MORTGAGE COSTS BY RACE/ETHNICITY IN TENNESSEE:

ANALYSIS FROM 2018-2021 HOME MORTGAGE DISCLOSURE ACT (HMDA) DATA

Tennessee Housing Development Agency

Analysis by
Hulya Arik, Ph.D.
Economist

THDA.ORG

TABLE OF CONTENTS:

Tennessee Housing Development Agency

EXECUTIVE SUMMARY

Exploring the variation in mortgage lending patterns by race, ethnicity, and income can offer insight into barriers to homeownership and disparities in wealth accumulation. Using Home Mortgage Disclosure Act (HMDA) data, this report studies the utilization of conventional versus government-insured loans as well as the costs of borrowing for purchasing a home by race, ethnicity, and income levels.

Minority borrowers, especially those who are Black or Hispanic, are more likely to face hurdles in accessing mortgage credit because of lower credit scores, lower median incomes, as well as discriminatory lending practices (Bhutta, Hizmo and Ringo, 2021; Bhutta and Hizmo, 2021; Bayer, Ferreria and Ross, 2014). Non-conventional loans such as those insured by the Federal Housing Administration (FHA), Veteran's Affairs (VA) and the United States Department of Agriculture (USDA) are often good options for borrowers facing such barriers in the conventional market. Applicants with lower credit scores and higher debt-to-income ratios can also be approved for an FHA-insured loan with a lower downpayment. However, FHA-insured loans are often costlier than alternatives for comparable mortgages, as borrowers are required to pay a mortgage insurance premium (MIP) both upfront at the closing and monthly for the life of the loan.

We find that from 2018 to 2021, the share of conventional loans in overall originated home purchase mortgages increased for all race, ethnicity and income categories. Furthermore, the costs of mortgages as measured by interest rates, rate spread, high-priced mortgages, and total loan costs declined over this period. Almost all borrowers, in effect, benefitted from these declining costs. However, Black, Hispanic, and low to moderate income (LMI) borrowers continued to rely heavily on non-conventional mortgages. Furthermore, they experienced higher relative costs in comparison to other groups for the mortgages they did acquire. As a result, they often paid higher overall and higher relative costs by loan amounts compared to their counterparts.

INTRODUCTION

Data from the Home Mortgage Disclosure Act (HMDA) indicate that before the 2008 housing market crash, more than 80% of home purchase loans in Tennessee were conventional. After the Great Recession, the FHA played an important role supporting the housing market by supplying access to mortgage credit in lieu of other sources of financing, which had stopped.[1] For any borrower with a low credit score or few savings, an FHA-insured mortgage is a good option. For example, someone with a credit score as low as 580 can receive a mortgage with 3.5% downpayment. However, FHA-insured loans carry additional costs via mortgage insurance.

The FHA has increased mortgage insurance premiums (MIPs) and upfront mortgage insurance payments several times.[2] For a conventional loan, the lender automatically cancels the private mortgage insurance once the borrower reaches 22% equity in the home. However, starting in 2013, required MIP for FHA-insured loans were extended for the life of the loan unless borrowers refinanced the loan. These changes increased the cost of purchasing a home using FHA-insured mortgage loans, which contributed to the decline in the share of FHA-insured loans compared to conventional loans and other government insurers.

Minority borrowers, especially those who are Black or Hispanic, are more likely to face hurdles in accessing mortgage credit because of lower credit scores, lower median incomes, and discriminatory lending practices (Bhutta, Hizmo and Ringo, 2021; Bhutta and Hizmo, 2021; Bayer, Ferreria and Ross, 2014).[3] While non-conventional mortgages offer the opportunity for homeownership for borrowers that might otherwise be excluded, it is important to explore the implications of disparate take-up rates of various types of mortgages. Differences in mortgage costs by race, ethnicity, and income level affect our understanding of the barriers to and benefits of homeownership by group, including the low minority homeownership rate and growing wealth accumulation disparities among various racial and ethnic groups.

In this brief, we use HMDA data from 2018 to 2021 to understand how the pandemic shaped trends in the utilization of non-conventional loan products, i.e. FHA-, VA- and USDA-insured loans. We also explore the trends in the utilization of types of loans and variation in loan costs as measured by interest rates, rate spread, and total loan costs by race, ethnicity, and income. Given the limitations of HMDA data, the remainder of this analysis is conducted without the consideration of characteristics associated with the borrower or the loan, itself, including the borrower's credit score, debt-to-income ratio (DTI), combined loan-to-value ratio (CLTV), whether the loan was administered with a fixed or adjustable rate, or whether the borrower paid discount points or received lender credits. These types of characteristics may significantly affect the interest rate charged on the mortgage. For example, it is possible that a borrower receives a lower interest rate by paying for the discount points. Conversely, two borrowers may be paying similar interest rates but one may have excellent credit while the other might not. When comparing interest rates and loan costs, we do not make assumptions about these characteristics. Finally, unless otherwise specified, the analysis in this brief focuses on closed-end first-lien home purchase loans for owner-occupied site-built, 1-4 unit properties.

---

[1] Mortgage loans are categorized based on the loan size and whether they are part of a government program. Conventional loans are not part of any government program. FHA-insured loans, which have lower downpayment requirement and allow lower credit score than conventional loans are also originated by private lenders, but regulated and insured by Federal Housing Administration (FHA). VA-insured mortgages are for veterans, service members and surviving spouses. USDA-insured (or FSA/RHS) mortgages are loans for low-to-moderate income borrowers purchasing homes in rural areas. More information about the loan types can be found at Consumer Financial Protection Bureau (CFPB) at: https://www.consumerfinance.gov/owning-a-home/loan-options/#anchor_mortgage-insurance_362113081c887a.

[2] In February 2023, the Department of Housing and Urban Development (HUD), through the Federal Housing Administration (FHA), announced a 30 basis point reduction to the annual mortgage insurance premiums (annual MIP) charged to homebuyers who obtain an FHA-insured mortgage. The premium is reduced from 0.85 percent to 0.55 percent for most homebuyers. The full news release can be found at: https://www.hud.gov/press/press_releases_media_advisories/hud_no_23_041.

