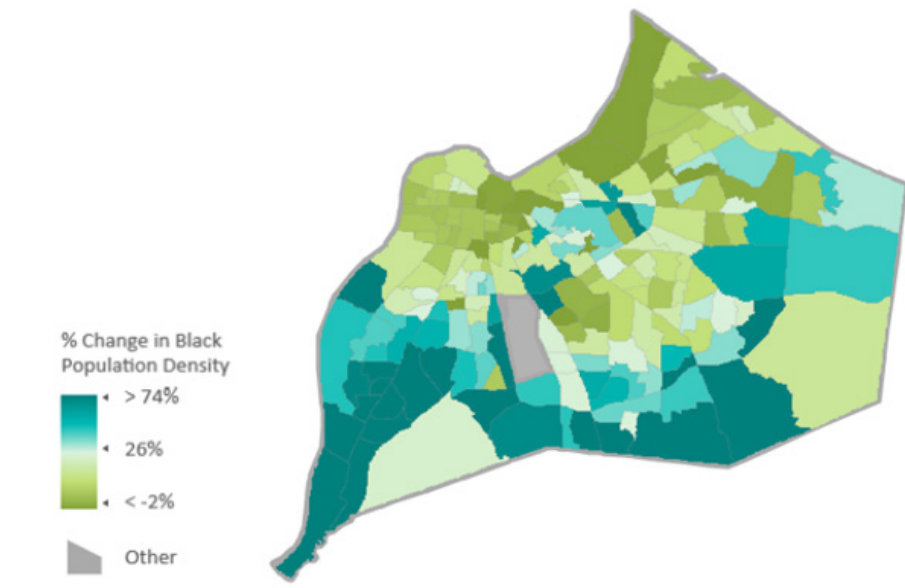
from declining due to the movement of racial minorities into wealthier, white neighborhoods. These strategies were formalized and integrated into comprehensive plans in 1931 and 1937.

The western half of the county contains neighborhoods such as Russell, Shawnee, Portland, and California. The eastern suburbs of downtown contain neighborhoods such as Clifton, Crescent Hill, and Cherokee Gardens. Eviction rates tend to be higher on the West Side rather than the East Side. Incomes tend to be higher on the East Side rather than the West. Poverty rates are much higher on the West side, and the West side also has the highest concentration of Black residents. A higher number of vacant properties are found on the West side rather than the East. Property values and home ownership rates tend to be much higher on average on the East side. This fact creates complexity in the face of fears of gentrification in historically Black neighborhoods (Loosemore 2023).

Furthermore, as this report illustrates, mortgage loan applicants have different experiences relative to race and space. In particular, we suggest that mortgage lending discrimination is occurring in Jefferson County, and some of the patterns reflect existing spatial patterns of discrimination. All of these phenomena illustrate how the western half of Jefferson County has historically been underserved and underprivileged relative to the eastern half of the county. These disparities are in a large part due to the influence of redlining and that process’s impact on mortgage lending between different neighborhoods.

Map 2: Percent Change in Black Population Density, 2010-2020

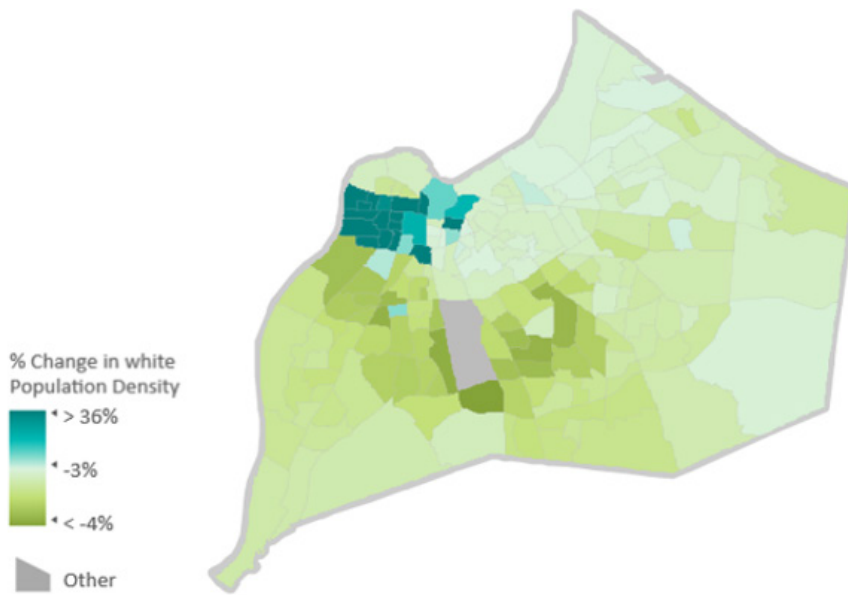
Source: 2010 and 2020 Decennial Census, Jefferson County Census Tract Boundaries



Maps 2 and 3 illustrate the percent change in the share of both white and Black populations within Jefferson County census tracts between 2010 and 2020. As for the Black population, while census tracts within the far north east and west ends of the county have seen no change to decline in the Black population density, areas in the central east side (e.g., Highlands, Crescent Hill, St. Mathews), the far east side (e.g., Jeffersontown, Fisherville, Eastwood) and the south and southwestern areas of the county (e.g., Fern Creek, Valley Station) have seen some of the largest increases in Black population density. In particular, the far south and southwest-

ern areas of the county have seen the highest increases. In some of these census tracts, the share of the Black population increased by between 100 and 300 percent.

Map 3: Percent Change in White Population Density, 2010-2020
 Source: 2010 and 2020 Decennial Census, Jefferson County Census Tract Boundaries



On the other hand, rates of white population density have shown the most growth within downtown and the West End area (e.g., Chickasaw & Parkland area), with a similar magnitude shown for the increases seen in Black population density in the county’s south and southwestern areas. Outside of the West End and the area surrounding downtown (areas such as Nulu, Phoenix Hill, and Smoketown), growth in the share of the white population has been either minimal or negative in census tracts throughout virtually all other areas of the county.

Charts 1 and 2 illustrate how homeownership rates in Jefferson County have changed since 1980 among different races/ethnicities. Chart 1 shows that since

1980, the white homeownership rate remained steady, while the overall homeownership rate and homeownership rates for other races/ethnicities did not. Between 1980 and 2021, the white homeownership rate increased by 4 percent in total, while between 2020 and 2021, the white homeownership rate increased by 1 percent (Chart 2).

Likewise, the Asian and Pacific Islander homeownership rate remained virtually unchanged at 60 percent between 1980 and 2021, with an overall increase of 2 percent. However, between 2010 and 2021, the Asian and Pacific Islander homeownership rate decreased by 15 percent. The Hispanic homeownership rate saw an overall increase of eight percent between 2000 and 2021, from 33 percent to 39 percent, but increased by 21 percent between 2010 and 2021. Of all races/ethnicities, the Black homeownership rate was the only category to see an overall decrease between 1980 and 2021. While in 1980, the Black homeownership rate was at 47 percent, this rate decreased by almost ten percent by 2021. Change in Black homeownership later stagnated between 2010 and 2021.

Chart 1: Homeownership Rate by Race & Ethnicity in Jefferson County, KY, 1980-2021
 Source: IPUMS National Historical Geographic Information System

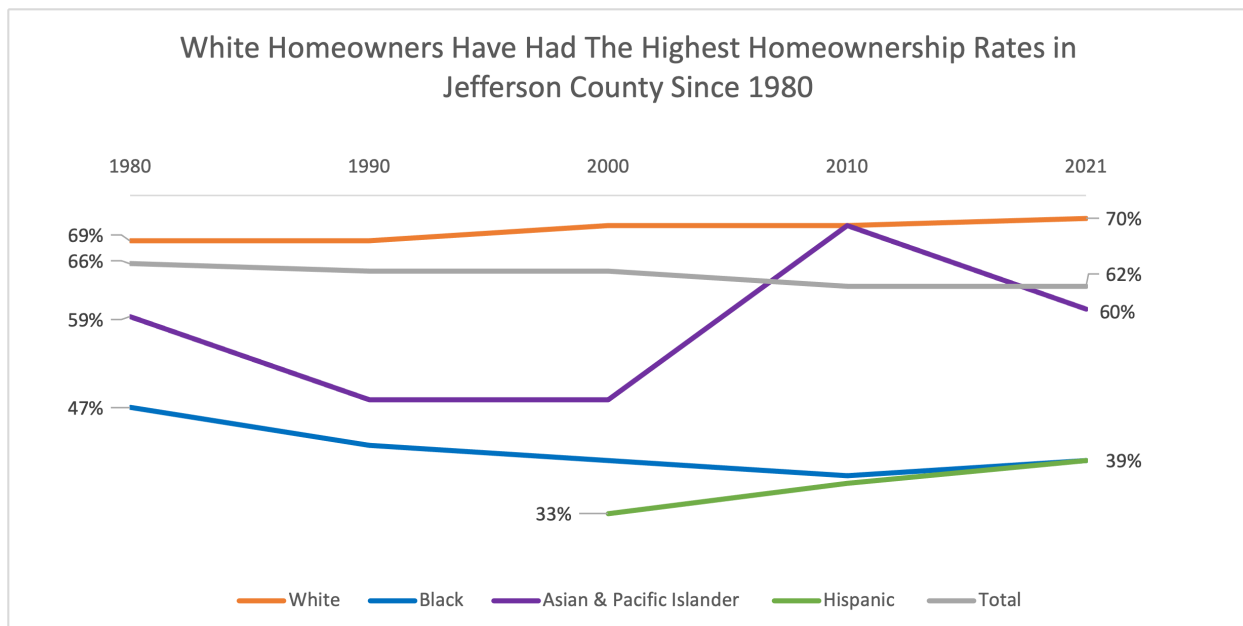
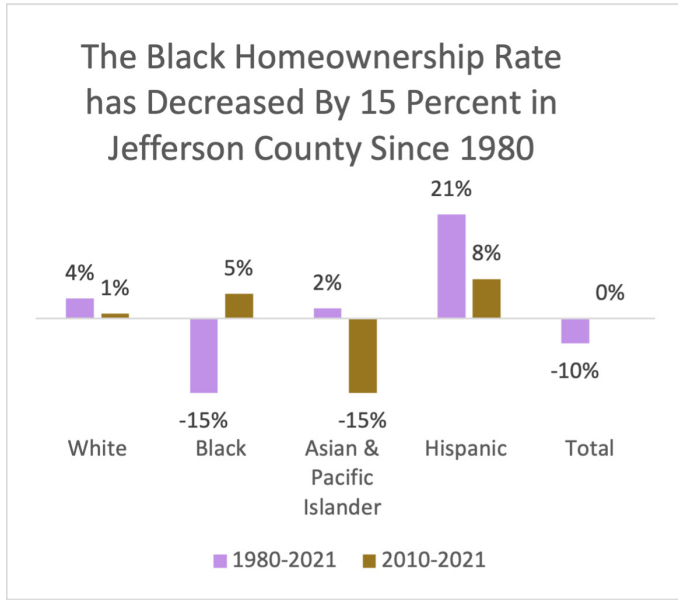


Chart 2: Percent Change in Homeownership Rate by Race & Ethnicity in Jefferson County. Source: IPUMS National Historical Geographic Information System



Recent Homeownership Trends

The COVID19 Pandemic

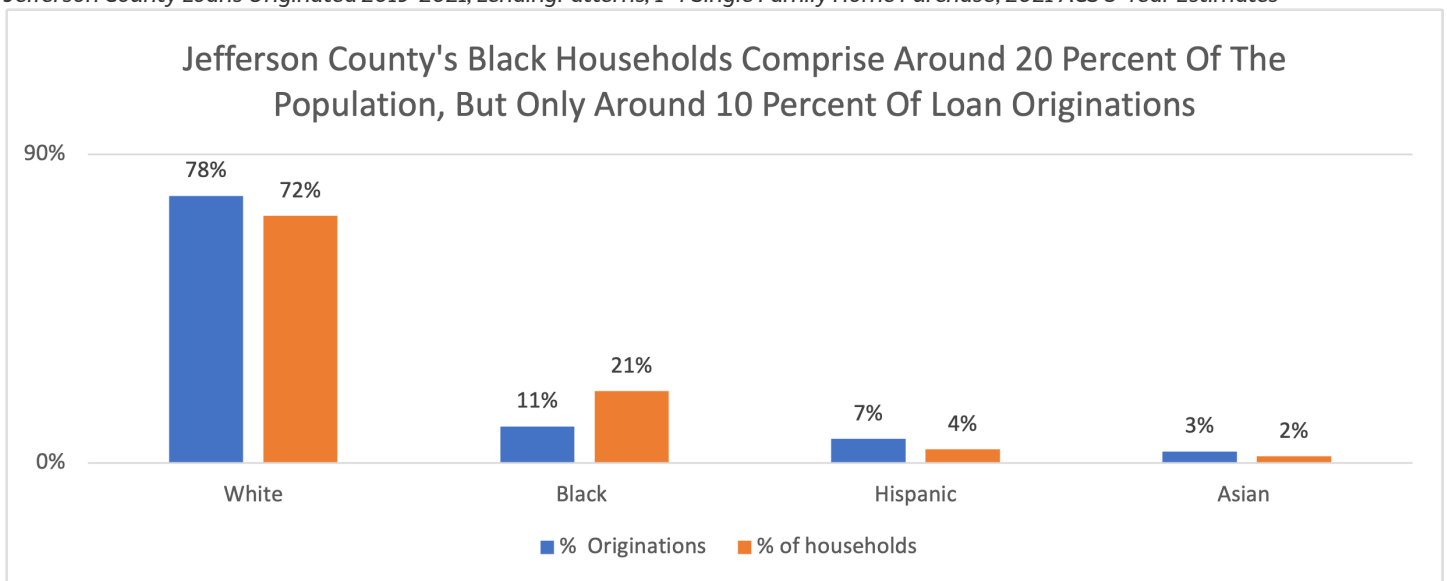
It is undeniable that the COVID19 global crisis exacerbated and is synonymous with the global housing crisis (Peters & Halleran 2021). This is partly due to the fact that housing is a key site through which COVID19 is experienced, because access to safe and secure housing are necessary for social isolation and social distancing (Garber 2020). In effect, the capacity of each household to pay for housing becomes a paramount public health issue. Policies were put in place across Jefferson County and many other cities at the outset of the COVID19 pandemic to address housing concerns, such as moratoriums on mortgage payments and rental evictions. At the same time, other city governments remained inactive on these issues (Farha 2020).

Despite policy interventions, many have argued that with the expiration of protections and resources as well as lack

of appropriate intervention, the risk of eviction for millions of people has been continuously aggravated following the onset of the pandemic. The COVID19 pandemic has sharply increased the risk of foreclosure and bankruptcy especially among small property owners, of long-term harm to renter families and individuals, of disruption in the housing market, and of widespread destabilization of communities across the U.S. (Benfer et al. 2020). With this context in mind, we introduce some fundamental homeownership trends in Jefferson County between the years 2019 and 2023.

Chart 3 illustrates that Jefferson County's white population accounts for 72 percent of households and 78 percent of originations, the county's Hispanic population accounts for four percent of households and seven percent of originations, and the county's Asian population accounts for two percent of households and three percent of originations. Additionally, despite comprising around 20 percent of total households in Jefferson County, Black households comprise only ten percent of loan originations. This finding is important as origination rates for white, Asian, and Hispanic applicants reflects Jefferson County's overall racial distribution. Black households are the only race/ethnicity to have a lower share of originations than its share of the population.

Chart 3: Share of Households versus Share of Loan Originations by Race/ Ethnicity Jefferson County Loans Originated 2019-2021, LendingPatterns; 1-4 Single Family Home Purchase; 2021 ACS 5-Year Estimates



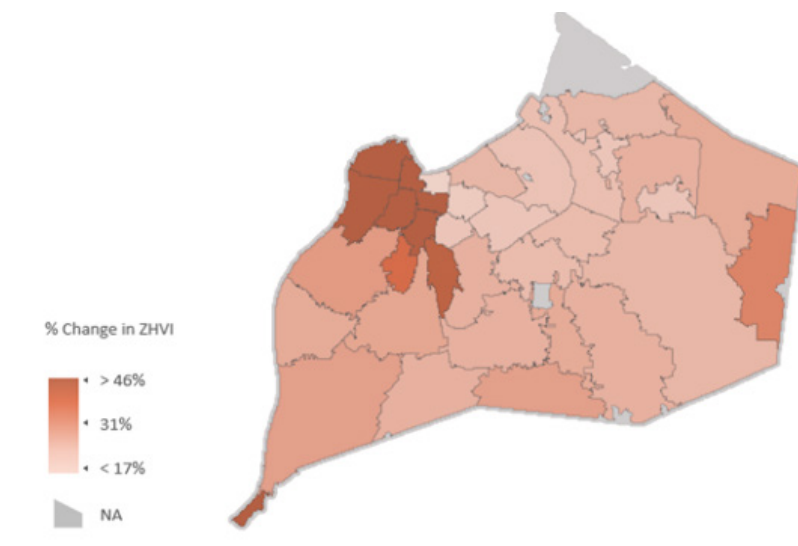
Income Not Keeping Up With Home Prices

As of 2021, the median income for Black households in Jefferson County was \$41,512 and \$51,685 for Hispanics. The white, non-Hispanic median income was \$69,284, while the median income for Asian households was \$80,918. Overall, incomes have increased by an estimated (non-inflation adjusted) 3 percent each year from 2011 to 2021, which we suggest does not match the escalating costs of housing in Jefferson County (maps 5 and 6). This is especially relevant for those earning the lowest incomes.

With many longtime residents being shut out of the market through high housing costs and inequitable lending, several Jefferson County neighborhoods are attracting younger, more affluent residents as gentrification and housing costs grow. Many urban, predominantly Black neighborhoods are growing in popularity given their central location to urban amenities such as jobs, shopping, and entertainment. These are the same neighborhoods that may have suffered for decades from disinvestment, and this trend is reshaping many neighborhoods in cities across the U.S. as more affluent residents move in and drive up housing costs. As of 2021 in Jefferson County, risk of displacement has been identified in neighborhoods such as Smoketown, Russell, Shawnee, Parkland, Chickasaw, Algonquin, Park Hill, Park Duvalle, California, Newburg, and Berrytown (Mills 2021).

Map 4 Percent Change Increase in Home Value Index (2-28, 2020 - 2-28, 2023)

Source: Zillow Home Value Index, Jefferson County Zip Codes



House prices have risen rapidly in the United States during the COVID19 pandemic. The median price of U.S. homes tripled between 1992 and 2021. During these years, one notable spike in housing prices occurred in the runup to the 2008 economic and financial crisis, with a more recent example being a steeper climb since the onset of the pandemic (Florida 2022). A climb in housing prices since the onset of the pandemic is similarly visible in Jefferson County, as Map 4 shows. Between February 2020 and February 2023, there has been a virtually unanimous increase in home values according to data from Zillow's Home Value Index. Of all zip codes in Jefferson County, the majority of home values increased by at least somewhere between 24 and 34 percent. The most substantial housing price increases have occurred in the Fishersville and West End areas.

Map 5: Location of Focus Zip Codes;

Source: Zillow Home Value Index, Jefferson County Zip Codes



Three zip codes located in the West End neighborhood (40210, 40211, & 40212) have increased in home value index more than any other zip codes (Map 5). Table 1 shows that the three zip codes increased in housing price by 73 percent, 64 percent, and 74 percent since March of 2020, respectively. These figures are all significantly higher than the overall county and national average. Additionally, Table 2 shows that these zip codes increased in rent cost by 16 percent, 17 percent, and 19 percent, respectively, since March of 2022. These figures are roughly ten percent higher than the county and national average increase.

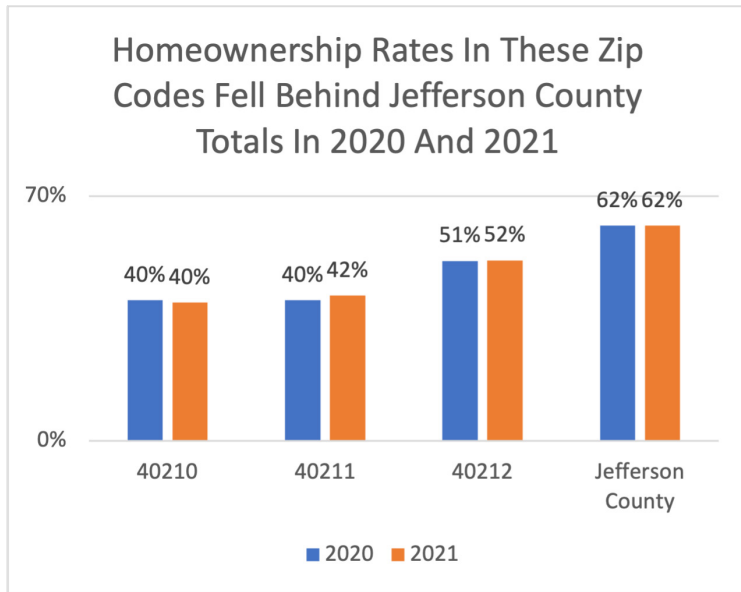
Table 1: Summary of Change in Housing Price (Percent Change), March 2020 - March 2023. Source: Zillow Home Value Index, Jefferson County Zip Codes

Percent Change ZHVI, Jan 31 2020- Jan 31 2023	
40212	74 %
40211	64 %
40210	73 %
JC	26 %
US	40 %

Table 2: Summary of Change in Rent Cost (Percent Change), March 2022 - Feb 2023. Source: Zillow Observed Rent Index, Jefferson County Zip Codes

Percent Change in Rent (ZORI), March 2021-March 2023	
40212	19 %
40211	17 %
40210	16 %
JC	8 %
US	6 %

Chart 4: Homeownership Rate of Chosen Zip Codes (2020 and 2021)
Source: U.S. Census, 2021 ACS 5-Year Estimates



Overall, the homeownership rate remained stable between 2020 and 2021 for each of the three zip codes as well as Jefferson County (Chart 4). Zip code 40211 saw the largest change in homeownership among other tracts and the county, at an overall increase of 3 percent. The county saw the smallest increase in homeownership at .01 percent. Only zip code 40210 saw a decrease in homeownership at -1 percent. Outside of these changes, the three zip codes remained below the county in terms of their overall rates of homeownership. While Jefferson County saw a homeownership rate of 62 percent in 2021, zip codes 40210, 40211, and 40212 saw homeownership rates of 40 percent, 42 percent, and 52 percent, respectively.

