



Is Manufactured Home Financing Hard to Get?

An Exploratory Analysis of Home Purchase Loan Applications

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Table of Contents

Executive Summary.....	4
I. Introduction.....	6
II. Background and Relevant Literature.....	12
III. Data and Methods.....	24
A. Home Mortgage Disclosure Act Data	24
B. Manufactured Home Owners Survey Data.....	42
IV. Results: Denial Rates, Reasons, and Predictors.....	44
A. Denial Rates.....	44
B. Denial Reasons.....	52
C. Predictors of Denial.....	59
V. Results: Applying to Multiple Lenders.....	68
A. Multiple Applications and Prior Denials.....	68
B. Predictors of Multiple Applications.....	74
VI. Conclusions	75
References.....	77
Appendix A: HMDA Data Preparation.....	84
Appendix B: HMDA Descriptive Tables	103
Appendix C: HMDA Summary Statistics	169
Appendix D: HMDA Probit Models.....	180
Appendix E: MHOS Descriptive Tables.....	198
Appendix F: MHOS Summary Statistics and Probit Models	213
Appendix G: Cost of Credit (Supplemental Analysis).....	216

Executive Summary

Manufactured homes (i.e., homes that conform to the Manufactured Home Construction and Safety Standards, or HUD Code, which became effective in 1976) and mobile homes represent 5.4% of all occupied housing in the United States, constituting 6.4% of all owner-occupied housing and 3.8% of renter-occupied housing. One significant way in which manufactured housing differs from traditional site-built housing is in how these homes are purchased, specifically whether homebuyers rely on financing for home purchase, with buyers of manufactured homes more likely to pay cash. Moreover, manufactured housing finance options differ from those available to buyers of site-built housing: Whereas site-built housing can be financed with mortgages, manufactured homes can be financed with either personal property loans (which do not include land as collateral) or mortgages (which do). We consider both types of manufactured home financing in this paper.

Some researchers and advocates have suggested that obtaining financing to purchase manufactured housing is more difficult or expensive than for site-built housing (Housing Assistance Council, 2008; Goodman, Golding, Bai, and Strochak, 2018), and the existing literature suggests that denial rates and interest rates may be higher for manufactured housing than for site-built housing due to differences in the lender knowledge, collateral, or consumer populations associated with these different types of housing. Nevertheless, there is little evidence regarding the degree to which consumers experience difficulty obtaining financing to purchase manufactured housing. In this paper, we carry out an exploratory data analysis of loan applications to purchase manufactured homes, using data from the Home Mortgage Disclosure Act (HMDA) and the Manufactured Home Owners Survey (MHOS); the latter provides information about the loan shopping experiences of recent buyers of manufactured homes in Texas.

In brief, our analysis of HMDA data indicates that denial rates for complete applications are substantially higher for manufactured housing than for site-built housing—54%, compared with 7% nationally, we estimate. Moreover, we observe that reasons for denial frequently differ between these two types of housing, with loan applications for manufactured housing more likely to be denied because of borrower credit histories, while applications for site-built housing are more likely to be denied because of debt-to-income (DTI) ratios. The data also suggests that lender underwriting practices differ by loan type: The combined loan-to-value ratio (CLTV) is much less likely to be considered when lenders make credit decisions on loan applications for manufactured housing than for site-built housing. These patterns suggest that lenders may implement higher credit standards and/or place greater weight on personal credit histories when underwriting loans for manufactured housing, and that these practices may explain much of the difference in loan denial rates for manufactured versus site-built housing. The data also suggests that underwriting procedures differ substantially by the agency insuring the loan, as manufactured housing loans insured by the Federal Housing Administration (FHA) or the U.S. Department of Veterans Affairs (VA) are denied at much lower rates than conventional loans. Variation in denial rates by geography and application channel also favors the conclusion that loans for manufactured housing are more readily available in areas where this type of housing is more prevalent as a share of the housing stock, and where lenders have experience with this segment of the housing market.

About a third of MHOS respondents had applied to multiple lenders when seeking financing for manufactured homes, and 31% of them said they did so because they had been turned down on a prior loan application. Borrowers who apply to multiple lenders because they have previously been turned down tend, on average, to be those with lower credit ratings and lower incomes who are buying smaller units and are less informed about the loan process. The fact that these borrowers are more likely to volunteer that they obtained their loans via indirect application channels (i.e., with assistance or referral from the seller or retailer) suggests that doing so may have facilitated their access to credit. Moreover, we find that the types of manufactured home buyers who apply to multiple lenders and the reasons why vary by loan type: Personal property loan borrowers who apply to multiple lenders tend to be younger, live in rural areas, be more informed about the loan process, and have higher credit scores, on average; mortgage borrowers who apply to multiple lenders are more likely not to have DTI ratios in their credit files and/or to be concerned about qualifying for a loan. These results highlight the potentially important role played by borrower knowledge in navigating the process of obtaining a personal property loan for manufactured housing, and they suggest that a thin credit history contributes to a greater number of applications being submitted by those seeking to buy manufactured housing.

From a policy perspective, the results regarding denial rates and underwriting practices suggest that there may be scope for industrywide and interagency conversations that facilitate lender learning as to how to provide financing, profitably and flexibly, for the purchase of manufactured homes, as this segment of the housing market continues to expand. Such conversations may help address actual or perceived lender challenges in this space. Beyond underwriting practices, our analysis also suggests a potentially important role for consumer education in facilitating access to financing to purchase manufactured housing: Borrowers can increase their likelihood of obtaining such loans by leveraging indirect application channels that facilitate access to specialized lenders and by casting a wide net when shopping for credit. A caveat is that the cost of credit obtained through indirect application channels can vary more than that obtained through direct channels, indicating that some borrowers will end up with higher loan costs when using indirect channels. However, indirect application channels appear, at the median, to provide credit that is comparable in cost to that available through direct application channels.

Given that the study of home purchase financing for modern manufactured housing is, overall, in its infancy, the analysis has also yielded a variety of questions that suggest potential directions for future research. First, in what ways do lenders perceive manufactured housing to be different from site-built housing, and how do these perceived differences relate to lender variation in underwriting practices? Second, what lending practices and features, if any, would make loans for manufactured housing profitable for lenders, convenient for consumers, and attractive to secondary market investors? Third, how do loans for manufactured housing perform over time? Finally, to what extent do borrower financial circumstances, versus variation in lender credit standards and underwriting practices, account for the higher denial rates observed for manufactured housing compared with site-built housing? We encourage the research community to explore these and related questions as a means of furthering informed dialogue and public policies with respect to manufactured housing finance.

I. Introduction

Manufactured homes (i.e., homes that conform to the Manufactured Home Construction and Safety Standards, or HUD Code, which became effective in 1976) and mobile homes represent 5.4% of all occupied housing in the U.S.,¹ constituting 6.4% of all owner-occupied housing and 3.8% of renter-occupied housing. Of the estimated 6.76 million occupied manufactured/mobile homes in the country, 75% are owner-occupied, with 25% renter-occupied (U.S. Census Bureau, 2020a). Because of its low cost compared with site-built housing, manufactured housing has been described as the nation's largest source of unsubsidized, affordable housing (MacTavish, Eley, and Salamon, 2006; Burkhart, 2014; Sullivan, 2017).

Manufactured housing represents a relatively stable share of the market for new housing in recent years. Manufactured homes constituted 9% of all new single-family homes in 2015 and 10% in 2019 (U.S. Census Bureau, 2021).² The number of new manufactured homes shipped annually in the U.S. increased 34% during the period from 2015 through 2019, rising from 70,544 to 94,615. Manufactured homes are noteworthy for their affordability relative to site-built housing. In 2019, the average price of a new manufactured home was \$81,900 (\$56.56/square foot), compared with \$383,900 (\$118.91/square foot) for a new single-family, site-built home (U.S. Census Bureau, 2021). These figures are not strictly comparable, however, because the price of the site-built dwelling includes the cost of land. A more accurate comparison is the cost of constructing a new single-family home (absent the cost of land): In 2019, this figure averaged \$296,652 nationally, more than 3.5 times the average price of a new manufactured home, according to the National Association of Home Builders (Ford, 2020). Research by the Manufactured Housing Institute (MHI) in 2020 found that 71% of those surveyed "cite affordability as a key driver for choosing manufactured housing" (p. 1). In terms of the distribution of manufactured housing in the U.S., the South receives the largest share of shipments, with Texas dominating the market in 2020 at 18%, followed by Florida (7%), North Carolina (6%), and South Carolina and Alabama (5% each), according to the U.S. Census Bureau (2020c).³ The majority of manufactured housing is located in rural areas, with approximately two-thirds of occupied manufactured homes located outside

¹ The U.S. Census Bureau's American Housing Survey (AHS) defines "manufactured/mobile homes" as "a housing unit that was originally constructed to be towed on its own chassis." This includes homes built both before and after the National Manufactured Housing Construction and Safety Standards Act of 1974 went into effect in 1976. The act defines a "manufactured home" as one that conforms to the Manufactured Home Construction and Safety Standards (HUD Code), created to ensure that manufactured homes are safe and durable. Homes built before 1976 are not built to HUD Code and are referred to as "mobile homes." While the focus of the current study is solely on manufactured homes, the AHS data cited here includes both manufactured and mobile homes.

² From 1995 to 1997, manufactured housing made up 24% of the market for new housing (U.S. Census Bureau, 2016). Manufactured housing's share of the national housing market fell sharply following a wave of defaults in the chattel lending market in the late 1990s and early 2000s; these were sparked by lax lending practices similar to the ones that fed the subprime mortgage crisis of the 2000s (Walker, 2016). The inventory of repossessed homes increased fourfold from 1999 to 2002, and lenders recovered roughly 25% of these outstanding loan amounts (Burkhart, 2010). The flood of repossessed homes depressed sales prices and dampened production: The number of manufactured housing plants decreased 41% from 1998 (the peak of production) to 2007 (Walker, 2016). Manufactured housing's share of the market for new housing fell to a low of 7% in 2006 (U.S. Census Bureau, 2016); since 2012, its share of the new-housing market has fallen between 9% and 10% (U.S. Census Bureau, 2016 and 2021).

³ Authors' calculations.

metropolitan statistical areas (MSAs). As for its share of rural housing inventory, manufactured homes constitute 14% of all housing in non-MSA counties (Consumer Financial Protection Bureau [CFPB], 2014).⁴

One significant way in which manufactured housing differs from traditional site-built housing is in how these homes are purchased and, specifically, whether buyers rely on financing for their purchase. Although there are no national statistics on the use of financing for the purchase of manufactured housing, existing data suggests that the share of manufactured homes purchased with financing is smaller than that for site-built homes. Data for the state of Texas, for example, reveals that 43% of manufactured homes in 2016 were purchased using loans (Goodman and Ganesh, 2018b).⁵ In contrast, 88% of all homes purchased nationally in the 12-month period from July 2015 to June 2016 included some form of finance (National Association of Realtors [NAR], 2016). Moreover, finance options for manufactured housing differ from those available for site-built housing. Whereas the latter can be financed with mortgages, manufactured homes can be financed with either personal property loans (which do not include land as collateral) or mortgages (which do include land). In this paper, we consider both types of financing for manufactured homes.

Some researchers and advocates have suggested that obtaining financing to purchase manufactured housing is more difficult or expensive than it is for site-built housing (HAC, 2008; Goodman, Golding, Bai, and Stochak, 2018). There are several possible explanations. First, many lenders may be unfamiliar with modern manufactured housing because the market for manufactured housing finance is concentrated among specialized lenders (Goodman and Ganesh, 2018b). Second, lenders may view the collateral offered as security for manufactured housing loans to be fundamentally different or insufficient due to potentially higher depreciation rates and/or a lack of land.⁶ Third, lenders may perceive those seeking a loan to purchase manufactured housing to be riskier due to differences in observable borrower characteristics such as income, which tends to be lower for this population on average (Choi and Goodman, 2020). Fourth, the lower cost of manufactured housing compared with site-built housing means the loans for these homes are smaller. Small-dollar mortgages (defined for this report as loans under \$150,000) have become increasingly rare following the Great Recession, and their limited availability “disproportionately affects economically challenged communities that have low-cost housing inventory,” including rural communities (McCargo et al., 2018, p. VI).⁷

⁴ The CFPB calculated this statistic using data from the American Community Survey (ACS) for the years 2008-12.

⁵ Goodman and Ganesh’s analysis of data from the state of Texas found that 56.9% of manufactured homes in 2016 were purchased using cash; from this, we deduce that 43% of homes were financed.

⁶ Analysis of repeat-transactions house price indexes for manufactured homes constructed by the Federal Housing Finance Agency (FHFA) determined that “manufactured homes have seen price trends broadly similar to those of other homes. According to the purchase-only series, since 1995 prices have risen by roughly 120 percent for manufactured homes vs. 140 percent for other homes” (FHFA, 2018, p. 24). Jewell’s (2003) analysis of 1985-99 AHS panel data and appraisal data from several counties in Texas found that the “average appreciation rates of manufactured homes packaged with owned land are statistically in line with the site built market.” Importantly, the author found that “land ownership is an important driver of appreciation” (p. 16).

⁷ A 2018 report by McCargo et al. used HMDA data to examine the availability of small-dollar mortgages and found that there are a “substantial number of low-cost property sales taking place across many diverse housing markets, but access to credit via traditional mortgage lending is limited for these properties” (p. v). According to this report, “Of the single-family homes sold in 2015 in the US, 14 percent, or 643,000 homes, sold for \$70,000 or less, of

The existing literature suggests that denial rates and interest rates may be higher for manufactured housing than for site-built housing. This result may be due to differences in the lender knowledge, collateral, and/or consumer populations associated with these different types of housing. In terms of knowledge, asymmetric information⁸ can lead lenders to ration credit (Stiglitz and Weiss, 1981).⁹ Ding's (2014) examination of the effect of "information externalities" on home lending supports this theory, concluding that limited originations in an area, particularly under distressed market conditions, can lead to a higher likelihood of future applicants from that area being denied credit.¹⁰ In terms of consumer populations and collateral, lenders may systematically price or ration credit differently across borrower groups with similar credit risk profiles if these groups tend to purchase different types of properties (Nickerson and Jones, 2017). Moreover, lenders may be more likely to ration credit to borrowers with lower credit scores and lower or less stable incomes (Acolin, Goodman, and Wachter, 2019). For these reasons, we would expect denial rates to be higher for loan applications for manufactured housing than for site-built housing, particularly in those cases where the borrower does not offer land as collateral, which is the case for personal property loans. We would also expect that those borrowers who experience loan denials or who apply to multiple lenders before obtaining a loan to purchase manufactured housing because they have been denied on a prior application will be those who have relatively lower incomes and lower or missing credit scores.

Nevertheless, there is little existing evidence regarding the degree to which consumers experience difficulty obtaining financing to purchase manufactured housing. In this paper, we begin filling this gap in the literature by carrying out an exploratory data analysis of loan applications for manufactured homes, using HMDA and MHOS data.¹¹ The first of these sources provides national, application-level data for both manufactured and site-built homes; the second provides borrower-level data for manufactured home buyers who used financing to purchase in Texas during the period 2015-18. We leverage HMDA data for 2018-19 completed loan applications to examine reasons for and rates of

which slightly more than one-fourth [27.5%] were financed with a traditional mortgage loan product. In contrast, among homes worth between \$70,000 and \$150,000, close to 80 percent of homes sold were financed with a traditional mortgage product" (p. 1).

⁸ Asymmetric information is typically classified as either adverse selection or moral hazard. The first concerns information about characteristics or types, and the second concerns information about behavior. For our purposes, one can think of asymmetric information as anything that the lender does not directly observe about the borrower or the borrower's behavior or the property being purchased that would have an impact on the rate of return that the lender would receive from lending to the borrower.

⁹ In economic terms, credit rationing is the denial of credit. In economic theory, rationing contrasts with price as a means of allocating goods or services. If lenders had complete information, they would theoretically be willing to lend to all borrowers and would simply set the interest rate high enough to account for the risk of the borrower. Therefore, in theory, we observe loan denials partly because lenders do not have complete information. Stiglitz and Weiss (1981) provide the following definition: "We reserve the term credit rationing for circumstances in which either (a) among loan applicants who appear to be identical some receive a loan and others do not, and the rejected applicants would not receive a loan even if they offered to pay a higher interest rate; or (b) there are identifiable groups of individuals in the population who, with a given supply of credit, are unable to obtain loans at any interest rate, even though with a larger supply of credit, they would" (pp. 394-95).

¹⁰ The author found that market activity, which was measured by total loan volume, reduced uncertainty around appraisal values, and this affected future loan decisions.

¹¹ In a companion white paper, we consider what factors are associated with cash purchase: Riley, Sarah, Allison Freeman, and Jess Dorrance. "Alternatives to Mortgage Finance for Manufactured Housing," UNC Center for Community Capital white paper prepared for The Pew Charitable Trusts (2021).

denials for single-family homes.¹² We compare differences in denial rates and reasons across several factors – housing types (manufactured versus site-built), loan types (mortgages versus personal property loans), racial/ethnic and gender groups, and loan sizes (less than \$150,000 versus \$150,000 or more). In addition, we examine the extent to which key borrower and loan characteristics—including borrower income, debt-to-income (DTI) ratio, and combined loan-to-value ratio (CLTV)—predict loan denial. We then leverage the MHOS data, which was collected in 2018, to explore which types of manufactured home buyers who used financing applied to multiple lenders, how this choice related to having been turned down on prior loan applications, and how the factors driving the decision to apply to multiple lenders differed by loan type. Because the MHOS data is limited to Texas, we provide comparisons between Texas and the nation throughout our analysis of the HMDA data when relevant for understanding differences in lending patterns across these two geographies that may limit the generalizability of the MHOS results.

