# TENNESSEE HOME LOAN TRENDS IN 2023:

## ANALYSIS FROM HOME MORTGAGE DISCLOSURE ACT (HMDA) DATA


Tennessee Housing Development Agency

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Tennessee Housing Development Agency

# EXECUTIVE SUMMARY

The 2023 mortgage landscape is characterized by a significant decline in refinance lending and a marked reduction in home purchase loan origination, primarily attributed to elevated home prices and interest rates. While these interest rates are historically normal, they are notably higher than those observed in 2020. The overall volume of mortgage originations has reached its lowest level in the past two decades, specifically since 2004. Although conventional loans continue to dominate the market, there has been a discernible increase in the proportion of government-backed loans, particularly among low- to moderate-income (LMI) borrowers. Despite some advancements in mortgage accessibility for Hispanic borrowers, racial disparities in loan approvals and denials persist, with Black borrowers experiencing higher denial rates and a greater dependence on more expensive loan products. These trends underscore the necessity for ongoing policy efforts aimed at enhancing mortgage affordability and addressing the racial inequities that pervade housing finance.

Tennessee experienced a significant decline in the total number of mortgage applications, which fell to 227,970 – a decrease of 31 percent compared to 2022. Correspondingly, mortgage originations (defined as the number of loans approved and funded) decreased by 32 percent, reaching the lowest level in the past six years. The sharp decline can be attributed to high interest rates, which rendered both home purchases and refinancing more costly for borrowers. Interest rates for 30-year fixed mortgages rose steadily, reaching nearly eight percent by the end of 2023. Homeowners who had previously capitalized on historically low interest rates during the pandemic were less likely to refinance in 2023 due to the elevated costs associated with new loans. Moreover, non-cash-out refinances, which had gained popularity in 2020 and 2021, saw a significant reduction as fewer homeowners perceived advantages in refinancing at higher rates.

Conventional loans remained the predominant form of financing in the market, accounting for 65 percent of home purchase loans in 2023, despite decreasing from 70 percent in 2022. In contrast, the share of government-insured loans—such as those backed by the Federal Housing Administration (FHA), Veterans Administration (VA), and Rural Housing Services (RHS—increased in 2023. Borrowers from minority racial groups, particularly Black and Hispanic borrowers, continued to exhibit a strong reliance on nonconventional loan products. Notably, in 2023, 60 percent of home purchase loans to Black borrowers were nonconventional, compared to 33 percent for White borrowers. Although nonconventional loans are accessible due to lower down payment requirements, they tend to be costlier over the long term. FHA-insured loans were especially prevalent among low- to moderate-income (LMI) borrowers, with the average loan cost for FHA borrowers being nearly 100 percent higher than that for conventional loan borrowers. This disparity highlights the financial challenges faced by lower-income households in accessing affordable mortgage products.

The proportion of home purchase loans originated for homebuyers in low-to-moderate income (LMI) neighborhoods experienced an increase. The share of loans for Hispanic borrowers increased in 2023, while the share of loans for Black borrowers remained steady compared to 2022. In this environment of declining loan volume, the rising proportion of high-income home purchase loan borrowers in comparison to a declining LMI borrower share highlights the challenges posed by escalating home prices and interest rates, which have significantly hindered home purchasing opportunities for LMI households aimed to build wealth.

The overall denial rate for home purchase loans decreased slightly to 8.2 percent in 2023, down from nearly nine percent in 2022. However, racial disparities in denial rates persisted, with Black applicants facing a denial rate of 16.1 percent, in contrast to 7 percent for White applicants. The debt-to-income ratio (DTI) emerged as the most frequently cited reason for loan denials across all racial groups, particularly for Asian and Black applicants. For those applying for refinancing, a poor credit history was identified as the primary reason for denial, followed closely by high DTI ratios.

# KEY FINDINGS

- **Mortgage loan originations for home purchase and refinance purposes hit a two-decade low. Tennessee saw nearly** 230,000 applications, resulting in 120,000 closed-end loans for home purchase, refinancing, and home improvement—a 31 percent decline from 2022. Overall, loan originations also declined by 32 percent in 2023 compared to 2022 (p.5).

- **Home purchase and refinance loan originations dropped by 19 percent and 57 percent respectively.** While mortgage activity slowed significantly compared to the pandemic surge, it appears to be returning to pre-pandemic levels (p.7).

- **The Federal Reserve's rate hikes in 2023 led to higher interest rates, discouraging homeowners from refinancing, especially for non-cash-out purposes.** Only 33 percent of refinance loan originations were not for cash-out purpose (p.7).

- **The share of home purchase loans originated for Black borrowers remained steady at 7.3 percent in 2023**. In contrast, the percentage for Hispanic borrowers increased to 8 percent up from 4.4 percent in 2018(p.12).

- **Most home purchase and refinance loans were originated in middle- and high-income neighborhoods.** Eighteen percent of all home purchase loans were originated for borrowers purchasing homes in low-to-moderate-income (LMI) neighborhoods, which was slightly higher than 17 percent in 2023. Thirty percent of all home purchase loans originated for Black borrowers were in in LMI neighborhoods, compared to 17 percent for White borrowers (p.13).

- **The denial rate for home purchase loans decreased across all race categories, with Black applicants experiencing denials at more than twice the rate of White applicants, even after accounting for debt-to-income ratio and income.** The denial rate for all applicants was 8.2 percent compared to 16.1 percent for Black applicants (p.15).

# INTRODUCTION

This study provides an annual assessment of mortgage market activity and lending patterns in Tennessee, utilizing data from the Home Mortgage Disclosure Act (HMDA). [i] The primary objective is to compare the demographic characteristics of borrowers and the types of lenders operating within the state, with a particular focus on the period following the 2018 revisions to HMDA reporting requirements.[ii] These regulatory changes have introduced new and modified data points, enabling a more comprehensive analysis of mortgage market dynamics. Unless otherwise specified, the findings presented pertain exclusively to mortgage applications and originations within Tennessee.

The aim of this report is to examine mortgage activity and evolving trends in Tennessee between 2018 and 2023. Central research questions addressed in this analysis include: How do mortgage trends in Tennessee during this period compare? How do conventional loans differ from government-insured loans, such as those under the Federal Housing Administration (FHA)? Are there regional variations in the purchase of investment properties and second homes? What are the primary factors contributing to loan denials? Each of these inquiries is examined through the lens of borrower demographics and geographical distribution, employing robust analytic frameworks to assess trends across social and spatial dimensions.

# FINDINGS

## A. Mortgage Applications and Originations

**1,264 institutions reported data on 227,970 closed-end home mortgage loan applications and purchased loans in Tennessee.[iii]** These loan applications led to 118,948 closed-end loan originations (regardless of occupancy, construction type or lien status, including both single-family and multifamily dwellings), for $38 billion. Both the number of applications and originations in 2023 were at the lowest level in this six-year period. Tennessee's loan applications were 31 percent lower than in 2022.

In Table 1, the number of loans reported to HMDA and distinct actions taken by the financial institutions are separated for 1-4 family, multifamily[iv] and manufactured dwellings. Loans for 1-4 family dwellings are further separated based on the loan purpose, which includes home purchase, refinance, and home improvement.