Mortgage Lending Disparities

We have decades-worth of information showing that not all Americans enjoy equal access to homeownership and its benefits, and that minorities face discrimination in obtaining a mortgage. Despite our extensive knowledge on mortgage lending discrimination, disparities continue to exist and it is imperative to provide evidence of it. This report highlights the continued disparities among borrowers in building generational wealth through homeownership.

Discrimination can come in many forms, but can sometimes fall into one or two categories including ‘differential treatment’ and ‘disparate impact’ (Turner 1999). Differential treatment can include phenomena like minority applicants being discouraged to apply for a loan, to have their loan application rejected, or to receive unfavorable loan terms. Disparate impact can occur when a lending policy is discriminatory in effect, such as with minimum loan amounts. This section provides an initial overview of the lending landscape in Jefferson County, primarily offering suggestions in the area of differential treatment. We describe patterns of lending through tables, charts, and maps, using data from lenders in Jefferson County between 2019 and 2021.

Jefferson County had over 500 home mortgage Lenders between 2019 and 2021, yet during this time, the top 50 lenders accounted for almost 85 percent of all loans (Table 3). Between 2019 and 2021, mortgage lending by the county’s top 50 lenders amounted to approximately \$ six billion in originated home loans in total. Of around 50 thousand home loan applications created through the top 50 lenders, around 30 thousand were approved, which amounts to around 60 percent of all applications.

The top lenders in Jefferson County that received the highest number of loan applications were Republic Bank and Trust Company, Fifth Third Bank, Rocket Mortgage, PNC Bank, United Shore Financial Services, and Freedom Mortgage Corporation. Similarly, the top lenders in Jefferson County that received the highest number of loan originations were Rocket Mortgage, United Shore Financial Services, Republic Bank and Trust Company, Commonwealth Bank and Trust Company, Home Point Financial Corporation, and Fifth Third Bank. Of all lenders, one (Amerisave Mortgage Corporation) had an origination rate of 100 percent. Of the remaining lenders, half had an origination rate of under 70 percent, and ten percent of these lenders had an origination rate of under 50 percent.

Of all of the top 50 lenders from 2019-2021, the average loan origination amount was around \$200,000, with loans ranging from around \$150,000 to \$350,000. The Evansville Teachers Federal Credit Union had the highest originated loan amount of \$345,163, followed by JP Morgan Chase Bank (\$340,272), Citizens Union Bank of Shelbyville (\$318, 297), Victory Mortgage (\$296,067), Better Mortgage Corporation (\$262,784), and Provident Funding Associates (\$259,623).

Table 3: Top 50 Lenders in Jefferson County, Kentucky (2019-2021), Ranked by Total Amount of Originated Mortgages
Jefferson County, Kentucky, 2019-2021, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act.

	Lenders	Loan Applications	Loan Originations	Origination Rate	Total Amount of Originated Mortgages	Average Loan Origination Amount
13	EVANSVILLE TEACHERS	688	551	80%	\$ 190,185,000	\$ 345,163
10	JPMORGAN CHASE BANK, NATIONAL ASSOCIATION	1,464	937	64%	\$ 318,835,000	\$ 340,272
39	CITIZENS UNION BANK OF SHELBYVILLE	333	279	84%	\$ 88,805,000	\$ 318,297
41	VICTORY MORTGAGE, L.L.C.	217	150	69%	\$ 44,410,000	\$ 296,067
26	BETTER MORTGAGE CORPORATION	372	194	52%	\$ 50,980,000	\$ 262,784
37	PROVIDENT FUNDING ASSOCIATES, L.P.	337	199	59%	\$ 51,665,000	\$ 259,623
28	MORTGAGE RESEARCH CENTER, LLC	403	170	42%	\$ 40,280,000	\$ 236,941
5	HOME POINT FINANCIAL CORPORATION	2,084	1,575	76%	\$ 372,005,000	\$ 236,194
19	CROSSCOUNTRY MORTGAGE, INC.	624	424	68%	\$ 98,190,000	\$ 231,580
50	CENTRAL BANK & TRUST COMPANY	256	212	83%	\$ 49,000,000	\$ 231,132
44	ARK-LA-TEX FINANCIAL SERVICES, LLC.	278	205	74%	\$ 46,755,000	\$ 228,073
48	NORTHPOINTE BANK	294	178	61%	\$ 40,570,000	\$ 227,921
25	THE MORTGAGE WAREHOUSE,LLC	498	431	87%	\$ 97,755,000	\$ 226,810

	Lenders	Loan Applications	Loan Originations	Origination Rate	Total Amount of Originated Mortgages	Average Loan Origination Amount
31	LOANDEPOT.COM, LLC	409	259	63%	\$ 58,695,000	\$ 226,622
33	CITIZENS BANK, NATIONAL ASSOCIATION	701	307	44%	\$ 69,385,000	\$ 226,010
2	UNITED SHORE FINANCIAL SERVICES, LLC	2,342	1,977	84%	\$ 444,445,000	\$ 224,808
23	INTERLINC MORTGAGE SERVICES, LLC	640	476	74%	\$ 104,980,000	\$ 220,546
22	AMERICAN MORTGAGE SERVICE COMPANY	649	530	82%	\$ 115,030,000	\$ 217,038
46	NEW DAY FINANCIAL, LLC	292	66	23%	\$ 14,290,000	\$ 216,515
9	AMERISAVE MORTGAGE CORPORATION	1,557	1,557	100%	\$ 115,435,000	\$ 214,963
4	COMMONWEALTH BANK AND TRUST COMPANY	2,197	1,483	68%	\$ 316,315,000	\$ 213,294
40	MAGNOLIA BANK	308	259	84%	\$ 55,055,000	\$ 212,568
27	PROSPERITY HOME MORTGAGE, LLC	454	390	86%	\$ 82,450,000	\$ 211,410
21	RUOFF MORTGAGE COMPANY, INC.	673	515	77%	\$ 107,655,000	\$ 209,039
45	THE HUNTINGTON NATIONAL BANK	387	254	66%	\$ 52,330,000	\$ 206,024
47	BROKER SOLUTIONS, INC.	306	170	56%	\$ 34,620,000	\$ 203,647
7	PNC BANK, NATIONAL ASSOCIATION	2,384	1,512	63%	\$ 306,570,000	\$ 202,758
18	STOCKTON MORTGAGE CORPORATION	766	595	78%	\$ 120,265,000	\$ 202,126
29	ENVOY MORTGAGE, LTD	438	251	57%	\$ 50,725,000	\$ 202,092
14	WELLS FARGO BANK, NATIONAL ASSOCIATION	1,778	605	34%	\$ 121,385,000	\$ 200,636
38	THRIVE MORTGAGE, LLC	406	295	73%	\$ 59,115,000	\$ 200,390
34	FIRST SAVINGS BANK	409	290	71%	\$ 58,100,000	\$ 200,345
17	BAY EQUITY LLC	833	667	80%	\$ 132,905,000	\$ 199,258
3	REPUBLIC BANK & TRUST COMPANY	2,988	1,971	66%	\$ 388,535,000	\$ 197,126
42	CALIBER HOME LOANS, INC.	368	236	64%	\$ 46,350,000	\$ 196,398
12	STOCK YARDS BANK & TRUST COMPANY	1,324	924	70%	\$ 180,080,000	\$ 194,892
1	ROCKET MORTGAGE, LLC	2,894	2,252	78%	\$ 434,580,000	\$ 192,975
24	PENNYMAC LOAN SERVICES, LLC	957	298	31%	\$ 57,000,000	\$ 191,275
16	FAIRWAY INDEPENDENT MORTGAGE CORPORATION	968	711	73%	\$ 133,305,000	\$ 187,489
32	PARK COMMUNITY CREDIT UNION, INC.	567	462	81%	\$ 86,460,000	\$ 187,143
8	FREEDOM MORTGAGE CORPORATION	2,255	1,235	55%	\$ 221,945,000	\$ 179,713
15	L & N FEDERAL CREDIT UNION	1,080	841	78%	\$ 146,215,000	\$ 173,859
36	TRANSCEND	485	270	56%	\$ 46,510,000	\$ 172,259
11	U.S. BANK NATIONAL ASSOCIATION	1,821	933	51%	\$ 158,955,000	\$ 170,370
6	FIFTH THIRD BANK, NATIONAL ASSOCIATION	2,964	1,584	53%	\$ 265,510,000	\$ 167,620
35	TRUIST BANK	818	337	41%	\$ 53,795,000	\$ 159,629
30	NATIONSTAR MORTGAGE LLC	735	383	52%	\$ 61,125,000	\$ 159,595
49	RIVER CITY BANK, INC.	392	219	56%	\$ 33,135,000	\$ 151,301
43	NEWREZ LLC	697	162	23%	\$ 23,990,000	\$ 148,086
20	FIRST FINANCIAL BANK	984	715	73%	\$ 99,055,000	\$ 138,538

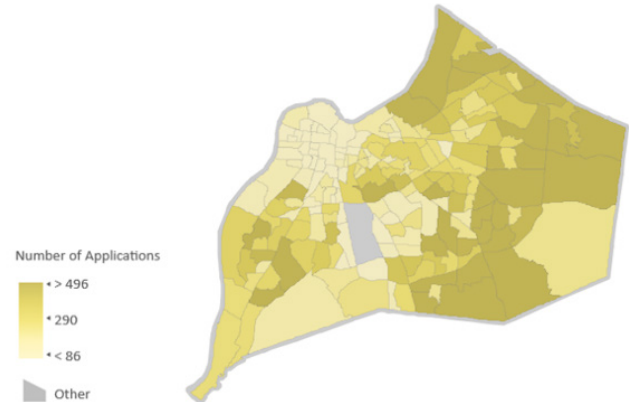
Mortgage Loan Applications

To begin our overview of the lending landscape in Jefferson County, we share maps and tables that show where housing applications are located, and for whom the applications are for, based on race/ethnicity. Using HMDA data, we also provide insight into disparities in the total share of applications among the top ten lenders who accept applications by race/ethnicity.

Table 4: Application Rate by Share of Race/Ethnicity Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

Race/Ethnicity	Total Apps	Share of Total
White	28,953	76 %
Black	4,913	13 %
Hispanic	2,791	7 %
Asian	1,479	4 %
Total (known race)	38,217	

Map 6: Total Application Rates Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.



Total Application Rates

Map 6 shows the total number of mortgage loan applications in Jefferson County by census tract for the year 2021. The map includes only applications for 1-4 unit homes, and it excludes purchased loans. The map shows that the largest share of loan applications were for homes located in the eastern region of the county, including northeastern and southeastern areas. Census tracts shaded most deeply in yellow had around 500 or more applications, compared to tracts shaded in the palest yellow, which had fewer than 90.

The entire eastern border of the county had statistically significant concentrations of high application rates. With over 1,500 applications, the individual census tract with the highest number of applications was located in the eastern-most corner of the county. On the other hand, the majority of census tracts with the lowest percent of applications were located in the West End, the central areas of the county, and the southwestern area of the county. Statistically significant concentrations of low application rates appear in the West End neighborhood.

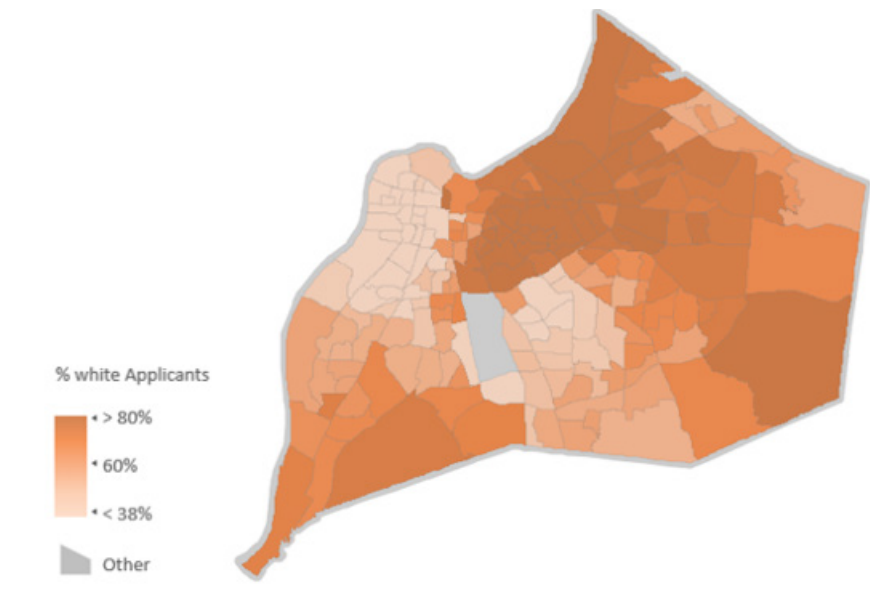
Table four shows that of all applicants, white applicants had the highest share of applications, comprising 76 percent of the total. Following white applicants were Black applicants (13 percent), Hispanic applicants (7 percent), and Asian applicants (4 percent).

Map 7: Rates of White Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built),
 includes approved loans but excludes purchased loans.
 Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

White Applicants

Similarly to the pattern of total applications across census tracts, Map 7 shows that the census tracts with some of the highest rates of white applicants were for homes located on the eastern side of the county. Unsurprisingly, statistically significant concentrations of high application rates appear on the East side of the county (e.g., Cherokee, Crescent Hill, St. Mathews, Indian Hills, Glenview, & Prospect), as well as of low application rates on the West side (e.g., Shawnee, Chickasaw/Parkland, & Shively) and central area (Okolona).

White applicant rates were also comparatively high in some census tracts within the southwestern area of the county, which is



an area that saw some of the highest increases Black population density over the past decade (Map 2). Despite an increase in Black population density in this area over the past decade, white applicants may have dominated there.

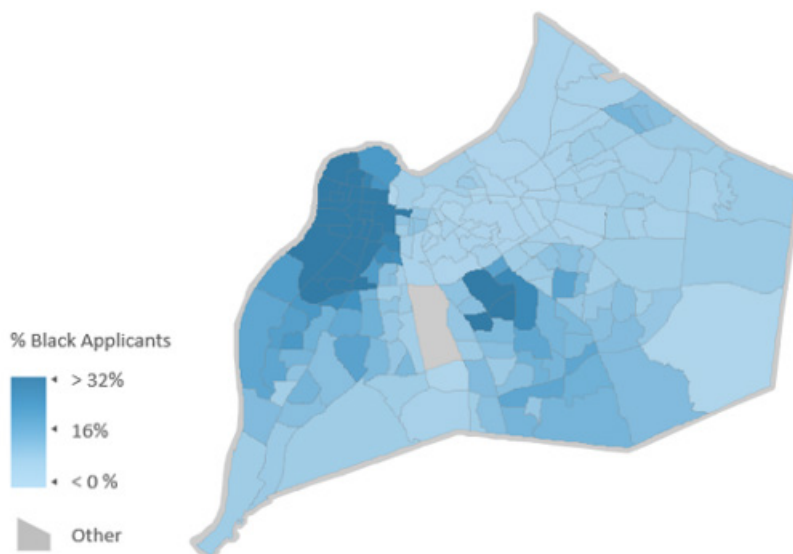
Black Applicants

On the other hand, areas with significant concentrations of Black applicants (Map 8) were largely located the West side of the county (e.g., Shawnee, Chickasaw/Parkland, & Shively). Other areas with the highest Black application rates were located in the south eastern area of the county (e.g., Highview, Fern Creek, Hillview, Beuchel, Newberg, & surrounding). The tracts with the highest percentage of Black applicants were located in the West End, with three census tracts having a Black application rate of 70 percent or higher.

Overall, statistically significant concentrations of high and low rates of Black applicants appears opposite of that for white applicants. Like the locations seen for white applicants, these patterns are unsurprising given Jefferson County's historically racially segregated landscape.

Map 8: Rates of Black Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built),
 includes approved loans but excludes purchased loans.
 Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot

The lenders with the highest rates of Black applicants saw 21 percent to 33 percent rates of Black applicants. Among the Top 50 lenders, Stockton Mortgage corporation received 33 percent of their applications from Black applicants, followed by New Day Financial, at 28 percent. Victory Mortgage, the Mortgage Research Center, and Envoy Mortgage all saw Black applicants comprise 27 percent of their total applicant pool. For Envoy Mortgage, Freedom Mortgage, Broker Solutions, River City Bank, PennyMac Loan Services, and Park Community Credit Union, Black applicants comprised between 20 and 23 percent of the total applicant



pool. These findings are promising, as Black residents comprise of 20 percent of total households in Jefferson County (Chart 3).

Table 5: Top Lenders With the Highest Rates of Black Applicants

Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans.

Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

(Top Lenders by Black Applicants)							
Rank	Lender	Apps	Total Apps (Excludes Unknown Race)	White	White %	Black	Black %
18	STOCKTON MORTGAGE CORPORATION	766	695	434	62%	229	33%
46	NEW DAY FINANCIAL, LLC	292	250	170	68%	71	28%
41	VICTORY MORTGAGE, L.L.C.	217	186	71	38%	51	27%
28	MORTGAGE RESEARCH CENTER, LLC	403	306	199	65%	82	27%
28	ENVOY MORTGAGE, LTD	438	380	262	69%	88	23%
8	FREEDOM MORTGAGE CORPORATION	2255	1863	1300	70%	420	23%
47	BROKER SOLUTIONS, INC.	306	243	167	69%	53	22%
49	RIVER CITY BANK, INC.	392	195	123	63%	41	21%
24	PENNYMAC LOAN SERVICES, LLC	957	552	383	69%	114	21%
32	PARK COMMUNITY CREDIT UNION, INC.	567	384	292	76%	77	20%

However, a number of lenders had significantly lower shares of Black applicants. The lenders with the lowest shares of Black applicants include The Mortgage Warehouse and The Huntington National Bank. For both of these lenders, Black applicants comprised only three percent of their total applicant pool. Following these lenders were First Savings Bank and Stock Yards Bank and Trust Company, with six percent of their total application pool comprised of Black applicants. Following these were Central Bank and Trust Company, Better Mortgage Corporation, Cross-country Mortgage, First Financial Bank, and ARK-LA-TEX Financial Services, all of which had six percent of the total applicant pool comprised of Black applicants. These rates highlight the complex landscape of lending in Jefferson County, as well as the overall stagnation of homeownership among Black households over the past decade (Charts 1 & 2).

Table 6: Top Lenders With the Lowest Rates of Black Applicants

Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans.

Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

(Bottom Lenders by Black Applicants)							
Rank	Lender	Apps	Total Apps (Excludes Unknown Race)	White	White %	Black	Black %
25	THE MORTGAGE WAREHOUSE, LLC	498	488	457	94%	14	3%
45	THE HUNTINGTON NATIONAL BANK	387	286	252	88%	10	3%
37	PROVIDENT FUNDING ASSOCIATES, L.P.	337	281	203	72%	12	4%
34	FIRST SAVINGS BANK	409	372	299	80%	17	5%
12	STOCK YARDS BANK & TRUST COMPANY	1324	1145	1010	88%	54	5%
50	CENTRAL BANK & TRUST COMPANY	256	213	189	89%	12	6%
26	BETTER MORTGAGE CORPORATION	372	300	232	77%	17	6%
19	CROSSCOUNTRY MORTGAGE, INC.	624	455	399	88%	26	6%
20	FIRST FINANCIAL BANK	984	909	250	28%	52	6%
44	ARK-LA-TEX FINANCIAL SERVICES, LLC.	278	266	240	90%	17	6%

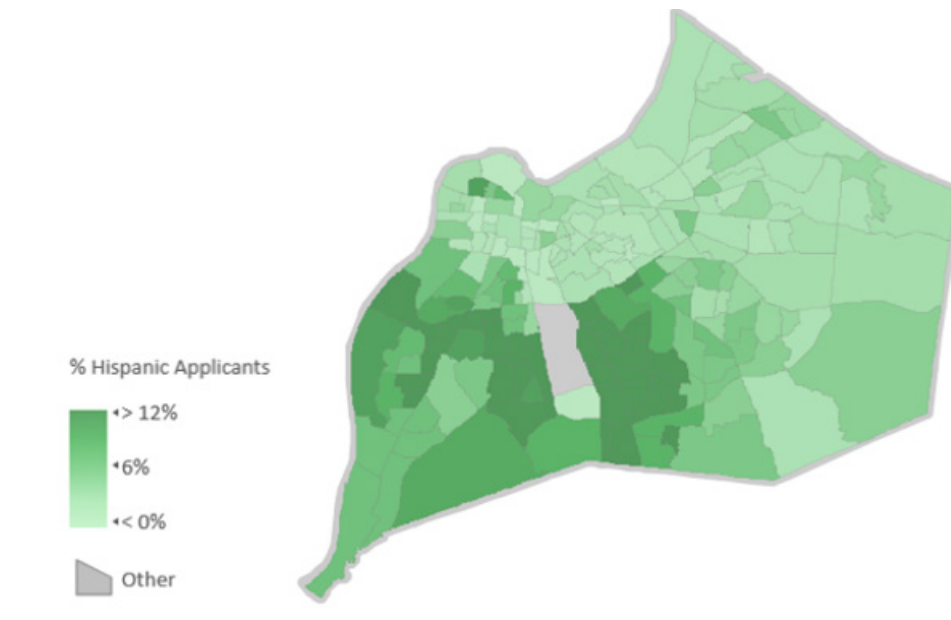
Hispanic Applicants

The areas of the county with the highest share of Hispanic applicants were largely located in the central and southwestern areas of the county, which is reflective of the overall Hispanic population density in Jefferson County at that time (U.S. Census, 2020). Census tracts with the highest shares of Hispanic applicants were located in the central area of the county (e.g., Newburg, Beuchel, Okolona, & Hillview). The individual census tract with the highest share

of Hispanic applicants had a 36 percent Hispanic applicants rate, or 94 Hispanic applicants in total. Beyond this census tract, other tracts with the highest shares of Hispanic applicants had around 33 applicants per tract.

On the other hand, census tracts with the lowest Hispanic applicant rates were largely located in an area spanning from the West End to the northern edges of the East End. The percentage of total Hispanic applicants in these tracts were as low as zero to one percent, totaling anywhere from zero to five total Hispanic applicants. These concentrations of high and low application rates were also statistically significant.