In brief, our analysis of the HMDA data indicates that denial rates are substantially higher for loan applications for manufactured housing compared with site-built housing, and that reasons for denial also frequently differ between the two types, with loan applications for manufactured housing more likely to be denied because of borrower credit histories, while loan applications for site-built housing are more likely to be denied because of DTI ratio. We find that approximately 54% of loan applications for manufactured housing are denied, compared with 7% for site-built housing loans. Moreover, we find that loans smaller than \$150,000 are denied more frequently than larger loans, regardless of loan type, and that Blacks, Hispanics, and Indigenous peoples¹³ experience higher denial rates than Whites. Credit history tends to account for a larger fraction of denials for smaller loan amounts and for racial/ethnic minority groups, whereas DTI ratio, a measure of cash flow, plays a greater role in denials for larger loan amounts. The data also suggests that lender underwriting practices differ by loan type, as CLTV is much less likely to be considered when lenders make credit decisions on loan applications for manufactured housing than for site-built housing. These patterns suggest that lenders may implement higher credit standards and/or place greater weight on personal credit histories when underwriting loans for manufactured housing, and that these practices may explain much of the difference in denial rates observed between manufactured and site-built housing. The data also suggests that underwriting procedures differ substantially by the agency insuring the loan, as manufactured housing loans insured by the FHA or VA are denied at much lower rates than are conventional loans. Variation in denial rates by geography and application channel also favors the conclusion that manufactured housing loans are more readily available in areas where manufactured housing is more prevalent as a share of the housing stock, and where lenders have experience lending in this segment of the housing market.

Furthermore, we find from the MHOS (which surveyed successful manufactured home loan borrowers) that about 33% of respondents applied to multiple lenders when seeking financing for their manufactured homes. This percentage falls slightly, to 32%, for personal property borrowers and rises to 36% among mortgage borrowers. Among those survey participants who applied to multiple lenders, about 31% did so because they had been turned down on a prior loan application. Comparable figures for personal property borrowers and mortgage borrowers are 32% and 29%, respectively. Those

¹² HMDA contains information about both complete and incomplete loan applications. We focus on the former because the lender arguably cannot make informed credit decisions based on incomplete applications.

¹³ Includes Native Americans and Indigenous peoples of Alaska and the Pacific Islands.

borrowers who apply to multiple lenders because they have previously been turned down for a loan tend, on average, to be those with lower credit ratings and lower incomes who are buying smaller units and are less informed about the loan process. The fact that these borrowers are more likely to volunteer that they obtained their loans via indirect application channels (i.e., with assistance or referral from the seller or retailer) also suggests that doing so may have facilitated credit access for these borrowers. An application submitted through these channels would have been the point at which they finally succeeded in obtaining home purchase financing.

Moreover, we find that the types of manufactured home buyers who apply to multiple lenders and the reasons why they do so vary by loan type. Personal property loan borrowers who apply to multiple lenders tend to be younger, live in rural areas, are more informed about the loan process, and have higher credit scores, on average, whereas mortgage borrowers who apply to multiple lenders are more likely to be those with no DTI ratios in their credit files and/or who are concerned about qualifying for a loan. These results highlight the potentially important role played by borrower knowledge in navigating the process of obtaining a personal property loan for manufactured housing, and they suggest that a thin credit history contributes to a greater number of applications being submitted by manufactured housing mortgage borrowers. Multiple applications are less likely among successful mortgage borrowers who applied through, or were referred to their lenders by, their sellers or retailers (and volunteered this information during the survey) when obtaining their home purchase loans, which again supports the conclusion that there are some cases in which it is advantageous for manufactured housing borrowers to use indirect application channels, as these may facilitate credit access in this specialized lending space.

Thus, our empirical findings are broadly consistent with the existing theoretical literature regarding lender decision-making. From a policy perspective, the results regarding denial rates and underwriting practices suggest that there may be scope for industrywide and interagency conversations that facilitate lender learning as to how to provide home purchase financing profitably¹⁴ and flexibly for manufactured homes as this segment of the housing market continues to expand. Such conversations may help address actual or perceived lender challenges in this space. Beyond underwriting practices, our analysis also suggests a potentially important role for consumer education in facilitating access to home purchase financing for manufactured housing: Borrowers can increase their likelihood of obtaining loans to purchase manufactured housing by leveraging indirect application channels that facilitate access to lenders specializing in manufactured housing, and by casting a wide net when shopping for credit. A caveat is that the cost of credit obtained through indirect application channels can be more variable than that obtained through direct channels, indicating that some borrowers will end up with higher loan costs when using indirect channels. However, indirect application channels appear, at the median, to provide credit that is comparable in cost to that available through direct application channels.¹⁵

In the next section, we provide a brief overview of the manufactured housing market and relevant findings from the existing literature. Thereafter, we provide a more detailed overview of the data and

¹⁴ Profitability is important because lenders will be unwilling to make loans for manufactured housing if they are losing money. Anecdotal evidence suggests that some lenders are unwilling to make these loans because they require a subsidy in order to breakeven.

¹⁵ See Appendix G for data and discussion.

methods used for our analysis, followed by descriptive and multivariate results. In the final section, we present conclusions, discuss limitations of the analysis, and suggest directions for future research.

II. Background and Relevant Literature

What Is Manufactured Housing?

As defined by the U.S. Department of Housing and Urban Development (HUD), “a manufactured home (formerly known as a mobile home) is built to the Manufactured Home Construction and Safety Standards (HUD Code) and displays a red certification label on the exterior of each transportable section. Manufactured homes are built in the controlled environment of a manufacturing plant and are transported in one or more sections on a permanent chassis” (HUD, 2021). The HUD Code was established under the National Manufactured Housing Construction and Safety Standards Act of 1974, which became effective in 1976; the code created federal standards pertaining to the design, construction, performance, and installation of manufactured homes.¹⁶ The fact that manufactured homes are built to adhere to a federal code, as opposed to local, regional, or state building codes, is one way in which manufactured homes differ from both site-built and modular homes (HUD, 2021).¹⁷

Owners of manufactured homes have two options for siting their homes: on rented land (often within a community of manufactured housing) or on land they own. The MHI (2020) estimates that 37% of new manufactured homes are placed in communities. Owners who site their manufactured homes on rented land are often referred to as “vulnerable” or “housing insecure” because of the tenuous relationship between their homes and the land on which they sit (Sullivan, 2018; Aman and Yarnal, 2010; Walker, 2016).

How Manufactured Homes Are Financed

Like all home purchasers, those who purchase manufactured homes can either pay cash or borrow to make homeownership possible. Borrowing for manufactured housing can work differently from borrowing for site-built housing due to the fact that manufactured housing can be titled as either real property (i.e., real estate) or personal property (i.e., chattel). As Fannie Mae (2020) summarizes the titling decision, “Many factors might impact a borrower’s decision for titling and financing a

¹⁶ For an overview, see Jones et al. (2016), who summarize the code's effect as requiring that “new homes meet certain expectations regarding design, fire safety, thermal protection, ventilation, plumbing, heating/cooling, electrical systems and site transportation. HUD-Code mobile homes are built to meet contemporary standards such as minimum window area, manually controlled mechanical ventilation systems, minimum insulation requirements and minimum appliance performance efficiency. Homes built to these standards tremendously outperform their non-conforming counterparts in quality, energy use and safety” (p. 8). For the most recent rule amending the Federal Manufactured Home Construction and Safety Standards, which went into effect on March 15, 2021, see <https://www.federalregister.gov/documents/2021/01/12/2020-28227/manufactured-home-construction-and-safety-standards>. It is important to note that homes built prior to implementation of the HUD Code are not considered manufactured homes, and are generally referred to as “mobile homes” or “trailers.”

¹⁷ “Site-built” homes are constructed out of raw materials (e.g., lumber, nails, plywood, brick) at the site on which they will be permanently located. “Modular” homes are built in sections in a factory; the sections are then transported to the home site, where they are placed on a foundation, joined, and completed by a builder. As described by one source, “A modular home, unlike its manufactured counterpart, does not ship fully assembled, nor is it built on a chassis. It is built to about 80-90% completion in a factory before transportation to the homebuyer’s property” (Next Modular, n.d.).

manufactured home, including personal credit scores, the recommendations of a buyer’s broker or seller, and even the desire to leave recordation of the home and land separate.”

In terms of finance, homes titled as real estate can be eligible for mortgage finance, although in general eligibility also requires that manufactured homes be (1) sited on land owned by the homeowner, with both home and land used as collateral for the loan, and (2) installed on a permanent foundation in compliance with HUD’s 2005 installation codes. Homes titled as personal property are only eligible for personal property loans. Only the manufactured home (and not the land on which it is sited) is used as collateral for a personal property loan.¹⁸ Titling laws vary, but in most states titling a manufactured home as real property requires that the homeowner own both the home and the land under it (Goodman and Ganesh, 2018c). The majority (77%) of new manufactured homes are titled as personal property (this is the default in many states) and are therefore ineligible for mortgage finance¹⁹ (MHI, 2020).

When it comes to both borrowing processes and the loans themselves, the differences between mortgages and personal property loans for manufactured housing are numerous. Personal property loans do not require land ownership; where land is owned, personal property loans do not require that land be encumbered in the financing process; personal property loans generally have lower origination costs and shorter terms than traditional mortgages; and personal property loans tend to have higher interest rates than mortgages for manufactured housing (CFPB, 2014; Goodman and Ganesh, 2018a). We summarize common differences between mortgages and personal property loans for manufactured housing in Figure 1.

¹⁸ Today’s manufactured housing grew out of yesterday’s mobile home sector. Despite the fact that both mobile and manufactured homes are built on permanent chassis, neither type of home is in fact very “mobile.” The cost of moving a manufactured or mobile home can exceed \$10,000, which can include replacement of skirting, porches, carports, and other amenities, as well as installation at a new site (Schmitz, 2004). Relocation is especially impractical for older homes, which are more likely to experience structural damage in the process (Clark, 2017). Estimates are that only 1% to 4% of manufactured homes are moved after they are originally placed (Burkhart, 2010; Schmitz, 2004).

¹⁹ Titling a manufactured home as real property often involves “the completion of statutorily specified procedures for ‘converting’ the title from personal to real” (Burkhart, 2010, p. 442). As of 2016, 40 states had laws that delineated a procedure for converting manufactured homes from personal to real property (NCLC, 2016).

Figure 1



Home Lending Versus Auto Lending: The Intricacies of Manufactured Home Finance

Lending for manufactured home purchase has been compared to lending for automobile purchase in several ways. First, unlike lending for site-built housing, lending for manufactured housing seldom involves a traditional home appraisal process. Instead, the value of a manufactured home is ascertained like in the “auto lending industry, [where] the collateral value or ‘book value’ is typically estimated from standard industry guides that provide estimates of value based on market, make, model, year and equipment” (Capozza, Israelsen, and Thomson, 2005, p. 513). Loan-to-value ratios—the total dollar value of the loan divided by the actual cash value of the property being financed—are taken into account in both manufactured home lending and auto lending, but in both cases the “value” of the property being financed is the sales price (CFPB, 2016).²⁰ Second, as with auto lending, where the vehicle is the collateral for the loan, when a personal property loan is used to purchase a manufactured home, the home itself (rather than the home and the land it is placed on) serves as collateral. Third, the process of obtaining a loan for a manufactured home has traditionally been much like that for obtaining a vehicle loan, where the purchaser might select a home and submit an application for finance in the same place and at the same time (Mitchell, 2002; CFPB, 2014). As described by the National Consumer Law Center (2015, pp. 5-6), those who sell manufactured homes:

“... often do far more than simply take an application. In reality, they are effectively loan brokers. ... Traditionally, salespersons frequently answer questions about loan terms, make suggestions, and give the customer the name or application from a particular lender or limited selection of lenders. ‘Steering’ [is] when the loan originator recommends a lender based on the loan originator’s best interest, rather than the borrower’s interest. ... Manufactured-home buyers are exposed to steering not just because of compensation practices (as in other loan markets) but because the largest retailers, lenders, and manufacturers have a common corporate parent. This common ownership creates the risk that a retailer’s salesforce will be pressured to steer borrowers to their affiliated lender. Another concern is that large lenders typically require a retailer to enter into a nonexclusive contract with the lender, which can limit consumer choice.”

Legislative changes following the financial crisis of the 2000s shifted this model somewhat.²¹ The Secure and Fair Enforcement for Mortgage Licensing Act of 2008 (SAFE Act) mandated a nationwide licensing and registration system for originators of residential mortgage loans. It required retailers of manufactured homes to become licensed as finance entities and do all necessary reporting to state agencies on loans originated.²² The CFPB issued the Loan Originator Rule in 2013 to limit the compensation loan originators receive that is tied to the terms of the loans issued. For retailers of manufactured homes, the regulation stated that employees who take a consumer credit application, negotiate or offer credit terms, or advise consumers on credit terms had to become licensed loan

²⁰ If a home is titled as real estate and the land it is sited on is also being used to underwrite the loan, then the value of the property being financed would include both home and land, as is the case in traditional mortgage underwriting.

²¹ Most of these legislative changes stemmed from H.R. 4173, the Dodd-Frank Wall Street Reform and Consumer Protection Act. See <https://www.congress.gov/bill/111th-congress/house-bill/4173/text>.

²² For an overview of the SAFE Act, see <https://www.consumerfinance.gov/policy-compliance/guidance/supervision-examinations/secure-and-fair-enforcement-for-mortgage-licensing-safe-act-examination-procedures/>.

originators (CFPB, 2014). Efforts such as these were intended to “increase integrity in the residential mortgage loan market, enhance consumer protections, and reduce fraud” (HUD, n.d.).

These legislative changes were largely undone by the Economic Growth, Regulatory Relief, and Consumer Protection Act, signed into law in May 2018. Section 107 of this act “clarifies that manufactured- or modular-home retailers and their employees are not ‘mortgage originators’ subject to licensure and other regulation if they are not compensated for taking residential mortgage loan applications and do not directly negotiate loan terms.”²³ Consumer advocates have expressed concern that such changes allow for loan steering of those who would borrow to purchase a manufactured home (Edelman and Zonta, 2017; Finkelstein, 2018).

How the Manufactured Housing Finance Market Works

As summarized by Goodman and Ganesh (2018b), the manufactured housing finance market differs from the rest of the lending market for single-family homes in four important ways: It is dominated by a small group of specialized lenders who are more likely to issue chattel loans than mortgages; the median loan size is smaller than that for single-family, site-built homes (\$72,000 versus \$199,000); refinancing is rare and is usually handled by general (i.e., nonspecialty) lenders; and cash purchases are a significant part of the market, especially for pre-owned units.²⁴ As was mentioned earlier, the majority (77%) of new manufactured homes are titled as personal property and are therefore ineligible for mortgage finance. However, research into the loan choices of recent manufactured home buyers in Texas who might have been eligible for mortgage finance reveals that the majority also chose personal property loans: Among landowner purchasers (who, in theory, should have been eligible for mortgage finance), 61% chose to finance their home purchases with personal property loans (UNC Center for Community Capital and Freddie Mac, 2020). Considering why those who might be eligible for mortgage finance would instead choose a personal property loan, Goodman and Ganesh (2018c) cite two factors related to convenience: the logistical complications of titling a manufactured home as real property, and the ease of applying for personal property loans. As these researchers note, “Chattel lenders are ... typically available on-site when manufactured homes are sold, so the borrower can walk away with a loan the same day the home is purchased.”

The loan origination channels for manufactured homes, especially those titled as personal property, can differ somewhat from those for site-built housing. Homebuyers who seek mortgage financing for site-built housing can access a loan through one of four main origination channels: mortgage brokers, mortgage bankers, correspondent lenders, and direct lenders (Green, 2014). Those who seek financing to purchase a manufactured home can do so through retailers, specialized lenders, and traditional mortgage lenders (Pritchard, 2020). As has been emphasized, using a traditional mortgage lender depends on titling choice; it also depends on lenders’ willingness to work in the manufactured housing finance sector. The number of private firms financing manufactured housing is smaller than the number involved in the financing of site-built housing. This result has been credited to the relatively small presence of manufactured housing in the American housing market and to the fact that manufactured

²³ <https://www.rpc.senate.gov/legislative-notice/s-2155-the-economic-growth-regulatory-relief-and-consumer-protection-act>.

²⁴ The authors note that they do not have nationwide data on cash sales for manufactured housing, and that this finding is based on the dominance of cash purchases (57% of total; 74% of pre-owned purchases) in 2016 in the state of Texas.

homes are more often located in nonmetropolitan areas, where conventional banks have smaller footprints²⁵ and face higher cost structures (UNC Center for Community Capital and Freddie Mac, 2020).²⁶ The finance market for manufactured housing is far more concentrated than the overall mortgage market, with the top four lenders from 2012 through 2015 accounting for 48% of all loan originations for manufactured homes (Johnson and Todd, 2017).

Some researchers and advocates have suggested that borrowers struggle to obtain financing and that loans are more expensive for manufactured homes than for site-built homes (HAC, 2008; Goodman, Golding, Bai, and Strochak, 2018). There is limited research in this area, though what little there is tends to support this claim. For example, descriptive analyses of HMDA data have revealed that loan denial rates are “significantly higher” for manufactured housing than for other types of housing²⁷ (HAC, 2008; Mota, 2019); recent analysis by the CFPB (2021) found that only 27% of loan applications for manufactured homes resulted in issuance of a loan, compared with 74% of applications for site-built homes. Bhutta and Canner (2013) found that the denial rate for first-lien conventional home purchase loan applications for owner-occupied manufactured housing was four times that for loan applications for site-built homes (56% versus 13.7%). West’s (2006) analysis of HMDA data determined that mortgage applicants for manufactured housing “were rejected 30% more often than applicants for site-built houses at every level of income,” and that “people well above the median income are rejected for manufactured housing mortgage loans at much higher percentages than those with incomes below the median who apply for site-built home mortgages” (p. 36). Mota analyzes HMDA data using linear probability models in order to assess what loan, property, or lender attributes are correlated with loan origination in four specific geographies (which are either “rural” or “high-needs rural”): rural census tracts, rural census tracts within the Lower Mississippi Delta, rural census tracts within Middle Appalachia, and rural census tracts within “persistent poverty counties.” Mota’s analysis focuses specifically on loan originations in these areas. Contrary to what descriptive analyses of HMDA data suggest, this researcher finds that “a loan being for a manufactured home is much more strongly associated with a purchase origination occurring in one of these four markets than if the loan is for a site-built home” (p. 12). Mota qualifies this finding, however, by noting that it “reflects the fact that these ... markets represent a significantly higher share of the overall mortgage market for manufactured homes than site-built homes.”

²⁵ According to a 2018 report by Calhoun, Feltner, and Smith, community banks and credit unions with less than \$10 billion in assets are particularly important in rural home lending markets, originating nearly one in three rural mortgages. However, these authors find that the rural mortgage market, like its urban counterpart, is highly competitive, with “the top ten lenders holding a 20.9 percent market share” (p. 3).