**Table 1: Total Loan Applications and Action Taken by the Financial Institutions, 2018-2023**

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Percent Change | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **ALL** | | | | | | | **18-19** | **19-20** | **20-21** | **21-22** | **22-23** |
| Applications* | 286,805 | 335,525 | 487,165 | 515,934 | 329,514 | 227,970 | 17% | 45% | 6% | -36% | -31% |
| Originated | 148,214 | 180,048 | 279,756 | 292,093 | 174,730 | 118,948 | 21% | 55% | 4% | -40% | -32% |
| Denied | 39,125 | 37,643 | 47,042 | 49,553 | 39,010 | 28,070 | -4% | 25% | 5% | -21% | -28% |
| Purchased** | 46,623 | 52,371 | 59,776 | 63,684 | 38,287 | 28,017 | 12% | 14% | 7% | -40% | -27% |
| Other*** | 52,843 | 65,463 | 100,591 | 110,604 | 77,487 | 52,935 | 24% | 54% | 10% | -30% | -32% |
| **1-4 Family** | | | | | | | | | | | |
| *Home Purchase* | | | | | | | **18-19** | **19-20** | **20-21** | **21-22** | **22-23** |
| Applications* | 167,232 | 176,369 | 188,565 | 198,342 | 170,705 | 138,661 | 5% | 7% | 5% | -14% | -19% |
| Originated | 97,018 | 104,355 | 115,333 | 119,412 | 100,471 | 81,113 | 8% | 11% | 4% | -16% | -19% |
| Denied | 10,342 | 9,903 | 11,591 | 10,841 | 10,220 | 7,701 | -4% | 17% | -6% | -6% | -25% |
| Purchased** | 36,873 | 36,440 | 31,629 | 34,361 | 27,443 | 23,036 | -1% | -13% | 9% | -20% | -16% |
| Other*** | 22,999 | 25,671 | 30,012 | 33,728 | 32,571 | 26,811 | 12% | 17% | 12% | -3% | -18% |
| *Refinancing* | | | | | | | **18-19** | **19-20** | **20-21** | **21-22** | **22-23** |
| Applications* | 92,295 | 131,056 | 269,933 | 285,289 | 123,136 | 56,561 | 42% | 106% | 6% | -57% | -54% |
| Originated | 41,861 | 65,694 | 154,359 | 160,701 | 61,123 | 26,556 | 57% | 135% | 4% | -62% | -57% |
| Denied | 18,747 | 18,388 | 25,941 | 29,341 | 18,254 | 9,691 | -2% | 41% | 13% | -38% | -47% |
| Purchased** | 8,797 | 14,994 | 27,579 | 28,545 | 9,473 | 4,076 | 70% | 84% | 4% | -67% | -57% |
| Other*** | 22,890 | 31,980 | 62,054 | 66,702 | 34,286 | 16,238 | 40% | 94% | 7% | -49% | -53% |
| *Home Improvement* | | | | | | | **18-19** | **19-20** | **20-21** | **21-22** | **22-23** |
| Applications* | 6,338 | 6,570 | 5,400 | 6,358 | 8,768 | 7,788 | 4% | -18% | 18% | 38% | -11% |
| Originated | 2,972 | 3,148 | 2,696 | 3,426 | 4,705 | 3,811 | 6% | -14% | 27% | 37% | -19% |
| Denied | 1,843 | 2,195 | 1,449 | 1,411 | 2,276 | 2,219 | 19% | -34% | -3% | 61% | -3% |
| Purchased** | 494 | 164 | 137 | 110 | 53 | 40 | -67% | -16% | -20% | -52% | -25% |
| Other*** | 1,029 | 1,063 | 1,118 | 1,411 | 1,734 | 1,718 | 3% | 5% | 26% | 23% | -1% |
| **Multifamily** | | | | | | | | | | | |
| Applications* | 982 | 1,090 | 1,134 | 1,328 | 1,399 | 859 | 11% | 4% | 17% | 5% | -39% |
| Originated | 796 | 888 | 946 | 1,159 | 1,175 | 669 | 12% | 7% | 23% | 1% | -43% |
| Denied | 75 | 78 | 72 | 55 | 91 | 58 | 4% | -8% | -24% | 65% | -36% |
| Purchased** | 1 | 3 | 2 | NA | 1 | 6 | 200% | -33% | NA | NA | 500% |
| Other*** | 110 | 121 | 114 | 114 | 132 | 126 | 10% | -6% | 0% | 16% | -5% |
| **Manufactured** | | | | | | | | | | | |
| Applications* | 19,958 | 20,440 | 22,133 | 24,617 | 25,506 | 24,101 | 2% | 8% | 11% | 4% | -6% |
| Originated | 5,567 | 5,963 | 6,422 | 7,395 | 7,256 | 6,799 | 7% | 8% | 15% | -2% | -6% |
| Denied | 8,118 | 7,079 | 7,989 | 7,905 | 8,169 | 8,401 | -13% | 13% | -1% | 3% | 3% |
| Purchased** | 458 | 770 | 429 | 668 | 1,317 | 859 | 68% | -44% | 56% | 97% | -35% |
| Other*** | 5,815 | 6,628 | 7,293 | 8,649 | 8,764 | 8,042 | 14% | 10% | 19% | 1% | -8% |

*Applications reported by financial institutions to HMDA during the year regardless of the action taken, lien status or occupancy type. Only open-end LOCs (except reverse mortgage) and loans for purposes other than purchase, refinance and home improvement are excluded.

**Purchased includes loans purchased by the financial institution during the year.

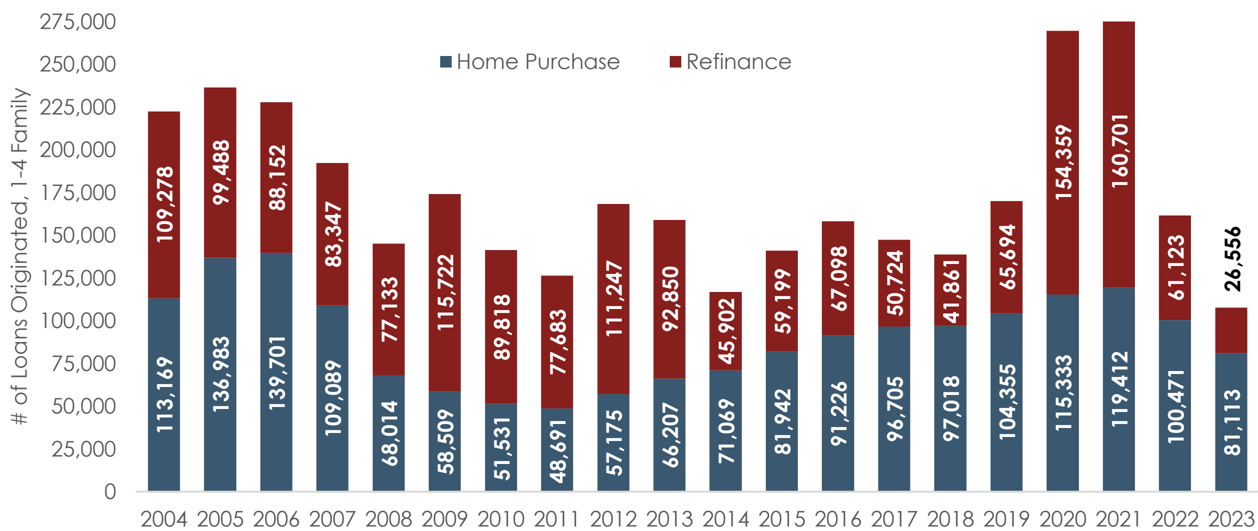
***Other includes: Applications that were approved but not accepted by the applicant, applications withdrawn by the applicant, and files closed for incompleteness, Preapproval Requests that were denied and Preapproval Requests that were approved but not accepted by the applicant.

Approximately 200,000 (89 percent of total) applications were for 1-4 family site-built homes (including purchase, refinance, and home improvement loans); 859 were for site-built multifamily dwellings; and the remaining 24,101 loan applications were for manufactured homes (both 1-4 family and multifamily).

## B. Loan Purpose

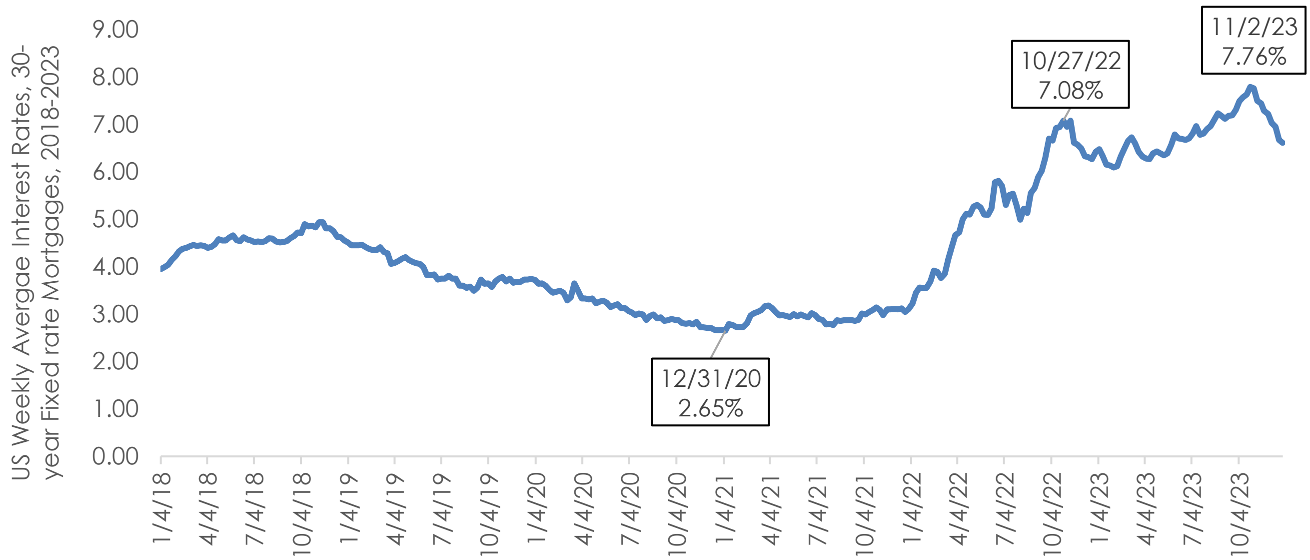
Loan originations for 1-4 family site-built homes declined by 33 percent from 2022 to 2023. Focusing specifically on loans originated for home purchase and refinance purposes,[v] the total originations in 2023 reached its lowest level in two decades, a figure not observed since 2004, when THDA began tracking mortgage trends using HMDA data. The last instance in which mortgage origination volumes in Tennessee fell below the current levels occurred in 2014, when total originations decreased by 26 percent relative to 2013. In both 2014 and 2023, the most substantial factor contributing to the overall decline in originations was the sharp reduction in refinance loans. Between 2013 and 2014, refinance loan originations declined by 51 percent while a more pronounced decline of 57 percent was observed between 2022 and 2023. By 2023, refinance loans only accounted for one quarter of total originations, marking the lowest level in 20 years.

**Figure 1: Mortgage Loans Originated for 1-4 Family, Site-Built Dwellings, 2004-2023**




The low levels of refinance loan originations in the last two years were likely the result of homeowners' reaction to the increasing interest rates that started toward the end of 2021 as the Federal Reserve Bank pushed the fund rates up to curb the inflation. According to Freddie Mac's Primary Mortgage Market Survey,[vi] the average rate for a 30-year fixed mortgage continued to increase in 2022 and 2023, reaching almost eight percent, making home purchase and refinancing harder and costlier compared to the immediate years following the pandemic. The trend in average interest rate for 30-year fixed rate mortgages is illustrated in Figure 2.