*Map 9: Rates of Hispanic Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built),
includes approved loans but excludes purchased loans.
Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.*



Unlike Black homeownership, Hispanic homeownership has increased between 2010 and 2021 (Chart 2). Potentially contributing to this are lenders who receive a substantial percentage of Hispanic applicants. Most notably is First Financial Bank, which saw Hispanic applicants comprise 65 percent of the Bank’s total applicant pool. The U.S. Bank National Association followed, seeing Hispanic applicants comprise 34 percent of the bank’s total applicant pool. Fairway Independent Mortgage Corporation, Victory Mortgage, River City Bank, Transcend, Republic Bank and Trust Company, the Mortgage Research Center, and PennyMac Loan Services all saw

Hispanic applicants comprise between 6 and 16 percent of their total applicant pool.

*Table 7: Top Lenders With The Highest Rates of Hispanic Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans.
Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.*

(Top Lenders by Hispanic Applicants)							
Rank	Lender	Apps	Total Apps (Excludes Unknown Race)	White	White %	Hispanic	Hispanic %
20	FIRST FINANCIAL BANK	984	909	250	28%	594	65%
11	U.S. BANK NATIONAL ASSOCIATION	1821	1423	778	55%	485	34%
2	UNITED SHORE FINANCIAL SERVICES, LLC	2342	2164	1520	70%	351	16%
16	FAIRWAY INDEPENDENT MORTGAGE CORPORATION	968	735	484	66%	93	13%
41	VICTORY MORTGAGE, L.L.C.	217	186	71	38%	23	12%
49	RIVER CITY BANK, INC.	392	195	123	63%	24	12%
36	TRANSCEND	485	335	255	76%	28	8%
3	REPUBLIC BANK & TRUST COMPANY	2988	2653	1962	74%	192	7%
28	MORTGAGE RESEARCH CENTER, LLC	403	306	199	65%	20	7%
24	PENNYMAC LOAN SERVICES, LLC	957	552	383	69%	35	6%

Unfortunately, the bottom lenders for Hispanic applicants all saw between 1-2 percent of their total applications from Hispanic applicants. These include New Day Financial, Northpointe Bank, American Mortgage Service Company,

PNC Bank, The Mortgage Warehouse, The Huntington National Bank, Provident Funding, Stock Yards Bank and Trust Company, Central Bank and Trust Company, and ARK-LA-TEX Financial Services.

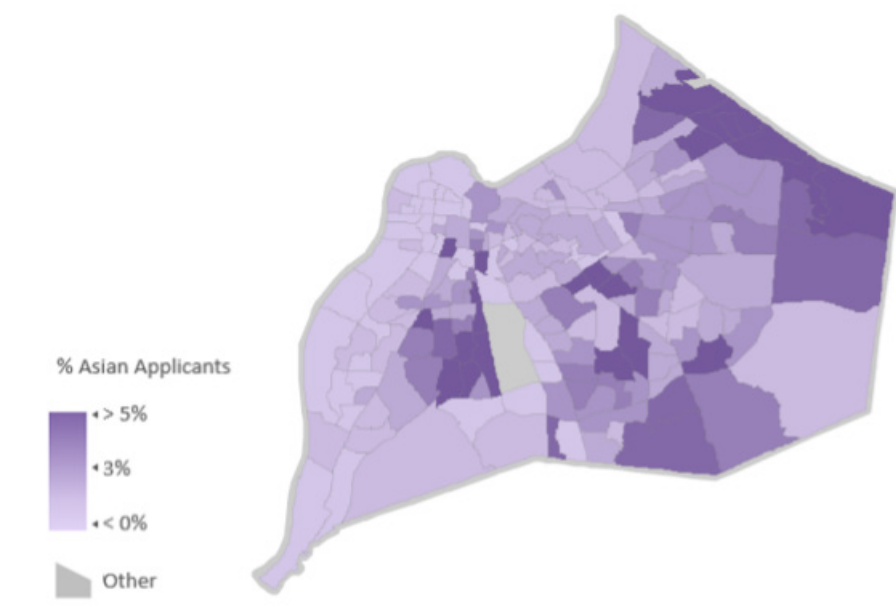
*Table 8: Top Lenders With The Lowest Rates of Hispanic Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.*

(Bottom Lenders by Hispanic Applicants)							
Rank	Lender	Apps	Total Apps (Excludes Unknown Race)	White	White %	Hispanic	Hispanic %
45	THE HUNTINGTON NATIONAL BANK	387	286	252	88%	3	1%
37	PROVIDENT FUNDING ASSOCIATES, L.P.	337	281	203	72%	3	1%
50	CENTRAL BANK & TRUST COMPANY	256	213	189	89%	3	1%
12	STOCK YARDS BANK & TRUST COMPANY	1324	1145	1010	88%	20	2%
44	ARK-LA-TEX FINANCIAL SERVICES, LLC.	278	266	240	90%	5	2%
46	NEW DAY FINANCIAL, LLC	292	250	170	68%	5	2%
25	THE MORTGAGE WAREHOUSE, LLC	498	488	457	94%	10	2%
48	NORTHPOINTE BANK	294	238	209	88%	5	2%
22	AMERICAN MORTGAGE SERVICE COMPANY	649	369	250	68%	8	2%
7	PNC BANK, NATIONAL ASSOCIATION	2384	2075	1685	81%	45	2%

Asian Applicants

Asian applicants comprised the lowest share of total applicants, with census tracts ranging from zero applicants to just over 200 in concentrated areas. The share of Asian applicants across census tracts shares a similar location to that of the share of white applicants. Additionally, locations with the highest rates of Asian applicants appears reflective of the population density of those identifying as Asian in Jefferson County as of 2020 (U.S. Census, 2020).

*Map 10: Rates of Asian Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans.
Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.*



Like census tracts with the highest shares of white applicants, the individual census tract with the highest share of Asian applicants was located in the easternmost census tract in Jefferson County. However, unlike the spatial pattern for white applicants, tracts with the highest shares of Asian applicants were spread between the far eastern side of Jefferson County as well as the south central region (e.g., Springhurst, Middletown, Eastwood, Iroquois, & Beuchel). Areas with the lowest rates of Asian applicants were located along the county’s western border. Similarly to Hispanic applicants, the census tract with the highest number of Asian applicants had approximately twice as many applicants as other census tracts with the highest rates of these

applicants. Concentrations of high and low Asian application rates were also statistically significant.

Shares of Asian Application Rates were lower among the top ten lenders for Asian applicants compared to those for Black and Hispanic applicants. This is unsurprising given that the Asian and Pacific Islander homeownership rate decreased by 15 percent in Jefferson county between 2010 and 2021 (Charts 1 & 2). With 22 percent Asian applicant rates, Provident Funding Associates and Victory Mortgage had the highest shares Asian applicants. American Mortgage Service Company, Better Mortgage Corporation, First Savings Bank, The Huntington National Bank, LoanDepot.com, JP Morgan Chase Bank, PNC Bank, and Rocket Mortgage all saw Asian applicants comprise between 6 and 18 percent of their total applicants.

*Table 9: Top Lenders with the Highest Rates of Asian Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.*

(Top Lenders by Asian Applicants)							
Rank	Lender	Apps	Total Apps (Excludes Unknown Race)	White	White %	Asian	Asian %
37	PROVIDENT FUNDING ASSOCIATES, L.P.	337	281	203	72%	62	22%
41	VICTORY MORTGAGE, L.L.C.	217	186	71	38%	41	22%
22	AMERICAN MORTGAGE SERVICE COMPANY	649	369	250	68%	68	18%
26	BETTER MORTGAGE CORPORATION	372	300	232	77%	34	11%
34	FIRST SAVINGS BANK	409	372	299	80%	34	9%
45	THE HUNTINGTON NATIONAL BANK	387	286	252	88%	21	7%
31	LOANDEPOT.COM, LLC	409	278	204	73%	19	7%
10	JPMORGAN CHASE BANK, NATIONAL ASSOCIATION	1464	1193	966	81%	74	6%
7	PNC BANK, NATIONAL ASSOCIATION	2384	2075	1685	81%	127	6%
1	ROCKET MORTGAGE, LLC	2894	2072	1529	74%	125	6%

Similarly to the bottom lenders for Hispanic applicants, the bottom ten lenders for Asian applicants saw Asian applicants comprise only 1 percent of total applications. These include New Day Financial, the Mortgage Research Center, Park Community Credit Union, First Financial Bank, L&N Federal Credit Union, Commonwealth Bank and Trust Company, Nationstar Mortgage, The Mortgage Warehouse, Caliber Home Loans, and Interlink Mortgage Services.

*Table 10: Top Lenders with the Lowest Rates of Asian Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.*

(Bottom Lenders by Asian Applicants)							
Rank	Lender	Apps	Total Apps (Excludes Unknown Race)	White	White %	Asian	Asian %
46	NEW DAY FINANCIAL, LLC	292	250	170	68%	1	0%
28	MORTGAGE RESEARCH CENTER, LLC	403	306	199	65%	3	1%
32	PARK COMMUNITY CREDIT UNION, INC.	567	384	292	76%	4	1%
20	FIRST FINANCIAL BANK	984	909	250	28%	10	1%
15	L & N FEDERAL CREDIT UNION	1080	979	798	82%	11	1%
4	COMMONWEALTH BANK AND TRUST COMPANY	2197	2052	1767	86%	26	1%
30	NATIONSTAR MORTGAGE LLC	735	456	348	76%	6	1%
25	THE MORTGAGE WAREHOUSE, LLC	498	488	457	94%	7	1%
42	CALIBER HOME LOANS, INC.	368	278	211	76%	4	1%
23	INTERLINC MORTGAGE SERVICES, LLC	640	608	464	76%	9	1%

Denials

Mortgage loan denials can happen for a number of reasons, and the study of mortgage denials is considered by some to be most important in understanding discrimination in mortgage lending (Tootel 1993). The following section describes mortgage loan denials across Jefferson County by available racial/ethnic categories. With this overview, future studies can consider denial rates between different identity categories alongside other complicating factors such as access to credit. Looking at the relationship between race/ethnicity and application denials offers a first glance into the spatial patterns of mortgage lending discrimination in Jefferson County.

Map 11: Total Loan Denial Rate
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans.
 Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

The pattern of total application denial rates per census tract (Map 11) follows a pattern that appears opposite of application rates (Map 6). The census tracts with the highest application denial rates in 2021 were located in the West End and central area of Jefferson County, with denial rates of anywhere between 20 and 67 percent. In other words, while the West End area saw the least amount of total applications, it saw the highest overall denial rates. Statistically significant concentrations of high denial rates were present only in the West End and Shively areas.

Denial patterns may have been compounded by the extreme housing price increases that have occurred in Jefferson County's West End area in the

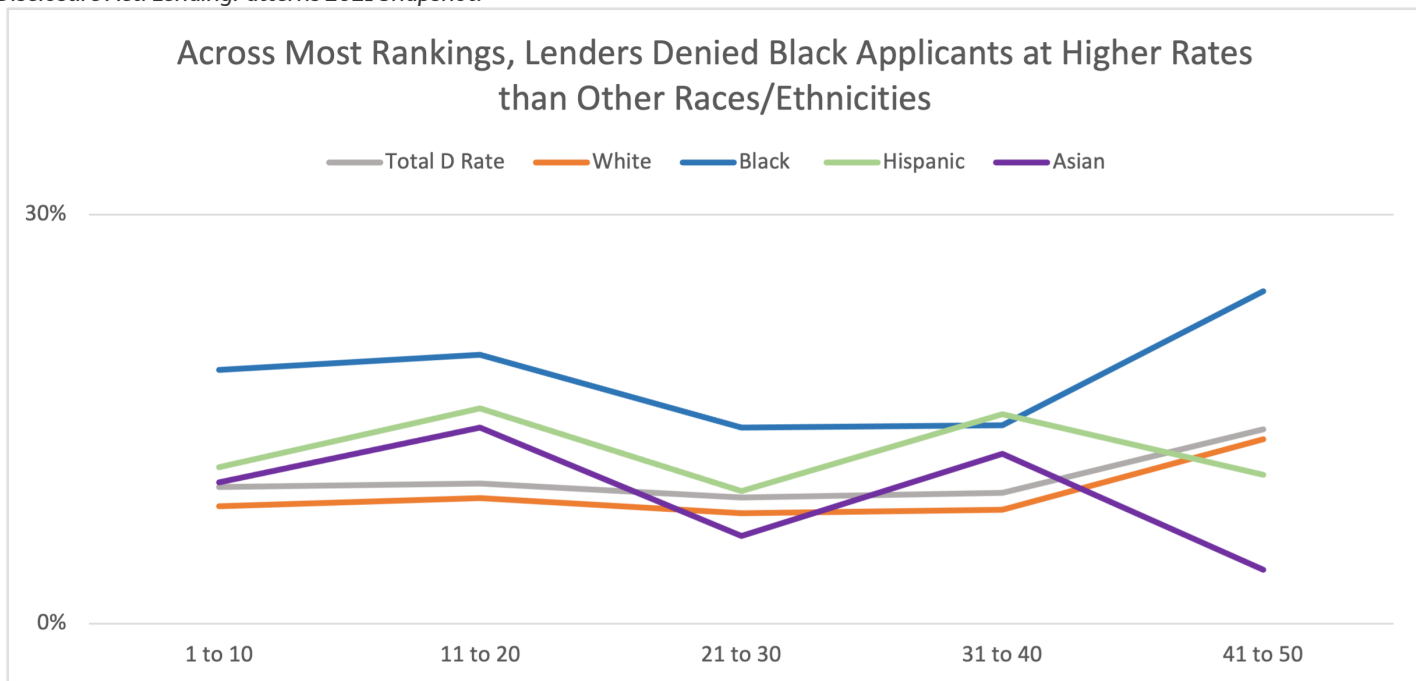
wake of the COVID19 pandemic (Maps 4 & 5). Census tracts with high denial rates are also located in the central area of the county, as well as the southwestern corner of Jefferson county, which is an area that has experienced a substantial increase in Black population density over the past decade. Relatedly, and unsurprisingly, the census tracts with the lowest application denial rates are concentrated in the downtown area and eastern half of the county (e.g., St. Mathews and beyond) with statistical significance.

Table 11: Application Denial Rate by Race/Ethnicity of Top 50 Lenders
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

Race	Total Apps	Total Denials	Denial Rate
White	28953	2640	9%
Black	4913	861	18%
Hispanic	2791	405	15%
Asian	1479	157	11%
Total (Known Race)	38217	4079	11%

Table 11 shows that the top 50 lenders denied over four thousand applications. These lenders received almost 40 thousand applications in total, with an overall denial rate of 11 percent. Importantly, denial rates differ among races/ethnicities. While white and Asian applicants saw denial rates of 9 percent and 11 percent, respectively, Hispanic and Black applicants saw denial rates of 15 percent and 18 percent, respectively.

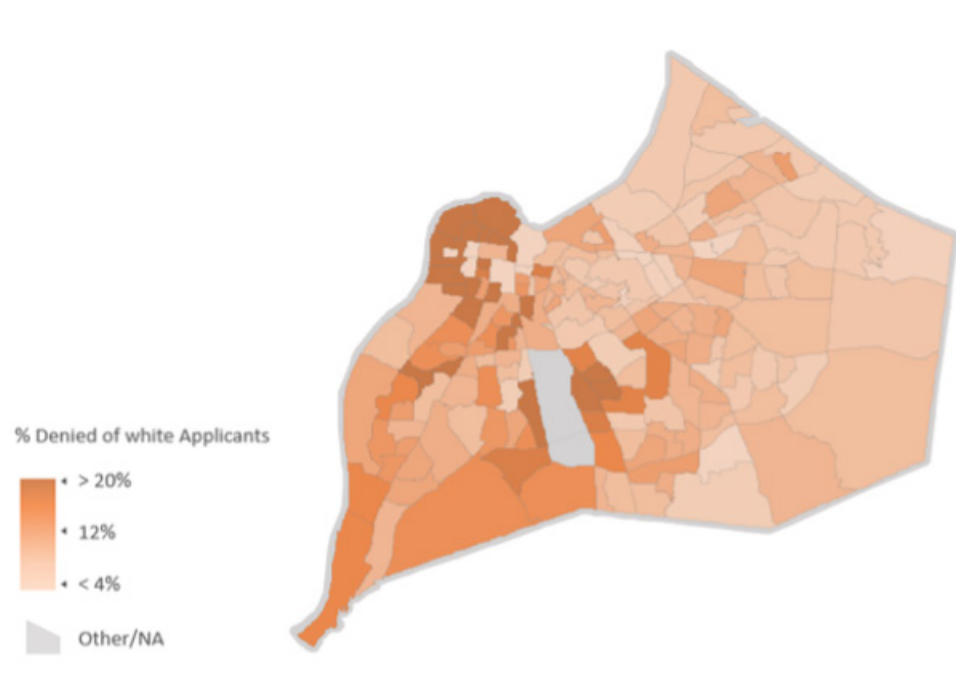
Chart 5: Average Denial Rate by Lender Ranking and Race
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.



Looking more closely at denial rates (Chart 5), white applicants saw a denial rate of under ten percent among lenders 1-40, with a higher denial rate of around 15 percent between lenders ranked 41-50. As white applicants comprised the largest portion of the applicant pool, white denial rates are unsurprisingly consistent with the average denial rate.

Average Asian and Hispanic denial rates remain above the average denial rate for lenders ranked 1-25. Lenders ranked 1-20 show the most disparity between denial rates for Black applicants and the average denial rate. However, Black denial rates overall remain at least 5 percent higher than average for all of the top 50 lenders, regardless of ranking.

Map 12: Denial Rates for White Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.



Denial Rates for White Applicants

Despite having a lower total denial rate compared to other races/ethnicities, the highest denial rates for white applicants are located in the same areas with the highest overall denial rates (Map 12). Census tracts on the eastern side of Jefferson County (e.g., St. Matthews) had much lower white denial rates compared to the West side. On the West side of the county, the census tracts with the highest white denial rates ranged from 20 percent to 67 percent, with significant concentrations located in the Shawnee, Portland, Old Louisville and Shively areas.

However, four census tracts located in the West End area had a zero percent loan denial rate for white applicants, despite those census tracts having had 5 - 20 percent white application rates. These census tracts are also the tracts with the lowest white denial rates in the county. Aside from these census tracts, the denial rate for white applicants in the eastern half of Jefferson county ranged from around five percent to ten percent for most census tracts.

Compared to the visibly segregated location of overall application and denial rates in Jefferson County (Maps 6 and 11), the pattern of Black denial rates appears much more dispersed, with high denial rates appearing in both the western, downtown, and central areas of the county (Map 13). Concentrations of high Black denial rates in these areas have statistical significance. Individual census tracts with the highest Black denial rates were spread between the West End, downtown area, northeastern area, and central area. The denial rates for these census tracts ranged from 38 percent to 67 percent.

On the other hand, census tracts with the lowest Black denial rates were concentrated in the northern central area of the county. Statistically significant concentrations of the lowest denial rates for Black applicants were located on the East side of the county (e.g., St. Mathews).

Map 13: Denial Rates for Black Applicants by Census Tract

Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans.

Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

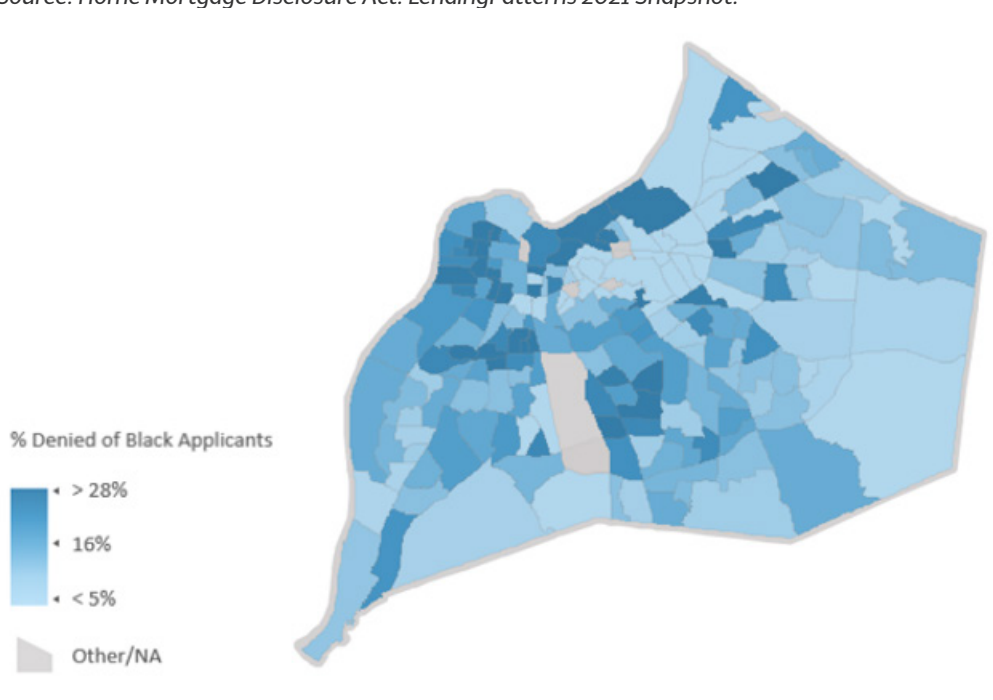
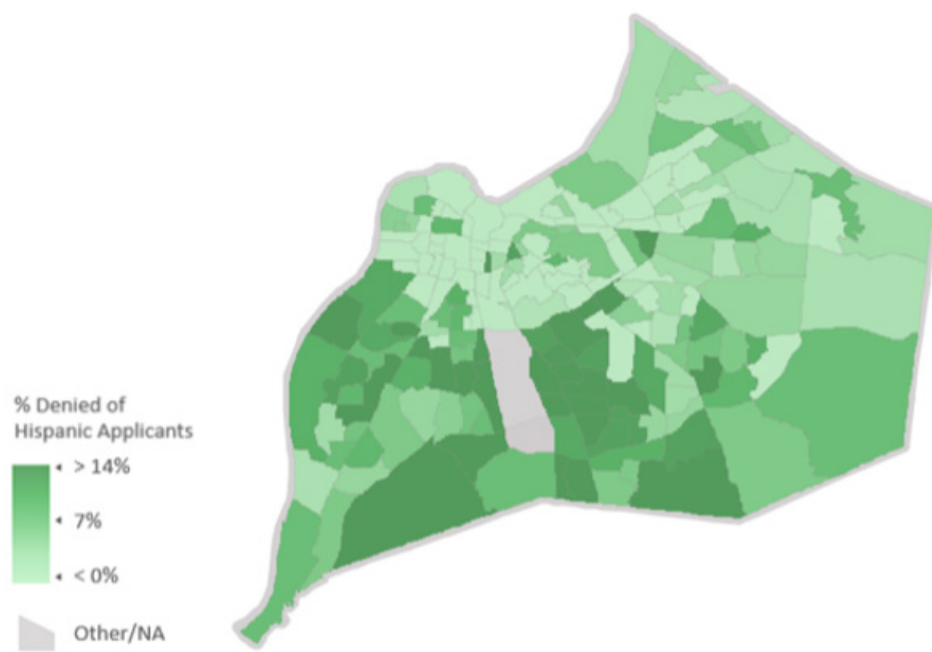


Table 12: Top Lenders With The Highest Denial Rates for Black Applicants. Jefferson County, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

(Top Ten Lenders by Black Applicants)							
Rank	Lender	Total Denials (Excludes Unknown Race)	Total Denial Rate (Excludes Unknown Race)	White Denials	White Denial Rate	Black Denials	Black Denial Rate
11	U.S. BANK NATIONAL ASSOCIATION	419	29%	193	25%	59	56%
46	NEW DAY FINANCIAL, LLC	110	44%	70	41%	38	54%
50	CENTRAL BANK & TRUST COMPANY	18	8%	12	6%	5	42%
49	RIVER CITY BANK, INC.	54	28%	32	26%	17	41%
20	FIRST FINANCIAL BANK	120	13%	42	17%	21	40%
45	THE HUNTINGTON NATIONAL BANK	25	9%	21	8%	4	40%
6	FIFTH THIRD BANK, NATIONAL ASSOCIATION	499	18%	370	17%	89	32%
7	PNC BANK, NATIONAL ASSOCIATION	382	18%	282	17%	69	32%
9	AMERISAVE MORTGAGE CORPORATION	148	16%	94	13%	41	32%
24	PENNYMAC LOAN SERVICES, LLC	100	18%	55	14%	35	31%

Among lenders, the top ten lenders with the highest Black denial rates ranged from having a 31 percent to a 56 percent denial rate. Denial rates for white applicants among these same lenders ranged from 6 percent to 41 percent. These lenders include the U.S. Bank and National Association, New Day Financial, Central Bank and Trust Company, First Financial Bank, The Huntington National Bank, Fifth Third Bank, PNC Bank, Amerisave Mortgage Corporation, and PennyMac Loan Services.