²⁶ Another difference between lending for site-built versus manufactured housing is the presence of online nonbank lenders in each industry. (Nonbank lenders do not accept deposits, but they can issue loans.) Some 56% of all home purchase loans in 2019 were issued by nonbank lenders (Richardson and Edlebi, 2020), including online lenders such as Quicken Loans. Some online mortgage lenders do not offer financing to purchase manufactured homes, so such loans are less likely to come from this source. According to Calhoun, Feltner, and Smith (2018), considering lending for rural housing overall, “nondepositories... have a smaller market share in rural areas—a gap that is filled by community banks providing much-needed access to credit” (p. 3).

²⁷ Both articles focus specifically on denial rates in rural areas (which have the majority of loan originations for manufactured homes), and both note that the denial rates for manufactured housing are “significantly higher” than for site-built housing.

The literature also suggests that interest rates tend to be higher for loans to purchase manufactured housing than for mortgages. Personal property loans, which represent the majority of loans to purchase manufactured homes, have been found to have interest rates that are 50 to 500 basis points higher than mortgage loans for manufactured housing (CFPB, 2014). Research by Goodman and Ganesh (2018a) found that the average personal property loan for manufactured housing has an interest rate 4.4 percentage points higher than the average mortgage used for manufactured housing. Interestingly, mortgage loans for manufactured housing also seem to be priced higher than those for site-built housing. Descriptive analysis by the CFPB (2020) of 2019 HMDA data determined that “among manufactured housing home-purchase loans, 69.3 percent of conventional loans and 70.2 percent of FHA-insured loans were higher priced in 2019. In addition, among those manufactured housing, home-purchase, conventional loans that were higher priced, more than half exceeded the higher-priced threshold by 5 or more percentage points. This is markedly higher than for all other loan types”²⁸ (p. 51). Moreover, the CFPB’s analysis of 2019 HMDA data published in 2021 determined that the median interest rate for manufactured housing chattel loans was 8.6%, compared with a median of 4.9% for manufactured housing mortgages and 4.1% for site-built mortgages (CFPB, 2021).

The Use of HMDA Data to Examine Denial Rates in Manufactured Home Lending

There has been little research into denial rates in manufacture-home lending; the current research is intended to fill this gap. Denial rates in home lending more generally have been examined, often using HMDA data. This data has been used to examine disparate access to mortgage finance, generally with the goal of understanding differences by race/ethnicity, income, or gender (Wheeler and Olson, 2015; Bhutta and Canner, 2013; Hirasuna and Allen, 2012).

One of the most famous studies to use HMDA data to examine differential access to mortgage credit is the Boston Fed Study (Munnell, Browne, McEneaney, and Tootell, 1992), which considered conventional mortgage loan applications for residential properties in the Boston area in 1990. Recognizing the inherent limitations of HMDA data (a lack of credit scores and loan-to-value ratios), the authors combined HMDA data with information on loan applicants provided by financial institutions operating in the Boston area as well as census data. Ultimately, the authors concluded that “minority applicants, on average, do have greater debt burdens, higher loan-to-value ratios, and weaker credit histories and they are less likely to buy single-family homes than white applicants, and that these disadvantages do account for a large portion of the difference in denial rates. ... But these factors do not wholly eliminate the disparity, since the adjusted ratio implies that even after controlling for financial, employment, and neighborhood characteristics, Black and Hispanic mortgage applicants in the Boston metropolitan area are roughly 60 percent more likely to be turned down than whites” (p. 2). Numerous authors have undertaken research in response to this seminal study. Some of their results supported the Boston Fed Study findings, while others refuted them (see Carr and Megbolugbe, 1993; Bostic, 1997; Munnell, Tootell, Browne, and McEneaney, 1996). More generally, Yezer (2010) suggested that the theoretical and econometric issues involved with assessing causality in models of mortgage market discrimination and credit risk were immensely complex and unlikely to be resolved in the absence of more data and the

²⁸ The authors note that their definition of higher priced “pertains to APR [annual percentage rate] spread in Regulation C only, using a definition drawn from post-2009 Regulation C requirements” in which “loans were classified as higher-priced if the APR exceeded the average prime offer rate (APOR) for loans of a similar type by at least 1.5 percentage points for first-lien loans.” See CFPB, 2020, p. 46 for details.

adoption of more sophisticated econometric modeling methods that account for the strategic behavior of market participants.

Thus, the debate continues about how best to use HMDA data in order to explore disparate access to home purchase finance. For example, Li et al. (2014) criticize the use of the HMDA denial rate data to examine access to credit because “it doesn’t consider applicants’ credit profiles. For example, an increase in the denial rate can reflect either a tightening of the credit environment or an increase in applications by weaker-credit borrowers” (p. 7). To address these shortcomings, these authors combine HMDA, CoreLogic, and Survey of Consumer Finances data in order to measure “credit accessibility by three progression rates: the rate from demand to application (DAPR), from application to origination (AOPR), and from demand to origination (DOPR)” (p. 39). They focus in particular on weaker credit-profile applicants to see if racial differences in access to mortgage finance persist when credit history is taken into account. Ultimately, they conclude (p. 40):

“If we look only at applicants with weaker credit profiles, we find ... surprising results. First, when only applicants with weaker credit profile are considered, the differences among the denial rates of the four race and ethnicity groups almost disappear. Second, of the four groups considered, Hispanics and Asians with weaker credit profiles are deterred from applying for a mortgage more frequently than blacks and non-Hispanic whites. Blacks and non-Hispanic whites with low credit profiles who want credit progress at about the same rate from demand to origination (DOPR)—a rate about two times higher than that of their Hispanic and Asian counterparts. This racial difference in overall progression rates is driven by the racial gap in deter rates.”

Similarly, Goodman, Bai, and Li (2018) use HMDA data to explore the “real denial rate.” While the more traditionally used “observed denial rate” doesn’t account for changes in applicants’ credit profiles, the authors match HMDA data (for single-family, owner-occupied purchase applications) with CoreLogic proprietary data; the resulting matched data set includes both applicant demographics and mortgage credit characteristics. This allows them to arrive at a more accurate depiction of the denial rate for applicants with low-credit profiles. According to the authors, the real denial rate is superior to the observed denial rate because it “accounts for shifts in the composition of the applicant pool” across time. In particular, the real denial rate is preferable because, unlike the observed denial rate, the real denial rate does not understate how difficult it is for borrowers with less-than-perfect credit to get a mortgage; the real denial rate more accurately reflects differences across lending channels, with conventional channels having a higher real denial rate than government channels; and the real denial rate shows a narrower disparity by race/ethnicity than the observed denial rate because it accounts for differences in borrower credit profiles. As concerns small-dollar lending, the real denial rate is higher for small-dollar mortgages (up to \$70,000) than for larger loans, and the authors find that this difference is particularly large in the government loan market.

Even if HMDA did include information on credit scores for loan applicants, there would still be the question of how accurately these reflect borrower creditworthiness. While credit scoring systems were created, in part, to circumvent any bias in individual decision-making around the issuance of credit, these systems were originally developed using “only data from those applicants previously awarded credit” (Capon, 1982, p. 87). Given America’s history of unequal access to property, credit, and other

means of wealth creation, Perry (2019) argues that models of underwriting “that rely on traditional measures of credit reputation, capacity, and collateral value are a function of past racism and discrimination” (p. 173).

In 2015, the CFPB amended HMDA in order to expand the data reported by lenders. The 2015 HMDA rule, which went into effect in 2018, helped increase the information available on mortgage loan denial by requiring lenders to report up to four reasons when they deny a loan application. According to analysis conducted after this change, the four most frequently cited reasons for denial of home-purchase and refinance loan applications were applicant credit history, DTI ratio, collateral, and credit application incomplete (CFPB, 2020). For home-purchase applications in particular, “DTI ratio was overwhelmingly the most common reason for denial. ... In addition, for denied home-purchase applications, prospective lenders were more likely to cite collateral as the denial reason on conventional than on nonconventional applications” (p. 41). This analysis also found differences in denial across racial and ethnic groups (p. 45):

“The DTI ratio was cited most often as a denial reason for home-purchase applicants in all racial and ethnic groups. Credit history was the second most common denial reason cited for home-purchase applicants for all groups except Asians, for whom credit application incomplete was the second most common reason for conventional loans, as well as conventional and nonconventional loans combined.”

Another recent change in HMDA reporting requirements, implemented in 2018, requires lenders to report key information for manufactured housing applications that was not previously available, namely whether the borrower owns the land on which the manufactured home will be sited and whether that land will be used as security for the loan. This change permits HMDA data users to differentiate between mortgages and personal property loans when analyzing denial rates and reasons for manufactured housing. CFPB (2021) analyzed this new HMDA data and arrived at several interesting findings: The majority of loan applications for manufactured homes (73%) did not result in a loan being originated; though mortgage interest rates fell in 2019, a very small share (under 4%) of chattel loan originations were for refinancing; manufactured home lenders seem to have adjusted their pricing in response to the 2014 changes to the implementation of the Home Ownership and Equity Protection Act (HOEPA) rule; some 42% of loans for manufactured housing are chattel loans; more than 60% of manufactured home borrowers own the land under their home; of the manufactured home borrowers who own the land under their home, 17% choose chattel financing; Black and African American, Native American and Indigenous groups in Alaska, Hispanic, and older borrowers are more likely to use chattel loans; and the market for manufactured home financing is more concentrated than the market for site-built mortgage financing.

Despite these recent policy changes with respect to HMDA reporting, the publicly available HMDA data remains somewhat limited as a basis for assessing whether borrowers who are interested in obtaining home purchase financing for manufactured housing have difficulty doing so. Because the data does not provide borrower credit histories, it is not clear how denial rates and reasons given in HMDA relate to underlying differences in borrower economic circumstances and creditworthiness, as compared with lender underwriting idiosyncrasies, such as what credit standards are applied or whether the CLTV is considered in the credit decision. Moreover, HMDA does not permit loan applications to be grouped by

borrower, so it is not clear how many borrowers or households were ultimately unable to obtain home purchase credit as a result of denied loan applications. Because of these limitations of the data, we supplement our analysis of HMDA with information from the MHOS, which provides information about the loan shopping experiences of a sample of manufactured home buyers in Texas who successfully obtained financing to purchase a home. Although geographically restricted to Texas, this data includes borrower credit profiles and income sources, as well as information about whether borrowers applied to multiple lenders.

Applying to Multiple Lenders: What the MHOS Data Reveals

Earlier in this paper, we explained that we would expect that manufactured home buyers who experienced loan denials, including those who applied to multiple lenders for this reason before obtaining a home purchase loan, would be the ones who have relatively lower incomes and lower or missing credit scores. We take a moment here to consider what we know more generally about the manufactured home buyers who submit multiple loan applications.

When shopping for home purchase financing for any home, borrowers may apply to multiple lenders. One of the main reasons for doing so is to seek the best loan terms, including lower interest rates and fees. Another reason for applying to multiple lenders is concern about loan approval: Borrowers may fear an application for credit will be rejected due to a low credit score or to their having been turned down for credit in the past. According to the CFPB's (2015) examination of all mortgage borrowers (not specifically those purchasing manufactured homes), "Almost half of consumers who take out a mortgage for home purchase fail to shop prior to application; that is, they seriously consider only a single lender or mortgage broker before choosing where to apply" (p. 10). When it comes to actually applying for housing finance, the same report finds that 77% of applicants apply to just one lender.

Very little has been written on the loan shopping experiences of manufactured home buyers. The MHOS, which provides one source of data for this report, offered a look into the home loan application process of recent purchasers of manufactured homes in the state of Texas from 2015 through 2018. We review here what this data reveals about the manufactured home loan application process, focusing in particular on the submission of multiple applications.

Previous research using the MHOS data revealed that the majority of manufactured home buyers (63%) applied to only one lender, while almost a fifth (19%) applied to two lenders, and 14% applied to three or more.²⁹ When asked about their reasons for applying to multiple lenders, the majority (61%) who had done so cited the desire to find better loan terms, while 39% cited concern about qualifying for a loan. The share of those who applied to multiple lenders because of concern about qualifying for a loan was higher among mortgage borrowers (48%) than among those who financed their homes with personal property loans (36%) (UNC Center for Community Capital and Freddie Mac, 2020). In terms of loan choice, multivariate analysis of the MHOS data revealed that manufactured home buyers who applied to multiple lenders had lower odds of selecting a personal property loan: The exception to this was if they volunteered during the survey that they were referred to lenders by, or submitted loan applications through, the retailer/seller, in which case they were more likely to end up using a personal property loan. Specifically, applying to multiple lenders reduced the odds of selecting a personal property loan by

²⁹ The remaining 4% did not respond to this survey question.

about 40% for those who did not indicate that they had been assisted by a seller/retailer in the borrowing process. For those assisted by the seller/retailer in submitting multiple loan applications, the odds of using a personal property loan nearly doubled (UNC Center for Community Capital and Freddie Mac, 2020).

Characteristics of Texas That May Limit the Generalizability of MHOS Findings

As previously noted, Texas is one of the leading markets for manufactured housing in the country: It received 18% of the nation's manufactured home shipments in 2020, followed by Florida (7%), North Carolina (6%), and South Carolina and Alabama (5% each) (U.S. Census Bureau, 2020c). However, Texas differs from other states in ways that may limit the generalizability of findings from the MHOS. First, Texas has a booming economy—"the 9th largest economy among the nations of the world"—and has led "the nation in job creation over the last 10 years and in population growth over the last 14" (Texas Economic Development, 2021). Second, housing in Texas has long been known for its affordability, though this is gradually shifting, especially in the state's large metropolitan areas, where nearly all of Texas' economic and population growth is taking place³⁰ (Fulton, 2020). Third, the homeownership rate in Texas (62%) is slightly lower than it is nationally (64%) (U.S. Census Bureau, 2020a and 2020b). Fourth, manufactured home title records in Texas are public information, whereas many states title manufactured housing through their Department of Motor Vehicles or a similarly named agency, which makes them confidential under federal privacy legislation; it is unclear how the confidentiality of title records may impact the purchase, sale, and financing of manufactured homes.

One thing that complicates the purchase and financing of manufactured homes is the intricate legal environment surrounding this type of housing. Titling laws are determined at the state level, and zoning regulations—which can affect the siting of manufactured homes—vary at the local level.³¹ Both of these things affect the opportunity to choose and site manufactured housing and the financing one may use for home purchase. Because there is variation in the treatment of manufactured homes throughout the country, the findings in this paper that relate to Texas will be most applicable to states that take a similar approach in legislating and regulating manufactured housing. Briefly, Texas treats all manufactured homes as personal property by default: The decision to title a manufactured home as real property—or to keep the personal property designation—happens when owners of manufactured homes file an Application for Statement of Ownership within 60 days of home purchase.³² A manufactured home may be titled as real property in Texas only if the homeowner owns the land the home is attached to, or has the written consent of all lienholders on file, or holds a long-term lease (of at

³⁰ Sixty-two percent of Texans live in the Texas Triangle, defined as the 35 counties surrounding Houston, Dallas-Fort Worth, Austin and San Antonio. Estimates are that 85% of new population growth in Texas since 2010 has occurred in the Texas Triangle, where nearly 80% of the state's economic activity takes place (Fulton 2020).

³¹ Texas is known for its limited use of zoning, including in Houston, "the only major American city that lacks zoning" (Holeywell, 2015). This does not mean that Texas lacks regional planning or "de facto" zoning in regions with limited zoning. In Houston, for example, a "mixture of ordinances, policies, tactics by neighborhoods, and independent efforts by nonprofits ... play a role in determining how land is used" (Kinder Institute, 2020). As in all states, zoning is a local matter in Texas, and a full exploration of local zoning regulations and their effect on the placement of manufactured housing in Texas is beyond the scope of this paper. (Those interested in a thorough history of zoning in Texas should see Dahlstrom, 2013.)

³² All home purchasers in Texas are required to file an Application for Statement of Ownership with the Texas Department of Housing and Community Affairs within 60 days of the sale of a home.

least five years) on the land.³³ Texas takes a firm stance on the installation of manufactured housing. It is illegal for a retailer there to sell a manufactured home with any type of temporary installation; all manufactured homes must meet, at a minimum, the Model Installation Standards established by HUD (Title 24, Subtitle B, Chapter XX, Part 3285) as well as Texas standards for permanent installation, and these requirements apply whether a home is titled as real or personal property.³⁴

In the next section, we introduce the data in more detail and summarize our methods of analysis.

³³ For full details, see the Texas Department of Housing and Community Affairs' [Manufactured Housing Rules \(state.tx.us\)](https://www.state.tx.us/hca).

³⁴ Personal communication from industry representative in Texas. See also the Texas Department of Housing and Community Affairs' [Manufactured Housing Rules \(state.tx.us\)](https://www.state.tx.us/hca).

III. Data and Methods

As previously noted, we leverage two major data sources for our analysis. First, we analyze public HMDA data from 2018 and 2019. Published annually by the CFPB, HMDA data provides national coverage and contains information about home loan applications and the actions taken by lenders in response to those applications. We focus on 2018 and 2019 because key information about the usage of land as collateral for manufactured home loans was collected for the first time in 2018; we do not consider loan applications made after 2019 in order to avoid possible confounding due to COVID-19.

Second, we analyze MHOS data. The MHOS is a proprietary survey conducted by Freddie Mac and the UNC Center for Community Capital in 2018. The MHOS survey instrument was based largely on the survey instrument for the National Survey of Mortgage Originations (NSMO)³⁵ but was tailored to capture information relevant to manufactured housing. The MHOS provides information about the loan shopping and application experiences of a representative sample of manufactured home buyers who used financing to purchase manufactured homes as primary residences in Texas during the period of January 2015–April 2018. In particular, the MHOS includes information about whether these home buyers were initially denied financing and/or applied to multiple lenders before ultimately obtaining loans.

In the context of examining which property, loan, and borrower characteristics are associated with difficulty in obtaining home purchase financing, these two data sources complement each other. HMDA permits analysis at the application level, while the MHOS permits analysis at the borrower level.