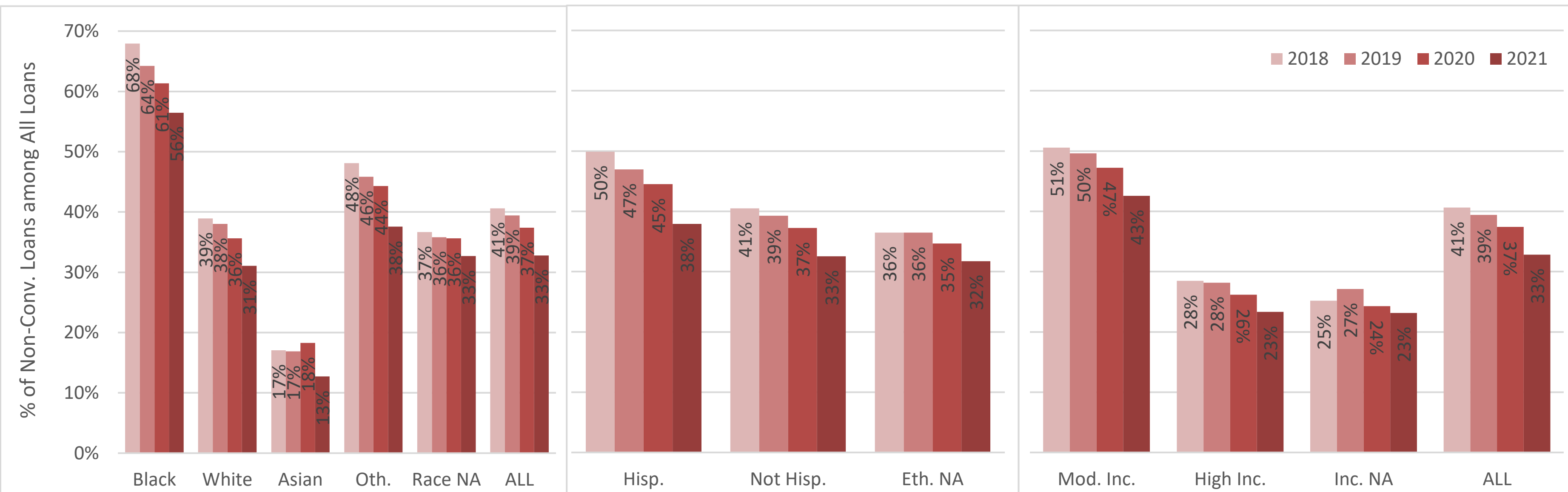
[3] Bhutta, Hizmo and Ringo (2021) show that the difference between denial rates of Black and White applicants declines significantly after controlling for factors such as credit score, income, LTV and DTI. Bhutta and Hizmo (2021) examine the differences in interest rates and use of discount points by race and ethnicity, and show that controlling for borrowers' credit scores and other geographic and lender fixed effects reduces the interest rate differences. Furthermore, they show that Black and Hispanic borrowers pay fewer discount points, which explains the differences in interest rates. Bayer, Ferreria and Ross (2014) examines the sizable differences in high-cost lending by race and ethnicity that remains even after controlling for factors such as credit scores, LTV, DTI and other related borrower and loan characteristics.

FINDINGS

In 2021, over 100,000 home purchase loans were originated for borrowers purchasing owner-occupied site-built single-family homes, 19% more than in 2018. Many conventional lenders left the market in the immediate years after the housing market crash in 2008, leaving FHA-insured mortgages as the only option for many homebuyers to finance their home purchase. As markets improved over the years, conventional lenders returned to the market and the share of conventional mortgages among total originated loans started to increase.

Correspondingly, from 2018 to 2021, the share of conventional loans in overall originated home purchase mortgages increased for all race, ethnicity and income groups. As Figure 1 illustrates, however, Black, LMI and Hispanic borrowers continued to rely heavily on non-conventional mortgages (e.g. FHA-, USDA-, or VA-insured mortgages). In 2018, 68% of Black homebuyers financed their home purchase with a non-conventional mortgage compared to only 41% of all borrowers. In 2021, the share of non-conventional mortgages originated declined to 33% for all borrowers and to 56% for Black borrowers. Asian homebuyers utilized conventional mortgage products most heavily. In 2021, only 13% of Asian homebuyers used non-conventional loans declining from 18% in 2020; nonetheless, it was still significantly lower than all other sub-groups of borrowers.

Figure 1: Non-Conventional (FHA-, VA- or USDA-Insured) Share of All Home Purchase Loans by Group,[4] 2018-2021



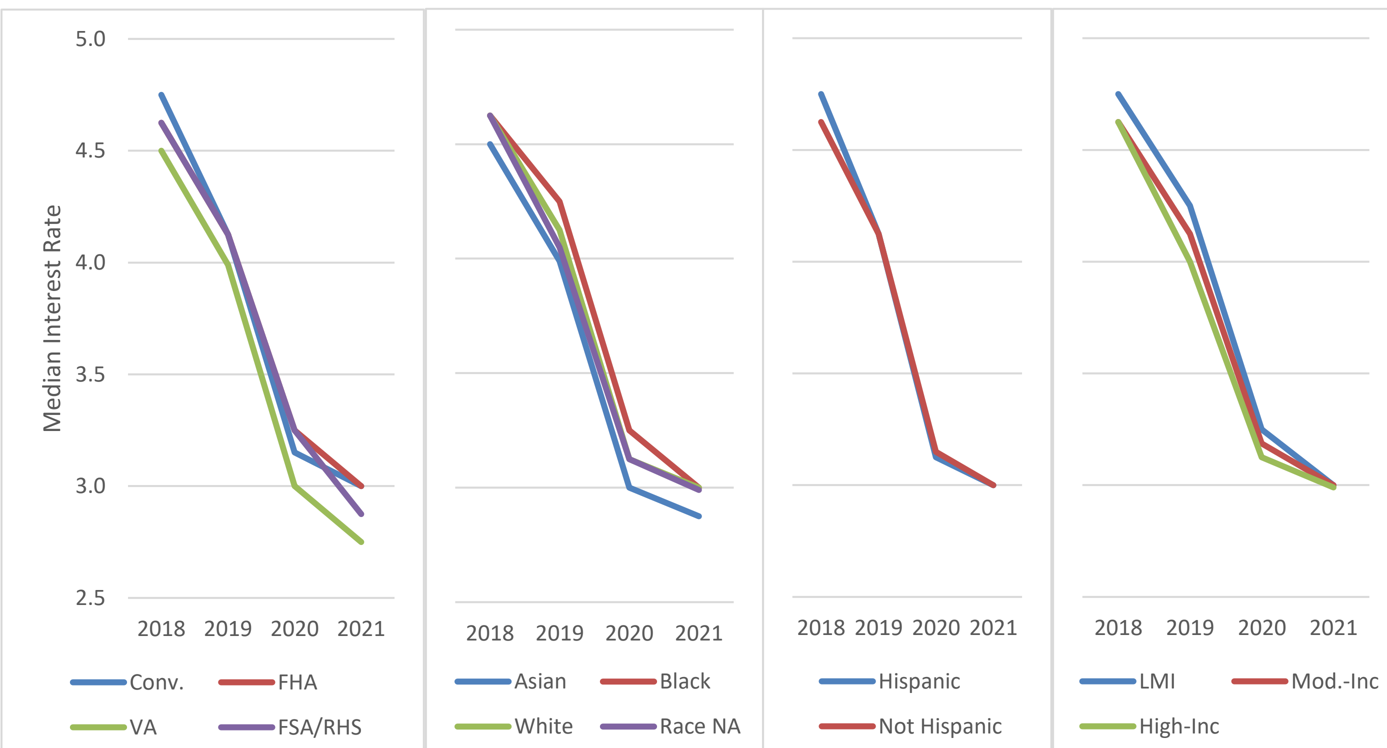
[4] Race, ethnicity and income categories are not mutually exclusive of one another. For example, "Black" includes both Hispanic and non-Hispanic borrowers of all income levels. "Other" includes all other races such as American Indian, Native Hawaiian and so on.