**Figure 2: Weekly Average U.S. Interest Rate for 30-Year Fixed Mortgages, Freddie Mac, Primary Mortgage Market Survey, 2018-2023**




**Both cash-out and non-cash-out refinance[vii] volumes declined, contributing to a 61 percent reduction in total refinance originations.** This trend is linked to the continued rise in interest rates throughout the year, which further suppressed refinance activity. In 2020 and 2021, when interest rates were at historically low levels, many homeowners took advantage of favorable conditions to refinance their existing mortgages. During that time, a substantial portion of refinance mortgage loans were non-cashout refinances to secure lower interest rates and improved loan terms. For instance, in 2020—when the refinance loan volume more than doubled—72 percent of originated refinance mortgage loans were non-cash-out refinances, a trend that prevailed in 2021. Total refinance loan volume declined to nearly half of the levels observed in 2018 with only one-third of those refinances aimed at improving rates and terms.

**Non-cash-out refinance volume diminished significantly over the past two years, as higher interest rates provided few opportunities for homeowners to secure better financial conditions through refinancing.** In high-interest rate environments, refinance activity is generated from cash-out refinances, where homeowners might still tap into their home equity to address financial needs such as debt repayment, medical expenses and other financial obligations.[viii]

**Table 2: First-lien Refinance Loans Originated for 1-4 Family, Site-Built Dwellings by Purpose, 2018-2023**

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Year-over-Year % Change | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 |
| Total Refinance | 40,826 | 64,691 | 153,694 | 160,227 | 59,738 | 23,579 | 58% | 138% | 4% | -63% | -61% |
| Non-Cash-Out Refinance | 17,665 | 35,737 | 111,332 | 98,127 | 19,534 | 7,812 | 102% | 212% | -12% | -80% | -60% |
| Cash-out Refinance | 23,161 | 28,954 | 42,362 | 62,100 | 40,204 | 15,767 | 25% | 46% | 47% | -35% | -61% |
| Non-Cash-Out Refi % of Total Refi | 43% | 55% | 72% | 61% | 33% | 33% | | | | | |
| Cash-out Refi % of Total Refi | 57% | 45% | 28% | 39% | 67% | 67% | | | | | |

Mortgage loan originations for owner-occupied properties constituted 87 percent of all home purchase loan originations, marking an increase from 84 percent in the previous year. After a 30 percent decline in the volume, the share of home purchase loans for investment purposes declined to 11 percent in 2023.

**Table 3: First-lien Home Purchase Loans Originated for 1-4 Family, Site-Built Dwellings by Occupancy, 2018-2023**

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Percent Change | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 |
| Total Home Purchase Loans | 96,075 | 102,933 | 114,145 | 118,311 | 99,136 | 78,934 | 7% | 11% | 4% | -16% | -20% |
| For Owner Occupancy | 84,275 | 89,813 | 100,679 | 100,266 | 83,495 | 68,542 | 7% | 12% | 0% | -17% | -18% |
| For Second Residences | 3,273 | 3,844 | 4,699 | 5,764 | 3,623 | 1,975 | 17% | 22% | 23% | -37% | -45% |
| For Investment Properties | 8,527 | 9,276 | 8,767 | 12,281 | 12,018 | 8,417 | 9% | -5% | 40% | -2% | -30% |
| Owner-Occupied % of Total | 88% | 87% | 88% | 85% | 84% | 87% | | | | | |
| Second Residences % of Total | 3% | 4% | 4% | 5% | 4% | 3% | | | | | |
| Investment % of Total | 9% | 9% | 8% | 10% | 12% | 11% | | | | | |

## C. Trends in First-Lien Mortgage Loans on Owner-Occupied, 1-4 Family Dwellings[ix]

The number of closed-end, first-lien home purchase loan originations for owner-occupied, site-built, 1-4 family dwellings declined from the previous year in all MSAs. Table 4 provides a look at trends in home purchase loan originations in MSAs[x] between 2018 and 2023.

**Table 4: First-Lien Home Purchase Loans Originated for Owner-Occupied 1-4 Family Dwellings, 2018-2023, MSA**

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Percent Change | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 18-23 |
| Chattanooga | 5,040 | 5,699 | 6,258 | 6,379 | 5,312 | 4,377 | 13% | 10% | 2% | -17% | -18% | -13% |
| Clarksville | 5,011 | 5,264 | 6,209 | 6,666 | 5,428 | 4,050 | 5% | 18% | 7% | -19% | -25% | -19% |
| Cleveland | 1,378 | 1,429 | 1,669 | 1,743 | 1,479 | 1,166 | 4% | 17% | 4% | -15% | -21% | -15% |
| Jackson | 1,811 | 1,914 | 2,027 | 2,053 | 1,742 | 1,408 | 6% | 6% | 1% | -15% | -19% | -22% |
| Johnson City | 2,088 | 2,282 | 2,513 | 2,648 | 2,174 | 1,709 | 9% | 10% | 5% | -18% | -21% | -18% |
| Kingsport-Bristol | 2,188 | 2,489 | 2,887 | 2,897 | 2,357 | 1,955 | 14% | 16% | 0% | -19% | -17% | -11% |
| Knoxville | 11,955 | 12,569 | 14,201 | 14,120 | 11,723 | 9,172 | 5% | 13% | -1% | -17% | -22% | -23% |
| Memphis | 9,841 | 9,911 | 10,601 | 10,297 | 8,633 | 7,242 | 1% | 7% | -3% | -16% | -16% | -26% |
| Morristown | 1,401 | 1,405 | 1,571 | 1,715 | 1,614 | 1,297 | 0% | 12% | 9% | -6% | -20% | -7% |
| Nashville | 31,382 | 33,706 | 38,197 | 36,093 | 29,358 | 25,086 | 7% | 13% | -6% | -19% | -15% | -20% |
| Balance of State | 12,180 | 13,145 | 14,546 | 15,655 | 13,675 | 11,080 | 8% | 11% | 8% | -13% | -19% | -9% |
| TENNESEE | 84,275 | 89,813 | 100,679 | 100,266 | 83,495 | 68,542 | 7% | 12% | 0% | -17% | -18% | -19% |

**The downward trend in home purchase loan originations persisted through 2023 across all MSAs, resulting in origination volumes that fell below 2018 levels, prior to the onset of the COVID-19 pandemic.** Every MSA in the state, and the state overall, experienced double-digit declines loan originations, with year-over-year reductions ranging from 15 percent in the Nashville MSA to 25 percent in the Clarksville MSA. In all MSAs, the volume of home purchase loans was lower than levels observed in 2018. Home purchase loans decreased in all counties except Van Buren and Trousdale Counties, where they increased, and in Pickett County, where they remained stable. The rate of decline was higher in rural counties with low mortgage activity. Among counties with more than 1,000 home purchase loan originations, Montgomery County registered the most significant decline, with a 25 percent reduction in 2023. Additionally, first-lien refinance loan origination volumes were lower in 2023 than in 2022 in all MSAs.

**Table 5: First-Lien *Refinance* Loans Originated for Owner-Occupied 1-4 Family Dwellings, 2018-2023, MSA**

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Percent Change 18-19 | 19-20 | 20-21 | 21-22 | 22-23 | 18-23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Chattanooga | 2,198 | 3,467 | 8,722 | 9,297 | 3,204 | 1,162 | 58% | 152% | 7% | -66% | -64% | -47% |
| Clarksville | 1,087 | 2,228 | 5,389 | 6,060 | 2,395 | 1,012 | 105% | 142% | 12% | -60% | -58% | -7% |
| Cleveland | 575 | 875 | 2,026 | 2,278 | 878 | 358 | 52% | 132% | 12% | -61% | -59% | -38% |
| Jackson | 624 | 883 | 2,071 | 2,337 | 1,026 | 527 | 42% | 135% | 13% | -56% | -49% | -16% |
| Johnson City | 866 | 1,217 | 2,980 | 3,338 | 1,265 | 526 | 41% | 145% | 12% | -62% | -58% | -39% |
| Kingsport-Bristol | 988 | 1,290 | 2,820 | 3,267 | 1,277 | 575 | 31% | 119% | 16% | -61% | -55% | -42% |
| Knoxville | 4,628 | 7,499 | 18,911 | 20,340 | 7,346 | 2,713 | 62% | 152% | 8% | -64% | -63% | -41% |
| Memphis | 3,718 | 6,151 | 16,296 | 16,751 | 5,556 | 2,144 | 65% | 165% | 3% | -67% | -61% | -42% |
| Morristown | 671 | 997 | 1,910 | 2,318 | 1,024 | 362 | 49% | 92% | 21% | -56% | -65% | -46% |
| Nashville | 14,634 | 26,283 | 65,185 | 62,287 | 18,996 | 5,763 | 80% | 148% | -4% | -70% | -70% | -61% |
| Balance of State | 6,441 | 8,837 | 18,217 | 21,188 | 10,201 | 4,907 | 37% | 106% | 16% | -52% | -52% | -24% |
| Total | 36,430 | 59,727 | 144,527 | 149,461 | 53,168 | 20,049 | 64% | 142% | 3% | -64% | -62% | -45% |

## D. Conventional versus Government-Insured Loans

Conventional loans comprised 65 percent of all originated home purchase loans, a decline from 70 percent in 2022, though still higher than 59 percent in 2018. Following the housing market crash in 2008, many conventional lenders ceased originating mortgage loans, significantly limiting financing options for prospective homebuyers. During this period, government programs played a crucial role in filling the gap, insuring mortgages through Federal Housing Administration (FHA), Veterans Administration (VA) and USDA's Rural Housing Services (RHS). Over the years, changes in the mortgage insurance premium (MIP) structure of FHA-insured loans led to fluctuations in the share of FHA-insured home purchase loan originations.[xi] 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. This policy change may have contributed to the increase in the share of FHA-insured loans in 2023.