A. Home Mortgage Disclosure Act Data

We focus our analysis of HMDA data on approximately 6 million complete loan applications submitted for the purchase of single-family, owner-occupied residential properties. To capture local geographic variation that may be systematically associated with lending decisions, we link this HMDA data with 2014-2018 five-year American Community Survey (ACS) estimates at the county level³⁶ and the 2013 Urban-Rural Classification Scheme for Counties³⁷ published by the National Center for Health Statistics (NCHS). The ACS provides estimates for local area population demographics and housing structure characteristics, and the NCHS classifies counties according to the degree of urban development, population size, and population density. For detailed tables summarizing the sample characteristics discussed in this section, see Appendix C.

Overall Sample Characteristics

About half of the loan applications in the sample were made by applicants located in large metro areas, followed by 37% in medium/small metro areas, and 13% in nonmetro areas. Whites accounted for about 69% of applicants, followed by Hispanics (15%), Blacks (9%), Indigenous peoples (1%), and other race/ethnic groups (7%). About 39% of loan applications reflected a coborrower, and 86% of applicants

³⁵ <https://www.fhfa.gov/DataTools/Downloads/Pages/National-Survey-of-Mortgage-Originations-Public-Use-File.aspx>.

³⁶ We use county ACS measures rather than census tract ACS measures to maximize the sample size and because county ACS estimates have a lower margin of error.

³⁷ https://www.cdc.gov/nchs/data_access/urban_rural.htm.

applied directly to the financial institution rather than using an indirect application channel. The median applicant household income was \$67,000 at the time of application. Conventional loans accounted for about 60% of the sample, followed by loans insured by the FHA (26%), the VA (11%), or the U.S. Department of Agriculture's Rural Housing Service or Farm Service Agency (RHS or FSA), at 4%.

Mortgage applications for the purchase of site-built properties represent the bulk of the sample (93%). Of the remaining 7% of applications, which are for the purchase of manufactured housing, about 42% are mortgage applications and 58% are applications for personal property loans. Recall that a mortgage includes the land beneath the housing unit as security for the loan, whereas a personal property loan does not.

Sample Characteristics by Loan Type

Consistent with differences in the underlying structural and collateral property characteristics, the property values and loan amounts associated with these loan applications generally differ substantially by loan type. The median property value for personal property loan applications for manufactured housing is \$65,000, compared with \$125,000 for manufactured housing mortgage applications and \$225,000 for mortgage applications for site-built housing. Median loan amounts reflect high original loan-to-value (LTV) ratios and follow a similar pattern: \$55,000 for personal property loans, \$115,000 for manufactured housing mortgages, and \$195,000 for site-built mortgages. Loan amounts less than \$150,000 represent about 29% of site-built mortgage applications, 73% of manufactured housing mortgage applications, and 97% of personal property loan applications for manufactured housing.

The data also indicates key differences across loan types with respect to borrower characteristics and the underwriting process. Median household incomes are higher for site-built mortgage applicants (\$68,000) than for manufactured housing applicants requesting mortgages (\$49,000) or personal property loans (\$45,000). About 12% of site-built mortgage applicants had DTI ratios greater than 50% at the time of application, compared with 20% of manufactured housing mortgage applicants and 27% of personal property loan applicants.

With respect to race/ethnicity, Whites represent roughly 70% of mortgage applicants (for both site-built and manufactured units) but about 50% of personal property loan applicants. Hispanics represent about 14% of site-built mortgage applicants, 11% of manufactured housing mortgage applicants, and 20% of manufactured housing personal property loan applicants. Blacks represent about 9% of site-built mortgage applicants, 6% of manufactured housing mortgage applicants, and 11% of manufactured housing personal property loan applicants. Indigenous peoples represent less than 1% of site-built mortgage applicants, about 1% of manufactured housing mortgage applicants, and about 2% of manufactured housing personal property loan applicants.³⁸ Note that the CFPB (2021) found that

³⁸ While beyond the scope of this paper, it bears mentioning that mortgage lending in areas under the jurisdiction of tribal governments can be complicated by the unique forms of land ownership in these areas. Land can be held in one of four ways. "Tribal trust land" is held in trust for the tribe by the federal government. "Individual allotted trust land" is also held in trust by the federal government, though for individual Native Americans; it can also be "held by individual Indians subject to federal restrictions against alienation or encumbrance." "Fee simple land" is held by an owner whose "interest is absolute and unrestricted." Land held under "fractionated ownership" is land to which multiple parties have claim, due to inheritance over time. These varied forms of ownership affect the use of land as collateral and can make mortgage lending in these regions difficult (Listokin et al., 2017, p. viii).

Whites, Hispanics, Native Americans, and Indigenous peoples in Alaska are overrepresented in originated manufactured housing loans as compared with site-built housing loans, and that Blacks are similarly overrepresented in personal property loans for manufactured housing.

Consequently, we find that applications for manufactured housing loans account for a slightly greater share of loan applications made by Hispanics and Indigenous peoples compared with the other racial/ethnic groups. Applications for site-built mortgages account for 94% of applications by White applicants, 94% of applications by Black applicants, 92% of applications by Hispanic applicants, and 88% of applications by Indigenous applicants. Applications for manufactured housing mortgages account for about 3% of applications by White applicants, 2% of applications by Black applicants, 2% of applications by Hispanic applicants, and 5% of applications by Indigenous applicants. Applications for personal property loans account for 3% of applications by Whites, 5% of applications by Blacks, 6% of applications by Hispanics, and 8% of applications by Indigenous peoples.

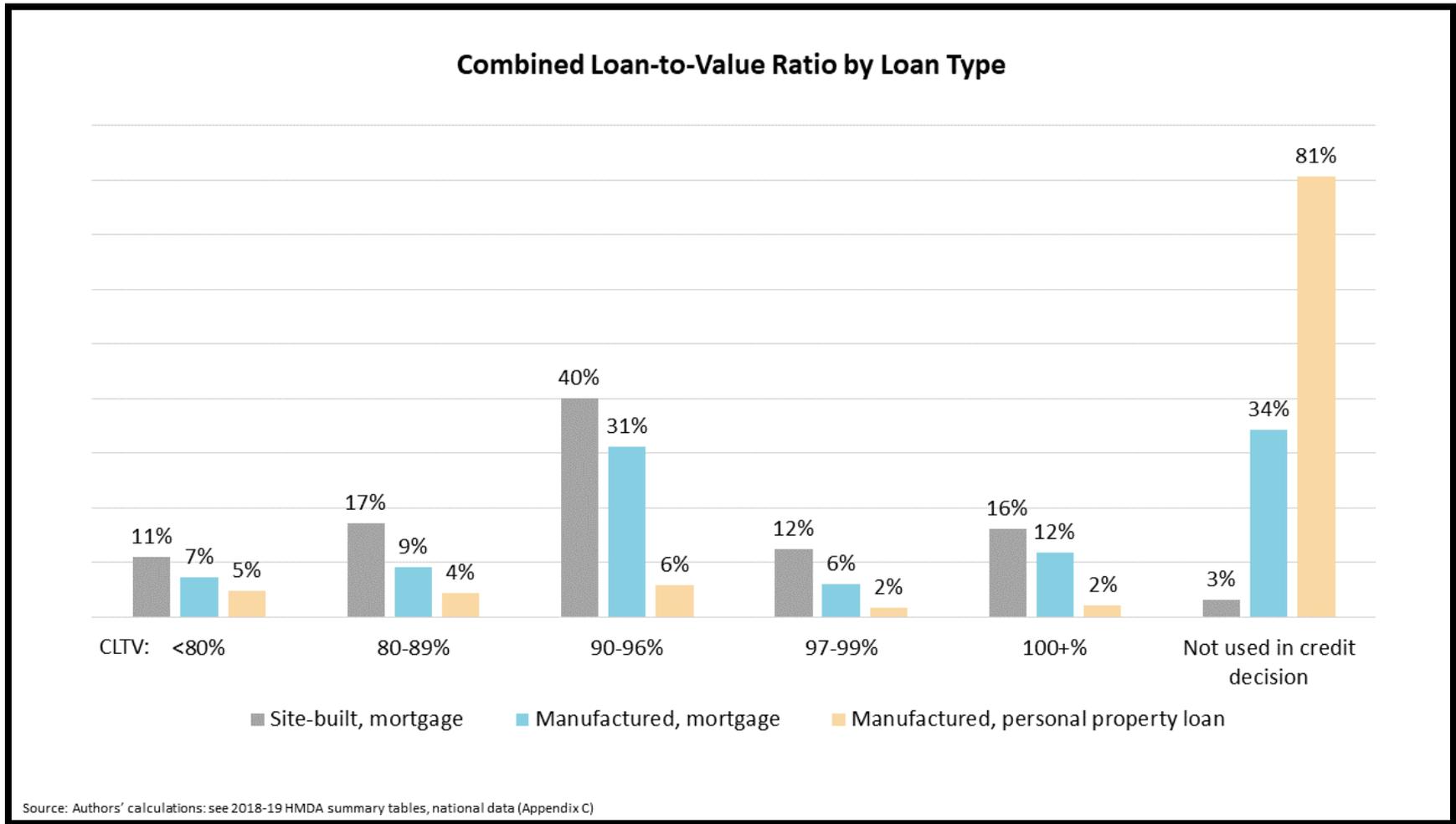
Conventional loans account for about 60% of mortgage applications (for both site-built and manufactured units), followed by FHA loans (roughly 30%), whereas about 99% of personal property loans are conventional.³⁹ VA loans account for about 11% of site-built mortgage applications and 8% of mortgage applications for manufactured housing. The use of an indirect loan application channel appears slightly more common for personal property loan applications (15%) and site-built mortgage applications (14%) than for manufactured housing mortgage applications (12%). Moreover, for about 81% of personal property loan applications and 34% of manufactured housing mortgage applications, lenders did not use CLTV⁴⁰ information in making their credit decisions⁴¹; in contrast, CLTV information was not used for only about 3% of site-built mortgage applications (see Figure 2). While we do not observe credit histories in the data, to the extent that these borrower and loan characteristics tend to be correlated with household credit profiles, we can infer that applicant credit scores are likely somewhat lower for manufactured housing loan applications, on average, than for site-built loan applications. However, the fact that personal property loans are almost entirely conventional and are mostly underwritten without regard for CLTV suggests that manufactured housing lenders may apply higher personal credit standards for personal property loans than for mortgages, and that manufactured housing lenders generally may be inclined to underwrite manufactured housing loans more like auto loans than like traditional home purchase loans.

³⁹ Conventional loans are defined as loans that are not FHA, VA, or USDA loans.

⁴⁰ The CLTV reflects the total amount of debt secured by the property as a percentage of the value of the property. The CLTV is correlated with borrower default risk and provides information about the collateral value of the property in the event of borrower default. More information is available at <https://www.mortgagesanalyzed.com/gyan/finance/math/combined-loan-to-value>.

⁴¹ In these cases, lenders record a value of “NA” for CLTV.

Figure 2



Geographic Characteristics by Loan Type

Geographic differences by loan type are also apparent. About 52% of mortgage applications for site-built housing come from large metro areas; medium/small metro areas represent 36%, and nonmetro areas represent 12%. In contrast, about 22% of manufactured housing mortgage applications come from large metro areas, 39% from medium/small metro areas, and another 39% from nonmetro areas. Comparable percentages for personal property loan applications are 32%, 37%, and 31%.

As illustrated in Figures 3-5, manufactured housing loans tend to be concentrated in the Southeast and Southwest, and are more prevalent in rural areas, where site-built lending is less common. We also observe differences by loan type with respect to what fraction of the county housing stock represents manufactured/mobile homes. (Recall that we merged county-level ACS measures with individual HMDA applications based on county code. One of these measures tells us the percentage of housing units that are manufactured housing or mobile units in the county associated with each loan application. When averaged across loan applications, this measure tells us how prevalent manufactured housing is in the locations where the HMDA loan applications were submitted.⁴²) On average, we find that manufactured/mobile homes represent about 6% of the housing stock in the counties in which site-built mortgage applicants are located. This figure rises to 16% for manufactured housing mortgage applicants and 14% for personal property loan applicants.

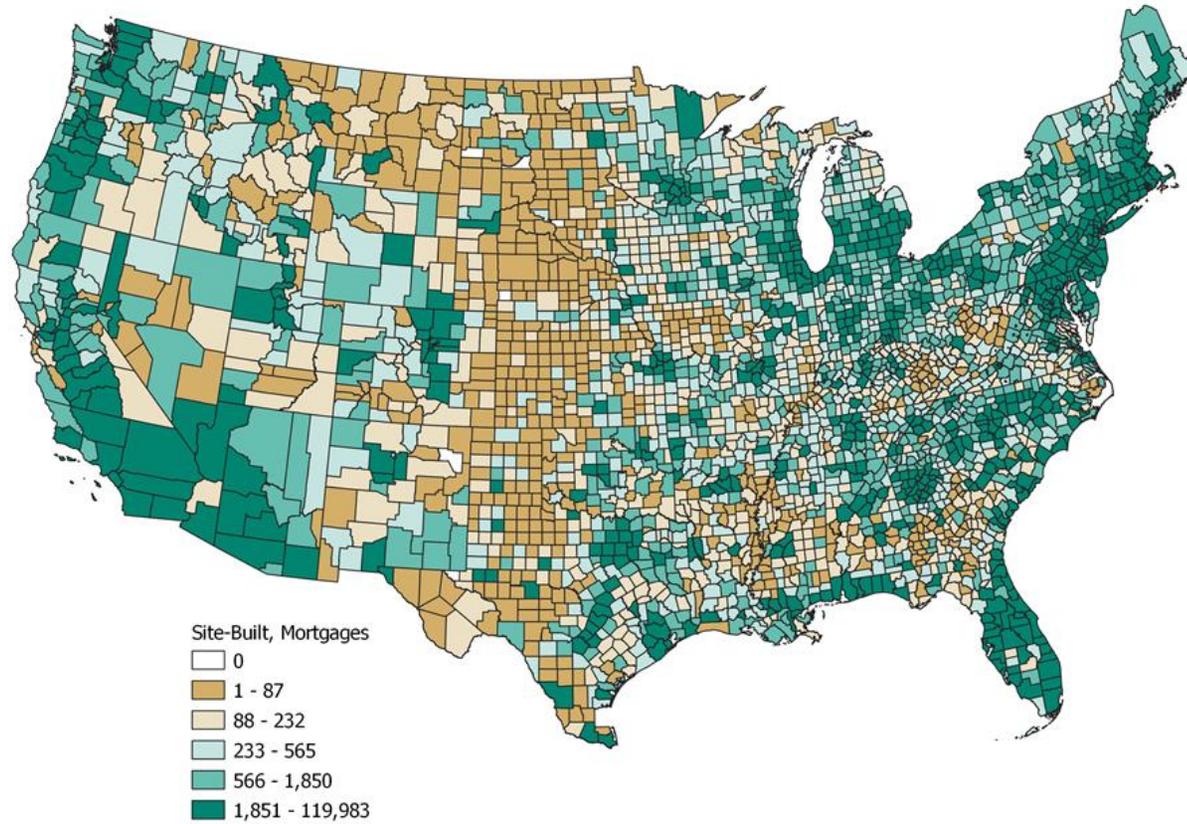
These differences suggest partial segmentation of the housing market by property type, with applications for manufactured housing more prevalent in rural areas and where manufactured homes represent a greater share of the housing stock.⁴³ These differences may be associated with different rates of denial across loan and property types, because the number of lenders operating in urban areas tends to be higher than in rural areas (which may facilitate consumer credit access through increased lender competition), or because credit access for manufactured housing financing may be more accessible in those areas where lenders have more experience making manufactured housing loans, given the specialized nature of this type of financing.

⁴² For example, suppose that manufactured housing represents X% of the housing stock in County A. If a borrower living in County A applies for a loan, we could say that the county-level prevalence or representation of MH units is X% for that loan. We average this measure across loan applications nationally and by loan type.

⁴³ This segmentation may partly reflect differences in zoning between urban and rural areas.

Figure 3

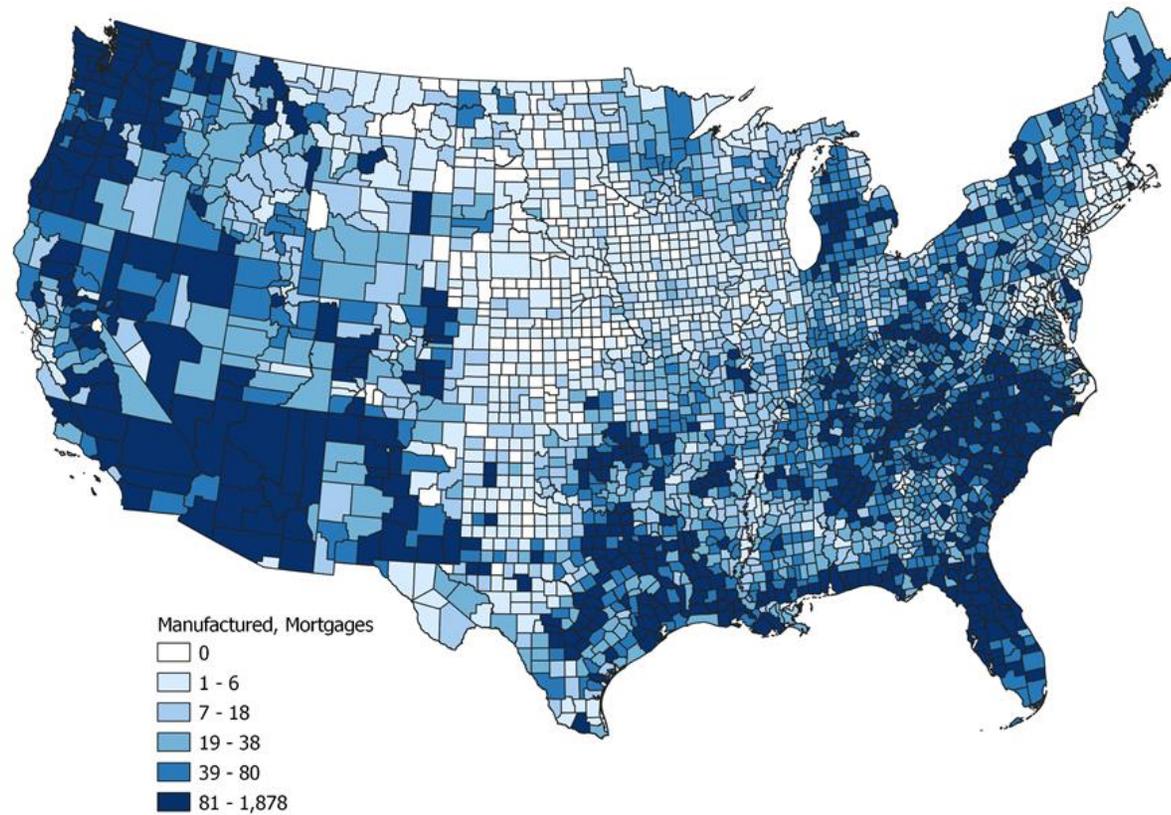
Mortgage Loan Applications for Site-Built Housing Units, Contiguous United States, Counties



Source: Authors' calculations, 2018-19 HMDA descriptive sample. Counties with a positive number of applications are classified by quintile.