Map 14: Denial Rates for Hispanic Applicants by Census Tract Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.



Denial Rates for Hispanic Applicants

Hispanic denial rates were located in the same areas containing concentrations of Hispanic applicants (Map 14). Areas with the lowest Hispanic denial rates were clustered in the Old Louisville and Highlands areas. On the other hand, areas with some of the highest Hispanic denial rates were located in the central and southern areas of the county. These spatial concentrations are statistically significant.

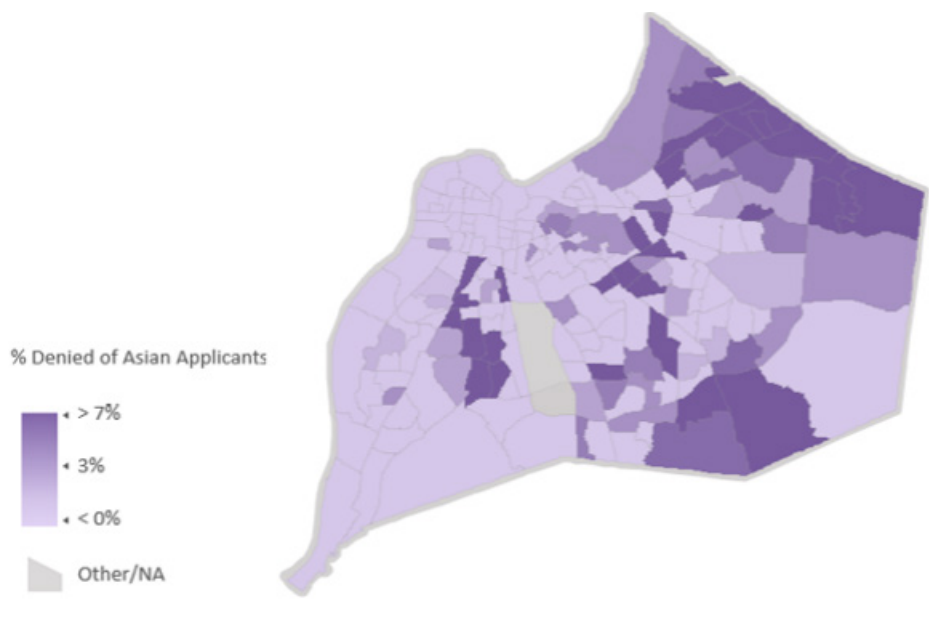
Despite high application and denial rates for Hispanic applicants being located in similar areas, disparity exists between the denial rates for

white and Hispanic applicants among the top 50 lenders. The top ten lenders with the highest application denial rates for Hispanic applicants had rates of between 20 percent and 46 percent. For white applicants among these same lenders, denial rates ranged much lower (between 6 percent and 28 percent). These lenders include Newrez, Wells Fargo Bank, Loan Depot, Citizens Bank, U.S. Bank and National Association, Magnolia Bank, PennyMac Loan Services, Fifth Third Bank, Truist Bank, and ARK-LA-TEX Financial Services.

Table 13: Top Lenders with the Highest Denial Rates for Hispanic Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

(Top Ten Lenders by Hispanic Applicants)							
Rank	Lender	Total Denials (Excludes Unknown Race)	Total Denial Rate (Excludes Unknown Race)	White Denials	White Denial Rate	Hispanic Denials	Hispanic Denial Rate
43	NEWREZ LLC	86	27%	60	26%	6	46%
14	WELLS FARGO BANK, NATIONAL ASSOCIATION	168	18%	116	15%	15	41%
31	LOANDEPOT.COM, LLC	53	19%	35	17%	3	38%
33	CITIZENS BANK, NATIONAL ASSOCIATION	37	10%	23	8%	3	38%
11	U.S. BANK NATIONAL ASSOCIATION	419	29%	193	25%	151	31%
40	MAGNOLIA BANK	26	8%	18	7%	3	30%
24	PENNYMAC LOAN SERVICES, LLC	100	18%	55	14%	8	23%
6	FIFTH THIRD BANK, NATIONAL ASSOCIATION	499	18%	370	17%	19	22%
35	TRUIST BANK	80	29%	68	28%	2	22%
44	ARK-LA-TEX FINANCIAL SERVICES, LLC.	17	6%	14	6%	1	20%

Map 15: Denial Rates for Asian Applicants by Census Tract
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.



Similarly to the locations of Hispanic application and denial rates, areas with the highest Asian application and denial rates were largely located in similar areas (Map 15). Areas with the highest Asian denial rates were located in areas dispersed around the central western and far eastern half of the county. Areas with the lowest Asian denial rates were located in the central northern and western area of the county. These spatial concentrations are statistically significant.

Also similarly to other races/ethnicities, disparities exist between denial rates for Asian and White applicants. While the top ten lenders with the highest Asian denial rates had rates that ranged from 17 percent to 60

percent, the same lenders denied white applicants at rates of between 7 and 28 percent. These lenders include Truist Bank, First Financial Bank, Nationstar Mortgage, Stock Yards Bank and Trust Company, U.S. Bank National Association, Newrez, Amerisave Mortgage Corporation, Magnolia Bank, PNC Bank, and Fifth Third Bank.

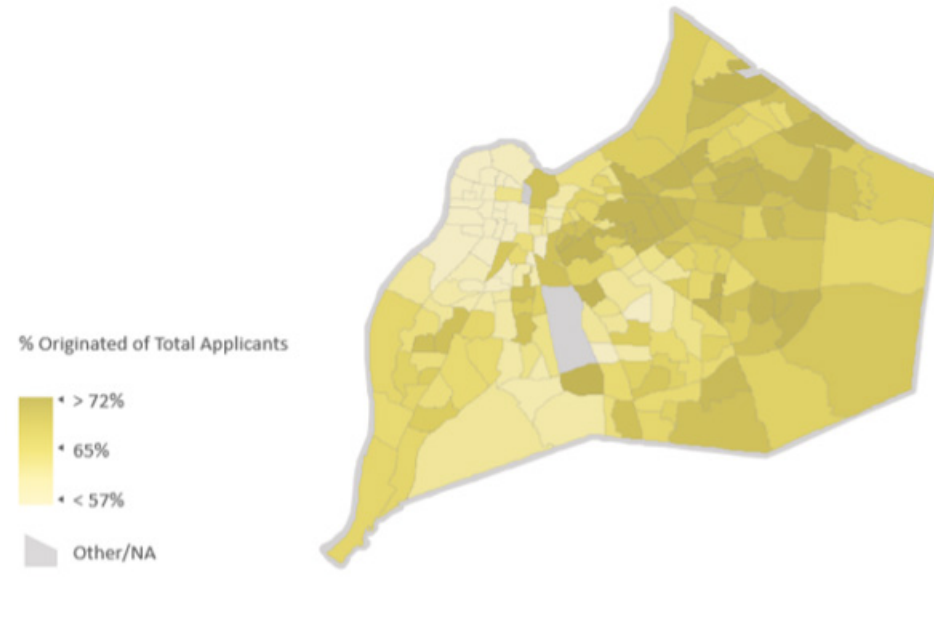
Table 14: Top Lenders with the Highest Denial Rates for Asian Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

(Top Ten Lenders by Asian Applicants)							
Rank	Lender	Total Denials (Excludes Unknown Race)	Total Denial Rate (Excludes Unknown Race)	White Denials	White Denial Rate	Asian Denials	Asian Denial Rate
35	TRUIST BANK	80	29%	68	28%	3	60%
20	FIRST FINANCIAL BANK	120	13%	42	17%	5	50%
30	NATIONSTAR MORTGAGE LLC	62	14%	40	11%	2	33%
12	STOCK YARDS BANK & TRUST COMPANY	143	12%	108	11%	18	30%
11	U.S. BANK NATIONAL ASSOCIATION	419	29%	193	25%	16	29%
43	NEWREZ LLC	86	27%	60	26%	4	29%
9	AMERISAVE MORTGAGE CORPORATION	148	16%	94	13%	6	23%
40	MAGNOLIA BANK	26	8%	18	7%	2	22%
7	PNC BANK, NATIONAL ASSOCIATION	382	18%	282	17%	23	18%
6	FIFTH THIRD BANK, NATIONAL ASSOCIATION	499	18%	370	17%	19	17%

Originations

Loan origination rates offer an additional lens through which patterns of lending discrimination can be observed. A wealth of evidence exists showing racial disparities at the origination stage across the U.S., where a buyer secures a mortgage loan from a given lender. A recent study from the Consumer Financial Protection Bureau, for instance, found that in 2020, non-Hispanic white applicants comprised around 60 percent of all home-purchase loan originations compared to Hispanic, Black, and Asian borrowers (CFPB 2021). Data for Jefferson County shows a similar pattern.

*Map 16: Total Loan Origination Rates
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built),
includes approved loans but excludes purchased loans.
Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.*



The pattern of the share of all originated mortgages among Jefferson County census tracts for the year 2021 follows a similar pattern to that of total applications (Map 16). Census tracts with the highest origination rates in the county are spread across the East side of the county, while census tracts with the lowest origination rates are located in the West End and Shively areas. Concentrations of high and low rates on the East and West sides are statistically significant. These patterns are unsurprising, given that the eastern half and West End neighborhoods have census tracts with some of the lowest and highest total loan denial rates, respectively.

Table 15 provides additional insight into the racial/ethnic breakdown of loan originations in Jefferson County. At an overall origination rate of 71 percent, white applicants had a significantly higher overall loan origination rate compared to Black, Hispanic, and Asian applicants. Followed by white applicants are Hispanic applicants (67 percent), Asian applicants (62 percent), and Black applicants (58 percent).

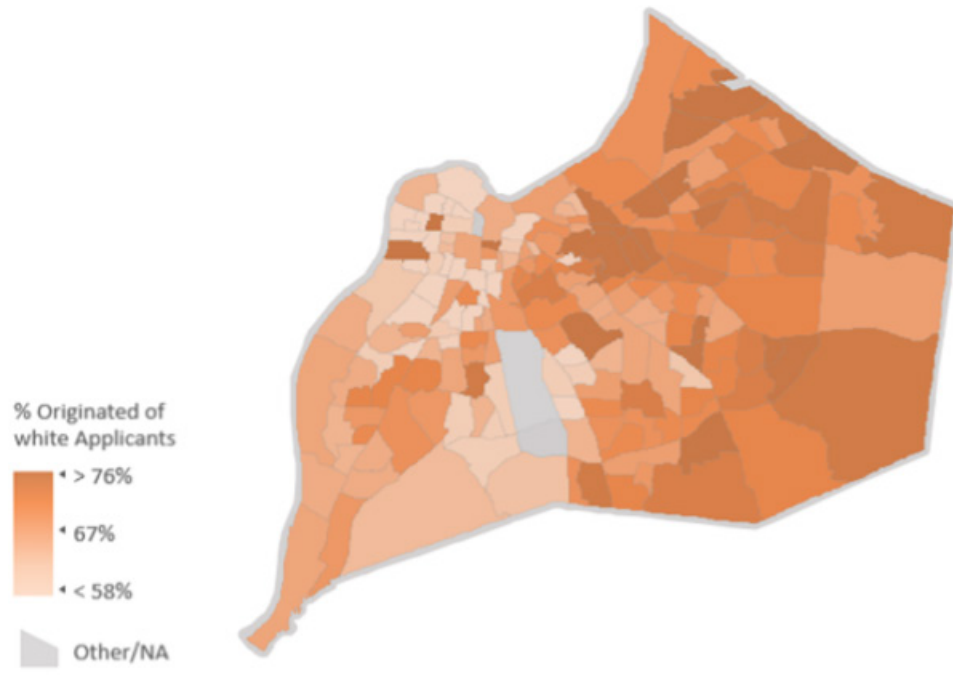
*Table 15: Total Origination Rate by Race/Ethnicity
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.*

	Total Apps	Total Originations	Total Origination Rate
white	28953	20754	72%
Black	4913	2853	58%
Hispanic	2791	1883	67%
Asian	1479	915	62%
Total (known race)	38217	26639	69%

Map 17: Origination Rates for White Applicants by Census Tract, 2021 (d)
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built),
 includes approved loans but excludes purchased loans.
 Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot.

Origination Rates for white Applicants

Areas with the highest white origination rates were located in the same areas with the highest total application rates in Jefferson County in 2021 (Map 17). Statistically significant concentrations of high and low white origination rates were located on the eastern and western halves of the county, respectively. However, individual census tracts with the highest white origination rates span not only the eastern half of Jefferson County but were located within Jefferson County's West End area. These census tracts had white origination rates of between 80 and 90 percent. Likewise, census tracts with the lowest white origination

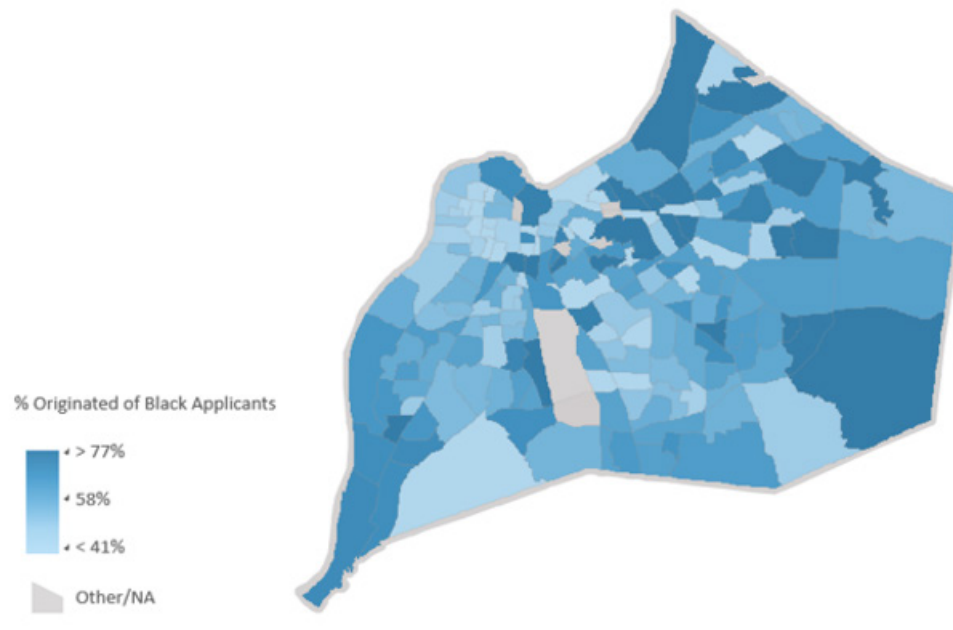


rates were also located in the West End area, with rates of between 22 and 50 percent.

Map 18: Origination Rates for Black Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built),
 includes approved loans but excludes purchased loans.
 Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot

Origination Rates for Black Applicants

Areas with the highest and lowest Black origination rates were random, with no statistically significant concentrations of high or low values anywhere. So, while census tracts with the highest denial rates for Black applicants were located in the central, western, and northwestern area of the county, census tracts with comparatively high origination rates were located sporadically across the county especially in the northern, eastern, and southwestern regions of the county (Map 18). Census tracts with the lowest origination rates for Black applicants were located in the West End, East End, and central areas of the county.



On the other hand, census tracts with the highest Black origination rates were located in the central area and East End, as well as in the far eastern area of the county.

The ten lenders with the highest origination rates for Black applicants had rates of between 72 and 83 percent. These included Prosperity Bank, American mortgage service Company, Fairway Independent Mortgage Corporation, Evansville Teachers, Park Community Credit Union, Magnolia Bank, United Shore financial Services, Stockton Mortgage Corporation, Rocket Mortgage, and JP Morgan Chase Bank. These banks have origination rates for white applicants that are higher than the average white origination rate (72 percent).

*Table 16: Top Lenders With The Highest Origination Rates for Black Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot*

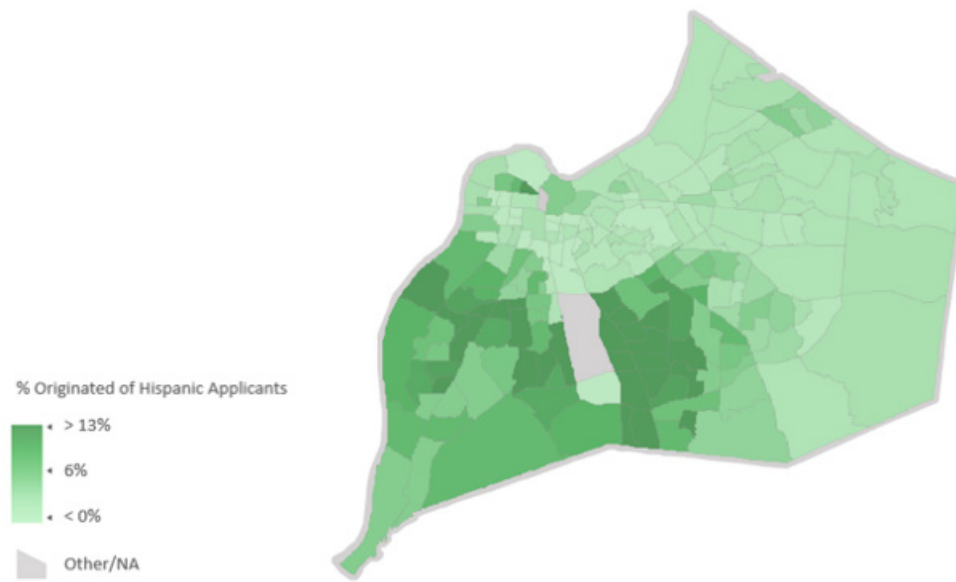
(Top Lenders by Black Applicants)							
Rank	Lender	Total Originations	Total Originations (Excluding Unknown)	White	White %	Black	Black %
27	PROSPERITY BANK	390	364	279	86%	50	83%
22	AMERICAN MORTGAGE SERVICE COMPANY	530	316	210	84%	34	81%
16	FAIRWAY INDEPENDENT MORTGAGE CORPORATION	711	561	389	80%	102	80%
13	EVANSVILLE TEACHERS	540	458	380	81%	42	79%
32	PARK COMMUNITY CREDIT UNION, INC.	439	307	226	77%	61	79%
40	MAGNOLIA BANK	259	255	213	83%	25	78%
2	UNITED SHORE FINANCIAL SERVICES, LLC	1977	1846	1323	87%	142	74%
18	STOCKTON MORTGAGE CORPORATION	594	550	348	80%	168	73%
1	ROCKET MORTGAGE, LLC	2252	1672	1254	82%	253	73%
10	JPMORGAN CHASE BANK, NATIONAL ASSOCIATION	937	926	763	79%	73	72%

Of the bottom ten lenders with the lowest Black origination rates, all had a Black origination rate of under 42 percent. These lenders include New Day Financial, Amerisave Mortgage Corporation, Newrez, River City Bank, U.S. Bank National Association, Envoy Mortgage, Truist Bank, PennyMac Loan Services, Fifth Third Bank, and Crosscountry Mortgage. New Day Financial had the lowest Black origination rate of 20 percent. All of these lenders have a white origination rate of anywhere between 5 and 30 percent higher than its Black origination rate.

*Table 17: Top Lenders With The Lowest Origination Rates for Black Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot*

(Bottom Lenders by Black Applicants)							
Rank	Lender	Total Originations	Total Originations (Excluding Unknown)	White	White %	Black	Black %
46	NEW DAY FINANCIAL, LLC	66	59	42	25%	14	20%
9	AMERISAVE MORTGAGE CORPORATION	537	341	285	40%	36	28%
43	NEWREZ LLC	161	121	95	41%	16	28%
49	RIVER CITY BANK, INC.	214	81	51	41%	12	29%
11	U.S. BANK NATIONAL ASSOCIATION	926	799	453	58%	32	30%
28	ENVOY MORTGAGE, LTD	170	137	95	36%	31	35%
35	TRUIST BANK	337	166	149	62%	9	36%
24	PENNYMAC LOAN SERVICES, LLC	298	277	204	53%	45	39%
6	FIFTH THIRD BANK, NATIONAL ASSOCIATION	1583	1567	1354	61%	114	41%
19	CROSSCOUNTRY MORTGAGE, INC.	424	315	285	71%	11	42%

Map 19: Origination Rates for Hispanic Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built),
 includes approved loans but excludes purchased loans.
 Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot



Origination Rates for Hispanic Applicants

Areas with the highest Hispanic origination rates were located in roughly the same areas where Hispanic application and denial rates were also the highest (Map 19). The census tracts with the highest origination rates for Hispanic applicants were located largely on the West side and south central region of the county, with rates ranging from 20 percent to 44 percent. The census tracts with the lowest Hispanic origination rates were located primarily in the West End and highlands neighborhoods, as well as areas spanning into the East

side of the county. These concentrations of high and low rates are statistically significant.