Historically, a relatively higher portion of refinance mortgage loans are conventional compared to purchase loans. In 2022, the share of conventional loans within originated refinance loans declined, while FHA-insured refinance loans increased. This trend persisted in 2023, with a further, albeit modest decline in the share of conventional refinance loans accompanied by a continued rise in the proportion of FHA-insured refinance mortgage originations.

**Table 6: First-Lien Loans Originated for Owner-Occupied 1-4 Family Dwellings Share by Loan Type, 2018-2023**

| Home Purchase | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| Conventional | 59% | 61% | 63% | 67% | 70% | 65% |
| FHA | 22% | 21% | 19% | 16% | 15% | 21% |
| VA | 12% | 13% | 12% | 12% | 12% | 13% |
| FSA/RHS | 6% | 5% | 6% | 5% | 3% | 2% |
| **Refinance** | **2018** | **2019** | **2020** | **2021** | **2022** | **2023** |
| Conventional | 70% | 66% | 75% | 78% | 74% | 56% |
| FHA | 17% | 16% | 9% | 9% | 14% | 29% |
| VA | 14% | 18% | 16% | 13% | 12% | 15% |
| FSA/RHS | 0% | 0% | 0% | 0% | 0% | 0% |

## E. Loans by Occupancy

Starting in 2018, the occupancy field was modified to require financial institutions to specify whether a loan application was intended for a principal residence, second residence, or investment property, rather than the previous binary classification of "owner-occupied" versus "non-owner-occupied." **Across Tennessee, the majority of first-lien loan originations for single-family, site-built dwellings were for principal residences, a trend that has remained consistent over the past five years, particularly in the case of refinance loans. Mortgages for investment properties were more common for home improvement loans.**

Sevier County, with 430 first-lien mortgage loans originated for site-built single-family dwellings (regardless of loan purpose), ranked first in the state for the highest number of loans for second residences, such as vacation properties. This was followed by Davidson County, continuing the pattern of previous years. Notably, loans for second residences in Sevier County accounted for one-fifth of all such loans originated across the state. In Shelby County, nearly 2,400 mortgage loans were originated for investment properties, the highest number in the state, closely followed by Davidson County.

Nearly all loans originated for second residences and investment properties were conventional loans. The FHA and VA insured a limited number of refinance loans for investment properties, government-insured loans were nonexistent especially in the second residence loan market.

## F. Demographic[xii] and Income Trends[xiii]

HMDA data allow for the detailed examination of loan applications, originations, and denials based on demographic characteristics. HMDA provides information on race, ethnicity, and gender for both applicants and co-applicants, when available.[xiv] Additionally, financial institutions that report HMDA also disclose loan amounts requested, and the incomes of applicants, which are considered in underwriting decisions. However, it is important to note that income information is not always required (for further details, refer to the Methodology Section).

A significant limitation of HMDA data is the frequent absence of demographic information, particularly concerning race and ethnicity, which hinders the ability to assess whether there have been improvements in minority applicants' access to mortgage loans. However, a detailed analysis of missing information indicates that any bias associated with coverage is consistent across years.[xv] For first lien closed-end mortgages for 1-4 family site-built homes, the percentages of applicants with missing race or ethnicity information increased from 22 percent in 2018 to 37 percent in 2023. The median income and median loan amount for those without race information were usually higher than for White and Black applicants, and lower than for Asian applicants.[xvi] The median income of the applicants denoted as "Race NA" was $92,000, while the median income of White applicants was $93,000 and for Asian applicants was $126,000. A more comprehensive analysis of applicants with missing race and/or ethnicity information is provided in the methodology section at the conclusion of this report.

**Table 7: Borrower Race and Purpose of the Home Purchase Loans Originated, 2018-2023**

| Borrower Race | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|
| American Indian | 0.2% | 0.3% | 0.3% | 0.3% | 0.3% | 0.4% |
| Asian | 2.3% | 2.2% | 2.1% | 2.8% | 3.2% | 3.5% |
| Black | 7.5% | 7.3% | 7.6% | 7.6% | 7.3% | 7.3% |
| Native Hawaiian | 0.1% | 0.1% | 0.1% | 0.1% | 0.1% | 0.1% |
| White | 80.9% | 80.1% | 79.6% | 77.1% | 75.8% | 75.2% |
| Other* | 1.5% | 1.6% | 1.7% | 1.9% | 2.1% | 2.4% |
| Race NA | 7.5% | 8.5% | 8.6% | 10.2% | 11.1% | 11.1% |
| **Borrower Ethnicity** | **2018** | **2019** | **2020** | **2021** | **2022** | **2023** |
| Hispanic or Latino | 4.4% | 4.9% | 5.5% | 6.2% | 6.9% | 8.1% |
| TOTAL Loans | 84,275 | 89,813 | 100,679 | 100,266 | 83,495 | 68,542 |

*NOTE: First lien mortgage loans originated for one-to-four family, site-built, owner-occupied homes.*

**Other includes 2 or more races, joint and text only categories.*

Between 2018 and 2023, the share of home purchase loans originated for White borrowers declined from 81 percent to 75 percent, while the share of loans originated for borrowers without race information[xvii] increased from 7.5 percent to 11.1 percent. The share of home purchase loans originated for Black borrowers exhibited minor fluctuations from 2018 to 2023, beginning at 7.5 percent in 2018 and ending at 7.3 percent, with no change between 2022 to 2023. The share of Asian borrowers among home purchase loan originations saw a modest increase, rising to 3.5 percent from 3.2 percent in 2022.

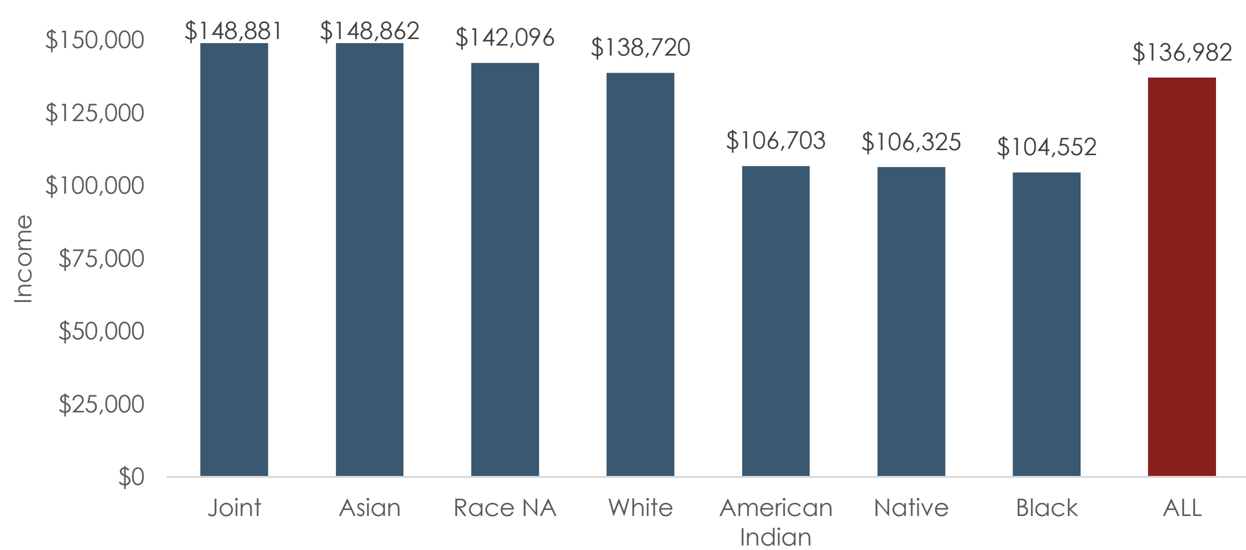
**Although the racial composition of originated home purchase loans remained relatively stable during this period, the share of loans originated for Hispanic borrowers continued its steady upward trajectory, reaching 8.1 percent in 2023—a full one percentage point increase from 2022. Notably, in 2018, Hispanic borrowers represented less than five percent of all home purchase loan borrowers**.

The distribution of refinance loan originations by race and income categories mirrored the trends observed in home purchase loan originations between 2018 and 2023. The share of refinance loans for Black borrowers increased to 11 percent compared to 10 percent in 2022, while the share of refinance loans originated for White borrowers declined from 73 percent to 71 percent in the same period. Markedly, the share of loans for borrowers with unreported racial and ethnic information was higher among refinance loan originations and increased in 2023 compared to 2022, as did trends observed in home purchase loan originations.

Shelby County had the highest percent of Black home purchase loan borrowers in 2023, with 28 percent of total borrowers, followed by Hardeman County (24 percent) and Haywood County (23 percent). These counties have consistently ranked highest for the share of Black borrowers since 2018, correlating strongly with their respective demographics. However, in each of these counties, the share of Black borrowers in total originated home purchase loans declined from the previous year.

The median income of home purchase loan borrowers[xviii] was $99,000 and the average income was $137,000. Black borrowers had the lowest average income at $105,000 among all other race groups. Borrowers without race information had slightly higher average incomes than White borrowers, but remained below that of Asian borrowers and those classified as joint-race applicants.[xix]

**Figure 3: Average Income by Race, Home Purchase Loans Originated, 2023**




Income levels varied significantly based on the type of mortgage product, with distinct differences between conventional and government-insured loans. The median income of borrowers securing conventional loans was $110,000, an increase from $100,000 in the previous year (unadjusted for inflation). In contrast, borrowers applying for FSA/RHS insured loan had a median income of $72,000, while FHA-insured loan applicants reported a median income of $84,000. Williamson County exhibited the highest median income for home purchase loan borrowers at $198,000, followed by Davidson County at $119,000.