Interest Rates

To alleviate the impacts of the COVID-19 pandemic and ensure that credit flows were not disrupted, the Federal Reserve Bank followed a policy of economic easing,[5] which included the reduction of interest rates. As a result, mortgage interest rates reached historically low levels in 2020.

The median and average interest rates declined steadily between 2018 and 2021. Although interest rates for 30-year fixed mortgages began to increase throughout 2021, they were still historically low.[6] As Figure 2 illustrates, the rate of decline and the rates themselves were largely similar among loan types, with the exception of VA-insured loans, whose median rates were considerably lower than those of other loan types. For all loans, the median interest rate declined from 3.125% in 2020 to 3% in 2021. When disaggregated by race, median interest rates declined for all groups, but most significantly for Asian borrowers. Furthermore, Black borrowers consistently paid higher median interest rates than other borrowers did across all years. The gap in median rates between Hispanic and non-Hispanic borrowers closed significantly by 2021. Median interest rates were also inversely correlated with income, such that lower income borrowers had higher median interest rates across the years.

Figure 2: Median Interest Rates by Loan Type, Race, Ethnicity and Income, 2018-2021



[5] At March 3 and March 15 2020 meetings, Fed cut its target for Federal Funds rate by a total of 1.5 percentage point, which lowered the funds rate to 0% to 0.25%. See Brookings Institution Post "What did the Fed do in response to Covid19 crisis?" at https://www.brookings.edu/research/fed-response-to-covid19/

[6] According to Freddie Mac's Primary Mortgage Survey Data, average interest rate of 2.65% reported by lenders in the first week of January 2021 increased to 3.11 percent in the last week of December 2021. The data is available at https://www.freddiemac.com/pmms

Rate Spread

Rate spread is the difference between the loan's annual percentage rate (APR) and the average prime offer rate (APOR)[7,8] for a comparable mortgage as of the date the interest rate is set. It is primarily used to identify higher-priced mortgages.[9, 10] For example, mortgage with a rate spread of 0.5% is more comparable to a prime rate than one with a rate spread of 0.75%. If the rate spread is negative, then the borrower's APR is less than the average APOR.. The survey data used in the determination of APOR are the weekly average offer prices. Therefore, even though a smaller rate spread is good, it is difficult to speculate about the differences in monthly principal and interest cost and life of the loan payment among borrowers by relying solely on rate spread as an indicator. Nonetheless, in a declining interest rate environment as was the case between 2018 and 2021, borrowers with a lower spread loans could expect to pay less to own a home.

As Table 1 demonstrates, the median rate spread for all loans declined from 2018 to 2021 by 43% for loan types. Nonetheless, the rate spread was higher for home purchase loan borrowers with an FHA-insured mortgage over all four years in comparison to borrowers with conventional, VA, or USDA loans.[11] In 2018, the median rate spread for the FHA-insured loans was 1.221% and it declined to 1.076% in 2021.

Table 1: Median Rate Spread by Loan Type, 2018-2021

	2018	2019	2020	2021	% Change: 2018-2021
Conventional	0.380	0.335	0.168	0.238	-37%
FHA	1.221	1.229	1.051	1.076	-12%
VA	0.139	0.053	-0.074	-0.034	-124%
USDA	0.734	0.736	0.500	0.514	-30%
ALL	0.535	0.474	0.279	0.306	-43%

As Figure 3 below illustrates, home purchase loans made to Asian borrowers had the lowest rate spread across all loan types. Furthermore, the median rate spread for the loans of Black borrowers was higher than for that of all other racial/ethnic groups for each loan type.

[7] The "Average prime offer rate (APOR)" is an annual percentage rate derived from average interest rates and other loan pricing terms currently offered by a set of creditors to consumers for mortgage loans that have low-risk pricing characteristics. The Bureau publishes tables of APOR by transaction type at least weekly and the methodology used to derive these rates.