Of the list of the top ten lenders with the highest Hispanic origination rates, rates ranged from between 77 percent to 100 percent. These lenders also ranged in white origination rates from 68 percent to 87 percent. These lenders include American Mortgage Service Company, Central Bank and Trust Company, Prosperity Bank, Stockton Mortgage Corporation, United Shore Financial Services, Bay Equity, First Financial Bank, Mortgage Research Center, Home Point Financial Corporation, and Rocket Mortgage.

Table 18: Top Lenders With The Highest Origination Rates for Hispanic Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot

(Top Lenders by Hispanic Applicants)							
Rank	Lender	Total Originations	Total Originations (Excluding Unknown)	White	White %	Hispanic	Hispanic %
22	AMERICAN MORTGAGE SERVICE COMPANY	530	316	210	84%	8	100%
50	CENTRAL BANK & TRUST COMPANY	210	176	159	84%	3	100%
27	PROSPERITY BANK	390	364	279	86%	20	91%
18	STOCKTON MORTGAGE CORPORATION	594	550	348	80%	16	84%
2	UNITED SHORE FINANCIAL SERVICES, LLC	1977	1846	1323	87%	293	83%
17	BAY EQUITY LLC	665	627	523	83%	15	83%
20	FIRST FINANCIAL BANK	715	688	171	68%	486	82%
29	MORTGAGE RESEARCH CENTER, LLC	251	225	159	80%	16	80%
5	HOME POINT FINANCIAL CORPORATION	1574	1530	1304	87%	52	78%
1	ROCKET MORTGAGE, LLC	2252	1672	1254	82%	55	77%

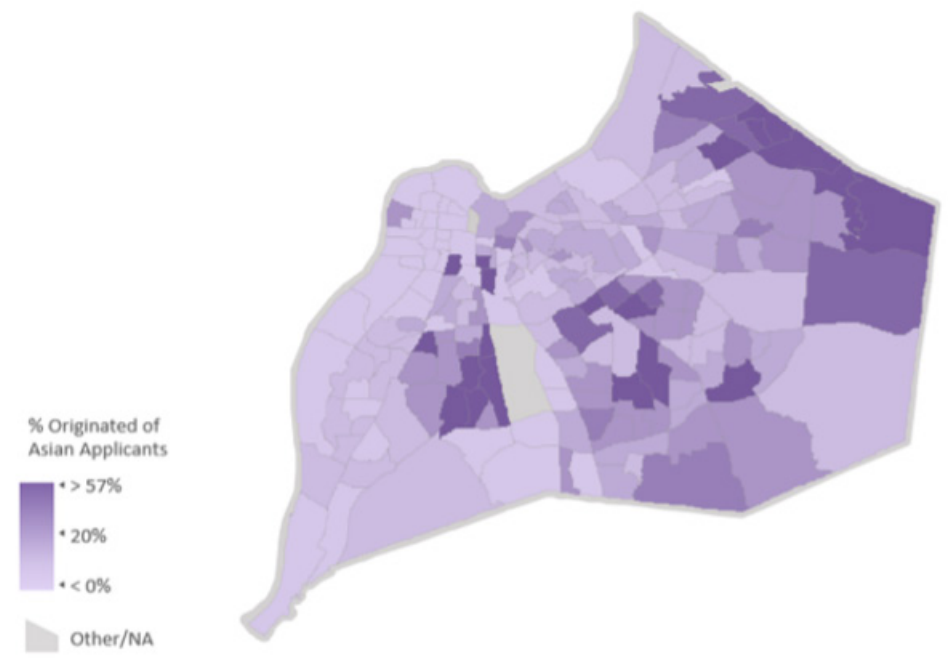
Of the bottom ten lenders with the lowest Hispanic origination rates, all had rates of 40 percent or lower. These lenders also ranged with white originates rates of anywhere between 25 percent and 71 percent. These lenders include

New Day Financial, Northpointe Bank, Amerisave Mortgage Corporation, Newrez, LoanDepot.com, Wells Fargo Bank, Provident Funding Associates, Envoy Mortgage, Transcend Bank, and PennyMac Loan Services.

Table 19: Top Lenders With The Lowest Origination Rates for Hispanic Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot

(Bottom Lenders by Hispanic Applicants)							
Rank	Lender	Total Originations	Total Originations (Excluding Unknown)	White	White %	Hispanic	Hispanic %
46	NEW DAY FINANCIAL, LLC	66	59	42	25%	1	20%
48	NORTHPOINTE BANK	178	161	148	71%	1	20%
9	AMERISAVE MORTGAGE CORPORATION	537	341	285	40%	9	22%
43	NEWREZ LLC	161	121	95	41%	3	23%
31	LOANDEPOT.COM, LLC	258	183	135	66%	2	25%
14	WELLS FARGO BANK, NATIONAL ASSOCIATION	605	584	496	66%	11	30%
37	PROVIDENT FUNDING ASSOCIATES, L.P.	199	167	126	62%	1	33%
28	ENVOY MORTGAGE, LTD	170	137	95	36%	8	38%
36	TRANSCEND	270	192	158	62%	11	39%
24	PENNYMAC LOAN SERVICES, LLC	298	277	204	53%	14	40%

Map 20: Origination Rates for Asian Applicants
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot



Origination Rates for Asian Applicants

Similarly to patterns of Hispanic application rates, areas with the highest Asian origination rates were located in roughly the same areas where Asian application and denial rates were also the highest (Map 20). The census tracts with the highest Asian origination rates were dispersed throughout the central and eastern area of the county. The census tracts with the lowest Asian origination rates were all located in the West End and Shively areas. These concentrations of high and low rates are statistically significant.

Of the list of the top ten lenders with the highest Asian origination rates, rates ranged from 81 percent to 100

percent. On the other hand, these same lenders' white origination rates ranged from 25 percent to 88 percent. These lenders include the Mortgage Research Center, Park Community Credit Union, Citizens Union Bank of Shelbyville, New Day Financial, American Mortgage Service Company, Stockton Mortgage Corporation, The Huntington National Bank, Citizens Bank, The Mortgage Warehouse, and Rocket Mortgage.

Table 20: Top Lenders With The Highest Origination Rates for Asian Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot

(Top Lenders by Asian Applicants)							
Rank	Lender	Total Originations	Total Originations (Excluding Unknown)	White	White %	Asian	Asian %
29	MORTGAGE RESEARCH CENTER, LLC	251	225	159	80%	4	100%
32	PARK COMMUNITY CREDIT UNION, INC.	439	307	226	77%	4	100%
39	CITIZENS UNION BANK OF SHELBYVILLE	267	183	151	83%	6	100%
46	NEW DAY FINANCIAL, LLC	66	59	42	25%	1	100%
22	AMERICAN MORTGAGE SERVICE COMPANY	530	316	210	84%	63	93%
18	STOCKTON MORTGAGE CORPORATION	594	550	348	80%	11	92%
45	THE HUNTINGTON NATIONAL BANK	254	236	209	83%	19	90%
33	CITIZENS BANK, NATIONAL ASSOCIATION	307	293	246	84%	9	90%
25	THE MORTGAGE WAREHOUSE, LLC	431	428	403	88%	6	86%
1	ROCKET MORTGAGE, LLC	2252	1672	1254	82%	101	81%

Of the bottom ten lenders with the lowest Asian originations rates, rates ranged from 0 percent to 40 percent, while the origination rates for white applicants from these same lenders ranged from 36 percent to 80 percent. These lenders include Envoy Mortgage, Amerisave Mortgage Corporation, Northpointe Bank, PennyMac Loan Services, Fairway Independent Mortgage Corporation, Newrez, Broker Solutions, Better Mortgage Corporation, First Financial Bank, and Truist Bank.

Table 21: Top Lenders With The Lowest Origination Rates for Asian Applicants
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot

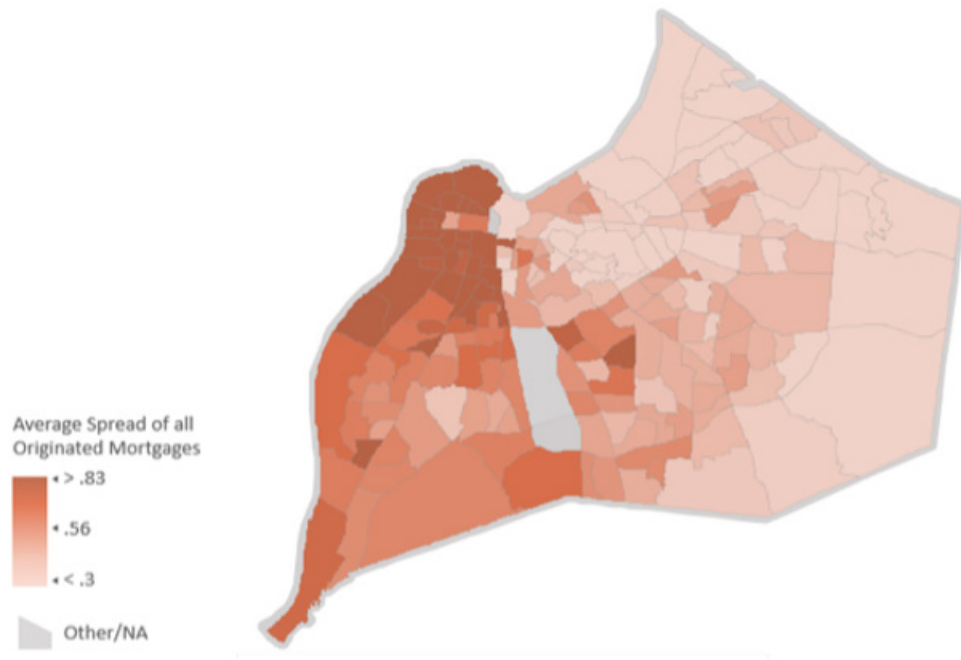
(Bottom Lenders by Asian Applicants)							
Rank	Lender	Total Originations	Total Originations (Excluding Unknown)	White	White %	Asian	Asian %
28	ENVOY MORTGAGE, LTD	170	137	95	36%	0	0%
9	AMERISAVE MORTGAGE CORPORATION	537	341	285	40%	5	19%
48	NORTHPOINTE BANK	178	161	148	71%	1	25%
24	PENNYMAC LOAN SERVICES, LLC	298	277	204	53%	5	28%
16	FAIRWAY INDEPENDENT MORTGAGE CORPORATION	711	561	389	80%	10	34%
43	NEWREZ LLC	161	121	95	41%	5	36%
47	BROKER SOLUTIONS, INC.	170	145	100	60%	3	38%
26	BETTER MORTGAGE CORPORATION	194	166	134	58%	13	38%
20	FIRST FINANCIAL BANK	715	688	171	68%	4	40%
35	TRUIST BANK	337	166	149	62%	2	40%

Interest Rates and Subprime Lending

Higher interest rates, especially when combined with high housing prices and lower incomes, make it harder for lower income and nonwhite households to purchase a home (Neal & Pang 2022). Prime mortgage interest rates are rates at which banks and other lenders can lend to customers with the best credit history, while subprime mortgages are generally loans meant for customers with impaired credit. With subprime loans, a higher interest rate is given to the customer in a way that helps lenders reduce risk in lending to the borrowers. A problem with subprime interest rates is that they can be set up to rise significantly over time for these borrowers (CFPB N.D.). The following section offers a glimpse into the interest rate landscape in Jefferson County. A map shows how interest rate levels compare across census tracts in Jefferson County, and charts show disparities based on race and income in terms of interest rates and subprime lending.

HMDA reports interest rate in two ways. First, it gives the interest rate for the covered loan charged to the borrower. The data also gives the interest rate charged relative to what it costs to loan the money (think prime interest rate). Since the 'prime' interest fluctuates (most notably when the Federal Reserve adjusts the rate up 0.0125% or down 0.0125%, or by whatever they deem appropriate), we look at each borrower's interest rate relative to this prime value. This is reported as the number of percentage points away from prime value, or rate spread.

Map 21: Average Spread
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built),
includes approved loans but excludes purchased loans.
Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot



Map 21 shows that of all originated mortgages in Jefferson County, the average spread was highest on the West side of the county, with statistically significant concentrations of high interest rates located in the West End and Shively areas. The census tracts with the highest average spread were located in the West End area, with average spreads ranging from 1.09 to 1.65. Census tracts with the lowest average spread, on the other hand, were dispersed throughout the East side of the county. The spread in these tracts ranged from .16 to .23, and statistically significant concentrations of low values were found along the eastern border of the county as well as St. Mathews, Crescent Hill, and Cherokee neighborhoods.

Chart 6: Interest Rate Spread Amount by Race
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans. Excludes Unknown Race.
 Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot

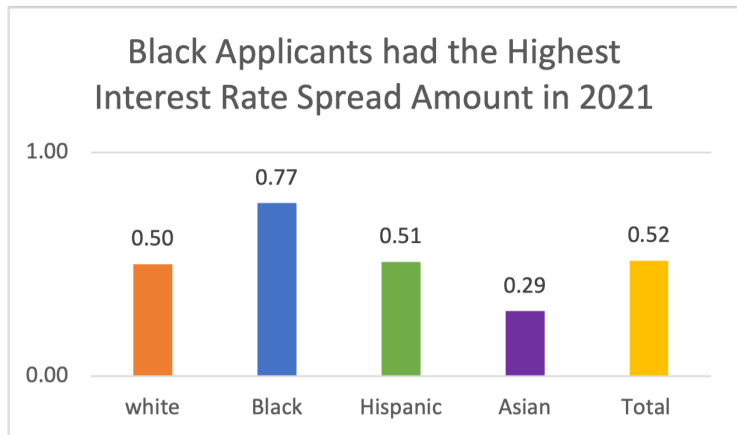
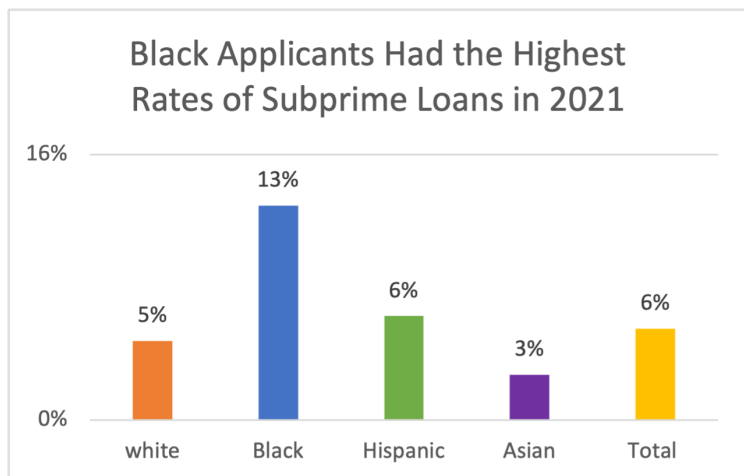


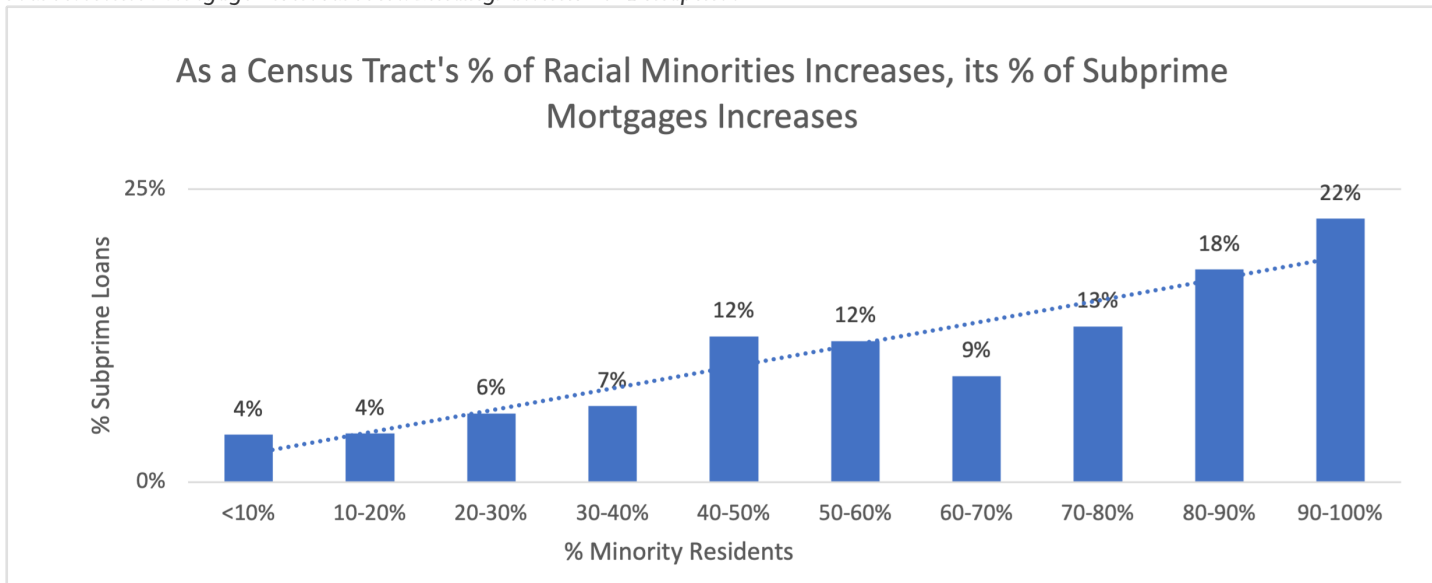
Chart 6 shows that in 2021, the average interest rate spread amount for races/ethnicities ranged from around .30 to .70. Originated mortgages from Asian applicants on average had a spread amount of .29. The spread amount for White and Hispanic applicants was higher at .50 and .51, respectively. Finally, Black applicants had the highest average spread of .77.

Chart 7: Percent Subprime Frequency of Originated Loans by Race
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans.
 Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot



Rates of subprime loans out of originated mortgages also differed by race/ethnicity. Asian applicants received the lowest rates of subprime loans, at 2.73 percent of all originated loans by Asian applicants. Following Asian applicants were white applicants, of which 4.76 percent of originated loans were subprime, and Hispanic applicants, of which 6.26 percent of originated loans were subprime. Black applicants received the highest rates of subprime loans, at 12.92 percent of all originated loans by Black applicants.

Chart 8: Percent Minority of Census Tract by Share of Subprime Frequency of Census Tract.
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans.
 Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot

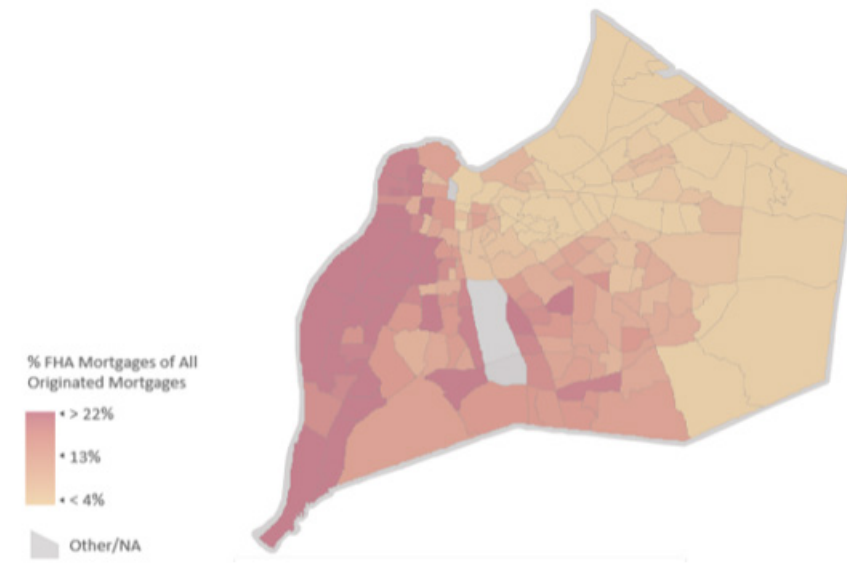


Unsurprisingly, as the percent of a census tract's minority population increases, the share of subprime mortgages for that tract also increases. Chart 8 shows that while census tracts with a 4 percent share of minority population has around a four percent share of subprime mortgages, tracts with a 90-100 percent share of minority population have up to a 22 percent share of subprime mortgages out of all originated mortgages.

FHA Loans

Loans from the Federal Housing Administration have been assisting consumers with affordable-interest home mortgages since 1934. While early FHA loans were distributed only into white-only suburban neighborhoods, later policies like the Fair Housing Act (1968) helped to combat this racist practice (Almeida 2021). FHA loans offer lower costs, are relatively easy to qualify for even for those with less than perfect credit, and are typically coupled with affordable mortgage down payments (benefits.gov 2014). Unlike Subprime loans, FHA loans come with fixed interest rates, which protects consumers from the financial risks of adjustable interest rates.

*Map 22: FHA Loans of Total Originations
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built),
includes approved loans but excludes purchased loans.
Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot*



As with the spatial distribution of average spread, census tracts with the highest percentage of FHA loans (out of all originated mortgages) are located on the West side of Jefferson County. Of the census tracts with the highest rates of FHA loans, nine were located in the West End (Map 22). On the other hand, census tracts with the lowest rates of FHA loans were located in the downtown area as well as the northeastern corner of the county. These spatial concentrations are statistically significant.

Data from LendingPatterns shows that of 3,525 total FHA loans in 2021 in Jefferson County, 61 percent of those loans were given to white applicants, 27 percent were given to Black applicants, 8 percent were given to Hispanic applicants, and 2 percent were given to Asian applicants.