Conversely, the lowest median incomes were recorded in Lake County ($55,000) and Lauderdale County ($61,000). Additionally, an analysis compared applicants' income to the estimated Area Median Family Income (AMFI)[xx] of the census tract where loan applications were submitted, to assess the distribution of loan applications, originations and denials among low-income applicants.[xxi] This analysis also explored variations in loan terms based on income. The percent of LMI borrowers among home purchase loan borrowers declined to 23 percent from 26 percent in 2022. However, among refinance loan originations, loans for LMI borrowers increased to 38 percent of all refinances in 2023, up from 31 percent in 2018. A similar upward trend was observed in the percentage of refinance loans for middle-income applicants. Alongside increases in refinance borrowers of LMI and middle-income backgrounds, a large decline in percent of borrowers with missing income information was also observed.

**Table 8: Originated Loans by Borrower Income and Loan Purpose, 2018-2023**

| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Borrower | Home Purchase Loans | | | | | | Refinance Loans | | | | | |
| LMI | 28% | 26% | 28% | 26% | 26% | 23% | 31% | 22% | 17% | 22% | 37% | 38% |
| Middle Income | 27% | 27% | 28% | 27% | 28% | 29% | 24% | 21% | 19% | 22% | 27% | 28% |
| High Income | 44% | 45% | 43% | 45% | 45% | 47% | 39% | 41% | 44% | 42% | 33% | 31% |
| Missing | 1% | 1% | 1% | 1% | 1% | 1% | 6% | 17% | 20% | 15% | 4% | 3% |
| Total Loans | 84,275 | 89,813 | 100,679 | 100,266 | 83,495 | 68,542 | 36,430 | 59,727 | 144,527 | 149,461 | 53,168 | 20,049 |

Census tracts are categorized as low-to-moderate-income (LMI) tracts, middle-income tracts, or high-income tracts, based on the ratio of census tract median family income to AMFI.[xxii] The following table provides a breakdown of closed-end first-lien loans originated for site-built, 1-4 family dwellings, segmented by tract income and loan purpose.

**Table 9: Originated Loans by Neighborhood Characteristics and Loan Purpose, 2018-2023**

| | Home Purchase | | | | | | Refinance | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tract | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| LMI | 12,566 | 13,522 | 15,001 | 15,630 | 14,370 | 12,487 | 5,794 | 7,891 | 15,812 | 18,302 | 8,290 | 3,757 |
| Moderate | 39,322 | 41,566 | 47,371 | 47,788 | 40,561 | 33,274 | 18,048 | 28,282 | 62,507 | 68,251 | 27,613 | 10,893 |
| High | 32,101 | 34,455 | 37,957 | 36,545 | 27,948 | 22,337 | 12,423 | 23,377 | 65,769 | 62,510 | 16,876 | 5,234 |
| Missing | 286 | 270 | 350 | 303 | 616 | 444 | 165 | 177 | 439 | 398 | 389 | 165 |
| ALL LOANS | 84,275 | 89,813 | 100,679 | 100,266 | 83,495 | 68,542 | 36,430 | 59,727 | 144,527 | 149,461 | 53,168 | 20,049 |
| % in LMI | 15% | 15% | 15% | 16% | 17% | 18% | 16% | 13% | 11% | 12% | 16% | 19% |

**Lenders predominately originated home purchase and refinance loans in middle- and high-income neighborhoods.** LMI neighborhoods accounted for 15 percent of all home purchase loan originations between 2018 and 2020, which rose to 18 percent in 2023. In contrast, the proportion of refinance loans in LMI neighborhoods was lower during 2020 and 2021 compared to pre-pandemic levels. However, this share rebounded to 2018 levels by 2022 and exceeded pre-pandemic proportions in 2023. Disparities in loan origination by borrower demographics were also observed. Thirty percent of all home purchase loans originated for Black borrowers were in LMI neighborhoods, compared to 17 percent of loans for White borrowers in similar neighborhoods, indicating an overrepresentation of Black borrowers in LMI tracts.

**Table 10: Originated Loans by Neighborhood Characteristics, Race and Loan Purpose, 2023**

| | Home Purchase | | | | | | Refinance | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tract | White | Black | NA | Other | Hispanic | Total | White | Black | NA | Other | Hispanic | Total |
| LMI-tract | 8,937 | 1,508 | 1,384 | 658 | 1,306 | 12,487 | 2,292 | 735 | 643 | 87 | 128 | 3,757 |
| Middle-Income-tract | 25,670 | 2,188 | 3,629 | 1,787 | 2,691 | 33,274 | 8,053 | 977 | 1,640 | 223 | 307 | 10,893 |
| High-Income-tract | 16,567 | 1,294 | 2,581 | 1,895 | 1,492 | 22,337 | 3,762 | 488 | 835 | 149 | 140 | 5,234 |
| Missing | 362 | 27 | 31 | 24 | 45 | 444 | 146 | 7 | 9 | 3 | 5 | 165 |
| Total by Race | 51,536 | 5,017 | 7,625 | 4,364 | 5,534 | 68,542 | 14,253 | 2,207 | 3,127 | 462 | 580 | 20,049 |
| % in LMI Tract | 17% | 30% | 18% | 15% | 24% | 18% | 16% | 33% | 21% | 19% | 22% | 19% |

Based on their reported income, 33 percent of Black borrowers and 29 percent of Hispanic home purchase loan borrowers had incomes at or below 80 percent of Area Median Income (AMI), thereby qualifying as LMI compared to 23 percent of all home-purchase loan borrowers who were LMI in 2023.

**Table 11: Originated Home Purchase Loans by Borrower Race, Ethnicity and Income, 2023**

| | Black | NA | Other | White | ALL | Hispanic |
|---|---|---|---|---|---|---|
| Low-to-mod-Income | 1,676 | 1,621 | 713 | 11,769 | 15,779 | 1,621 |
| Middle-Income | 1,651 | 2,131 | 1,225 | 14,882 | 19,889 | 1,814 |
| High-Income | 1,663 | 3,805 | 2,407 | 24,361 | 32,236 | 2,040 |
| Missing | 27 | 68 | 19 | 524 | 638 | 59 |
| Total | 5,017 | 7,625 | 4,364 | 51,536 | 68,542 | 5,534 |
| LMI Borrowers % of Total | 33% | 21% | 16% | 23% | 23% | 29% |

**Borrowers of color, with the exception of Asian borrowers, rely heavily on nonconventional loan products.** The table below provides a breakdown of originated conventional and nonconventional[xxiii] home purchase loans by borrower race and ethnicity. The right-hand panel represents the share of nonconventional loans among each race or ethnic group as a share of total loan originations (both conventional and nonconventional) for that group. Nineteen percent of loans made to Asian borrowers were nonconventional loan products, while 60 percent of loans made to Black borrowers utilized nonconventional loan products. Nonconventional loans, typically characterized by lower downpayment requirements, may appeal to households with lower income levels. However, these loan products often carry higher long-term costs compared to conventional loans, potentially increasing the financial burden on borrowers.

**Table 12: Home Purchase Loans, Borrower Race, Nonconventional Loans, 2018-2023**

| | Conventional and Non-Conventional | | | | | | % Non-Conventional | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Race/Ethnicity | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
| Asian | 1,935 | 1,979 | 2,156 | 2,769 | 2,651 | 2,392 | 17% | 17% | 18% | 13% | 12% | 19% |
| Black | 6,350 | 6,540 | 7,637 | 7,619 | 6,124 | 5,017 | 68% | 64% | 61% | 56% | 53% | 60% |
| White | 68,168 | 71,945 | 80,112 | 77,311 | 63,306 | 51,536 | 39% | 38% | 36% | 31% | 28% | 33% |
| Joint | 1,145 | 1,322 | 1,609 | 1,762 | 1,686 | 1,540 | 46% | 44% | 43% | 35% | 35% | 43% |
| Race NA | 6,309 | 7,624 | 8,691 | 10,272 | 9,253 | 7,625 | 37% | 36% | 36% | 33% | 31% | 37% |
| Other Minority | 368 | 403 | 474 | 533 | 475 | 432 | 54% | 53% | 47% | 47% | 45% | 51% |
| *ALL LOANS* | *84,275* | *89,813* | *100,679* | *100,266* | *83,495* | *68,542* | *41%* | *39%* | *37%* | *33%* | *30%* | *35%* |
| Hispanic-Latino | 3,721 | 4,378 | 5,570 | 6,261 | 5,773 | 5,534 | 50% | 47% | 45% | 38% | 36% | 42% |

*NOTE: "Other Minority" includes American Indian, Native Hawaiian, 2- or more-minority races and text only categories*

The following table displays the average cost paid by home purchase loan borrowers between 2018 and 2023 depending on loan type.[xxiv] Every year between 2018 and 2023, on average, nonconventional loans were costlier than conventional loans. FHA loan borrowers in particular paid nearly 100 percent more than what conventional loan borrowers paid in any given year. On average, borrowers who used FSA/RHS insured loans had the average total loan cost comparable to the conventional loan borrowers.[xxv]