Figure 4

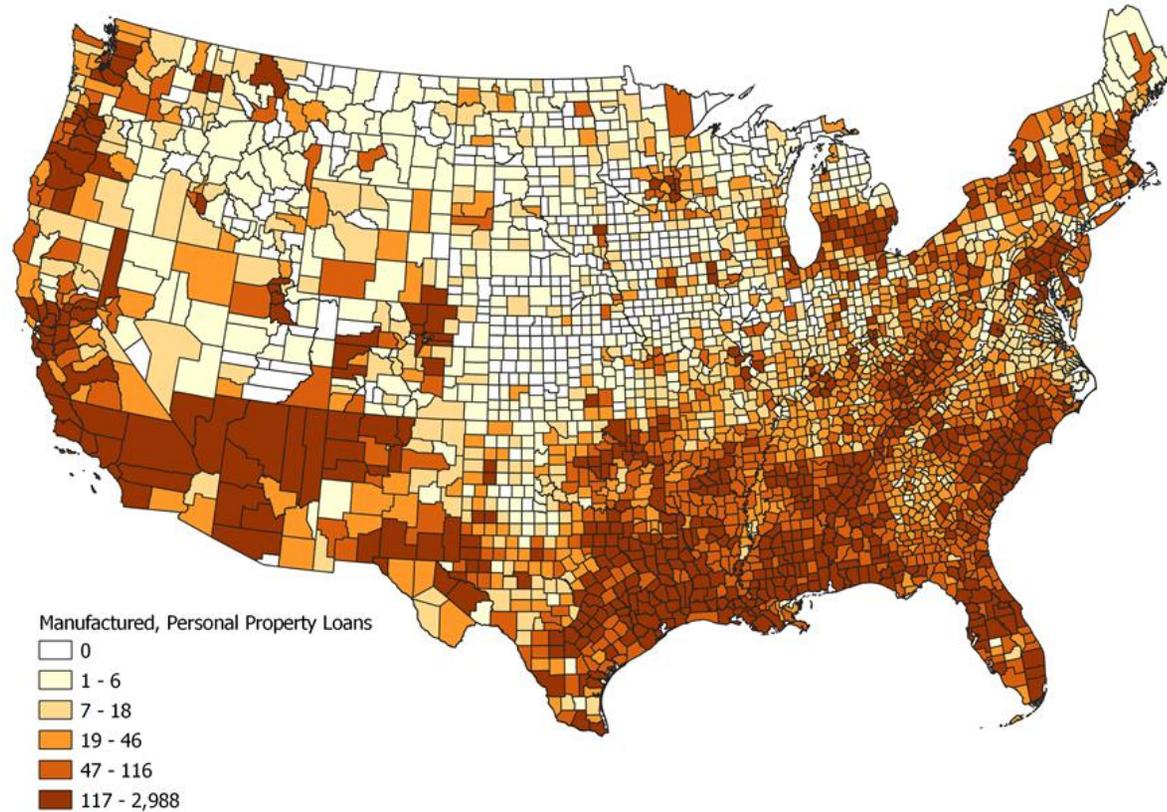
Mortgage Loan Applications for Manufactured Housing Units, Contiguous United States, Counties



Source: Authors' calculations, 2018-19 HMDA descriptive sample. Counties with a positive number of applications are classified by quintile.

Figure 5

Personal Property Loan Applications for Manufactured Housing Units, Contiguous United States, Counties



Source: Authors' calculations, 2018-19 HMDA descriptive sample. Counties with a positive number of applications are classified by quintile.

How Texas Compares With the Nation

Consistent with its current position as a growth market for manufactured housing, Texas represents about 10% of the overall sample, and the distribution of applications by loan and property type in Texas provides slightly higher representation of manufactured housing and personal property loans as compared with the nation as a whole. For Texas, site-built housing accounts for 89% of loan applications (compared with 93% for the nation). The remaining 11% of applications made for the purchase of manufactured housing units consists of about 27% mortgage applications (compared with 42% nationally) and 73% personal property loan applications (compared with 58% nationally).⁴⁴

Texas also differs notably from the nation with respect to metro classifications, minority representation, debt usage, loan amount requested, and whether lenders use CLTV in the credit decision for manufactured housing applications (see Appendix C for tables providing side-by-side comparisons of Texas and the nation). About 70% of all loan applications in Texas come from large metro areas, compared with 50% nationally. Among manufactured housing loan applicants, about half of those in Texas come from large metro areas, compared with 20% to 30% nationally (see Figure 6). As illustrated in Figures 7-10, loan applications for both manufactured and site-built housing tend to be clustered in similar areas in Texas and to be most prevalent in areas with higher population density. Taken together, these patterns may indicate that the housing market in Texas is somewhat less geographically segmented by housing type than in the nation as a whole.

⁴⁴ The percentages in this paragraph are derived from the analytic sample sizes provided in Appendix C.

Figure 6

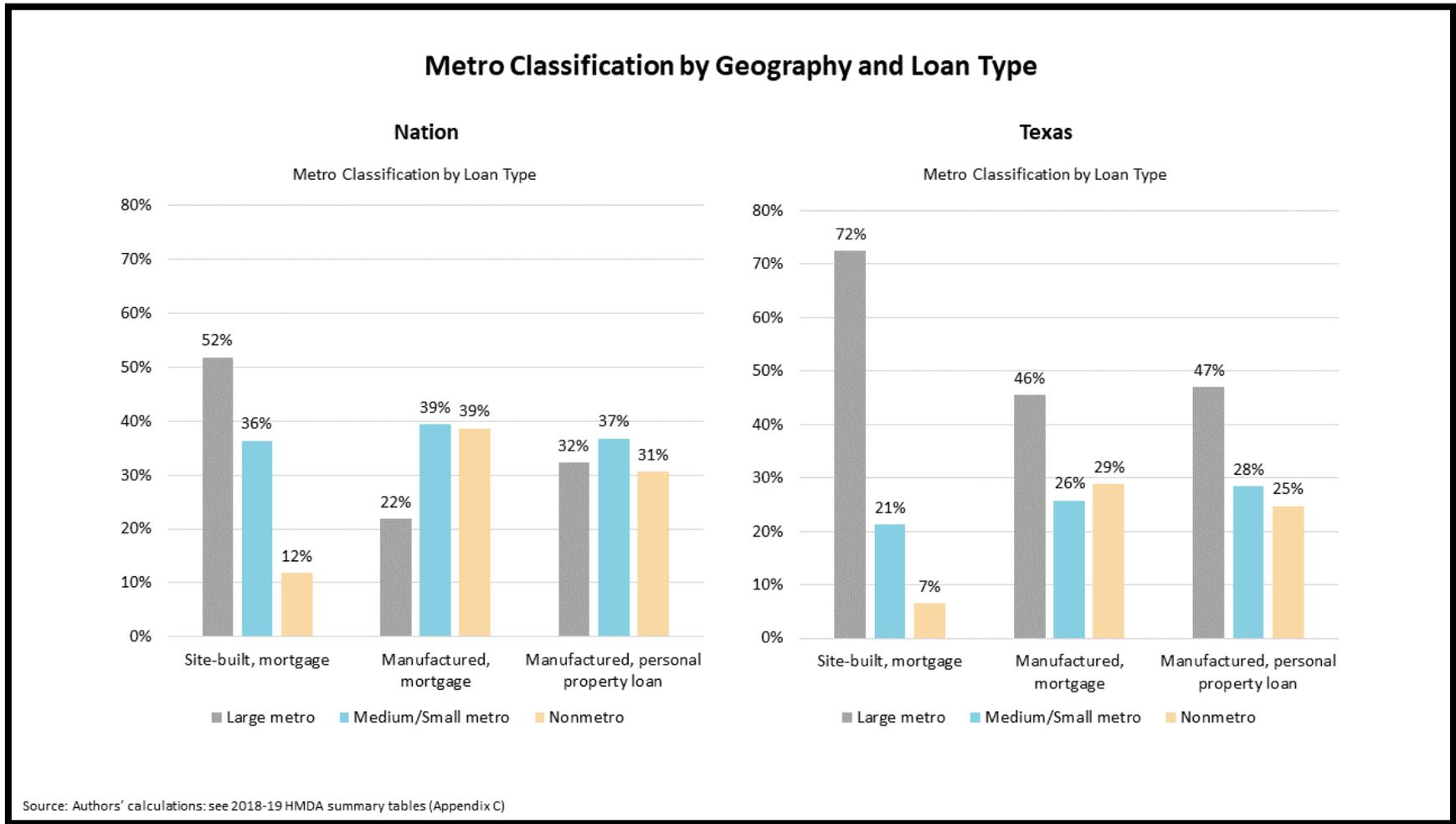


Figure 7

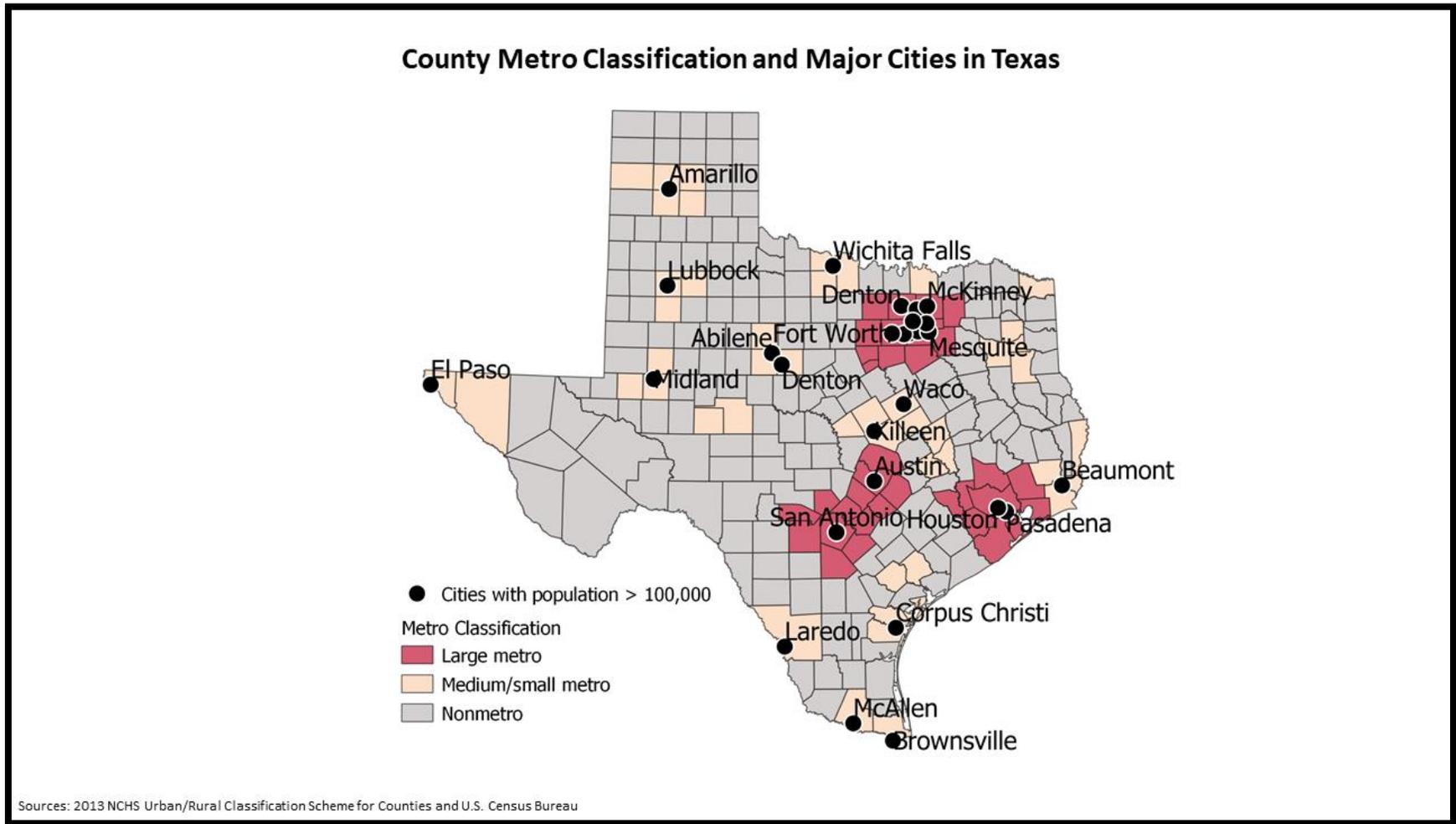
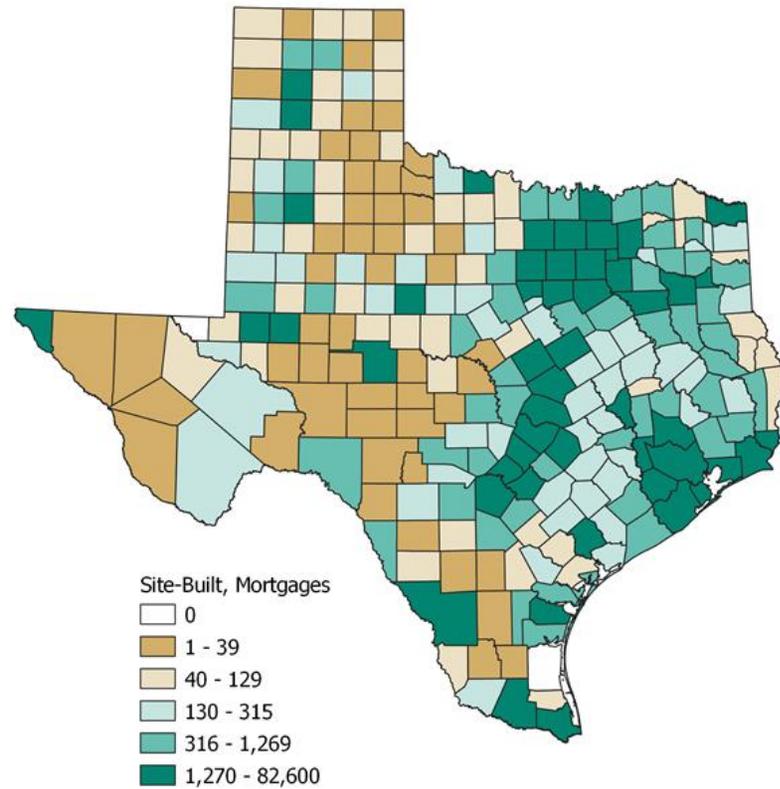


Figure 8

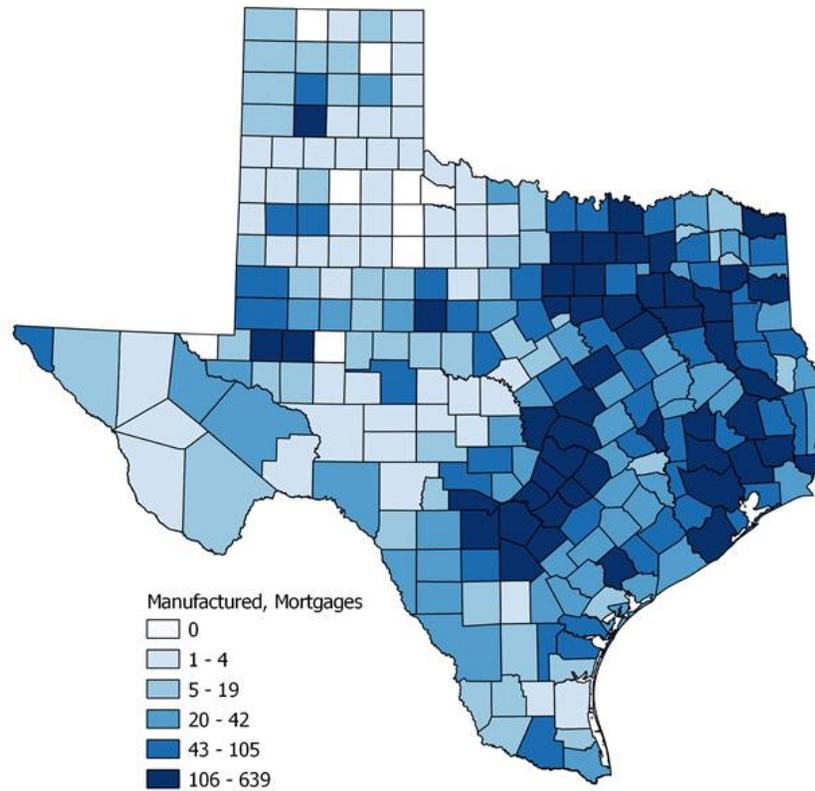
Mortgage Loan Applications for Site-Built Housing Units in Texas Counties



Source: Authors' calculations, 2018-19 HMDA descriptive sample. Counties with a positive number of applications are classified by quintile.