These figures are promising: both Black and Hispanic applicants received FHA loans at higher rates than their share of the total population, while white applicants received FHA loans at around 10 percent less of their share of the total population (see Chart 3: whites comprised 72 percent of the county population in 2021, Blacks comprised 21 percent, Hispanics comprised 4 percent, and Asians comprised 2 percent).

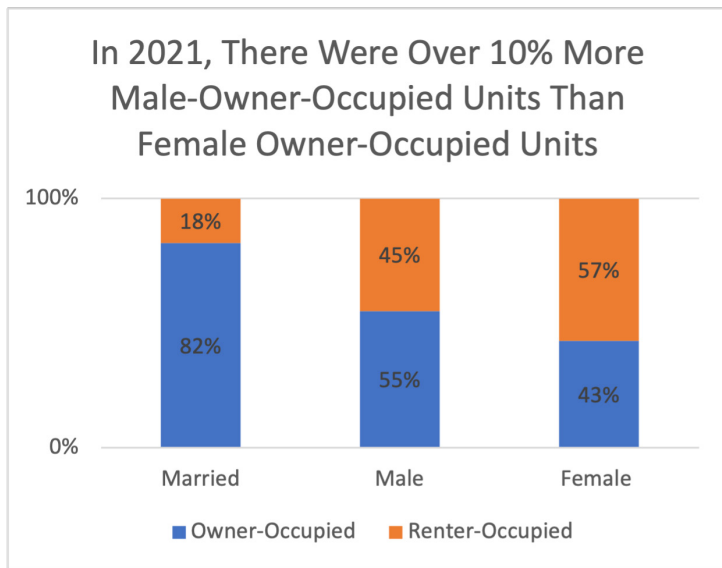
However, even if someone is eligible for an FHA loan, they may ultimately be priced out of certain neighborhoods. Factoring in both housing costs and FHA loan limits during this year provides important context to this. In 2021, the loan limit for FHA loans in Jefferson County was \$333,500 (Thompson 2021). However, given the rapid housing price increases during this time, some low income or low-credit consumers may have been ineligible for the majority of homes in certain neighborhoods. For instance, according to Zillow data, the median value in January 2021 for a home in the St. Mathews neighborhood (Zip Code 40207) was \$342,927, the median value for a home in the Prospect neighborhood (Zip Code 40059) was \$456,089, and the median value for a home in the Springhurst neighborhood (Zip Code 40241) was \$324,329. By December of 2021 (within the span of one year), median home values for these zip codes rose to \$513,278, \$358,110, and \$348,441. Given these figures, it is possible that some may not have been eligible to purchase a home in some neighborhoods on the East side of the county in 2021, even if they wanted to.

Homeownership and Gender

The gendered gap in homeownership has steadily decreased in the United States since the mid-19th century, when white women were first given the legal right to own land (Hyun Choi 2023). While studies show that the homeownership rate for female-headed households is increasing, other data shows that disparities still remain among women with differing identities and life experiences. The following section includes a chart detailing ownership by available gender categories (men and women) in Jefferson County using ACS 5-Year estimates, as well as a chart made from HMDA data that breaks down mortgage loan denials by gender as well as race. These two visuals suggest that gender disparities exist in Jefferson County’s homeownership landscape.

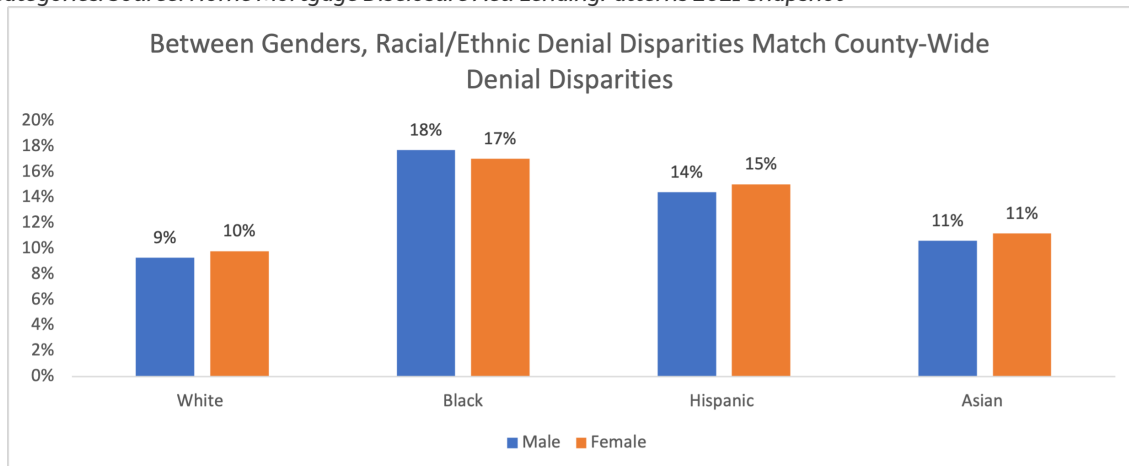
In 2021 in Jefferson County, the overall population identified as 48.6 percent male and 51.4 percent female (U.S. Census, ACS 5-Year Estimates). These shares are fairly even and are similar to national percentages (49.5 percent male identified and 50.5 percent female identified). However, homeownership among these gender categories is less even. For instance, among homeowners in Jefferson County (according to 2021 5-Year ACS estimates), the homeownership rate for male-identified heads of household with no spouse was 55 percent, while the homeownership rate for female-identified heads of household with no spouse was 43 percent (Chart 9). Both of these figures are much lower than the average homeownership rate of 82 percent for married couples, yet an approximately ten percent difference is apparent between male and female-identified heads of household.

Chart 9: Share of Owner and Renter Occupied Units by Gender of Householder(s) in Jefferson County, 2021
 Source: U.S. Census, ACS 5-Year Estimates



Despite disparities existing among men and women in terms of homeownership rates in Jefferson County generally, additional disparities exist across race within these gender categories. While women heads of household had a lower homeownership rates in Jefferson County than male heads of household and married couples, within both male and female gender categories, mortgage denial rates matched county averages by race in 2021. Chart 10 shows that similarly to overall denial rates in Jefferson county, white applicants were denied home loans at a 9 percent rate for men and a 10 percent rate for women, Black applicants were denied at an 18 percent rate for men and a 17 percent rate for women, Hispanic applicants were denied at a 14 percent rate for men and a 15 percent rate for women, and Asian applicants were denied at an 11 percent rate for both men and women.

Chart 10: Mortgage Denial Rates by Race and Gender in Jefferson County
 Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), includes approved loans but excludes purchased loans, as well as unknown and 'both' gender categories. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot



Appraisal Discrimination

An important factor related to mortgage lending discrimination relates to appraisal valuations. A recent report from Freddie Mac, for instance, found that even when accounting for structural and neighborhood characteristics, a property is more likely to receive an appraisal lower than the contract price if it is located in a minority census tract (2021). HMDA data offers glimpse into appraisal discrimination in Jefferson County, specifically, data on collateral-based loan denials. When applicants in majority-nonwhite census tracts get significantly higher rates of collateral-based denials than applicants in majority-white census tracts, we can suggest that appraisal discrimination may be occurring in those majority-nonwhite census tracts (Malzahn 2021).

Of all top-ten lenders with the highest denial rates for Black, Hispanic, and Asian applicants, two of those lenders (Citizens Bank and U.S. Bank National Association) had rates of collateral-based denials that were significantly higher in majority-minority census tracts compared to majority-white census tracts (Tables 22 and 23). For reference, Citizens Bank had the fourth highest rate of denials among Hispanic applicants in 2021, while U.S. Bank National Association had the highest rate of denials among Black applicants in that year.

*Table 22: Statistically Significant Collateral Denial Analysis Results for Citizens Bank
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), Racial Categories with Significant Results Only – Therefore Excludes White, Hispanic, Asian, Other/Unknown Race, and No Racial Majority. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot*

Tract Majority Race	Collateral Denials	Collateral Denial Rate	Difference (vs white)	z-score	p-value
Majority Minority Tracts	2	6.67%	5.50	2.2964	0.0217

*Table 23: Statistically Significant Collateral Denial Analysis Results for US Bank National Association
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), Racial Categories with Significant Results Only – Therefore Excludes White, Hispanic, Asian, Other/Unknown Race, and No Racial Majority. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot*

Census Tract Majority Race	Total Collateral Denials	Collateral Denial Rate	Difference (vs white)	z-stat	p-value
Black	14	20.59%	14.05	4.3923	0.0000
Majority Minority	28	16.09%	9.55	4.5091	0.0000
Majority Black/Hispanic	25	17.61%	11.07	4.7761	0.0000

In addition to these two lenders, we looked into all lenders in Jefferson County based on the race of the lender's owners (categories include minority-ownership, multi-racial minority ownership, and non-minority-ownership). Non-minority-owned lenders comprised the largest share of applications in 2021, and were also the only group to give out collateral-based denials (Table 24). Among all non-minority-owned lenders in 2021, there was a statistically significant difference between majority white and majority nonwhite census tracts in terms of collateral-based denials. While the overall differences are marginal (less than 1 percent for all three), total collateral denials among these three categories totals 65, 110, and 90, which are not insignificant (Table 25). These results show that there is a statistically significant difference between Jefferson County's white and non-white majority census tracts in terms of collateral based denials. In other words, we suggest that mortgage applicants for houses located in areas with the most minority residents are facing discrimination in appraisal valuation.

*Table 24: Collateral Denials by Racial Composition of Lender Ownership
Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built). Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot*

Lender Ownership	Total Apps	Total Collateral Denials
Minority-owned	4	0
Multi-racial Minority-owned	0	0
Non-minority-owned	55,230	826

Table 25: Statistically Significant Collateral Denial Analysis Results for Non-Minority Owned Lenders Jefferson County, Kentucky, Single Family (1-4 Units: Site-Built), Racial Categories with Significant Results Only – Therefore Excludes White, Hispanic, Asian, Other/Unknown Race, and No Racial Majority. Source: Home Mortgage Disclosure Act: LendingPatterns 2021 Snapshot

Census Tract Majority Race	Total Collateral Denials	Collateral Denial Rate	Difference (vs white)	z-stat	p-value
Black	65	2.23%	0.81	3.5465	0.0004
Majority Minority	110	2.28%	0.86	4.6842	0.0000
Majority Black/ Hispanic	90	2.33%	0.91	4.4922	0.0000

Concluding Comments

The housing crisis, which has been exacerbated through the COVID19 pandemic, is creating numeral barriers to affordable housing for low income and nonwhite households in Jefferson County. On top of decades-long racial disparities in homeownership, we can see that median home values rose past FHA loan maximum limits in some neighborhoods on the East side of the county in 2021, leaving some with less choices regarding where to purchase a home. Importantly, Median home values have risen the most substantially in the West End neighborhood, and rising rent costs, along with a decade-long increase in white population density in some West End neighborhoods, substantiates existing concerns for gentrification in Jefferson County’s historically Black areas.

We have shown that the majority of mortgage lenders in Jefferson County favored white applicants over other races/ethnicities, especially as shown through higher origination rates for white applicants than for other races/ethnicities in 2021. Areas with a higher percentage of minorities also saw a higher shares subprime loans, and Black applicants in particular had the highest interest rates and percentage of subprime loans in 2021. Disparities may be most prominent between Black applicants and all other races/ethnicities, as Black applicants also had the highest mortgage loan denial rates in 2021 among the top 50 Lenders. Indeed, the long term impacts of redlining are visible in maps of mortgage application, denial, and origination rates, especially when these rates are compared spatially between white and Black applicants.

As we have also shown, disparities in home ownership can also been seen between and within gender identities gender identities. In 2021, female heads of household had lower rates of homeownership than male heads of household. Within both gender identities, racial/ethnic disparities in homeownership appeared similarly to homeownership rates by race/ethnicity for the county as a whole.

Finally, our analyses show that discrimination in appraisal valuation may be occurring for those applying for mortgages in areas with the highest concentrations of minority residents.

We suggest that there is a mortgage discrimination problem in Jefferson County, and that opportunities may be present to address it. Mortgage credit is flowing and home values are at or near record highs. However, many households are struggling with high rental costs and being shut out of homeownership, largely due to historic inequities. In addition, the housing crisis has been exacerbated by the COVID19 Pandemic, making it all the more important to disclose the most updated information to consumers. Lending disparities persist and are only exacerbating an already difficult situation.

We need to address the disparities in mortgage lending that are occurring in Jefferson County. Understanding lending behavior at the most granular scale possible can help us determine where opportunities for improvement lies, where lenders can be held accountable, and where change can be demanded. This requires each lender to meet their requirements under fair lending laws. In order to begin this process, we have started by providing a sweeping overview – a snapshot in time – of the state of mortgage lending in Jefferson County. Today, Black homeownership is at its lowest rate since before civil rights legislation targeted at ending housing discrimination was first enacted in the United States (Choi 2019). Despite policies in Jefferson County aimed at increasing low income and nonwhite homeownership, mortgage lending practices continue to reinscribe racial disparities in homeownership. To address lending disparities, we need not simply laws, but the full backing of laws meant to eliminate discrimination. This would require municipal financing for programs meant to uncover and counteract lending disparities.

In Louisville, a conversation has begun at the municipal level to bring to light issues past practices of redlining. A notable example is the REVERT program, which aims to provide 200 families with up to \$50,000 each to help rehabilitate properties and build new homes located in previously redlined areas. These conversations and policies

that have begun in Louisville are a necessary start, but are not enough to address enduring practices of redlining in the form of mortgage lending discrimination, as discrimination begins in many ways at the scale of the lender. Policymakers in Jefferson County can follow efforts recently undertaken at the Federal Level, such as the Department of Justice's recent Combating Redlining Initiative, to invest in efforts to track lenders' compliance with Fair Housing Law in the county. It is no secret that Lending supervision enforcement has been on the decline since 2010 across the nation; however, systematic compliance analyses and stringent enforcement are more needed than ever. Institutionalizing these efforts would require formal recognition at the level of municipal government that redlining practices endure through modern-day methods across a variety of places, despite the existence of, and continual amendment to, Fair Housing law.

Throughout this report, the KFHC has tried to highlight key demographics and data as it relates to housing costs and mortgage lending in Jefferson County. However, this report is not all inclusive. There is much more to be shared as well as areas which require additional review. As staff resources allow, the KFHC hopes to release future reports or provide additional detail unable to be added here. The Kentucky Fair Housing Council stands as an advocate in the fight to advance the home buyer process for so many who have been shut out. If you feel you may have experienced discrimination in lending, please contact our office. You can also follow us on social media, join our monthly e-newsletter, consider becoming a fair housing tester, or support our work through a donation. Join the fight at www.kyfairhousing.org.

The state of Kentucky currently manages an office of consumer protection comprised of three subdivisions. These include a division of Litigation and Investigation, a division of Registration and Compliance, and the Louisville Consumer Resource and Service Branch. In compliance with the Community Reinvestment Act, consumer protection examiners conduct performance evaluations of individual lenders and other financial institutions according to a rating system of 1-5. A ranking of 1 identifies the lender with outstanding compliance and ensured action to prevent violations and consumer harm. A ranking of 5 identifies the lender with a critical deficiency in managing consumer compliance risk, as well as an absence or lack of willingness to take appropriate steps towards compliance. Upon request, lenders must make their performance evaluation available to the public.

Based on the findings listed in this report, we believe that financial institutions must be required to make their performance evaluation visible to the public by default, much like how restaurants in many counties are required to publicly post their health grade rating. Our recommendation is especially true for lenders' record of fair lending compliance. It is well known that lenders have significant power in directing and affecting the health and sustainability of communities, and consumers must therefore be given the opportunity to make informed decisions regarding the lenders they choose to work with. This is imperative not only for reducing harm to individual consumers, but for reducing harm to entire communities. Louisville's division of consumer protection has an opportunity to spearhead the transformation of Louisville's lending landscape, as well as to serve as an example for other localities.

Increasing consumer awareness is important given the ways in which technological advances are changing Louisville's lending landscape. Financial technology companies (better known as fintech) are increasingly incorporating the use of artificial intelligence to assist in lending decisions, and the potential for these practices to result in forms of discriminatory lending is now widely known. Large datasets containing consumer behavior is modelled through artificial intelligence to inform lenders' decisions, yet these models are largely incapable of capturing the complexity of human behavior. Until these models are capable of capturing unpredictability and complexity (the COVID19 crisis offers a recent example), Louisville's consumer protection interests can utilize, as well as make public, data collected on the patterns of potentially discriminatory behavior of individual lenders.

Throughout this report, the KFHC has highlighted key demographics and data as it relates to housing costs and mortgage lending in Jefferson County. However, this report is not all inclusive. There is much more to be shared as well as areas which require additional review. As staff resources allow, the KFHC hopes to release future reports or provide additional detail unable to be added here. The Kentucky Fair Housing Council stands as an advocate in the fight to advance the home buyer process for so many who have been shut out. If you feel you may have experienced discrimination in lending, please contact our office. You can also follow us on social media, join our monthly e-newsletter, consider becoming a fair housing tester, or support our work through a donation. Join the fight at www.kyfairhousing.org.

References

- Almeida, La-Brina. **"A History of Racist Federal Housing Policies."** Mass. Budget and Policy Center, May 31, 2021. <https://massbudget.org/2021/08/06/a-history-of-racist-federal-housing-policies/>.
- Benefits.gov. 2014. **"Help for Homebuyers and Homeowners."** Benefits.gov . Accessed August 16, 2023. <https://www.benefits.gov/news/article/180>.
- Benfer, Emily, David Bloom Robinson, Stacy Butler, Lavar Edmonds, Sam Gilman, Katherine Lucas McKay, Zach Neumann, Lisa Owens, Neil Steinkamp, and Diane Yentel. **"COVID-19 Eviction Crisis: An Estimated 30-40 Million People in America Are at Risk."** (2020).
- Choi, J. (2019). **The emerging millennial wealth gap: Homeownership and living arrangements among millennials: New sources of wealth inequality and what to do about it.** Retrieved from <https://www.newamerica.org/millennials/reports/emerging-millennial-wealth-gap/homeownership-and-living-arrangements-among-millennials-new-sources-of-wealth-inequality-and-what-to-do-about-it/> [Google Scholar]
- Consumer Financial Protection Bureau (CFPB). **Racial and Economic Disparities in the Mortgage Market**, August 13, 2021. https://files.consumerfinance.gov/f/documents/cfpb_racial-economic-disparities-in-mortgage-market_slides_2021-08.pdf.
- Consumer Financial Protection Bureau (CFPB). N.D. **"What Is a Subprime Mortgage?"** Consumer Financial Protection Bureau. Accessed August 16, 2023. <https://www.consumerfinance.gov/ask-cfpb/what-is-a-subprime-mortgage-en-110/>.
- Farha, L. (2020b). **COVID-19 guidance note protection for those living in homelessness.** Retrieved April 1, 2020, from [http://www.unhousingrapp.org/user/pages/07.press-room/Guidance%20Note%20Homelessness%20Actual%20Final%20%20April%202020\[2\].pdf](http://www.unhousingrapp.org/user/pages/07.press-room/Guidance%20Note%20Homelessness%20Actual%20Final%20%20April%202020[2].pdf) [Google Scholar]
- Florida, Richard. **"How the 'Rise of the Rest' Became the 'Rise of the Rents.'"** Bloomberg.com, September 8, 2022. <https://www.bloomberg.com/news/features/2022-09-08/why-did-housing-costs-explode-during-the-pandemic>.
- Freddie Mac. **Racial and ethnic valuation gaps in home purchase appraisals**. 2021. Accessed August 18, 2023. <https://www.freddiemac.com/fmac-resources/research/pdf/202109-Note-Appraisal-Gap.pdf>.
- Garber, M. (2020). **Homes actually need to be practical now: One of the ironies of social distancing is that it can put privacy in short supply.** The Atlantic. Retrieved April 11, 2020, from <https://www.theatlantic.com/culture/archive/2020/03/finding-privacy-during-pandemic/608944/> [Google Scholar]
- Hall, K. H., Doolan-Noble, F., McKinlay, E., Currie, O., Gray, B., Gray, L., Richard, L., Stubbe, M., & Jaye, C. (2020). **Guest Editorial: Ethics and equity in the time of Coronavirus.** Journal of Primary Health Care, 12(2), 102–106. https://doi.org/10.1071/HCv12n2_ED2
- Hyun Choi, Jung. **"Unmasking the Real Gender Homeownership Gap."** Urban Institute, March 28, 2023. <https://www.urban.org/urban-wire/unmasking-real-gender-homeownership-gap#:~:text=Butpercent 20itpercent 20wasn'tpercent 20until,pointpercent 20belowpercent 20thepercent 20men'spercent 20rate>.
- Loosemore, Bailey. **"We Don't Deserve to Be Priced out': Law Aims to End Gentrification in Black Neighborhoods."** Journal, March 20, 2023. <https://www.courier-journal.com/story/news/local/2023/03/20/louisville-law-aims-to-stop-gentrification-in-black-neighborhoods/70011902007/>.
- Malzahn, Debbie. **"Appraisals, Collateral Denials, and the Potential for Discrimination."** ComplianceTech, December 8, 2021. <https://compliancetech.com/appraisals-collateral-denials-and-the-potential-for-discrimination/>.
- Mills, Chad. **Councilman's plan would fight gentrification in Louisville ...** - WDRB, January 20, 2021. https://www.wdrb.com/news/councilmans-plan-would-fight-gentrification-in-louisville-neighborhoods/article_f691e9e0-5b91-11eb-b81f-d380302d4461.html.
- Neal, Michael, and Daniel Pang. **"How Higher Mortgage Interest Rates Can Widen Racial Gaps in Housing Wealth."** Urban Institute, August 30, 2022. <https://www.urban.org/research/publication/how-higher-mortgage-interest-rates-can-widen-racial-gaps-housing-wealth>.