**Table 13: Average Loan Cost Paid by Borrower by Loan Type, 2018-2023**

| | Average Loan Cost by Loan Type | | | | | Average Loan Cost % of Conventional | | |
|---|---|---|---|---|---|---|---|---|
| Year | Conventional | FHA | VA | FSA/RHS | ALL LOANS | FHA | VA | FSA/RHS |
| 2018 | $3,658 | $6,655 | $5,553 | $4,436 | $4,625 | 1.82 | 1.52 | 1.21 |
| 2019 | $3,973 | $7,270 | $5,873 | $4,767 | $4,987 | 1.83 | 1.48 | 1.20 |
| 2020 | $3,856 | $7,724 | $6,808 | $5,160 | $5,055 | 2.00 | 1.77 | 1.34 |
| 2021 | $4,266 | $8,129 | $7,710 | $5,373 | $5,354 | 1.91 | 1.81 | 1.26 |
| 2022 | $5,851 | $10,340 | $9,045 | $6,349 | $6,943 | 1.77 | 1.55 | 1.09 |
| 2023 | $6,277 | $11,670 | $8,746 | $7,260 | $7,751 | 1.86 | 1.39 | 1.16 |

## G. Denial Rates and Denial Reasons

**The denial rate for home purchase loans decreased across nearly all racial and ethnic groups.**[xxvi] **The overall denial rate for all applicants was 8.2 percent, down from approximately nine percent in 2022.** For Black applicants, the denial rate remained comparatively high at 16.1 percent, reflecting a marginal increase from the previous year. The denial rate of Black applicants was higher than other race groups each year. Black applicants consistently experienced higher denial rates than other racial groups throughout the study period. The group classified as "Other Minority," which includes American Indian, Native Hawaiian, and applicants identifying with two or more minority races, recorded the second-highest denial rates after Black applicants. Additionally, the denial rate for "Joint" race applicants rose from 7.1 percent in 2022 to 7.7 percent in 2023. Hispanic applicants for home purchase loans experienced relatively lower denial rates compared to the previous year

**Table 14: Denial Rates, Home Purchase, Conventional and Nonconventional, Race and Ethnicity, 2018-2023**

| | ALL | Asian | Black | Joint | Missing | Other | White | Hispanic | Not Hispanic | Ethnicity Missing |
|---|---|---|---|---|---|---|---|---|---|---|
| 2018 | 9.4% | 10.9% | 16.0% | 9.2% | 13.0% | 14.8% | 8.3% | 11.5% | 8.9% | 13.5% |
| 2019 | 8.5% | 10.3% | 15.4% | 7.1% | 12.0% | 12.7% | 7.4% | 11.3% | 8.0% | 11.7% |
| 2020 | 8.9% | 11.1% | 16.9% | 7.8% | 11.3% | 13.8% | 7.7% | 10.9% | 8.5% | 11.5% |
| 2021 | 8.0% | 8.3% | 13.5% | 6.4% | 10.1% | 13.9% | 7.1% | 9.6% | 7.6% | 10.1% |
| 2022 | 8.9% | 11.9% | 16.0% | 7.1% | 11.2% | 14.0% | 7.7% | 10.7% | 8.4% | 11.0% |
| 2023 | 8.2% | 9.4% | 16.1% | 7.7% | 10.4% | 12.4% | 7.0% | 10.4% | 7.7% | 10.4% |

Black applicants faced significantly higher odds of being denied a home purchase mortgage compared to White applicants. Specifically, Black applicants were 2.40 times more likely to be denied than their White counterparts. Even after accounting for debt-to-income ratio (DTI) and income, the denial for Black Tennesseans remains elevated, at 2.01 times that of White applicants. This is a slight decline in the odds of denial since 2022, where Black applicants were 2.18 times more likely to be denied, with adjusted odds dropping to 1.84 after controlling for DTI and income. Moreover, applicants seeking nonconventional loans (e.g., FHA-, VA-, or FSA/RHS-insured loans) faced higher denial rates compared to those applying for conventional loan products, further exacerbating the inequality in access to mortgage financing.

**Table 15: Denial Rates, Home Purchase Loans, Nonconventional, Race and Ethnicity, 2018-2023**

| | ALL | Asian | Black | Joint | Missing | Other | White | Hispanic | Not Hispanic | Ethnicity Missing |
|---|---|---|---|---|---|---|---|---|---|---|
| 2018 | 11.8% | 15.5% | 16.2% | 10.7% | 15.6% | 13.5% | 10.6% | 12.7% | 11.3% | 16.1% |
| 2019 | 10.5% | 12.2% | 15.6% | 8.0% | 14.6% | 11.0% | 9.2% | 12.9% | 10.0% | 14.2% |
| 2020 | 11.3% | 13.3% | 18.0% | 8.4% | 13.4% | 14.9% | 9.9% | 12.0% | 11.0% | 13.4% |
| 2021 | 10.4% | 12.0% | 13.5% | 9.1% | 12.1% | 16.6% | 9.5% | 10.7% | 10.1% | 12.4% |
| 2022 | 12.3% | 15.9% | 17.0% | 9.2% | 14.6% | 13.3% | 11.0% | 12.8% | 11.9% | 14.5% |
| 2023 | 10.6% | 11.2% | 17.1% | 8.9% | 12.8% | 13.2% | 9.0% | 11.7% | 10.2% | 12.4% |

The most prevalent denial reason[xxvii] for mortgage denials every year between 2018 to 2023 was debt-to-income ratio (DTI) followed by credit history and collateral for home purchase applicants. Table 18 below shows the variation among racial categories by denial reason. DTI was the most cited reason for denial across all racial categories, especially for Asian and Black applicants. For refinance mortgage applicants, credit history was cited more often than other reasons for denial, followed by high DTI and incomplete credit application.

**Table 16: Denial Reason, Home Purchase Loans, 2023**

| DENIAL REASON* | Asian | Black | Joint | NA | Other Minority | White | Total |
|---|---|---|---|---|---|---|---|
| Debt-to-Income Ratio | 48.0% | 42.4% | 39.8% | 37.9% | 32.8% | 35.6% | 37.6% |
| Credit History | 5.9% | 18.1% | 18.8% | 11.7% | 23.4% | 12.1% | 13.0% |
| Collateral | 4.7% | 9.0% | 6.0% | 13.0% | 3.1% | 14.5% | 12.8% |
| Other | 5.5% | 5.7% | 6.8% | 8.6% | 14.1% | 8.0% | 7.6% |
| Insufficient Cash (downpayment, closing costs) | 7.0% | 7.9% | 8.3% | 7.7% | 10.9% | 7.3% | 7.5% |
| Credit Application Incomplete | 10.5% | 5.1% | 9.0% | 8.4% | 6.3% | 7.3% | 7.3% |
| Unverifiable Information | 9.0% | 4.6% | 2.3% | 8.3% | 1.6% | 6.3% | 6.3% |
| Employment History | 6.3% | 3.8% | 7.5% | 3.4% | 4.7% | 4.6% | 4.4% |
| Mortgage Insurance Denied | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% |
| Exempt | 3.1% | 3.4% | 1.5% | 1.0% | 3.1% | 4.2% | 3.5% |

**While other denial reasons can be unreported, Denial Reason 1 is always provided for denied loans, except for the exempt loans.*

# METHODOLOGY AND DATA

## *Data and Coverage*

The HMDA data are the most comprehensive source of publicly available information on the mortgage market to determine whether financial institutions are serving the housing needs in their communities and to identify possible discriminatory lending patterns. Many depository and non-depository lenders are required to collect and disclose information about housing-related loans (including home purchase, home improvement and refinancing) and applications for those loans in addition to applicants' and borrowers' income, race, ethnicity and gender. The law governing HMDA was enacted in 1975, initially falling within the regulatory authority of the Federal Reserve Board. In 2011, regulatory authority was transferred to the Consumer Financial Protection Bureau (CFPB). Whether an institution is required to report depends on its asset size, its location, and whether it is in the business of residential mortgage lending. Because some institutions are exempt from HMDA reporting requirements HMDA data do not include all residential loan applications.

Starting in January 2018, the data points collected with HMDA increased based on Congress's amendment after Dodd-Frank Act in 2010. Before this change, any depository institution that originated at least one home purchase loan in the preceding year was required to report. In 2017, depository institutions that originated fewer than 25 covered closed-end mortgages in either of the preceding two years were exempt from HMDA reporting. This 25 loans coverage threshold was increased to 100 loans in May of 2020 by the 2020 HMDA rule and became effective on July 1, 2020.

Before 2017, depository institutions were required to make a modified (to protect applicant and borrower privacy) version of their Loan Application Registers (LARs), available to members of the public on request. With these changes, the Consumer Financial Protection Bureau has collected and made available on its website the modified LAR file for each institution that has filed 2017 HMDA data. The loan-level data provided to the public with modified LAR files will be updated with resubmissions and/or late submissions.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 made reporting open-end lines of credit (OLCs)[xxviii] mandatory. In this report, unless otherwise specified, the open-end lines of credit (except reverse mortgages) and loans for purposes other than home purchase, refinance and home improvement are excluded.

In previous HMDA reports, we used 10 years of data to identify longer-term trends. This 10-year lookback was especially useful in the years following the housing market crisis to determine if markets recovered. Because the mortgage markets recovered fully from these events and to take advantage of new and improved data present in 2018 data and onwards, we decided to analyze HMDA data for 2018 through 2023 (a six-year trend). This also allows us to both consider a depth of issues not possible before as well as the impact of Covid19 on mortgage markets.

HMDA data includes applications for open-end and closed-end mortgages; for home purchase, refinance, home improvement and other purposes; for first- and second-lien; for owner occupancy, second residence and investment properties; single-family and multifamily residences; for manufactured and site-built homes. In this report, we focused on selected closed-end mortgages for first-lien, owner-occupied, 1-4 family site-built homes. These were comparable to the loans THDA funded, which enabled us to infer about THDA's share in a market with comparable products.