Figure 9

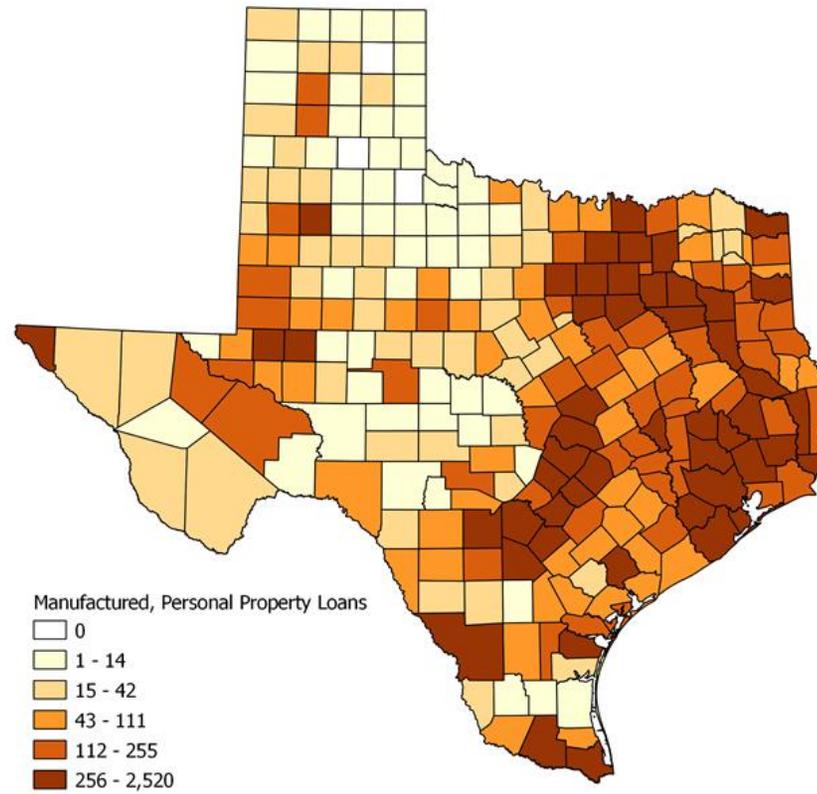
Mortgage Loan Applications for Manufactured Housing Units in Texas Counties



Source: Authors' calculations, 2018-19 HMDA descriptive sample. Counties with a positive number of applications are classified by quintile.

Figure 10

Personal Property Loan Applications for Manufactured Housing Units in Texas Counties



Source: Authors' calculations, 2018-19 HMDA descriptive sample. Counties with a positive number of applications are classified by quintile.

How Texas Compares With the Nation (cont'd.)

Whites and Hispanics, respectively, represent 50% and 33% of overall applicants in Texas, compared with 69% and 15% of applicants nationally. The discrepancy is especially pronounced for personal property loan applicants: About 47% in Texas are Hispanic, compared with 20% nationally. Moreover, applications for personal property loans represent a greater share of Hispanic loan applications in Texas (12%) than nationally (6%) (see Figures 11 and 12).

In addition, about 18% of applicants in Texas have DTI ratios of 50% or more, compared with about 13% of applicants nationally. In this case, the disparity primarily reflects site-built mortgage applications: 17% of site-built mortgage applications in Texas have DTI ratios of at least 50%, versus 12% nationally. Applications for loan amounts below \$150,000 represent about 29% of applications in Texas, compared with 33% nationally. For site-built mortgage applications, about 21% of applications in Texas are for amounts below \$150,000, compared with 29% nationally. About 73% of manufactured housing mortgage loan applications, both nationally and in Texas, are for amounts below \$150,000. For personal property loan applications, about 98% are for amounts below \$150,000, which is similar to the 97% observed nationally. Finally, the tendency of lenders not to use CLTV in making credit decisions for manufactured housing applications is higher in Texas than in the nation overall. CLTV was not used in 59% of manufactured housing mortgage applications in Texas, compared with 34% nationally; comparable percentages for personal property loans are 88% and 81%, respectively.

Figure 11

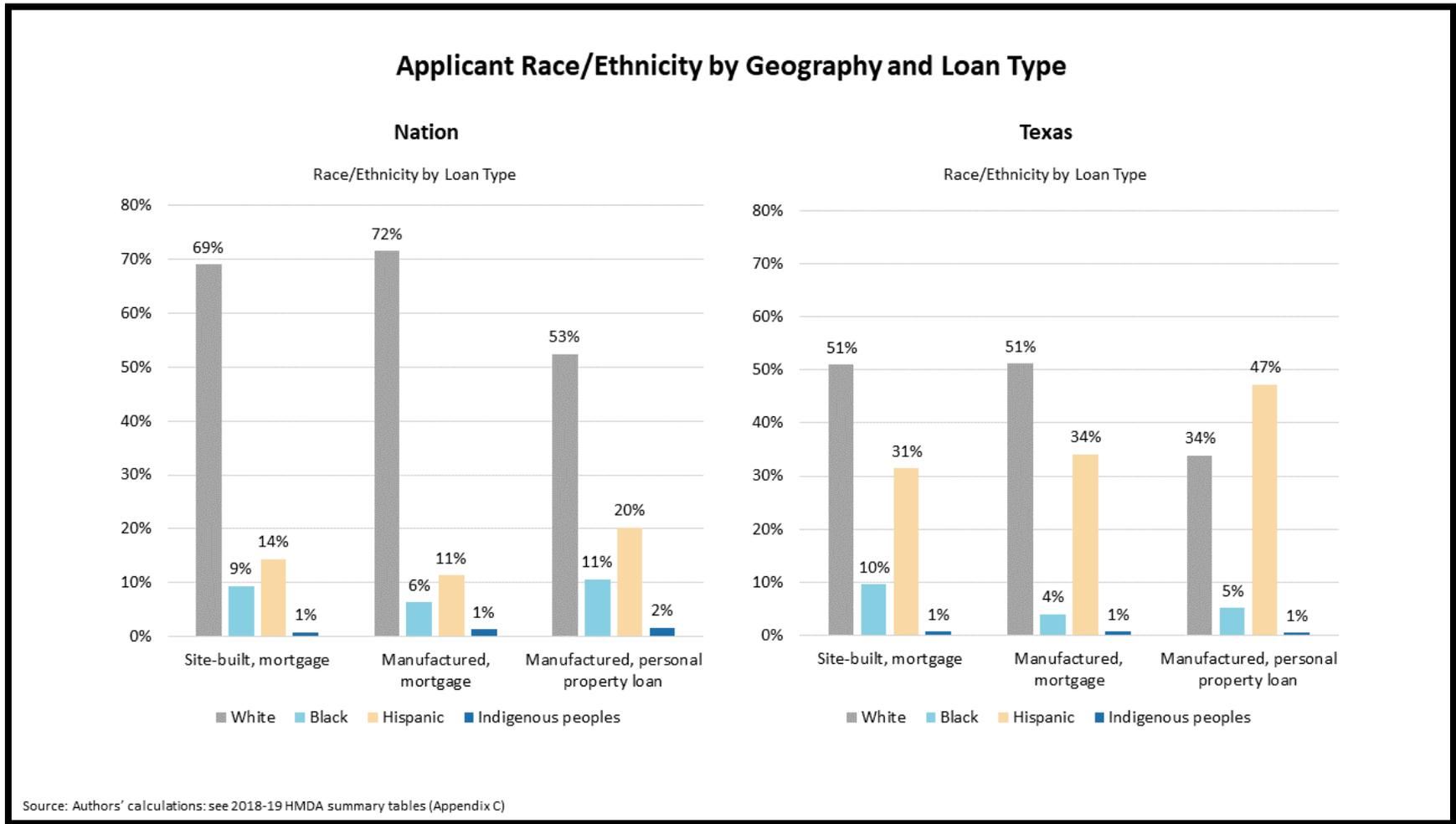
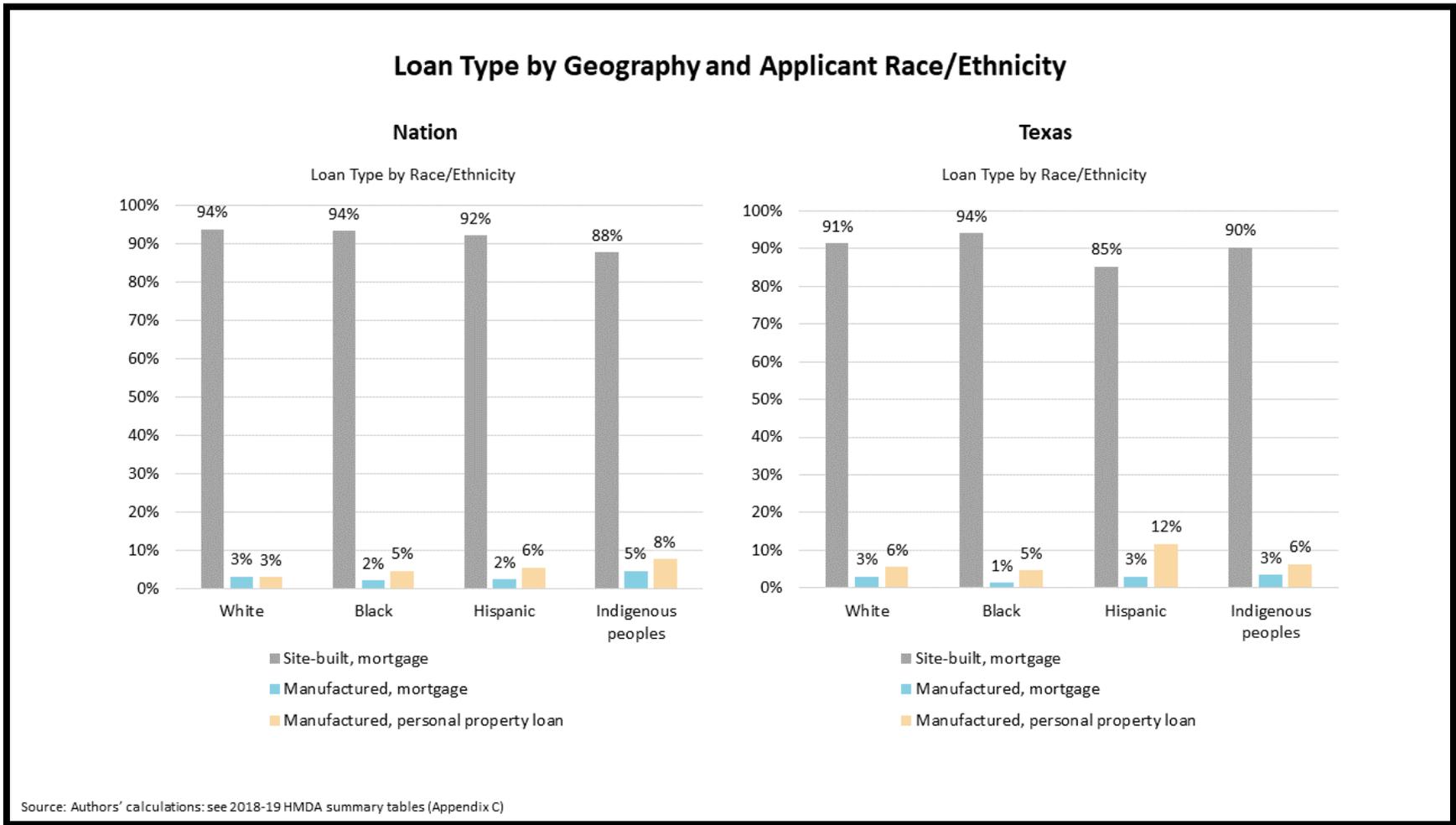


Figure 12



How We Analyze the HMDA Data

In Section IV, we leverage the HMDA data to provide a descriptive overview of denial rates and reasons by geography and loan type. To illustrate the relationship of loan amount, race/ethnicity, insuring agency, and credit-history-related denials to denial rates, we then break down denial rates and reasons by these dimensions. Corresponding tables providing detailed descriptive breakdowns are provided in Appendix B. After this descriptive analysis, we summarize results from a series of multivariate probit regressions exploring the predictors of loan denial at the application level. In these regression models, we explore the relationship of routine underwriting parameters (i.e., household income, DTI ratio, and CLTV), the loan application channel (direct or indirect) and the insuring agency (conventional versus FHA, VA, or RHS/FSA) to the likelihood of loan denial by loan type, while controlling for borrower demographics, the year of loan origination, and geography. For the interested reader, we discuss sample construction in more detail and provide summary statistics for the measures used in the multivariate analysis in Appendices A and C, respectively. Probit estimation results are provided in Appendix D.

B. Manufactured Home Owners Survey Data

The MHOS consists of survey responses from 1,356 home owners in Texas who used financing to purchase manufactured homes as primary residences. The survey responses are weighted to represent approximately 27,000 similar manufactured home buyers. Before personal identifiers were removed, the survey data was linked with the same NCHS county metro classification data used above for our HMDA analysis and with credit profiles from a major credit bureau. The credit profiles provide borrower credit scores measured just prior to loan origination, as well as information about whether a DTI ratio is present in each borrower's credit file. For additional information about MHOS sampling, weighting, and survey design, see UNC Center for Community Capital and Freddie Mac (2020). For detailed tables summarizing the sample characteristics presented in this section, see Appendix E.

Overall Sample Characteristics

About 48% of the sample comes from large metro areas, which is similar to the large metro representation of Texas manufactured housing loan applications in HMDA. Medium/small metro areas and nonmetro areas each account for roughly 26%. First-time homeowners represent about half of the sample. With respect to race/ethnicity, about 61% of MHOS participants are White. Hispanics represent an additional 30% of the sample, followed by Blacks, who represent 4%. About 27% of the sample indicated that they spoke a language other than English, and about 17% of respondents said that they considered it important that their lender could speak their native language and/or provide documents in that language.

About 53% of the manufactured housing units purchased by MHOS participants were titled to more than one owner (joint title, which may serve as a proxy for marriage), and 66% were new at the time of purchase. One-section units represent 43% of these manufactured housing units, and two-section units represent 56%. About 61% of MHOS respondents owned the land on which their homes were sited. The majority (76%) of MHOS respondents took out personal property loans to purchase their homes,⁴⁵ and 33% applied to more than one lender during the process of obtaining financing. Among landowners, about 61% took out personal property loans,⁴⁶ and 34% applied to more than one lender.

⁴⁵ Note that 28 MHOS respondents who said they took out a mortgage (which the survey defines as including the home and the land) also said they did not own the land on which their homes were sited. We classified these 28 cases as personal property borrowers for the current analysis, which increases the weighted percentage of borrowers with personal property loans to 76%, compared with the 73% figure reported in UNC Center for Community Capital and Freddie Mac (2020).

⁴⁶ Using HMDA data, CFPB (2021) estimates that about 17% of direct landowners take out personal property loans nationally. When we restrict our HMDA analytic sample of loan applications to include only originated loans, we, too, estimate that 17% of direct landowners take out personal property loans nationally. However, this figure rises to 42% in Texas. Thus, the discrepancy between the estimates obtained from the two data sources (HMDA and MHOS) is less dramatic than it appears and primarily reflects geography. Additional factors that may contribute to the difference are the inclusion of indirect land ownership in MHOS estimates and the fact that personal property loans appear to be underreported in HMDA, while mortgages appear to be underreported in Texas manufactured housing title records data.

Sample Characteristics by Loan Type

On average, the survey participants who took out personal property loans differ in several respects from those who took out mortgages. About 38% of mortgage borrowers have incomes for \$65,000 or more, compared with about 25% of personal property borrowers. Personal property borrowers and mortgage borrowers have similar credit score distributions, but the former are slightly more likely to be missing DTI ratios in their credit files (11% versus 6%). With respect to income sources, mortgage borrowers are slightly less likely than personal property borrowers to receive retirement, Social Security, or other pension income (21% versus 28%). Personal property borrowers are also somewhat older than mortgage borrowers, on average: About 17% of personal property borrowers are aged 55-64, compared with 13% of mortgage borrowers, and 15% of personal property borrowers are older than 65, compared with 10% of mortgage borrowers. Mortgage borrowers are slightly more likely than personal property borrowers to be married (68% versus 62%) and less likely to have never been married (8% versus 13%).

About half of personal property borrowers and mortgage borrowers are first-time homeowners, but personal property borrowers are more likely to purchase new units (74% versus 43%). Manufactured housing units purchased by personal property borrowers are also less likely to carry a joint title (49% versus 65%) and less likely to have more than one section (51% versus 75%). About half of personal property borrowers own the land on which their homes are sited.

With respect to race/ethnicity, mortgage borrowers are more likely to be White (69% versus 58%) and less likely to be Hispanic (25% versus 31%). Similarly, personal property borrowers are more likely than mortgage borrowers to speak a language other than English (28% versus 22%), and more likely to say that it was important for the lender to be able to speak (18% versus 13%) or provide documents in (17% versus 11%) their primary language.

Personal property borrowers and mortgage borrowers report roughly similar levels of loan process knowledge, as about 18% of each group indicated that they were not familiar with various aspects of the loan process prior to shopping for a loan.⁴⁷ However, personal property borrowers were nearly twice as likely as mortgage borrowers to volunteer that they applied for their loan through or were referred to their lender by the seller or retailer (20% versus 11%). Among landowners who took out personal property loans, this percentage rises to 25%. In addition, personal property borrowers were slightly less likely than mortgage borrowers to indicate that they were concerned about qualifying for a loan (67% versus 73%).

How We Analyze the MHOS Data

In Section V, we leverage the MHOS data for a descriptive analysis of how those borrowers who submitted multiple loan applications differ from those who did not. For those who applied to multiple lenders, we further explore which borrowers did so because they had previously been turned down on a loan application. After this descriptive analysis, we estimate multivariate probit models to identify key predictors of whether borrowers taking out each type of loan applied to multiple lenders when shopping for financing. Detailed descriptive tables and model estimates are provided in Appendices E and F.

⁴⁷ “Low prior loan process knowledge” is an indicator capturing whether the respondent provided five or more “not at all” or missing responses to survey question 26, which concerns familiarity with various aspects of the borrowing process at the beginning of that process.

IV. Results: Denial Rates, Reasons, and Predictors

A. Denial Rates

National Denial Rates

As summarized in Table 1, our descriptive analysis⁴⁸ of the HMDA data reveals that the denial rate for loan applications stands at about 11% nationally. However, we observe variation by loan type, loan size, applicant race/ethnicity and gender, and insuring agency. Approximately 54% of loan applications for manufactured housing are denied, compared with 7% for site-built housing. Mortgages overall (site-built and manufactured) are denied at a rate of about 9%, compared with 64% for personal property loans.

Considering all loan types, smaller loan sizes (< \$150,000) are associated with higher denial rates (19%, versus 7% for loan amounts of \$150,000 or more). Moreover, Blacks, Hispanics, and Indigenous peoples overall experience higher denial rates than Whites (18%, 15%, and 17%, respectively, versus 9%), and female loan applicants are denied at slightly higher rates than male applicants (12% versus 10%). The denial rate for conventional loans stands at about 12%, compared with 11% for FHA loans and 6% for VA loans.

⁴⁸ Construction of the HMDA descriptive and analytic samples is discussed in Appendix A.