- Patel, J. A., Nielsen, F. B. H., Badiani, A. A., Assi, S., Unadkat, V. A., Patel, B., Ravindrane, R., & Wardle, H. (2020). **Poverty, inequality and COVID-19: The forgotten vulnerable.** *Public Health*, 183, 110–111. <https://doi.org/10.1016/j.puhe.2020.05.006>
- Peters, Terri, and Anna Halleran. “**How our homes impact our health: using a COVID-19 informed approach to examine urban apartment housing.**” *Archnet-IJAR: International journal of architectural research* 15, no. 1 (2021): 10-27.
- Poe, Josh. (n.d.). “**Redlining Jefferson County: Racial Capitalism and Real Estate.**” Root Cause Research Center.
- Rosenberg, A., Keene, D. E., Schlesinger, P., Groves, A. K., & Blankenship, K. M. (2020). **COVID-19 and hidden housing vulnerabilities: Implications for health equity**, New Haven, Connecticut. *AIDS and Behavior*, 24(7), 2007–2008. <https://doi.org/10.1007/s10461-020-02921-2>
- Tootell, Geoffrey MB. “**Defaults, denials, and discrimination in mortgage lending.**” *New England Economic Review* Sep (1993): 45-51.
- Turner, Margery Austin. “**Mortgage lending discrimination: A review of existing evidence.**” (1999).
- The Wendy Thompson Lending Team (Thompson). “**FHA Loan Limits by State and County (2021).**” Wendy Thompson Lending Team. Accessed August 16, 2023. <https://thewendythompsonsteam.com/fha-loan-limits-by-state-and-county/>.

Appendices

Appendix A: Applications

Rank	Lender	Apps	Total Apps (Excludes Unknown Race)	White	White %	Black	Black %	Hispanic	Hispanic %	Asian	Asian %	Other	Unknown Race	Other/ Unknown (total)
1	ROCKET MORTGAGE, LLC	2894	2072	1529	74%	347	17%	71	3%	125	6%	0	822	822
2	UNITED SHORE FINANCIAL SERVICES, LLC	2342	2164	1520	70%	192	9%	351	16%	97	4%	4	178	182
3	REPUBLIC BANK & TRUST COMPANY	2988	2653	1962	74%	442	17%	192	7%	53	2%	4	335	339
4	COMMONWEALTH BANK AND TRUST COMPANY	2197	2052	1767	86%	203	10%	54	3%	26	1%	2	145	147
5	HOME POINT FINANCIAL CORPORATION	2084	1805	1504	83%	183	10%	67	4%	45	2%	6	279	285
6	FIFTH THIRD BANK, NATIONAL ASSOCIATION	2964	2698	2222	82%	275	10%	85	3%	110	4%	6	266	272
7	PNC BANK, NATIONAL ASSOCIATION	2384	2075	1685	81%	216	10%	45	2%	127	6%	2	309	311
8	FREEDOM MORTGAGE CORPORATION	2255	1863	1300	70%	420	23%	65	3%	72	4%	6	392	398
9	AMERISAVE MORTGAGE CORPORATION	1557	912	712	78%	129	14%	41	4%	26	3%	4	645	649
10	JPMORGAN CHASE BANK, NATIONAL ASSOCIATION	1464	1193	966	81%	101	8%	50	4%	74	6%	2	271	273
11	U.S. BANK NATIONAL ASSOCIATION	1821	1423	778	55%	105	7%	485	34%	55	4%	0	398	398
12	STOCK YARDS BANK & TRUST COMPANY	1324	1145	1010	88%	54	5%	20	2%	61	5%	0	179	179
13	EVANSVILLE TEACHERS	688	565	472	84%	53	9%	16	3%	20	4%	4	123	127
14	WELLS FARGO BANK, NATIONAL ASSOCIATION	1778	935	751	80%	113	12%	37	4%	31	3%	3	843	846
15	L & N FEDERAL CREDIT UNION	1080	979	798	82%	136	14%	33	3%	11	1%	1	101	102
16	FAIRWAY INDEPENDENT MORTGAGE CORPORATION	968	735	484	66%	127	17%	93	13%	29	4%	2	233	235
17	BAY EQUITY LLC	833	774	632	82%	93	12%	18	2%	28	4%	3	59	62
18	STOCKTON MORTGAGE CORPORATION	766	695	434	62%	229	33%	19	3%	12	2%	1	71	72

Rank	Lender	Apps	Total Apps (Excludes Unknown Race)	White	White %	Black	Black %	Hispanic	Hispanic %	Asian	Asian %	Other	Unknown Race	Other/Unknown (total)
19	CROSSCOUNTRY MORTGAGE, INC.	624	455	399	88%	26	6%	18	4%	12	3%	0	169	169
20	FIRST FINANCIAL BANK	984	909	250	28%	52	6%	594	65%	10	1%	3	75	78
21	RUOFF MORTGAGE COMPANY, INC.	673	566	480	85%	52	9%	24	4%	9	2%	1	107	108
22	AMERICAN MORTGAGE SERVICE COMPANY	649	369	250	68%	42	11%	8	2%	68	18%	1	280	281
23	INTERLINC MORTGAGE SERVICES, LLC	640	608	464	76%	107	18%	27	4%	9	1%	1	32	33
24	PENNYMAC LOAN SERVICES, LLC	957	552	383	69%	114	21%	35	6%	18	3%	2	405	407
25	THE MORTGAGE WAREHOUSE, LLC	498	488	457	94%	14	3%	10	2%	7	1%	0	10	10
26	BETTER MORTGAGE CORPORATION	372	300	232	77%	17	6%	17	6%	34	11%	0	72	72
27	PROSPERITY BANK	454	414	323	78%	60	14%	22	5%	9	2%	0	40	40
28	ENVOY MORTGAGE, LTD	438	380	262	69%	88	23%	21	6%	9	2%	0	58	58
28	MORTGAGE RESEARCH CENTER, LLC	403	306	199	65%	82	27%	20	7%	3	1%	2	97	99
30	NATIONSTAR MORTGAGE LLC	735	456	348	76%	82	18%	20	4%	6	1%	0	279	279
31	LOANDEPOT.COM, LLC	409	278	204	73%	46	17%	8	3%	19	7%	1	131	132
32	PARK COMMUNITY CREDIT UNION, INC.	567	384	292	76%	77	20%	9	2%	4	1%	2	183	185
33	CITIZENS BANK, NATIONAL ASSOCIATION	701	353	293	83%	42	12%	8	2%	10	3%	0	348	348
34	FIRST SAVINGS BANK	409	372	299	80%	17	5%	20	5%	34	9%	2	37	39
35	TRUIST BANK	818	280	241	86%	25	9%	9	3%	5	2%	0	538	538
36	TRANSCEND	485	335	255	76%	37	11%	28	8%	15	4%	0	150	150
37	PROVIDENT FUNDING ASSOCIATES, L.P.	337	281	203	72%	12	4%	3	1%	62	22%	1	56	57
38	THRIVE MORTGAGE, LLC	406	379	290	77%	62	16%	16	4%	8	2%	3	27	30
39	CITIZENS UNION BANK OF SHELBYVILLE	333	232	183	79%	31	13%	12	5%	6	3%	0	101	101
40	MAGNOLIA BANK	318	310	258	83%	32	10%	10	3%	9	3%	1	8	9
41	VICTORY MORTGAGE, L.L.C.	217	186	71	38%	51	27%	23	12%	41	22%	0	31	31

Rank	Lender	Apps	Total Apps (Excludes Unknown Race)	White	White %	Black	Black %	Hispanic	Hispanic %	Asian	Asian %	Other	Unknown Race	Other/ Unknown (total)
42	CALIBER HOME LOANS, INC.	368	278	211	76%	46	17%	16	6%	4	1%	1	90	91
43	NEWREZ LLC	697	317	230	73%	57	18%	13	4%	14	4%	3	380	383
44	ARK-LA-TEX FINANCIAL SERVICES, LLC.	278	266	240	90%	17	6%	5	2%	4	2%	0	12	12
45	THE HUNTINGTON NATIONAL BANK	387	286	252	88%	10	3%	3	1%	21	7%	0	101	101
46	NEW DAY FINANCIAL, LLC	292	250	170	68%	71	28%	5	2%	1	0%	3	42	45
47	BROKER SOLUTIONS, INC.	306	243	167	69%	53	22%	13	5%	8	3%	2	63	65
48	NORTHPOINTE BANK	294	238	209	88%	20	8%	5	2%	4	2%	0	56	56
49	RIVER CITY BANK, INC.	392	195	123	63%	41	21%	24	12%	5	3%	2	197	199
50	CENTRAL BANK & TRUST COMPANY	256	213	189	89%	12	6%	3	1%	9	4%	0	43	43
Total		48084	38217	28953	76%	4913	13%	2791	7%	1479	4%	81	9867	9948

Appendix B: Denials

Rank	Lender	Total Apps (Excludes Unknown Race)	Total Denials (Excludes Unknown Race)	Total Denial Rate (Excludes Unknown Race)	White Denials	White Denial Rate	Black Denials	Black Denial Rate	Hispanic Denials	Hispanic Denial Rate	Asian Denials	Asian Denial Rate
1	ROCKET MORTGAGE, LLC (7,7197000003)	2072	231	11%	152	10%	60	17%	9	13%	10	8%
2	UNITED SHORE FINANCIAL SERVICES, LLC (7,38-2750395)	2164	133	6%	72	5%	24	13%	32	9%	5	5%
3	REPUBLIC BANK & TRUST COMPANY (3,0000023627)	2653	146	6%	81	4%	41	9%	17	9%	6	11%
4	COMMONWEALTH BANK AND TRUST COMPANY (3,0000010146)	2052	200	10%	147	8%	47	23%	6	11%	0	0%
5	HOME POINT FINANCIAL CORPORATION (7,20-8921389)	1805	99	5%	63	4%	24	13%	6	9%	5	11%
6	FIFTH THIRD BANK, NATIONAL ASSOCIATION (1,0000723112)	2698	499	18%	370	17%	89	32%	19	22%	19	17%
7	PNC BANK, NATIONAL ASSOCIATION (9,0000817824)	2075	382	18%	282	17%	69	32%	8	18%	23	18%
8	FREEDOM MORTGAGE CORPORATION (7,22-3039688)	1863	64	3%	41	3%	19	5%	2	3%	2	3%
9	AMERISAVE MORTGAGE CORPORATION (7,26-0021318)	912	148	16%	94	13%	41	32%	6	15%	6	23%
10	JPMORGAN CHASE BANK, NATIONAL ASSOCIATION (9,0000852218)	1193	66	6%	48	5%	10	10%	3	6%	5	7%
11	U.S. BANK NATIONAL ASSOCIATION (9,0000504713)	1423	419	29%	193	25%	59	56%	151	31%	16	29%
12	STOCK YARDS BANK & TRUST COMPANY (3,0000000258)	1145	143	12%	108	11%	14	26%	3	15%	18	30%
13	EVANSVILLE TEACHERS (5,0000001682)	565	40	7%	29	6%	5	9%	3	19%	1	5%
14	WELLS FARGO BANK, NATIONAL ASSOCIATION (9,0000451965)	935	168	18%	116	15%	30	27%	15	41%	5	16%
15	L & N FEDERAL CREDIT UNION (5,0000009260)	979	25	3%	14	2%	8	6%	2	6%	0	0%
16	FAIRWAY INDEPENDENT MORTGAGE CORPORATION (7,76-0503625)	735	51	7%	24	5%	10	8%	15	16%	2	7%

Rank	Lender	Total Apps (Excludes Unknown Race)	Total Denials (Excludes Unknown Race)	Total Denial Rate (Excludes Unknown Race)	White Denials	White Denial Rate	Black Denials	Black Denial Rate	Hispanic Denials	Hispanic Denial Rate	Asian Denials	Asian Denial Rate
17	BAY EQUITY LLC (7,26-0360466)	774	39	5%	30	5%	7	8%	0	0%	2	7%
18	STOCKTON MORTGAGE CORPORATION (7,61- 1392032)	695	35	5%	20	5%	13	6%	2	11%	0	0%
19	CROSSCOUNTRY MORTGAGE, INC. (7,57-1175755)	455	14	3%	9	2%	3	12%	2	11%	0	0%
20	FIRST FINANCIAL BANK (2,0000165628)	909	120	13%	42	17%	21	40%	51	9%	5	50%
21	RUOFF MORTGAGE COMPANY, INC. (7,35-1616238)	566	21	4%	13	3%	6	12%	2	8%	0	0%
22	AMERICAN MORTGAGE SERVICE COMPANY (7,3833009998)	369	12	3%	7	3%	4	10%	0	0%	0	0%
23	INTERLINC MORTGAGE SERVICES, LLC (7,27- 0349391)	608	53	9%	40	9%	9	8%	4	15%	0	0%
24	PENNYMAC LOAN SERVICES, LLC (9,0004186591)	552	100	18%	55	14%	35	31%	8	23%	2	11%
25	THE MORTGAGE WAREHOUSE,LLC (7,02-0687335)	488	12	2%	11	2%	0	0%	1	10%	0	0%
26	BETTER MORTGAGE CORPORATION (7,87- 0691650)	300	18	6%	11	5%	2	12%	2	12%	3	9%
27	PROSPERITY BANK (9,0000664756)	414	16	4%	13	4%	3	5%	0	0%	0	0%
28	ENVOY MORTGAGE, LTD (7,1635900004)	380	57	15%	36	14%	17	19%	3	14%	1	11%
28	MORTGAGE RESEARCH CENTER, LLC (7,43-1965151)	306	54	18%	32	16%	19	23%	3	15%	0	0%
30	NATIONSTAR MORTGAGE LLC (7,75-2921540)	456	62	14%	40	11%	20	24%	0	0%	2	33%
31	LOANDEPOT.COM, LLC (7,26-4599244)	278	53	19%	35	17%	12	26%	3	38%	2	11%
32	PARK COMMUNITY CREDIT UNION, INC. (5,0000068644)	384	22	6%	13	4%	9	12%	0	0%	0	0%
33	CITIZENS BANK, NATIONAL ASSOCIATION (9,0003303298)	353	37	10%	23	8%	10	24%	3	38%	1	10%
34	FIRST SAVINGS BANK (2,0000785473)	372	8	2%	7	2%	0	0%	0	0%	1	3%
35	TRUIST BANK (9,0000852320)	280	80	29%	68	28%	7	28%	2	22%	3	60%
36	TRANSCEND (5,0000068666)	335	23	7%	11	4%	7	19%	5	18%	0	0%

Rank	Lender	Total Apps (Excludes Unknown Race)	Total Denials (Excludes Unknown Race)	Total Denial Rate (Excludes Unknown Race)	White Denials	White Denial Rate	Black Denials	Black Denial Rate	Hispanic Denials	Hispanic Denial Rate	Asian Denials	Asian Denial Rate
37	PROVIDENT FUNDING ASSOCIATES, L.P. (7,7810600004)	281	16	6%	11	5%	1	8%	0	0%	4	6%
38	THRIVE MORTGAGE, LLC (7,20-0353048)	379	15	4%	6	2%	8	13%	0	0%	1	13%
39	CITIZENS UNION BANK OF SHELBYVILLE (3,0000005840)	232	12	5%	9	5%	2	6%	1	8%	0	0%
40	MAGNOLIA BANK (3,0000008120)	310	26	8%	18	7%	3	9%	3	30%	2	22%
41	VICTORY MORTGAGE, L.L.C. (7,0003913147)	186	4	2%	2	3%	2	4%	0	0%	0	0%
42	CALIBER HOME LOANS, INC. (7,13-6131491)	278	17	6%	15	7%	1	2%	1	6%	0	0%
43	NEWREZ LLC (7,37-1542226)	317	86	27%	60	26%	16	28%	6	46%	4	29%
44	ARK-LA-TEX FINANCIAL SERVICES, LLC. (7,75-2838184)	266	17	6%	14	6%	2	12%	1	20%	0	0%
45	THE HUNTINGTON NATIONAL BANK (9,0000012311)	286	25	9%	21	8%	4	40%	0	0%	0	0%
46	NEW DAY FINANCIAL, LLC (7,22-3887207)	250	110	44%	70	41%	38	54%	0	0%	0	0%
47	BROKER SOLUTIONS, INC. (7,01-0726495)	243	22	9%	16	10%	6	11%	0	0%	0	0%
48	NORTHPOINTE BANK (3,0000034953)	238	7	3%	4	2%	2	10%	1	20%	0	0%
49	RIVER CITY BANK, INC. (3,0000026703)	195	54	28%	32	26%	17	41%	4	17%	0	0%
50	CENTRAL BANK & TRUST COMPANY (3,0000015815)	213	18	8%	12	6%	5	42%	0	0%	1	11%
Total		38217	4079	11%	2640	9%	861	18%	405	15%	157	11%

Appendix C: Originations

Rank	Total Originations	Total Originations (Excluding Unknown)	White	White %	Black	Black %	Hispanic	Hispanic %	Asian	Asian %	Other	Unknown
1	2252	1672	1254	75%	253	15%	55	3%	101	6%	9	580
2	1977	1846	1323	72%	142	8%	293	16%	78	4%	10	131
3	1942	1777	1362	77%	252	14%	112	6%	31	2%	20	165
4	1480	1406	1228	87%	113	8%	38	3%	20	1%	7	74
5	1574	1530	1304	85%	131	9%	52	3%	36	2%	7	44
6	1583	1567	1354	86%	114	7%	38	2%	47	3%	14	16
7	1511	1350	1137	84%	112	8%	23	2%	75	6%	3	161
8	1235	1122	793	71%	233	21%	42	4%	34	3%	20	113
9	537	341	285	84%	36	11%	9	3%	5	1%	6	196
10	937	926	763	82%	73	8%	37	4%	49	5%	4	11
11	926	799	453	57%	32	4%	281	35%	30	4%	3	127
12	898	799	726	91%	30	4%	10	1%	31	4%	2	99
13	540	458	380	83%	42	9%	12	3%	15	3%	9	82
14	605	584	496	85%	59	10%	11	2%	14	2%	4	21
15	841	784	662	84%	91	12%	21	3%	8	1%	2	57
16	711	561	389	69%	102	18%	55	10%	10	2%	5	150
17	665	627	523	83%	64	10%	15	2%	18	3%	7	38
18	594	550	348	63%	168	31%	16	3%	11	2%	7	44
19	424	315	285	90%	11	3%	9	3%	9	3%	1	109
20	715	688	171	25%	24	3%	486	71%	4	1%	3	27
21	515	440	381	87%	33	8%	18	4%	5	1%	3	75
22	530	316	210	66%	34	11%	8	3%	63	20%	1	214
23	476	455	360	79%	68	15%	18	4%	7	2%	2	21
24	298	277	204	74%	45	16%	14	5%	5	2%	9	21
25	431	428	403	94%	9	2%	7	2%	6	1%	3	3
26	194	166	134	81%	8	5%	8	5%	13	8%	3	28
27	390	364	279	77%	50	14%	20	5%	6	2%	9	26
28	170	137	95	69%	31	23%	8	6%	0	0%	3	33
29	251	225	159	71%	38	17%	16	7%	4	2%	8	26
30	383	317	250	79%	47	15%	15	5%	3	1%	2	66
31	258	183	135	74%	28	15%	2	1%	15	8%	3	75
32	439	307	226	74%	61	20%	6	2%	4	1%	10	132
33	307	293	246	84%	29	10%	5	2%	9	3%	4	14
34	287	275	228	83%	10	4%	13	5%	22	8%	2	12
35	337	166	149	90%	9	5%	6	4%	2	1%	0	171
36	270	192	158	82%	17	9%	11	6%	6	3%	0	78
37	199	167	126	75%	7	4%	1	1%	32	19%	1	32
38	295	282	224	79%	36	13%	12	4%	4	1%	6	13
39	267	183	151	83%	17	9%	9	5%	6	3%	0	84
40	259	255	213	84%	25	10%	7	3%	7	3%	3	4
41	150	132	53	40%	34	26%	15	11%	26	20%	4	18

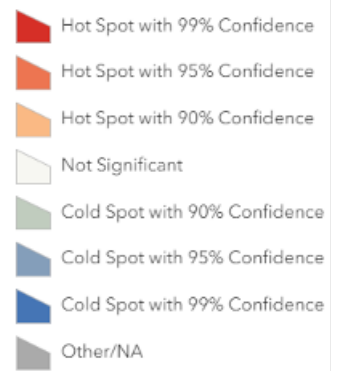
Rank	Total Originations	Total Originations (Excluding Unknown)	White	White %	Black	Black %	Hispanic	Hispanic %	Asian	Asian %	Other	Unknown
42	236	200	152	76%	30	15%	12	6%	2	1%	4	36
43	161	121	95	79%	16	13%	3	2%	5	4%	2	40
44	205	198	178	90%	11	6%	3	2%	3	2%	3	7
45	254	236	209	89%	6	3%	2	1%	19	8%	0	18
46	66	59	42	71%	14	24%	1	2%	1	2%	1	7
47	170	145	100	69%	29	20%	10	7%	3	2%	3	25
48	178	161	148	92%	10	6%	1	1%	1	1%	1	17
49	214	81	51	63%	12	15%	14	17%	3	4%	1	133
50	210	176	159	90%	7	4%	3	2%	7	4%	0	34
Totals	30347	26639	20754	78%	2853	11%	1883	7%	915	3%	234	3708

Appendix D: Hot Spot and Outlier Maps

Methodology:

We performed a global Moran's I diagnosis to reveal if the distribution of applications, denials, and originations, FHA loans, and mortgage interest rates by race/ethnicity across Jefferson County census tracts had a clustered pattern. The global Moran's I test is a standard tool for determining spatial autocorrelation. Following the global Moran's I diagnosis, we used a local spatial statistical approach or hot spot analysis (i.e., Getis-Ord G_i^*) to identify clusters of nearby census tracts that had significantly high values of any of the aforementioned rates or low values in comparison to the county average. For both global and local spatial statistical analyses, a contiguity-based queen spatial weight was used to determine the neighboring features (i.e., counties) for each county.

Legend:



Hot Spot Map: Total Applications

Moran's Index 0.519825

z-score 12.665802

p-value 0.000000

Given the z-score of 12.665802, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.