## *"Refinance" and "Cash-out Refinance" Loans*

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 modified the definitions and values of some existing data points and required reporting of 27 new data points. Refinance loans were separated into "refinance" and "cash-out refinance," a nuance that was not available in previous years. A refinancing is a closed-end mortgage loan or open-end line of credit in which a new dwelling-secured debt obligation satisfies and replaces an existing dwelling-secured debt obligation by the same borrower.[xxix] A financial institution reports a covered loan or an application as a cash-out refinancing if it is a refinancing and the financial institution considered it to be a cash-out refinancing when processing the application or setting the terms under its or an investor's guidelines. One contributing reason could be the amount of cash received by the borrower at closing or account opening. If a financial institution does not distinguish between cash-out refinancing and refinancing under its own guidelines, sets the terms of all refinancing without regard to the amount of cash received by the borrower at loan closing or account opening, and does not offer loan products under investor guidelines, the institution reports all refinancing as refinancing, rather than cash-out refinancing.[xxx] Cash-out refinance borrowers use the equity in their homes for other purposes, while non-cash-out refinance borrowers aim to take advantage of lower rates or adjust the length of their mortgage (change to longer term to reduce the monthly payments or to shorter term to pay off the mortgage sooner while lowering the rate).

## *Missing Demographic Information*

Missing race and ethnicity data within HMDA has been and continues to be a concern. As a component of data validation, we compared the characteristics of applicants whose race or ethnicity was missing (either left blank or coded as NA) with other applicants to determine the extent of potential bias. For this analysis of missing data, we compare income and loan amounts. Furthermore, we apply this analysis to the base sample of this report, which includes closed-end mortgages for first-lien 1-4 family site-built homes. The following tables provide this information separated by years to consider both the extent and persistence of these trends over time.

Percentages of applicants without race information (Race is NA) consistently increased each year between 2018 and 2023; from 22 percent in 2018 to 27 percent of applicants with missing race information in 2023. The applicants without the race information had similar average income and loan amounts to White applicants while they, on average, had higher income and borrowed more than the Black applicants. Missing race applicants were behind Asian applicants, on average, in terms of income and loan amount.

In some instances, financial institutions reporting HMDA data may mark the "applicant's income" field as "not applicable (NA)." There are several reasons for why this may be the case. The institution may not consider the applicant's income when making underwriting decisions; the loan or application might be for a multifamily dwelling; the transaction may be a loan purchase and the institution chose not to collect the information; the transaction may be a loan to an employee of the institution and the institution sought to protect the employee's privacy, even though institution relied on his or her income to make a determination of approval; or the borrower or applicant is a corporation, partnership, or other entity that is not a natural person.[xxxi] Of all loans reported (regardless of purpose or action), more than 35,000 did not have income information. That number represents less than 15 percent of all reported loans. The incidence of observations without income information declined to one percent among first-lien, site-built, owner occupied, 1-4 family home purchase loans originated.

| **2018** | | | Income | | Loan Amount | |
|---|---|---|---|---|---|---|
| RACE | Count | % | Average | Median | Average | Median |
| 2 or more minority | 218 | 0% | $72,559 | $54,000 | $185,688 | $165,000 |
| American Indian Alaska Native | 711 | 0% | $68,849 | $55,000 | $171,090 | $155,000 |
| Asian | 5,069 | 2% | $114,817 | $85,000 | $242,013 | $205,000 |
| Black | 21,232 | 8% | $76,708 | $57,000 | $173,821 | $155,000 |
| Joint | 2,730 | 1% | $113,573 | $90,000 | $236,634 | $215,000 |
| ***Race NA*** | ***60,095*** | ***22%*** | ***$103,427*** | ***$71,000*** | ***$208,006*** | ***$175,000*** |
| Native Hawaiian or Pacific Islander | 329 | 0% | $74,502 | $62,000 | $185,912 | $175,000 |
| Text-Only | 12 | 0% | $82,333 | $61,500 | $197,500 | $205,000 |
| White | 179,065 | 66% | $97,109 | $69,000 | $205,299 | $175,000 |
| Total | 269,461 | 100% | $96,449 | $68,000 | $204,300 | $175,000 |

| **2019** | | | Income | | Loan Amount | |
|---|---|---|---|---|---|---|
| RACE | Count | % | Average | Median | Average | Median |
| 2 or more minority | 261 | 0% | $72,135 | $61,000 | $207,299 | $195,000 |
| American Indian Alaska Native | 867 | 0% | $69,913 | $56,000 | $198,126 | $175,000 |
| Asian | 6,054 | 2% | $119,642 | $94,000 | $264,371 | $245,000 |
| Black | 23,334 | 7% | $72,908 | $59,000 | $189,116 | $175,000 |
| Joint | 3,526 | 1% | $121,939 | $94,000 | $254,909 | $235,000 |
| ***Race NA*** | ***71,965*** | ***23%*** | ***$104,482*** | ***$76,000*** | ***$226,086*** | ***$195,000*** |
| Native Hawaiian or Pacific Islander | 339 | 0% | $79,124 | $60,000 | $191,313 | $185,000 |
| Text-Only | 12 | 0% | $61,545 | $67,000 | $182,500 | $195,000 |
| White | 209,143 | 66% | $105,471 | $74,000 | $227,282 | $195,000 |
| Total | 315,501 | 100% | $103,113 | $73,000 | $225,070 | $195,000 |

| **2020** | | | Income | | Loan Amount | |
|---|---|---|---|---|---|---|
| RACE | Count | % | Average | Median | Average | Median |
| 2 or more minority | 400 | 0% | $298,448 | $66,000 | $222,050 | $205,000 |
| American Indian Alaska Native | 1121 | 0% | $87,223 | $63,000 | $220,700 | $195,000 |
| Asian | 10,502 | 2% | $330,708 | $102,000 | $280,500 | $255,000 |
| Black | 30,862 | 7% | $310,314 | $63,000 | $209,256 | $195,000 |
| Joint | 5,494 | 1% | $413,773 | $102,000 | $274,059 | $245,000 |
| ***Race NA*** | ***105,630*** | ***22%*** | ***$322,127*** | ***$84,000*** | ***$243,385*** | ***$215,000*** |
| Native Hawaiian or Pacific Islander | 435 | 0% | $93,680 | $75,000 | $228,218 | $205,000 |
| Text-Only | 5 | 0% | $344,000 | $246,000 | $303,000 | $245,000 |
| White | 315,295 | 67% | $329,219 | $81,000 | $245,079 | $215,000 |
| Total | 469,744 | 100% | $327,147 | $81,000 | $243,383 | $215,000 |

| **2021** | | | Income | | Loan Amount | |
|---|---|---|---|---|---|---|
| RACE | Count | % | Average | Median | Average | Median |
| 2 or more minority | 547 | 0% | $134,554 | $68,000 | $225,018 | $205,000 |
| American Indian Alaska Native | 1600 | 0% | $91,118 | $64,000 | $229,844 | $200,000 |
| Asian | 12,447 | 3% | $139,121 | $108,000 | $305,901 | $275,000 |
| Black | 35,511 | 7% | $84,457 | $65,000 | $219,306 | $195,000 |
| Joint | 6,132 | 1% | $134,238 | $101,000 | $301,269 | $255,000 |
| ***Race NA*** | ***120,201*** | ***24%*** | ***$117,478*** | ***$84,000*** | ***$274,417*** | ***$235,000*** |
| Native Hawaiian or Pacific Islander | 492 | 0% | $89,237 | $66,000 | $233,191 | $205,000 |
| Text-Only | 33 | 0% | $67,097 | $61,000 | $185,909 | $155,000 |
| White | 315,621 | 64% | $115,056 | $80,000 | $259,327 | $215,000 |
| Total | 492,584 | 100% | $113,995 | $80,000 | $261,658 | $225,000 |

| **2022** | | | Income | | Loan Amount | |
|---|---|---|---|---|---|---|
| RACE | Count | % | Average | Median | Average | Median |
| 2 or more minority | 376 | 0% | $101,212 | $72,500 | $247,527 | $225,000 |
| American Indian Alaska Native | 1075 | 0% | $94,463 | $70,000 | $254,098 | $225,000 |
| Asian | 8,078 | 3% | $160,624 | $116,000 | $374,870 | $325,000 |
| Black | 24,571 | 8% | $91,862 | $69,000 | $241,311 | $215,000 |
| Joint | 4,151 | 1% | $143,259 | $109,000 | $344,429 | $305,000 |
| ***Race NA*** | ***77,165*** | ***26%*** | ***$126,355*** | ***$86,000*** | ***$313,600*** | ***$265,000*** |
| Native Hawaiian or Pacific Islander | 309 | 0% | $111,881 | $78,000 | $292,282 | $235,000 |
| Text-Only | 15 | 0% | $103,643 | $98,000 | $225,667 | $215,000 |
| White | 184,783 | 61% | $138,512 | $84,000 | $297,565 | $245,000 |
| Total | 300,523 | 100% | $132,767 | $84,000 | $299,581 | $255,000 |

| **2023** | | | Income | | Loan Amount | |
|---|---|---|---|---|---|---|
| RACE | Count | % | Average | Median | Average | Median |
| 2 or more minority | 254 | 0% | $100,356 | $84,000 | $269,921 | $240,000 |
| American Indian Alaska Native | 674 | 0% | $102,396 | $75,500 | $260,119 | $235,000 |
| Asian | 5,779 | 3% | $177,341 | $126,000 | $386,075 | $335,000 |
| Black | 16,023 | 8% | $96,243 | $74,000 | $250,546 | $225,000 |
| Joint | 2,944 | 2% | $152,040 | $119,000 | $367,775 | $325,000 |
| ***Race NA*** | ***52,692*** | ***27%*** | ***$136,273*** | ***$92,000*** | ***$320,965*** | ***$275,000*** |
| Native Hawaiian or Pacific Islander | 212 | 0% | $108,587 | $80,000 | $289,481 | $250,000 |
| Text-Only | 35 | 0% | $102,829 | $79,000 | $332,714 | $245,000 |
| White | 116,965 | 60% | $140,352 | $93,000 | $311,751 | $265,000 |
| Total | 195,578 | 100% | $136,788 | $92,000 | $312,006 | $265,000 |

[i] For more information about what HMDA data is and what are the new and revised data elements in 2019 HMDA data, please reference the Methodology Section.