Table 1: HMDA Descriptive Sample, Applications and Denials	Nation				Texas			
	Applications		Denials		Applications		Denials	
	N	Share of applications	N	Denial rate	N	Share of applications	N	Denial rate
All	6,340,322	100.0%	689,245	10.9%	657,769	100.0%	92,683	14.1%
Property type								
Manufactured housing	469,022	7.4%	253,543	54.1%	76,155	11.6%	46,332	60.8%
Site-built housing	5,871,300	92.6%	435,702	7.4%	581,614	88.4%	46,351	8.0%
Loan type								
Mortgage	6,066,184	95.7%	513,539	8.5%	600,822	91.3%	56,111	9.3%
Personal property loan	274,138	4.3%	175,706	64.1%	56,947	8.7%	36,572	64.2%
Loan amount								
<\$150,000	2,101,050	33.1%	400,983	19.1%	187,365	28.5%	55,515	29.6%
\$150,000+	4,239,272	66.9%	288,262	6.8%	470,404	71.5%	37,168	7.9%
Race/ethnicity								
Other or unknown	980,219	15.5%	128,414	13.1%	120,674	18.3%	17,423	14.4%
White	3,933,874	62.0%	334,444	8.5%	287,776	43.8%	29,130	10.1%
Black	541,537	8.5%	97,233	18.0%	52,949	8.0%	9,129	17.2%
Hispanic	835,848	13.2%	121,061	14.5%	192,646	29.3%	36,467	18.9%
Indigenous peoples	48,844	0.8%	8,093	16.6%	3,724	0.6%	534	14.3%
Gender								
Unknown	331,983	5.2%	44,198	13.3%	39,166	6.0%	6,196	15.8%
Female	2,171,038	34.2%	266,032	12.3%	204,757	31.1%	32,393	15.8%
Male	3,837,301	60.5%	379,015	9.9%	413,846	62.9%	54,094	13.1%
Agency								
Conventional (not FHA, VA, RHS, or FSA)	3,871,734	61.1%	457,044	11.8%	390,580	59.4%	66,794	17.1%
Federal Housing Administration (FHA)	1,597,390	25.2%	169,445	10.6%	183,014	27.8%	19,781	10.8%
Veterans Affairs (VA)	661,792	10.4%	41,596	6.3%	77,762	11.8%	5,220	6.7%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	209,406	3.3%	21,160	10.1%	6,413	1.0%	888	13.8%

How National Denial Rates Differ by Loan Type

Denial rates by loan type are further summarized in Tables 2-4. Mortgage applications for site-built housing have an overall denial rate of about 7%, compared with about 40% for manufactured housing mortgages and 64% for personal property loans.

Overall, we observe higher denial rates for smaller loans. Site-built mortgage applications for loans of less than \$150,000 are denied at a rate of about 10%, compared with about 7% for applications for amounts of at least \$150,000. For manufactured housing mortgage applications, about 45% seeking less than \$150,000 are denied, compared with 26% for larger amounts. Personal property loans for amounts less than \$150,000 are denied at a rate of about 64%, compared with 59% for larger amounts.

In addition, differences in denial rates by borrower race/ethnicity tend to be greater for manufactured housing than for site-built housing. Blacks, Hispanics, and Indigenous peoples experience site-built mortgage denial rates of 13%, 10%, and 9%, respectively, compared with 6% for Whites. In contrast, Black, Hispanic, and Indigenous applicants for manufactured housing mortgage finance are denied at rates of 71%, 42%, and 46%, respectively, compared with 34% for Whites. Moreover, about 75%, 69%, and 71% of personal property loan applications by Blacks, Hispanics, and Indigenous peoples are denied, respectively, compared with about 59% for Whites.

Differences in denial rates by borrower gender also tend to be greater for manufactured housing. For site-built mortgage applications, the denial rate is roughly 1 percentage point higher for female applicants than for males (8% versus 7%). In contrast, among manufactured housing mortgage loan applicants, the denial rate for female borrowers is about 11 percentage points higher (47% versus 36%). For manufactured housing personal property loan applications, the denial rate difference between female and male applicants falls to about 7 percentage points (68% versus 61%).

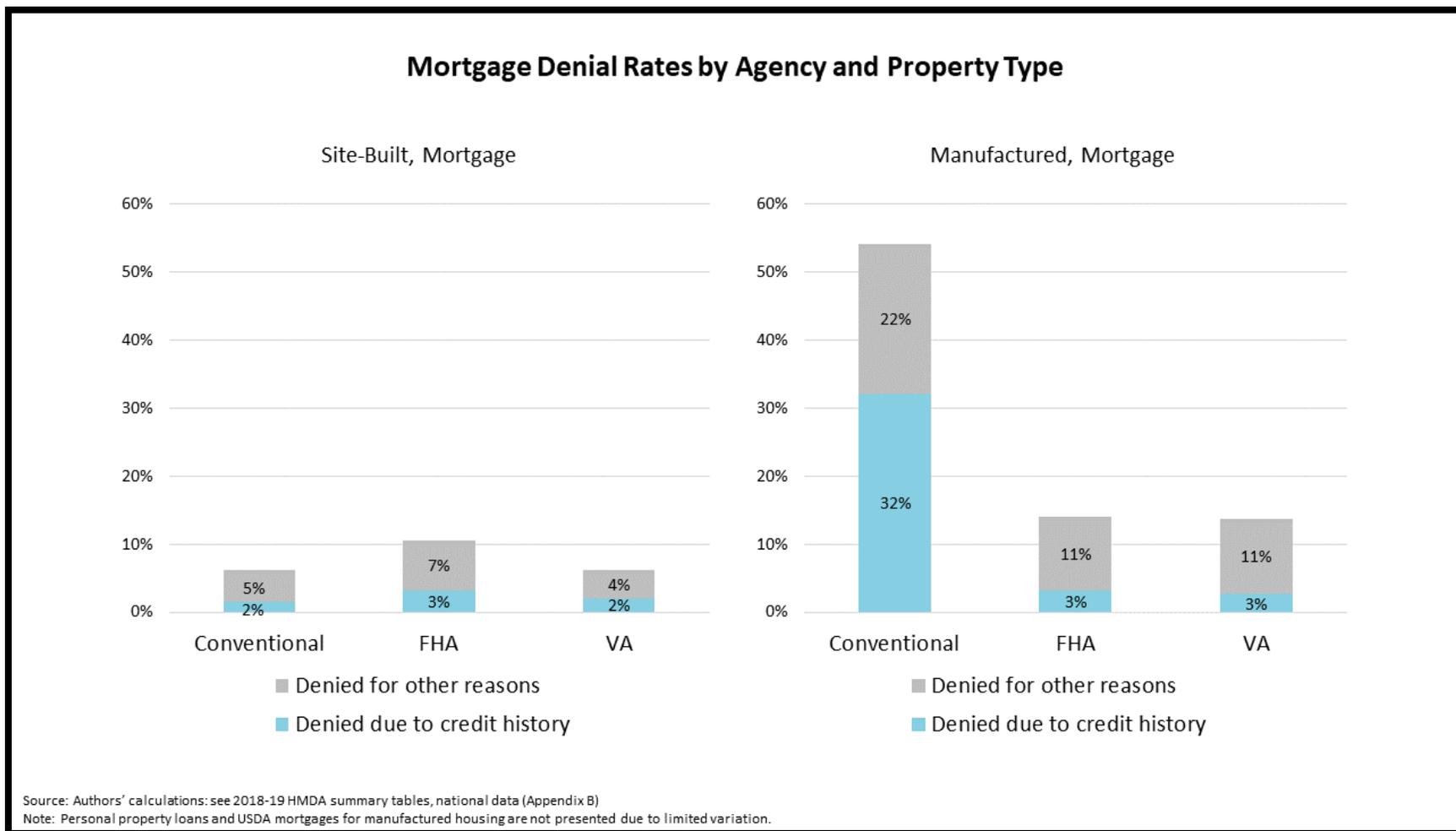
We also observe that differences in denial rates by the agency insuring the loan tend to be more variable for manufactured housing. For site-built mortgage applications, the denial rate for conventional loans is similar to that for VA loans (about 6%), compared with about 11% for FHA loans. For manufactured housing mortgage loan applications, conventional loans are denied at a rate of 54%, much higher than the denial rates for FHA and VA loans (both about 14%). For manufactured housing personal property loans, the denial rate for conventional loans rises to 64%, again dramatically higher than the denial rates for FHA and VA loans (14% and 22%, respectively), although this result should be interpreted with caution because 99% of personal property loans in the sample are conventional (see also Figure 13).

Table 2: HMDA Descriptive Sample, Applications and Denials, Site-Built Housing	Nation				Texas			
	Site-built housing				Site-built housing			
	Mortgage				Mortgage			
	Applications		Denials		Applications		Denials	
	N	Share of applications	N	Denial rate	N	Share of applications	N	Denial rate
All	5,871,300	100.0%	435,702	7.4%	581,614	100.0%	46,351	8.0%
Loan amount								
<\$150,000	1,690,234	28.8%	165,458	9.8%	117,717	20.2%	12,417	10.5%
\$150,000+	4,181,066	71.2%	270,244	6.5%	463,897	79.8%	33,934	7.3%
Race/ethnicity								
Other or unknown	900,009	15.3%	80,165	8.9%	108,267	18.6%	9,752	9.0%
White	3,668,657	62.5%	210,293	5.7%	260,180	44.7%	14,397	5.5%
Black	497,097	8.5%	64,485	13.0%	49,258	8.5%	6,385	13.0%
Hispanic	763,564	13.0%	76,900	10.1%	160,582	27.6%	15,531	9.7%
Indigenous peoples	41,973	0.7%	3,859	9.2%	3,327	0.6%	286	8.6%
Gender								
Unknown	309,525	5.3%	31,018	10.0%	35,000	6.0%	3,489	10.0%
Female	1,987,999	33.9%	155,404	7.8%	178,825	30.7%	15,245	8.5%
Male	3,573,776	60.9%	249,280	7.0%	367,789	63.2%	27,617	7.5%
Agency								
Conventional (not FHA, VA, RHS, or FSA)	3,473,701	59.2%	213,710	6.2%	319,838	55.0%	21,325	6.7%
Federal Housing Administration (FHA)	1,542,191	26.3%	161,702	10.5%	178,547	30.7%	19,079	10.7%
Veterans Affairs (VA)	647,503	11.0%	39,616	6.1%	76,905	13.2%	5,099	6.6%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	207,905	3.5%	20,674	9.9%	6,324	1.1%	848	13.4%

Table 3: HMDA Descriptive Sample, Applications and Denials, Manufactured Housing, Mortgages	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage				Mortgage			
	Applications		Denials		Applications		Denials	
	N	Share of applications	N	Denial rate	N	Share of applications	N	Denial rate
All	194,884	100.0%	77,837	39.9%	19,208	100.0%	9,760	50.8%
Loan amount								
<\$150,000	145,508	74.7%	65,030	44.7%	14,045	73.1%	7,456	53.1%
\$150,000+	49,376	25.3%	12,807	25.9%	5,163	26.9%	2,304	44.6%
Race/ethnicity								
Other or unknown	27,933	14.3%	14,246	51.0%	2,721	14.2%	1,505	55.3%
White	129,562	66.5%	43,703	33.7%	9,230	48.1%	4,036	43.7%
Black	14,106	7.2%	9,991	70.8%	803	4.2%	560	69.7%
Hispanic	20,753	10.6%	8,730	42.1%	6,321	32.9%	3,587	56.7%
Indigenous peoples	2,530	1.3%	1,167	46.1%	133	0.7%	72	54.1%
Gender								
Unknown	8,817	4.5%	4,060	46.0%	808	4.2%	423	52.4%
Female	67,163	34.5%	31,477	46.9%	6,032	31.4%	3,388	56.2%
Male	118,904	61.0%	42,300	35.6%	12,368	64.4%	5,949	48.1%
Agency								
Conventional (not FHA, VA, RHS, or FSA)	125,545	64.4%	67,885	54.1%	14,034	73.1%	8,931	63.6%
Federal Housing Administration (FHA)	53,801	27.6%	7,547	14.0%	4,248	22.1%	675	15.9%
Veterans Affairs (VA)	14,057	7.2%	1,929	13.7%	838	4.4%	114	13.6%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	1,481	0.8%	476	32.1%	88	0.5%	40	45.5%

Table 4: HMDA Descriptive Sample, Applications and Denials, Manufactured Housing, Personal Property Loans	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Personal property loan				Personal property loan			
	Applications		Denials		Applications		Denials	
	N	Share of applications	N	Denial rate	N	Share of applications	N	Denial rate
All	274,138	100.0%	175,706	64.1%	56,947	100.0%	36,572	64.2%
Loan amount								
<\$150,000	265,308	96.8%	170,495	64.3%	55,603	97.6%	35,642	64.1%
\$150,000+	8,830	3.2%	5,211	59.0%	1,344	2.4%	930	69.2%
Race/ethnicity								
Other or unknown	52,277	19.1%	34,003	65.0%	9,686	17.0%	6,166	63.7%
White	135,655	49.5%	80,448	59.3%	18,366	32.3%	10,697	58.2%
Black	30,334	11.1%	22,757	75.0%	2,888	5.1%	2,184	75.6%
Hispanic	51,531	18.8%	35,431	68.8%	25,743	45.2%	17,349	67.4%
Indigenous peoples	4,341	1.6%	3,067	70.7%	264	0.5%	176	66.7%
Gender								
Unknown	13,641	5.0%	9,120	66.9%	3,358	5.9%	2,284	68.0%
Female	115,876	42.3%	79,151	68.3%	19,900	34.9%	13,760	69.1%
Male	144,621	52.8%	87,435	60.5%	33,689	59.2%	20,528	60.9%
Agency								
Conventional (not FHA, VA, RHS, or FSA)	272,488	99.4%	175,449	64.4%	56,708	99.6%	36,538	64.4%
Federal Housing Administration (FHA)	1,398	0.5%	196	14.0%	219	0.4%	27	12.3%
Veterans Affairs (VA)	232	0.1%	51	22.0%	19	0.0%	7	36.8%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	20	0.0%	10	50.0%	1	0.0%	.	0.0%

Figure 13



How Denial Rates in Texas Compare With National Denial Rates

As further indicated in Tables 1-4 above, the overall denial rate is a few percentage points higher in Texas than for the nation (14% versus 11%); this difference primarily reflects a higher rate of denial for manufactured housing mortgages. In particular, the denial rates for site-built mortgages and manufactured housing personal property loans in Texas are 8% and 64%, respectively, similar to the 7% and 64% denial rates observed nationally for these loan types. However, for manufactured housing mortgages, the denial rate is about 11 percentage points higher in Texas than for the nation (51% versus 40%).

Moreover, while denial rate patterns in Texas by loan amount, applicant race/ethnicity and gender, and insuring agency appear similar to national patterns for site-built mortgage applications, we observe substantial differences between Texas and the nation in these respects for manufactured housing loan applications, including higher denial rates for larger loans and for manufactured housing mortgage applications by Whites, Hispanics, and Indigenous peoples. That is, manufactured housing mortgage applications for loan amounts of at least \$150,000 are denied at a rate of 45% in Texas, compared with 26% nationally. Comparable figures for personal property loans are 69% and 59%. Whereas the denial rate differences by applicant race/ethnicity for personal property loans in Texas are similar to those for the nation, Whites, Hispanics, and Indigenous peoples applying for manufactured housing mortgages in Texas are, respectively, denied at rates of 44% (versus 34% nationally), 57% (versus 42% nationally), and 54% (versus 46% nationally). In contrast, denial rates for Blacks applying for manufactured housing mortgages do not vary substantially by geography (the rate is about 70% both nationally and in Texas).

In addition, whereas denial rate differences by applicant gender for personal property loans in Texas are similar to those for the nation, manufactured housing mortgage denial rates for both female and male applicants are roughly 10 percentage points higher in Texas than nationally (56% versus 47% nationally for female applicants, and 48% versus 36% nationally for male applicants). Conventional personal property loans both in Texas and nationally are denied at the same rate (about 64%), but the denial rate for conventional manufactured housing mortgages is about 10 percentage points higher in Texas than nationally (64% versus 54%). In comparison, conventional site-built mortgage applications are denied at a rate of about 7% in Texas and 6% nationally. Finally, the denial rates for FHA and VA manufactured housing mortgage loans are similar for Texas and the nation.