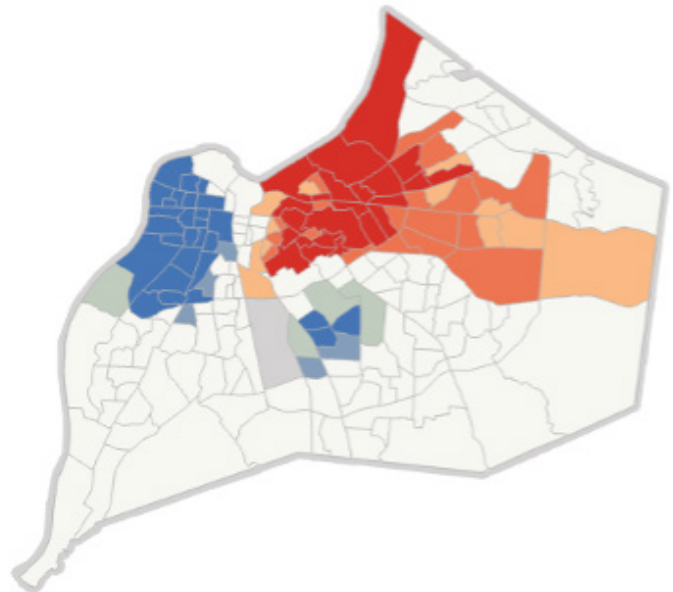
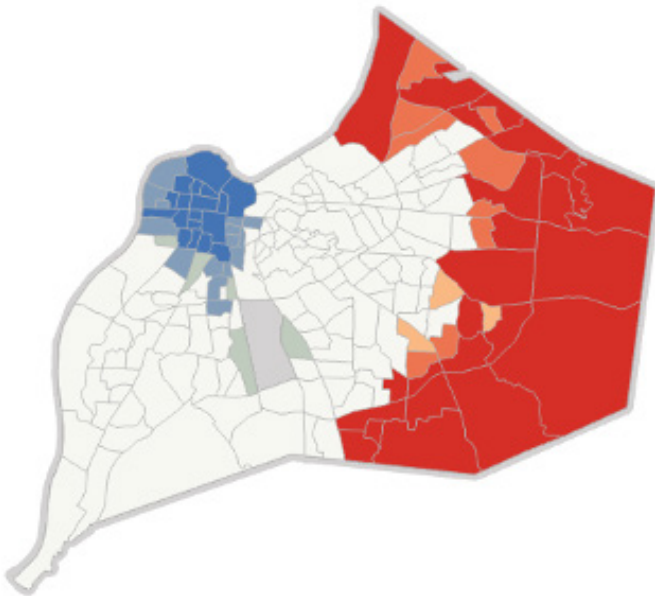
Hot Spot Map: White Application Rate

Moran's Index 0.782832

z-score 18.691905

p-value 0.000000

Given the z-score of 18.691905, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.



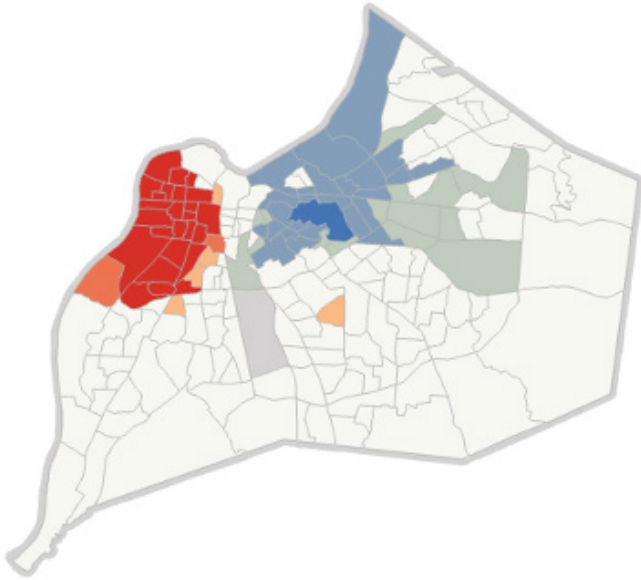
Hot Spots: Black Applicant Rate

Moran's Index 0.831959

z-score 19.967885

p-value 0.000000

Given the z-score of 19.967885, there is a less than 1 percent likelihood that this clustered pattern could be the result of random chance.



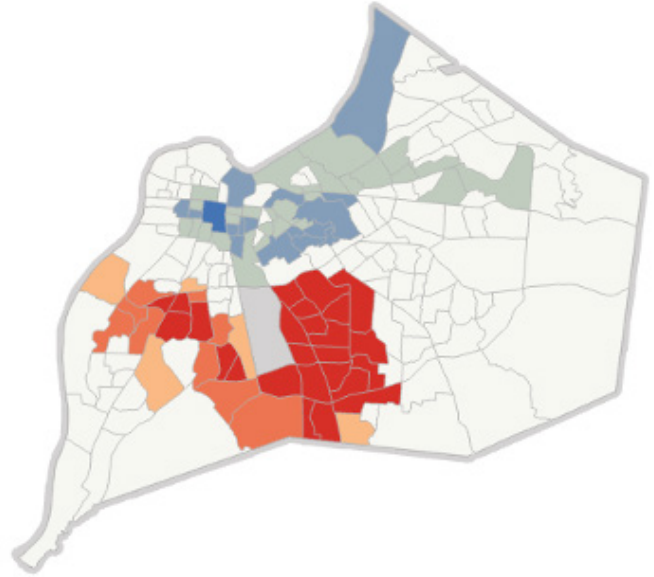
Hot Spots: Hispanic Applicant Rates

Moran's Index 0.679254

z-score 16.426305

p-value 0.000000

Given the z-score of 16.426305, there is a less than 1 percent likelihood that this clustered pattern could be the result of random chance.



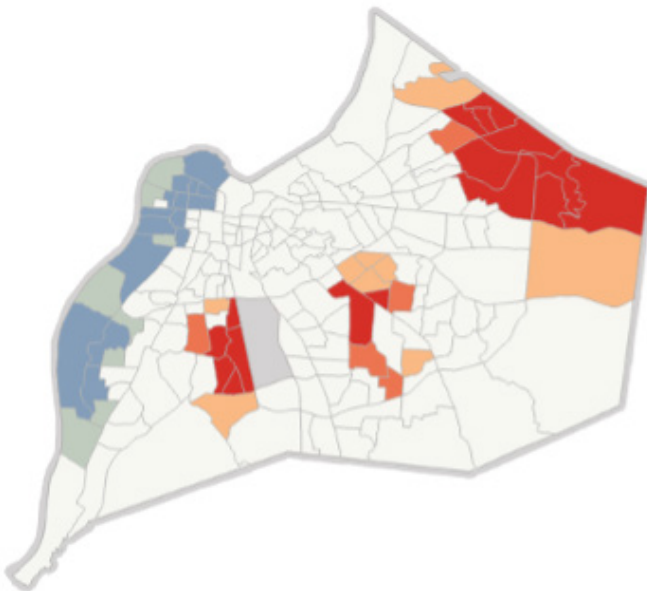
Hot Spot Map: Asian Application Rates

Moran's Index 0.345347

z-score 8.409581

p-value 0.000000

Given the z-score of 8.409581, there is a less than 1 percent likelihood that this clustered pattern could be the result of random chance.



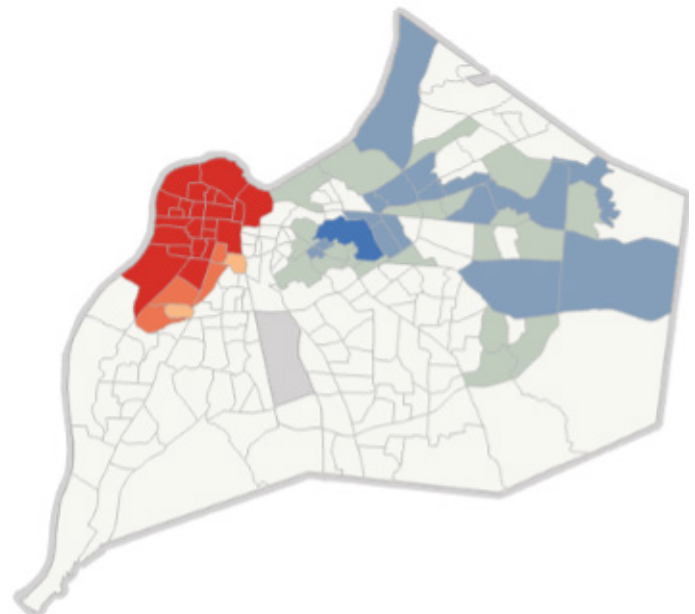
Hot Spot Map: Total Denial Rate

Moran's Index 0.482301

z-score 11.930880

p-value 0.000000

Given the z-score of 11.93088, there is a less than 1 percent likelihood that this clustered pattern could be the result of random chance.



Hot Spot Map: White Denial Rates

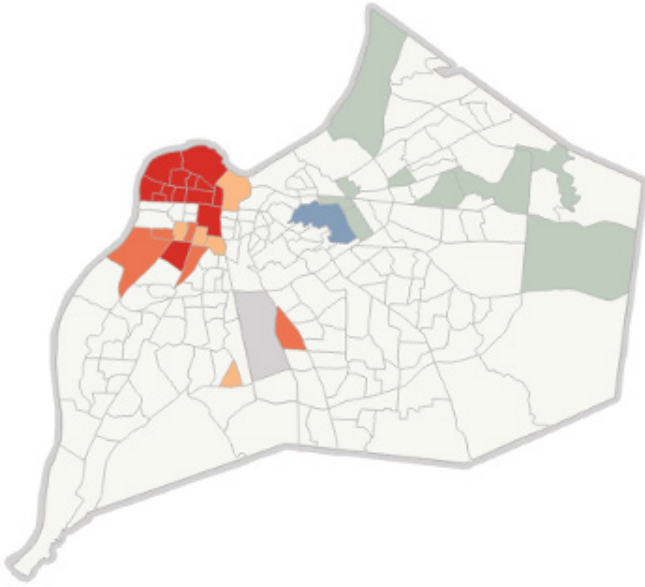
Hot Spot Map: Black Denial Rates

Moran's Index 0.211307

z-score 5.256004

p-value 0.000000

Given the z-score of 5.256004, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.

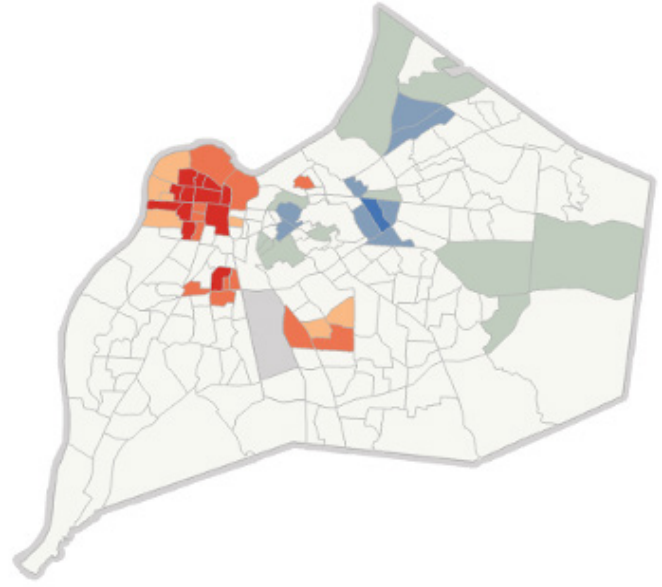


Moran's Index 0.250249

z-score 5.375214

p-value 0.000000

Given the z-score of 5.375214, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.



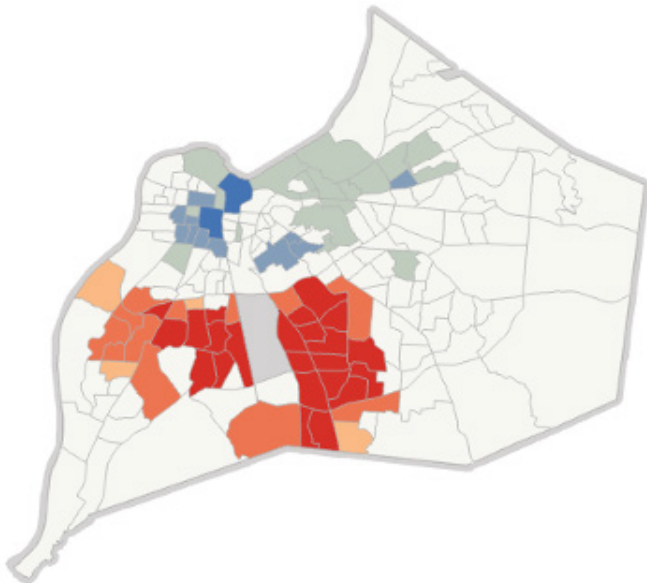
Hot Spot Map: Hispanic Denial Rates

Moran's Index 0.461020

z-score 10.947858

p-value 0.000000

Given the z-score of 10.947858, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.



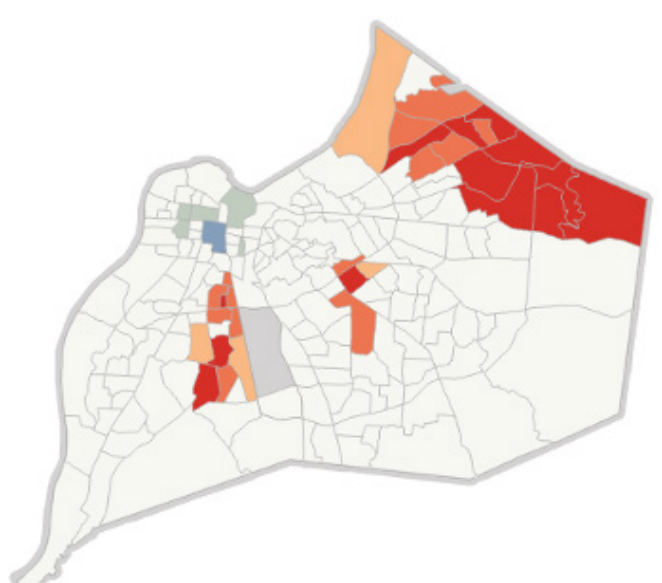
Hot Spot Map: Asian Denial Rates

Moran's Index 0.184998

z-score 4.584671

p-value 0.000005

Given the z-score of 4.584671, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.



Hot Spot Map: Total Originations

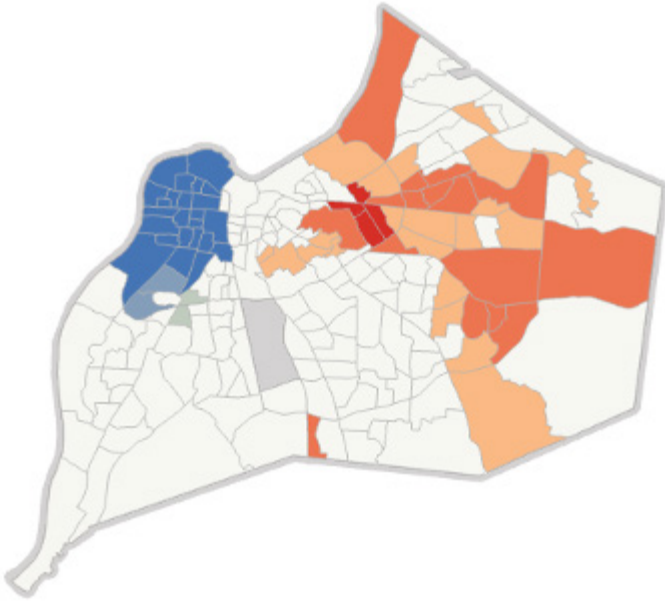
Hot Spot Map: White Origination Rate

Moran's Index 0.595898

z-score 14.081933

p-value 0.000000

Given the z-score of 14.081933, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.

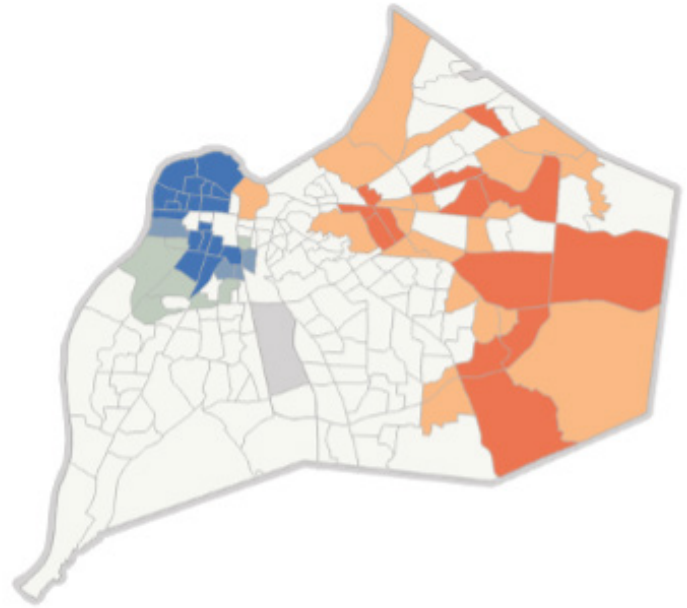


Moran's Index 0.479901

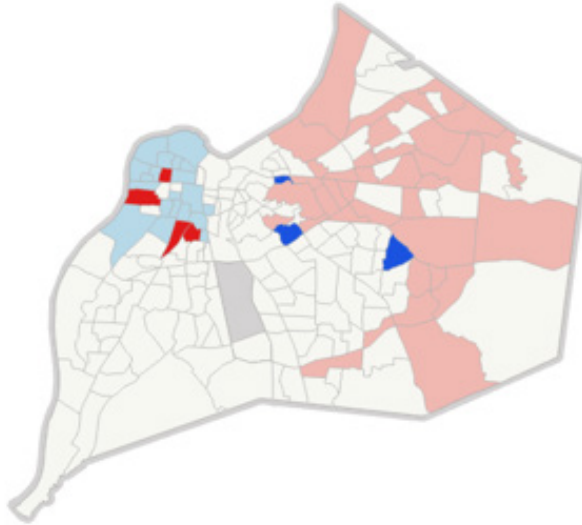
z-score 11.251114

p-value 0.000000

Given the z-score of 11.251114, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.



Outlier Map: White Origination Rate



-  High-High Cluster
-  High-Low Outlier
-  Low-High Outlier
-  Low-Low Cluster
-  Not Significant
-  Other/NA

Hot Spot Map Hispanic Origination Rate

Hot Spot Analysis: Black Origination Rate

Moran's Index 0.039115

z-score 0.937845

p-value 0.348324

Given the z-score of 0.937845, the pattern does not appear to be significantly different than random.

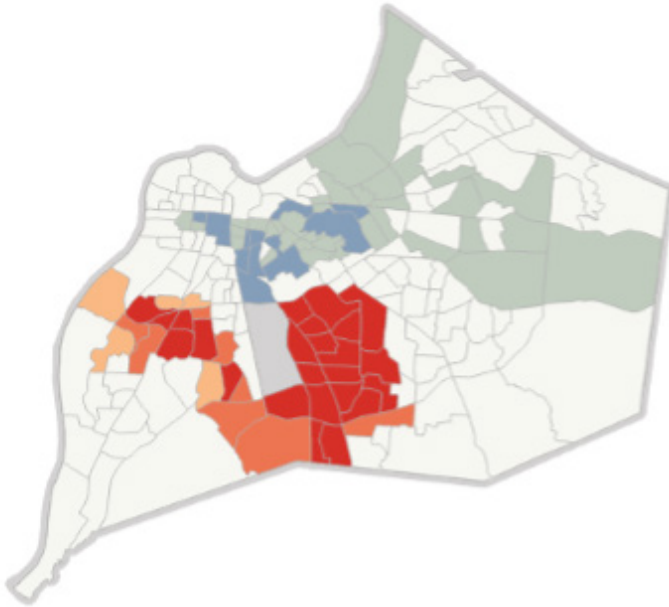
Hot Spot Map Asian Origination Rate

Moran's Index 0.650909

z-score 15.503054

p-value 0.000000

Given the z-score of 15.503054, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.

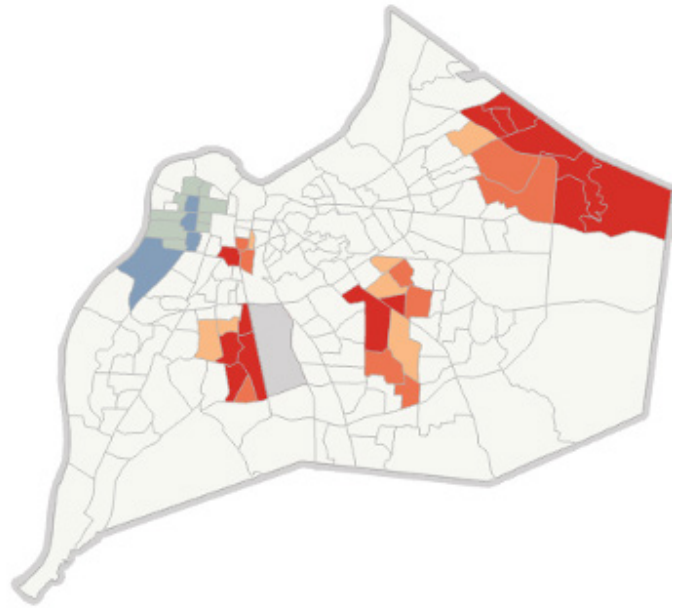


Moran's Index 0.263584

z-score 6.392027

p-value 0.000000

Given the z-score of 6.392027, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.



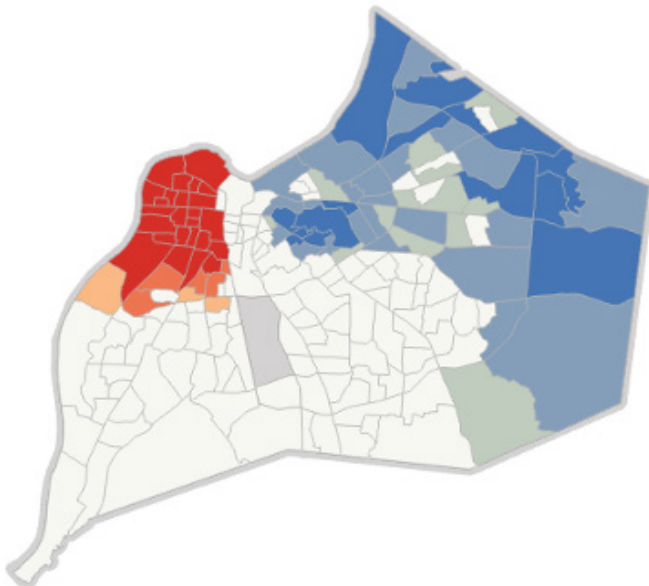
Hot Spot Map: Average Spread

Moran's Index 0.711779

z-score 16.542234

p-value 0.000000

Given the z-score of 16.542234, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.



Hot Spot Map: FHA Loans

Moran's Index 0.706673

z-score 16.316275

p-value 0.000000

Given the z-score of 16.316275, there is a less than 1percent likelihood that this clustered pattern could be the result of random chance.