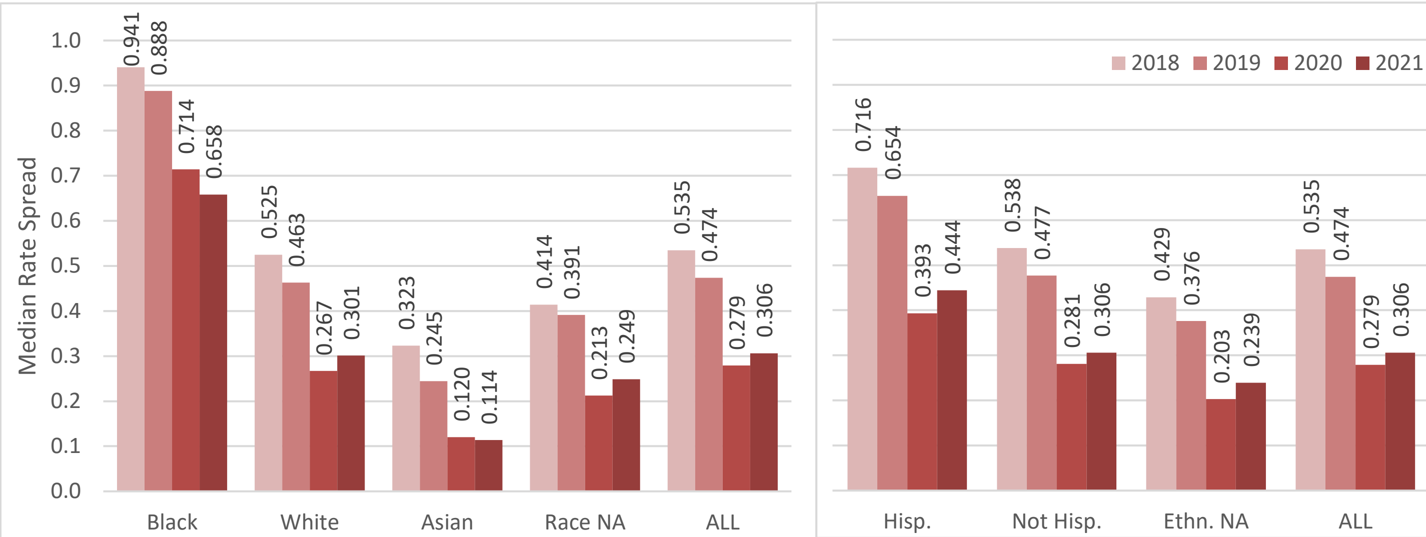
[8] Financial institutions when filing their HMDA data are provided with a tool for calculating the spread. The calculation of APOR is based on the survey data for 8 different mortgage products including both fixed and variable mortgages at different maturity levels (from 30 to 10 years). The rates are for the "high quality" prime borrowers with 80% or less loan-to-value (LTV) ratio first-lien loans. The Consumer Financial Protection Bureau (CFPB) explains in more detail the methodology used in determining APOR (See https://ffiec.cfpb.gov/tools/rate-spread/methodology).

[9] As of 2009, a "first-lien" loan is considered higher-priced if the APR on the loan is at least 1.5 percentage more than APOR for a similar type of loan. For "junior-lien" loans, the threshold for higher-priced loans is 3.5 percentage points.

[10] Changes made to the HMDA filing process after the 2015 HMDA Rule made the reporting of rate spread required for all loans, not just higher-priced mortgages.

[11] Considering the differences in borrowers' credit characteristics and characteristics of various loan types, differences in rate spread for different loan types should be treated cautiously.

Figure 3: Distribution of Rate Spread by Race and Ethnicity, All Loan Types, 2018-2021



In Table 2, we find that there was little variation in the change in median rate spread over the four-year period by geography. However, the actual rate spread by MSA ranged a bit more widely. The median rate spread for the loans originated in the Kingsport-Bristol MSA was higher than other MSAs in all four years. The median rate spread for the loans originated in the Nashville MSA borrowers was the lowest, and it declined from 0.464% in 2018 to 0.244% in 2021.

Table 2: Median Rate Spread by MSA, All Loans, 2018-2021

MSA	2018	2019	2020	2021	% Change: 2018-2021
Chattanooga	0.510	0.452	0.248	0.308	-40%
Clarksville	0.307	0.236	0.088	0.185	-40%
Cleveland	0.660	0.601	0.437	0.432	-34%
Jackson	0.775	0.714	0.410	0.495	-36%
Johnson-City	0.716	0.612	0.486	0.453	-37%
Kingsport-Bristol	0.913	0.876	0.637	0.582	-36%
Knoxville	0.475	0.415	0.260	0.290	-39%
Memphis	0.536	0.503	0.267	0.280	-48%
Morristown	0.667	0.644	0.445	0.420	-37%
Nashville	0.464	0.393	0.209	0.244	-47%
Balance of the State	0.741	0.727	0.467	0.449	-39%
STATE	0.535	0.474	0.279	0.306	-43%

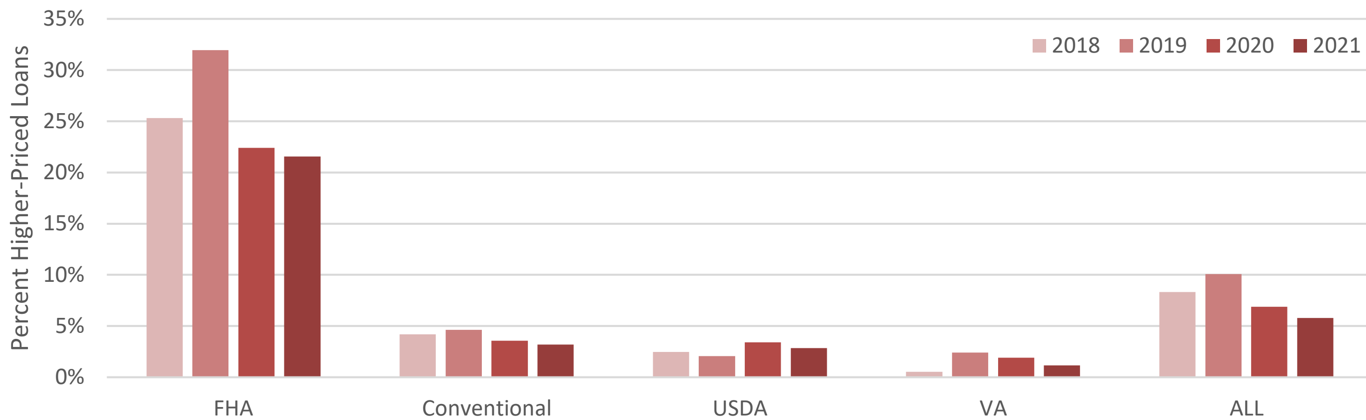
Additionally, the median rate spread for mortgages originated for borrowers purchasing homes in lower income neighborhoods (LMI tract)[12] was higher than borrowers purchasing homes in moderate- and higher-income tracts. For example, in 2018, a median borrower who purchased a home in an LMI tract had a spread of 0.757%, which declined to 0.472% in 2021, while a median borrower who purchased a home in a high-income tract had a spread of 0.372 percent, which declined to 0.196.