[ii] The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (DFA) and the 2015 HMDA Rule issued by Consumer Financial Protection Bureau (CFPB) mandated reporting of following new data fields: Age; Total Points and Fees; Rate Spread for all loans; Prepayment Penalty Term; Property Value; Introductory Rate Period; Non-Amortizing Features; Loan Term; Application Channel; Credit Score; Mortgage Loan Originator Identifier; Universal Loan Identifier; Property Address; Origination Charges; Discount Points; Lender Credits; Mandatorily Reported Reasons for Denial; Interest Rate; Debt-to-Income Ratio; Combined Loan-to-Value Ratio; Manufactured Home Secured Property Type; Manufactured Home Land Property Interest; Multifamily Affordable Units; Automated Underwriting System; Reverse Mortgage Flag; Open-End Line of Credit Flag; and Business or Commercial Purpose Flag.

[iii] The 2015 HMDA rule required institutions that originated at least 100 open-end line of credits (LOCs) in each of the two preceding calendar years to report data on open-end LOCs beginning with data collected in 2018. However, in 2017, the Bureau temporarily increased the open-end reporting threshold to 500 open-end LOCs for calendar years 2018 and 2019. To make this data comparable to the data reported in previous years, we excluded all open-end LOCs, except those open-end LOCs that are reverse mortgages, and applications for a loan purpose other than home purchase, home improvement, or refinance.

[iv] A multifamily property consists of five or more units.

[v] Changes made to the HMDA reporting after 2018, altered how the loans for home improvement purpose were reported and added other purposes, which makes comparing total originations difficult and inaccurate.

[vi] Monthly average interest rate data is retrieved from https://www.freddiemac.com/pmms/pmms_archives.

[vii] In the cash-out refinance the homeowner borrows an amount greater than what they owe on their existing mortgage, while in non-cash-out refinances mortgage balance does not change. Non-cash-out refinances are more common when interest rates are declining allowing borrowers to take advantage of lower rates than their original mortgages. When the interest rates are increasing, the demand for non-cash-out refinance usually declines and cash-out refinances make up a larger proportion of all refinances.

[viii] For a more detailed quarterly analysis of cash-out refinance mortgages see: Office of Research blog: A look at cash-out refinance mortgages and their borrowers between 2013 to 2023.

[ix] The discussion in the following sections is based on first-lien mortgage loans on owner-occupied one- to four-family, site-built dwellings, unless otherwise specified.

[x] Data for the Metropolitan Statistical Areas (MSAs), which include counties from other neighboring states, are only for the counties in Tennessee. "Kingsport" refers to the Kingsport-Bristol-Bristol MSA and Nashville refers to the Nashville-Davidson–Murfreesboro–Franklin MSA.

[xi] Starting in 2009, FHA increased the MIP and upfront mortgage insurance payments several times and required MIP for the life of the loan unless borrowers refinance the loan. These changes increased the cost of purchasing a home using FHA-insured mortgage loans and led to a declining share of FHA-insured loans in the total home purchase loan originations compared to conventional and other government-insured loans. In 2015, for loans less than $625,500 with loan-to-value (LTV) ratio greater than 95 percent, the annual FHA mortgage insurance rate was reduced from 135 base points to 85 base points, which led to an increase in the use of FHA-insured home purchase loans.

[xii] For analysis of race and ethnicity, we relied on "derive race" and "derived ethnicity" categories, which combine the applicant and co-applicant's race. For more information about how the derived race and ethnicity categories are determined, please see https://github.com/cfpb/hmda-platform/wiki/Derived-Fields-Categorization-2018-Onward

[xiii] For the analysis from this point on, unless otherwise specified, we will consider first-lien loans for owner-occupied, site-built, one- to four-family dwellings.

[xiv] For purchased loans, the institutions do not have to collect or report race. If the borrower or applicant is not an actual person (for example, a corporation or a partnership), race will be "not applicable." Each applicant can report belonging to up to five racial groups. In this report, we used the "derived race" and "derived ethnicity" variables provided with the data starting 2018. For more information about how these derived variables are determined, please see https://github.com/cfpb/hmda-platform/wiki/Derived-Fields-Categorization-2018-Onward

[xv] We compared the characteristics (income, loan amounts, and loan-to-value ratios) of applicants whose race or ethnicity was missing (either left blank or coded as NA) with other applicants to determine the extent of potential bias.

[xvi] The National Community Reinvestment Coalition (NCRC) did an exploratory analysis to determine if there are any identifiable trends. They conclude "the rate spread and income differences may indicate that No Data loans in fact include a higher share of White and Asian borrowers than the rest of the loan records." To read more about their analysis, see https://www.ncrc.org/the-critical-need-to-address-missing-data-in-hmda/

[xvii] Loans initiated online do not require the lender to submit demographic information unless the applicant offers it. Furthermore, lenders can delete demographic data information on loan records that they purchase from other institutions.

[xviii] First-lien, owner-occupied, home purchase loans for one- to four-family site-built homes.

[xix] Joint is one of the derived race categories including both the race for applicant and co-applicant. An applicant is identified as "joint" if either the applicant is White and co-applicant is one of the minority race categories or the applicant is one of the minority race categories and co-applicant is White.

[xx] The MFI reported in HMDA data files and used in these calculations is the estimated Tract MFI, which is the census tract's estimated MFI for each year, based on the HUD estimate for the Metropolitan Statistical Area (MSA)/Metro Division (MD) or non-MSA/MD area where the tract is located. For tracts located outside of an MSA/MD, the MFI is the statewide non-MSA/MD MFI.

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

[xxii] The ratio of tract median family income (MFI) to area median family income (AMFI) is defined as Tract to MSA income percentage and provided with HMDA data. Its categories are determined similar to applicants (a tract is defined as an LMI neighborhood if the ratio of tract median family income to Area median family income is 80 percent or less, defined as middle-income tract if the ratio is more than 80 percent but less than 120 percent and defined as high-income tract if the ratio is greater than 120 percent).

[xxiii] Nonconventional loans are the ones insured by FHA, VA or FSA/RHS.

[xxiv] Starting in 2018, the new and modified data fields include "total loan costs," which applies to originated loans that are subject to the TILA-RESPA Integrated disclosure requirements in Regulation Z. Institutions that qualify for the partial exemption under the EGRRCPA are not required to report Total Loan Costs or Total Points and Fees. See "Introducing New and Revised Data Points in HMDA" by Office of Research at https://www.consumerfinance.gov/data-research/research-reports/introducing-new-revised-data-points-hmda/. Total loan costs reported at HMDA are the costs paid by the borrower such as appraisal fees, credit report fees, title insurance, and so on. If there is any seller paid costs, they are not included in total loan costs.

[xxv] This analysis considers only the amount of total loan costs paid by closed-end, first-lien, owner-occupied, site-built, 1-4 family home purchase loan borrowers, and does not control for borrower and loan characteristics that might be influencing the total loan cost. The differences in total loan costs should be treated carefully. According to Consumer Financial Protection Bureau's (CFPB) examination of the new HMDA data fields, loan costs may be tied to the size of the loan and can be affected by factors such as the size of the down payment relative to the loan (as that will drive the need for mortgage insurance) as well as by choices made by consumers (such as the purchase of owners title insurance). The summary statistics reported in this section do not control for any such factors and these factors may explain some of the differences observed across enhanced loan types, loan purpose, demographic groups, etc.

[xxvi] We calculated denial rates by dividing the number of loans denied by financial institutions by the total number of loan applications. We excluded withdrawn applications, applications closed for incompleteness, and loans that were originated previously and purchased by financial institutions during the reporting calendar year.
[xxvii] Until the 2018 HMDA data release, financial institutions could report up to three denial reasons (selecting from nine potential denial reasons including Debt-to-Income Ratio, Employment History, Credit History, Collateral, Insufficient Cash (for downpayment and/or closing costs), Unverifiable Information, Credit Application Incomplete, Mortgage Insurance Denied and Other) for denied applicants, but this was not mandatory. The 2015 HMDA rule required listing a denial reason for all denied applicants. As such, starting in 2018, except the applicants who were denied by exempt financial institutions financial institutions provided at least one denial reason for all denied applicants. HMDA reporters that are insured depository institutions or insured credit unions and that originated fewer than 500 closed-end mortgages in each of the two preceding years qualify for this partial exemption with respect to reporting their closed-end transactions. HMDA reporters that are insured depository institutions or insured credit unions that originated fewer than 500 open-end lines of credit in each of the two preceding years also qualify for this partial exemption with respect to reporting their open-end transactions.
[xxviii] Open-end lines of credit secured by a dwelling (excluding reverse mortgages) are called home equity lines of credit (HELOCs).
[xxix] See 2018 Guide to HMDA Reporting (page 59) for more detail
[xxx] See 2018 Guide to HMDA Reporting (page 59) for more detail
[xxxi] For more information about HMDA data fields see: A Guide to HMDA Reporting: Getting it Right (Edition effective January, 1, 2022), Federal Financial Institutions Examination Council, at https://www.ffiec.gov/hmda/pdf/2022Guide.pdf.