[12] LMI, middle-income and high-income neighborhoods are defined based on the ratio of census tract median family income to estimated area median family income (AMFI) measured from the census data. The census tracts with the ratio less than 80% are LMI tracts, census tracts with ratio at least 80% but less than 120% are middle-income tract and census tracts with ratio 120% or higher are high-income tracts.

Higher-Priced Loans

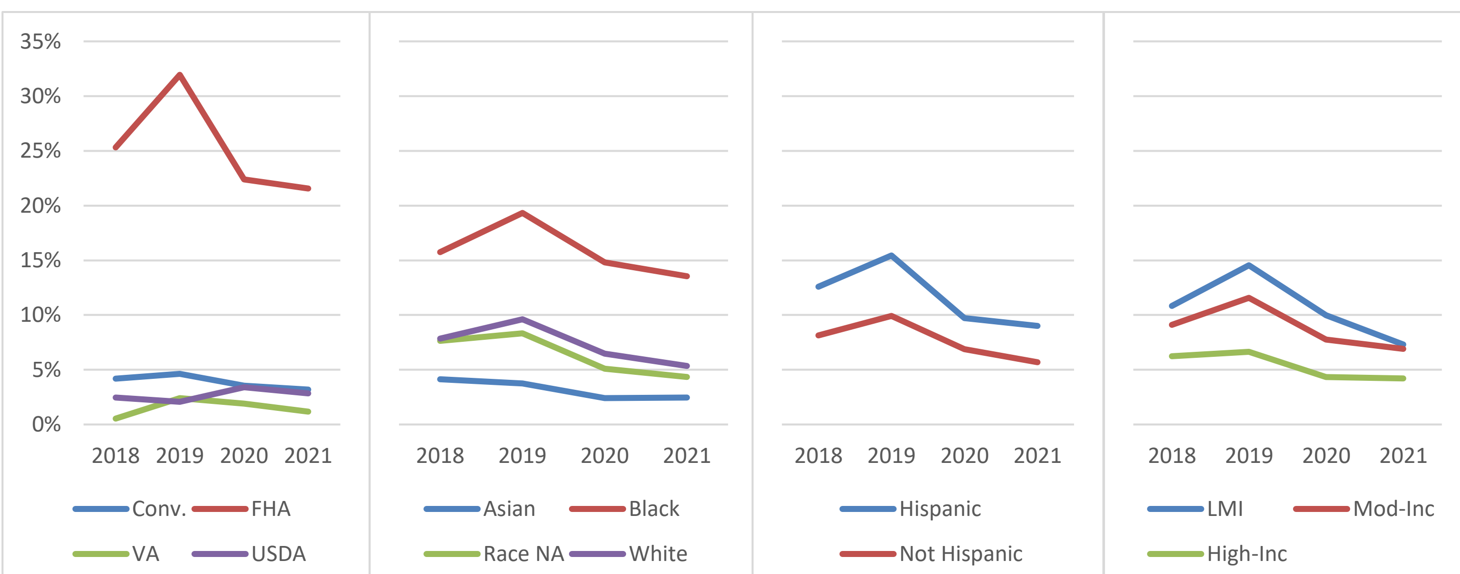
A loan is considered "higher-priced" if the loan's APR exceeds the APOR for similar type of loans by at least 1.5 percentage points for first-lien loans or 3.5 percentage points for junior-lien loans.[13] As Figure 4 below illustrates, between 2018 and 2021, the share of higher-priced loans was highest for FHA-insured mortgages. In 2021, higher-priced loans represented 22% of FHA-insured loans originated, compared to only 3% of conventional loans.

Figure 4: Percent Higher-Priced Loans by Loan Types, 2018-2021



As Figure 5 illustrates, the share of higher-priced loans declined from 2018 to 2021 for all race, ethnic, and income subgroups. Nonetheless, Black borrowers acquired the highest percentage of higher-priced loans compared to members of other racial groups. In comparison, only 2% of home purchase loans originated for Asian borrowers in 2021 were considered higher priced. While the downward trend was largely consistent over this period, in 2019, there was an increased prevalence of higher-priced home purchase loans for almost all loan types and race, ethnicity and income categories.

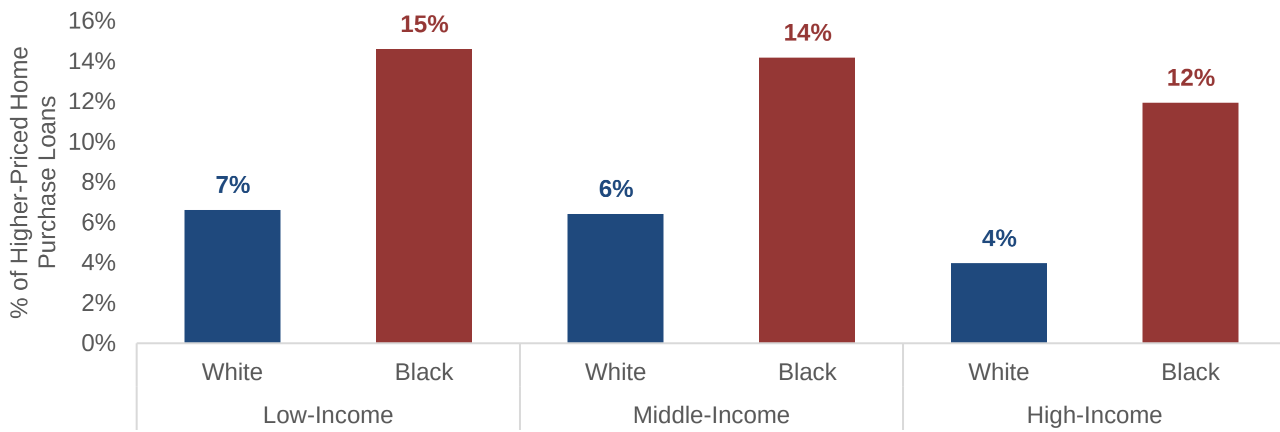
Figure 5: Percent of Higher-Priced Loans by Loan Type, Race, Ethnicity and Income, 2018-2021



[13] A second mortgage or junior-lien is a loan, such as home equity loan or home equity line of credit that a borrower takes out using their house as collateral while they still have another loan secured by their house.

Of home purchase loans made in 2021, 14% of loans to Black borrowers and 9% of loans to Hispanic borrowers were higher-priced, compared with 5% of loans to White borrowers. Even among borrowers within the same income group, the proportion of Black borrowers who received higher-priced home purchase loans was higher than White borrowers. Figure 6, below, illustrates that while 15% of low-income[14] Black borrowers paid interest rates higher than the threshold level in 2021, only 7% of low-income white borrowers' home purchase loans were considered higher priced. The occurrence of higher-priced loans declined with the income for both White and Black borrowers, but even for higher-income Black borrowers a significantly higher share of total home purchase loan originations had interest rate above the threshold.

Figure 6: Percent of Borrowers with Higher-Priced Loans by Race and Income Level, 2021

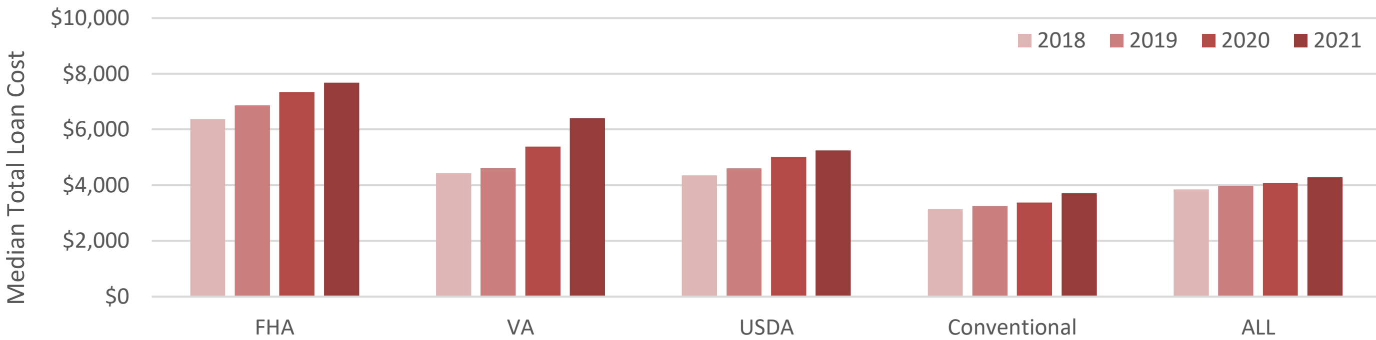


[14] A low-income (LMI) borrower is defined as someone who earns less than 80% of estimated area median family income (AMFI). A middle-income borrower earns more than 80% but less than 120% of the estimated AMFI. If the borrower's income is more than 120% of the estimated AMFI, then the borrower is labeled as a high-income borrower.

Total Loan Costs

The changes made to the HMDA reporting as a result of 2015's Dodd-Frank Act and implemented with 2018 HMDA data required lending institutions to report total loan costs or total points and fees.[15] Total loan costs are reported as dollar amount paid by the borrower for required transactions and cost that are partially paid by the seller are not included under total loan costs.[16]

Figure 7: Median Total Loan Costs by Loan Type, 2018-2021



Without adjusting for differences in loan amounts, downpayment amounts, or inflation, the median total loan costs of all loans (conventional and non-conventional loans) was $4,280 in 2021; the average total loan cost was $5,276. These values are 5% and 6% higher than they were in 2020, respectively. The median and average total loan costs increased for all loan types, but in percentage terms, VA-insured loans experienced the largest increase in total loan costs. With $3,705, conventional loans had the lowest median total cost in 2021, which was nearly half of the median total cost for FHA-insured loans. On average and at the median, FHA-insured loan borrowers paid higher total loan costs compared to borrowers using other loan types in all four years. For FHA-insured loans, upfront mortgage insurance premium payment[17] is also part of total loan cost, which increases the total loan cost compared to other loan types.

Median total costs by race are the likely effect of three factors: specific costs associated with types of mortgages, the overall utilization of types of loans, and the size of the loan, itself. Table 2 below illustrates how median total loan costs vary by loan type by subgroup but may not coincide with the median total loan cost. For example, Asian and Black borrowers pay the highest loan costs for all types of loans. However, Asian borrowers' median total loan cost is significantly lower than it is for Black borrowers.

[15] Total Loan Costs applies to the originated loans that are subject to the TILA-RESPA Integrated disclosure requirements in Regulation Z. Total Points and Fees applies to the originated loans that are not subject to those requirements but are covered by the Ability-to-Pay requirements in Regulation Z. Under Regulation C, other than for loans that are eligible for partial exemptions under the EGRRCPA, in general, if a loan is subject to the TILA-RESPA Integrated Disclosure Rule ("TRID") requirements, a reporter must report total loan costs as disclosed on the TRID Closing Disclosure. TRID applies to most closed-end consumer credit transactions secured by a real property or co-ops. That means HELOCs, reverse mortgages, or mortgages secured by a mobile home that is not attached to real property, or closed-end loans made primarily for a business purpose are not subject to TRID, and therefore, financial institutions do not report Total Loan Costs for these transactions. See "An updated review of the new and revised data points in HMDA: Further observations using the 2019 HMDA data" at https://www.consumerfinance.gov/data-research/research-reports/revised-data-points-hmda/

[16] According to TILA-RESPA Integrated Disclosure (TRID), "total loan costs" are the sum of origination charges, services borrower cannot shop for (include cost items such as appraisal fee, credit report fee, government funding fee, lender's attorney fee, an upfront mortgage insurance fee and so on) and services borrower can shop for (such as pest inspection fee, survey fee, title). If the total loan cost is "NA," it means this requirement does not apply for transactions, and if it is "Exempt" the financial institution is exempt from reporting this information.

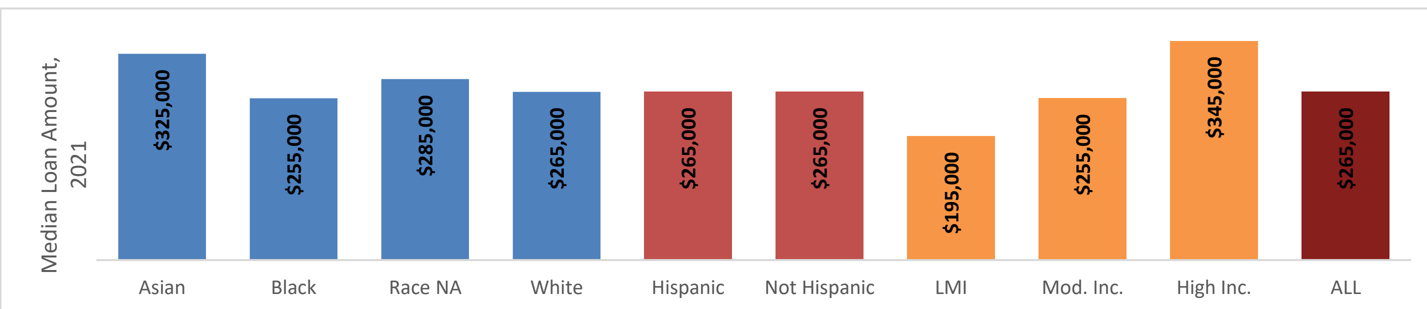
[17] For the period covered in this brief, the upfront mortgage insurance premium for FHA-insured loans was 1.75% of total loan amount. For example, a borrower who has a total loan amount of $300,000 must pay $7,000.

Table 3: Median Total Loan Costs by Loan Type, Race, Ethnicity and Income, 2021

RACE	Conventional	FHA	VA	USDA	TOTAL
Asian	$3,966	$8,322	$7,944	$5,342	$4,177
Black	$3,731	$8,129	$6,134	$5,589	$5,647
NA	$3,821	$7,974	$6,451	$5,268	$4,386
White	$3,673	$7,506	$6,402	$5,214	$4,190
ETHNICITY					
Hispanic	$3,777	$7,886	$6,794	$5,441	$4,704
Not Hispanic	$3,687	$7,629	$6,377	$5,249	$4,254
INCOME					
Low-to-mod-Income	$3,379	$6,785	$5,440	$4,864	$4,055
Moderate-Income	$3,607	$7,943	$6,539	$5,493	$4,469
High-Income	$3,967	$8,829	$6,895	$5,921	$4,318
ALL BORROWERS	***$3,705***	***$7,680***	***$6,406***	***$5,249***	***$4,280***

While cost categories such as inspection fees, appraisal fees or survey fees are fixed, a portion of the loan costs are tied to the loan amount, which could explain some of the variations in median total loan costs (Crace, 2023). For example, at closing, a borrower pays prepaid daily interest, property insurance premiums, and origination fees, which are calculated as percent of total loan amount. Figure 8 below illustrates the variation in median total loan amounts by sub-group. In 2021, the median loan amount of all home purchase borrowers was $265,000. Among the loan types, the median loan amount of borrowers with VA-insured loans was higher than that of borrowers with conventional and other nonconventional loans. At $325,000, the median loan amount of Asian borrowers was the highest compared to the loans of other racial groups. Finally, high-income borrowers had the highest loan amount of all borrowers.

Figure 8: Median Loan Amount by Race, Ethnicity, and Income, 2021

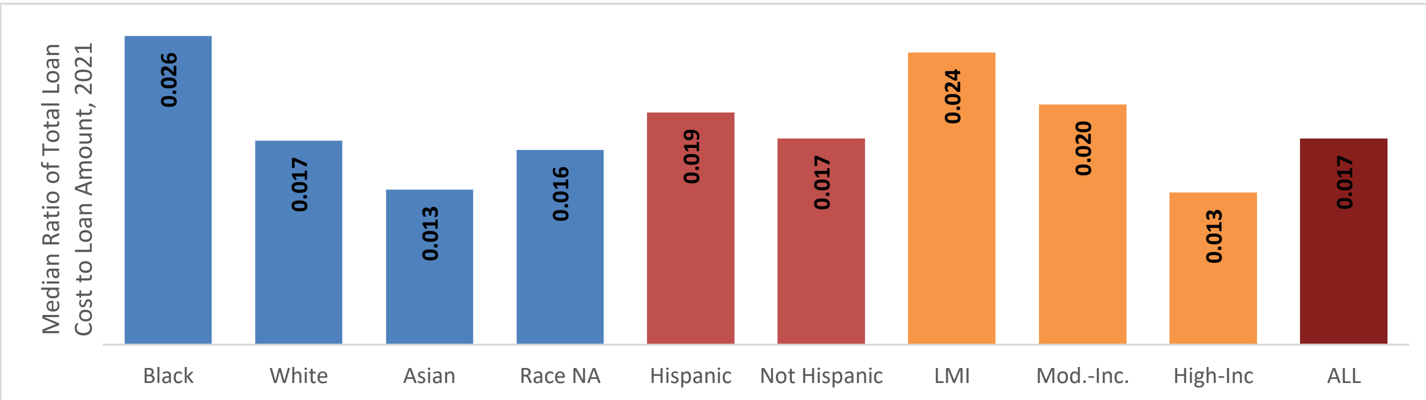


Accounting for the differences in loan amount indicates a more nuanced picture of how total loan costs vary by race, ethnicity, and income. One measure of this nuance is a median ratio of loan cost to loan amount. As Figure 9 illustrates, a median Asian borrower had a lower ratio of loan cost to loan amount, which suggests that the higher loan costs they paid at closing can be partly explained by the higher loan amounts they borrowed (which is likely indicative of more expensive homes).[18] Black borrowers had the highest median ratio of total loan cost to loan amount suggesting that they had either higher costs or lower loan amounts (or a combination of two). Even while borrowing less, Black borrowers, at the median, face higher total loan cost than borrowers in other race categories. Higher loan costs can be a factor limiting the homeownership opportunities for borrowers with limited income. First-time homebuyers in particular might have a more difficult time producing enough cash to pay for closing costs, which could discourage them from seeking homeownership and building wealth.

[18] A higher loan amount could be an indication of higher priced homes purchased even though, in the absence of downpayment amount, we cannot determine the purchase price. Therefore, it is possible that borrowers with equal loan amounts could either be ones that pay higher downpayments on higher priced homes, or lower downpayments on lower priced homes.

Ultimately, Black borrowers have the highest median total loan cost because they are most likely to utilize FHA-insured loans, which have higher overall costs than other types of mortgages despite having lower median loan amounts than other groups. This trend is punctuated by the fact that high-income borrowers have the highest median loan costs despite their proclivity to utilizing lower-cost conventional loans at higher rates than LMI borrowers because of higher median loan amounts.

Figure 9: Ratio of Total Loan Costs to Loan Amount by Race, Ethnicity and Income 2021



CONCLUSION

The costs of mortgages as measured by interest rates, rate spread, and median loan costs indicate that borrowers have varying experiences in the process of buying a home depending on their race, ethnicity, and income-level. These differences in mortgage costs might help us better understand why there are disparities in homeownership rates and wealth accumulation among various racial and ethnic groups.

After the pandemic, the monetary policy that aimed at keeping the economy strong without contracting led to declining interest rates, which benefited all mortgage applicants regardless of race, ethnicity, income or the loan type used. Even with declining interest rates, Black and LMI borrowers, at the median, continued paying more to receive a mortgage loan than their counterparts did, which was exacerbated by their heavy reliance on nonconventional, especially FHA-insured, mortgage products. Low interest rates are good for the homebuyers since the interest rate determines both the monthly house payment and the cost of mortgage for the life of the loan. For example, a homebuyer who is purchasing a home priced at $350,000 with a 3.5% downpayment (downpayment required for an FHA-insured loan) will pay nearly $100 more each month[19] if they receive a mortgage with a 4.5% interest rate rather than a 4.0% interest rate. Assuming that the borrower keeps their mortgage until the end of maturity in 30 years instead of refinancing or paying off, a borrower whose mortgage rate is 4.5% pays approximately $35,000 more over the life of the loan than a borrower who received a loan with a 4.0% interest rate.

After the housing market crash, the FHA became an important force in the mortgage industry filling the void that resulted from the conventional lenders who mostly left the industry. FHA-insured mortgage loans are particularly good alternatives for prospective homebuyers who do not have large amount of savings for downpayment and who have low credit scores and high DTI ratios. However, they are costlier than other type of loans, especially conventional loans.

It is important to ensure that FHA-insured loans remain a viable alternative for homebuyers of limited resources and blemished credit histories while making it less burdensome by lowering certain costs. The current presidential administration is taking steps to lower the cost of FHA-insured loans. For example, in February 2023, the Department of Housing and Urban Development (HUD) reduced the annual mortgage insurance premiums (annual MIP) charged to homebuyers who obtain an FHA-insured mortgage from 0.85 percent to 0.55 percent for most homebuyers. Higher loan costs might be discouraging especially for the first-time homebuyers without adequate cash to cover these costs.

In this brief, we looked at the interest rate, loan cost differences, and the interest rate charged on the loan without adjusting for some important factors that might influence the cost. For example, borrowers might pay for discount points that would allow them to reduce the interest rate, which is a tradeoff between a current cost and future loan cost for the life of the loan. It is possible that borrowers with lower interest rates obtained those rates by paying for discount points. Additionally, lenders use risk-based pricing, which means the interest rate charged on the loan depends on the applicants' credit risk factors such as credit score, debt-to-income ratio (DTI), employment history, and other factors. Unfortunately, HMDA data do not include these variables. Therefore, these results should be treated cautiously. Future research in this field could consider these additional factors to determine whether loan costs vary by race, ethnicity, and income after accounting for these factors.

[19] For only principal and interest (PI), not including insurance and property taxes.

APPENDIX

Table A1: Distribution of Interest Rates by Loan Type, Race, Ethnicity and Income, 2018-2021

	2018		2019		2020		2021	
Loan Type	**Mean**	**Median**	**Mean**	**Median**	**Mean**	**Median**	**Mean**	**Median**
Conventional	4.697	4.750	4.221	4.125	3.282	3.150	3.099	3.000
FHA	4.705	4.625	4.220	4.125	3.302	3.250	3.072	3.000
VA	4.552	4.500	4.013	3.990	3.083	3.000	2.852	2.750
FSA/RHS	4.696	4.625	4.167	4.125	3.259	3.250	2.990	2.875
Race								
Asian	4.499	4.500	3.993	3.990	3.099	3.000	2.904	2.875
Black	4.739	4.625	4.272	4.250	3.356	3.250	3.155	3.000
White	4.685	4.625	4.195	4.125	3.263	3.125	3.062	3.000
Missing/NA	4.635	4.625	4.139	4.050	3.191	3.125	3.009	2.990
Ethnicity								
Hispanic	4.770	4.750	4.312	4.125	3.335	3.125	3.201	3.000
Not Hispanic	4.678	4.625	4.189	4.125	3.261	3.150	3.054	3.000
Income								
Low-to-Moderate-Income	4.748	4.750	4.261	4.250	3.312	3.250	3.097	3.000
Moderate-Income	4.705	4.625	4.217	4.125	3.268	3.187	3.072	3.000
High-Income	4.621	4.625	4.134	4.000	3.219	3.125	3.027	2.990
ALL	***4.680***	***4.625***	***4.191***	***4.125***	***3.259***	***3.125***	***3.058***	***3.000***

Table A2: Distribution of Higher-Priced Loans by Loan Type, Race, Ethnicity and Income, 2018-2021

LOAN TYPE	**2018**	**2019**	**2020**	**2021**
Conventional	4%	5%	4%	3%
FHA	25%	32%	22%	22%
VA	1%	2%	2%	1%
USDA	2%	2%	3%	3%
RACE				
Asian	4%	4%	2%	2%
Black	16%	19%	15%	14%
Race NA	8%	8%	5%	4%
White	8%	10%	6%	5%
ETHNICITY				
Hispanic	13%	15%	10%	9%
Not Hispanic	8%	10%	7%	6%
INCOME				
Low-to-Moderate Income	11%	15%	10%	7%
Moderate-Income	9%	12%	8%	7%
High-Income	6%	7%	4%	4%
ALL BORROWERS	***8%***	***10%***	***7%***	***6%***

REFERENCES

Bayer, Ferreria and Ross (2014). "Race, Ethnicity and High-Cost Mortgage Lending." NBER Working Paper 20762. http://www.nber.org/papers/w20762

Bhutta, Hizmo and Ringo (2021). "How much does racial bias affect mortgage lending? Evidence from human and algorithmic credit decisions." Federal Reserve Board Working Paper. Available at: https://www.federalreserve.gov/econres/feds/files/2022067pap.pdf.

Bhutta and Hizmo (2021). "Do minorities pay more for Mortgages?" The Review of Financial Studies, 34, 763-789. An earlier version is available at: https://www.federalreserve.gov/econres/feds/files/2020007pap.pdf

Crase, Miranda (2023). "Closing Costs: What are they and how much will you pay?" Learn. https://www.rocketmortgage.com/learn/closing-costs