B. Denial Reasons

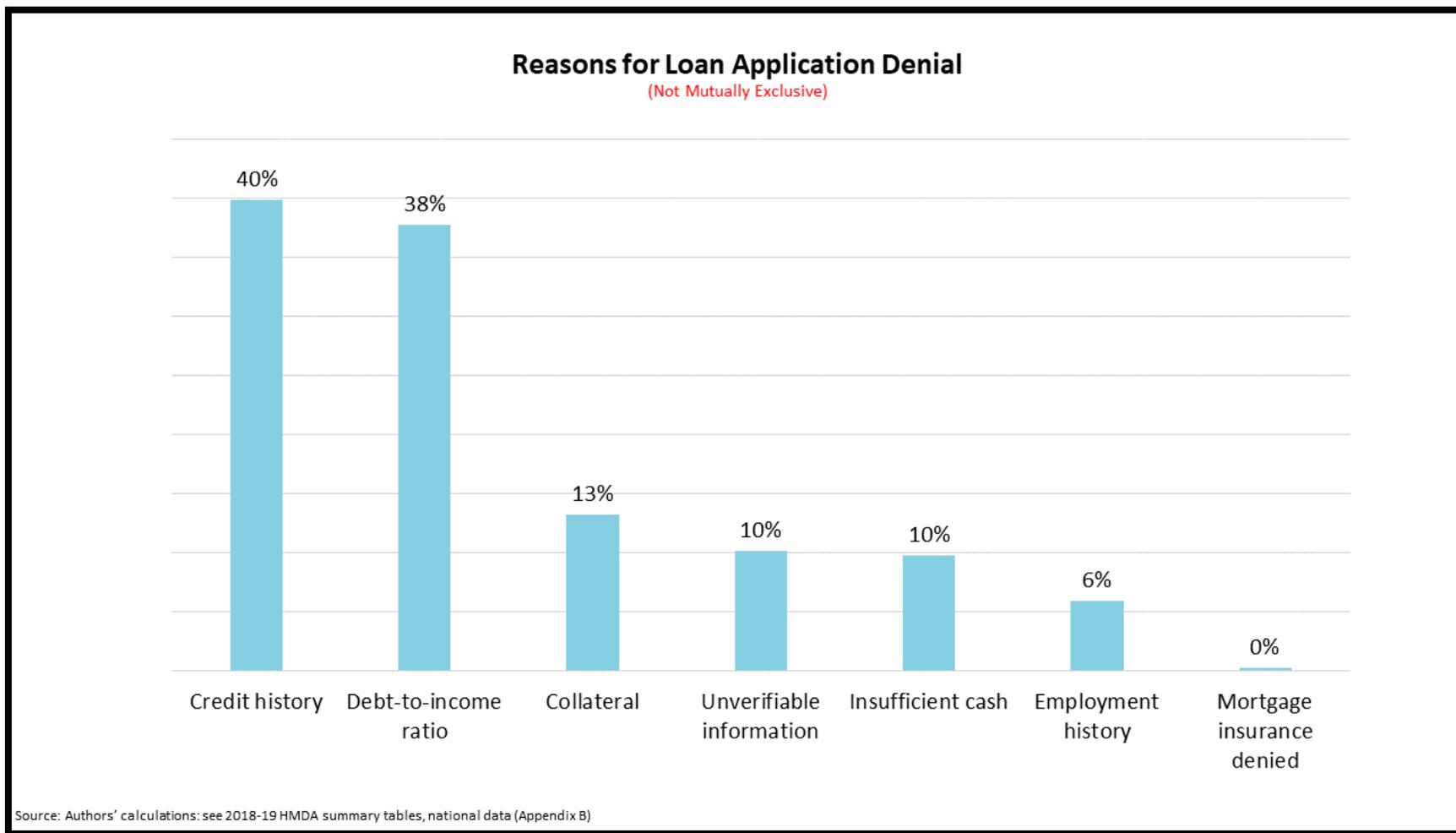
National Denial Reasons

When reporting lending decisions under HMDA's reporting requirements, lenders can indicate one or more possible reasons for denying loans, including issues with an applicant's DTI, employment history, credit history, or collateral. Loans can also be denied for reasons of insufficient cash (for the down payment and/or closing costs), unverifiable information, or a denial of mortgage insurance.⁴⁹

Overall, the three top reasons reported for loan denial are credit history (40%), DTI (38%), and collateral (13%). Unverifiable information and insufficient cash each account for about 10% of denials, followed by employment history, which accounts for 6%. Mortgage insurance denials represent less than 1% (see Figure 14). Denial reasons are not mutually exclusive; thus, percentages for all denial reasons can sum to more than 100%. Because the relative importance (i.e., ranking) of the top denial reasons is largely similar nationally and in Texas, we focus our discussion of denial reasons on national patterns. For detailed tables summarizing the results presented in this section, see Appendix B.

⁴⁹ The HMDA reporting guide does not provide detailed instructions for the circumstances in which the different denial reasons should be selected, so we expect that different lenders (and possibly even different loan officers) will interpret/define these denial reasons in different ways. See <https://www.ffiec.gov/hmda/pdf/2019guide.pdf>.

Figure 14



How National Denial Reasons Differ by Loan Type

For site-built mortgage applications, the top three denial reasons are DTI (38%), credit history (27%), and collateral (18%). In contrast, for manufactured housing applications overall, the top three denial reasons are credit history (62%), DTI ratio (37%), and unverifiable information (12%). Among loan applications for manufactured housing, denials due to credit history are more common for personal property loans than for mortgages (65% versus 54%), and denials due to unverifiable information are more common for mortgages than for personal property loans (15% versus 10%). Collateral accounts for 11% of loan denials for manufactured housing mortgages, but only 1% of denials for personal property loans.

Taken in combination with our earlier observation that CLTV is frequently not used in credit decisions for manufactured housing finance, these patterns are consistent with our supposition that personal credit history is given greater weight in loan applications for manufactured housing (particularly for personal property loans) than when considering mortgage applications for site-built housing, and that collateral plays a larger role in credit decisions for mortgages (particularly those for site-built units) than for personal property loans. However, these patterns may also reflect differences in the underlying credit histories of the applicants seeking different types of loans; given that we do not observe credit scores in the data, we are unable to ascertain the extent to which manufactured housing lenders denying loans due to credit history are doing so because of lower applicant credit scores (i.e., borrower characteristics) versus because they have more stringent credit history requirements for approval (i.e., lender characteristics). Both factors may contribute to the higher denial rates that we observe for manufactured housing loan applications when compared with applications for site-built mortgages.

How Denial Reasons Differ by Loan Amount

For loan amounts below \$150,000, credit history accounts for about half (49%) of denials, followed by DTI ratio (35%) and collateral (11%). In contrast, for loan amounts of at least \$150,000, 42% of denials are due to DTI ratio, followed by credit history (27%) and collateral (16%). These differences suggest that cash flow and collateral may play a greater role in driving credit decisions for larger loans than for smaller ones. Because, as previously noted, loan amounts tend to be larger on average for site-built mortgages than for manufactured housing loans, an implication of this pattern is that DTI ratio also appears to be a relatively more important consideration for loan applications for site-built housing than for manufactured housing. We will revisit this point below when we discuss the results from our multivariate analysis.

How National Denial Reasons Differ by Race

For White borrowers, credit history accounts for about 40% of denials, and DTI ratio accounts for about 35%. For Black borrowers, loans are denied due to credit history 46% of the time and DTI ratio 41% of the time. For Hispanic borrowers, denials due to credit history represent 37% of denials, and those due to DTI ratio represent 42%. For Indigenous borrowers, credit history accounts for 50% of denials, and DTI ratio accounts for 36%. Thus, Blacks and Indigenous peoples are more likely than Whites to be denied due to credit history, whereas Hispanics are less likely to be denied for this reason. However, Blacks and Hispanics are more likely than Whites to be denied due to DTI ratio, which suggests that higher pre-existing debt levels (relative to income) among these groups may be making it more difficult for them to

obtain financing to purchase a home. We discuss racial/ethnic differences in denial rates by loan type in our subsequent multivariate analysis.

How National Denial Reasons Differ by Gender

For male borrowers, credit history accounts for 39% of denials, followed by DTI ratio (35%) and collateral (14%). For female borrowers, credit history accounts for 43% of denials, followed by DTI ratio (41%) and collateral (12%). Thus, credit history and DTI ratio are more frequently given as a reason for denying applications from female applicants than from male applicants. However, this difference primarily reflects higher female denial rates for manufactured housing finance applications, as gender differences in denial reasons are smaller for site-built housing than for manufactured housing. For manufactured housing mortgages, DTI ratio accounts for 31% of denials for male applicants and 41% for female applicants, whereas credit history accounts for 53% of denials for male applicants and 57% for female applicants. For manufactured housing personal property loans, DTI ratio accounts for 33% of denials for male applicants and 45% of denials for females, and credit history accounts for about 65% of denials for both male and female applicants. In contrast, for site-built mortgages, male and female applicants are denied due to DTI ratio at rates of 37% and 40%, respectively, and due to credit history at rates of 27% and 28%, respectively.

How National Denial Reasons Differ by Agency

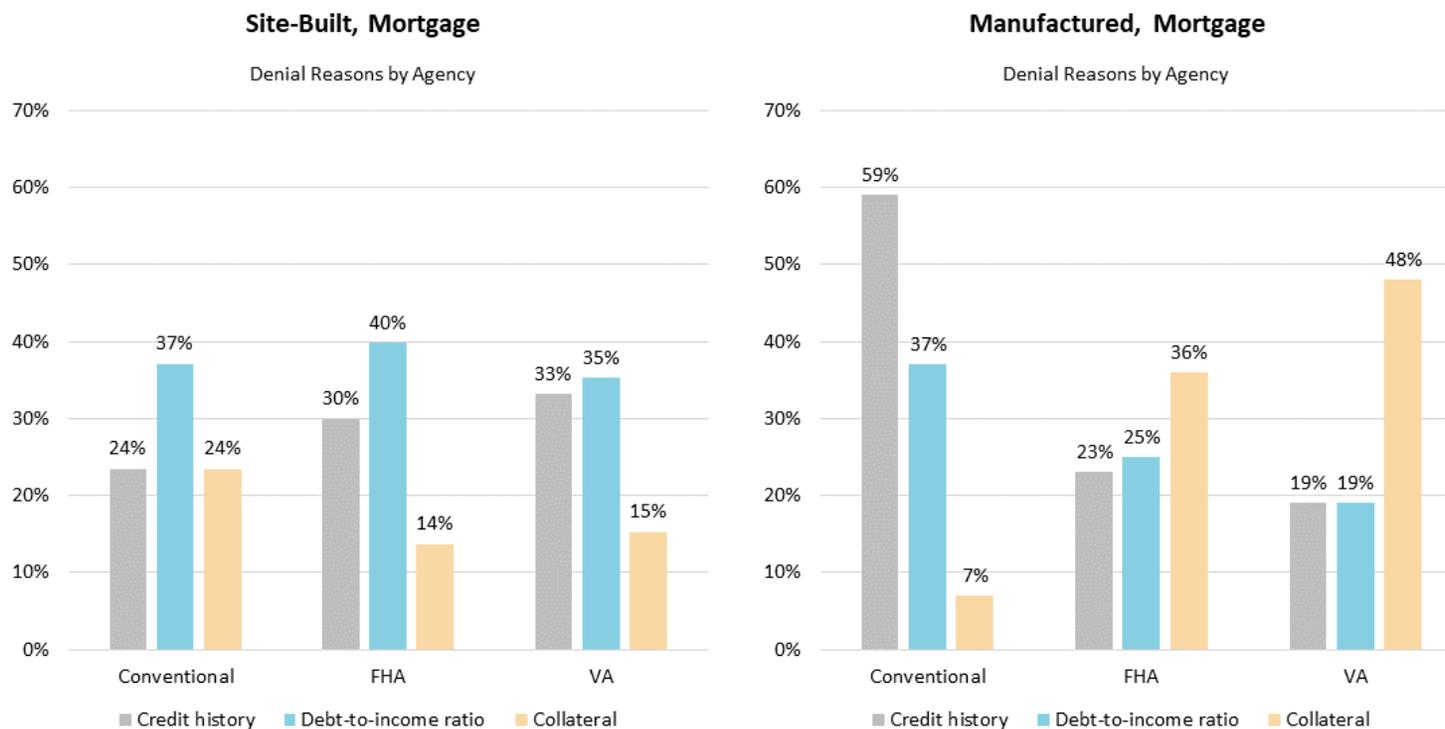
For conventional loans, the top three reasons for loan denial are credit history (45%), DTI ratio (38%), and collateral (12%). However, for FHA loans, the top three denial reasons are DTI ratio (39%), credit history (30%), and collateral (15%); the top three denial reasons for VA loans are DTI ratio (35%), credit history (33%), and collateral (17%). Thus, collateral and DTI ratio play larger roles in contributing to denial rates for FHA and VA loans overall than for conventional loans. However, the results are more nuanced by housing type (see Figure 15):

- *Conventional by housing type:* For both site-built and manufactured housing mortgages, DTI ratio is the primary reason given for the denial of conventional loans, accounting for about 37% of denials. However, whereas credit history and collateral each account for about 24% of conventional site-built mortgage denials, credit history and collateral account for 59% and 7% of conventional manufactured housing mortgage denials, respectively.
- *FHA by housing type:* For site-built mortgage applications, DTI ratio is again the primary reason given for denial of FHA loans (40%), followed by credit history (30%) and collateral (14%). In contrast, for FHA mortgage applications for manufactured housing, the primary reason given for denial is collateral (36%), followed by DTI ratio (25%) and credit history (23%).
- *VA by housing type:* For VA site-built mortgage applications, 35% of denials are due to DTI ratio, 33% are due to credit history, and 15% are due to collateral. However, among VA mortgage applications for manufactured housing, collateral accounts for 48% of denials, followed by credit history and DTI ratio, which each account for about 19% of denials.

As noted in Figure 16, we observe a similar pattern if we restrict the data to include only loans of less than \$150,000. These patterns suggest that collateral plays a relatively larger role in manufactured housing mortgage denials for FHA and VA loans than for conventional loans, for which credit history is a more salient factor. They also suggest that lending practices for manufactured housing mortgages may be more variable across agencies than they are for site-built housing.

Figure 15

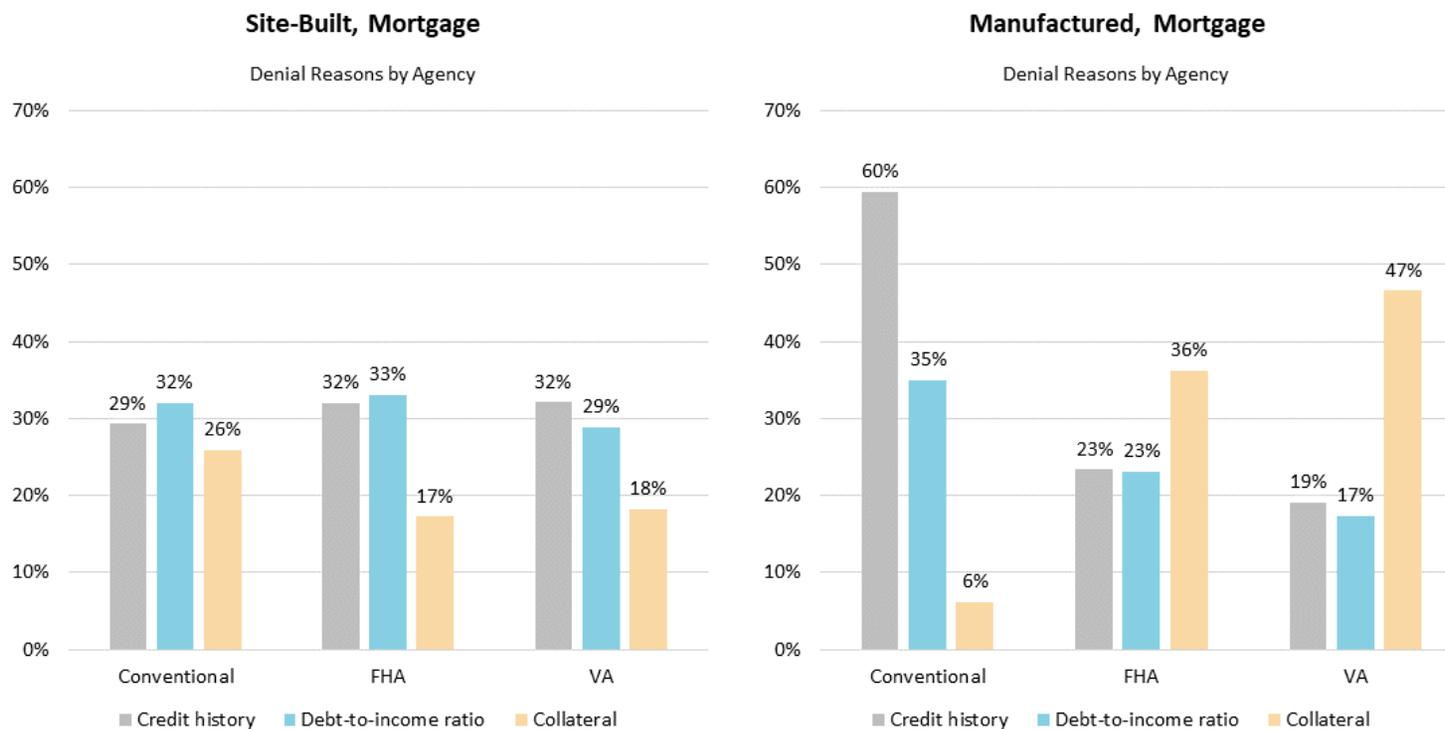
Top Mortgage Denial Reasons by Housing Type and Agency



Source: Authors' calculations: see 2018-19 HMDA summary tables, national data (Appendix B)

Figure 16

Top Mortgage Denial Reasons by Housing Type and Agency, Where Loan Amount < \$150,000



Source: Authors' calculations: see 2018-19 HMDA summary tables, national data (Appendix B)

How Denials Due to Credit History Contribute to National Denial Rates

With respect to the relationship of credit history to denial rates, it is noteworthy that overall denial rates, as well as differences in denial rates across loan types, loan amounts, and racial/ethnic groups, decrease substantially when denials due to credit history are excluded from the calculation. For site-built mortgage applications, the denial rate falls by about 2 percentage points (to 5%) when denials due to credit history are excluded from the calculation. In contrast, the denial rate for manufactured housing applications falls by about 22 percentage points (to 18%) for mortgages and by nearly 42 points (to 23%) for personal property loan applications. In addition, the overall denial rate for loan amounts below \$150,000 falls by 9 percentage points (to 10%), whereas that for loan amounts of at least \$150,000 falls by about 2 points (to 5%), with the result that the difference in denial rates for these two loan amount groups shrinks from 12 percentage points to 5 points. Moreover, the denial rates shrink by about 8 points for Black borrowers (to 10%) and 6 points for Hispanic borrowers (to 9%), such that the gap in the denial rate for White and Black borrowers shrinks from about 9 percentage points to about 5, and the White-Hispanic gap shrinks from about 6 percentage points to about 4. Similarly, the denial rate for Indigenous peoples falls by about 9 percentage points from (to 8%), and the White-Indigenous denial rate gap shrinks from about 7 percentage points to about 3 points. We observe similar convergence in denial rates by loan amount and race/ethnicity within loan types, and in Texas.

Overall, this convergence pattern reflects the fact that credit history tends to account for a larger fraction of denials for smaller loan amounts and for racial/ethnic minority groups, and that DTI ratio, a measure of cash flow, plays a greater role in denials for larger loan amounts. In particular, DTI ratio accounts for 42% of denials for loan amounts of at least \$150,000, compared with 35% of denials for loan amounts below \$150,000. Similarly, credit history accounts for 27% of denials for loan amounts of at least \$150,000, compared with about 49% of denials for loan amounts below \$150,000. As the third most common reason for denial, collateral is also more frequently given as a reason for denial of large loans (16%) compared with smaller ones (11%). The underlying reasons driving this convergence pattern are not clear, as they may reflect some combination of population differences in borrower financial circumstances and differences in the credit standards that lenders apply across different types of loans. While the available data does not permit us to assess the relative contributions of these various factors to the denial rate, achieving a better understanding of how lenders make decisions on loans represents an important goal for future research. We explore the factors associated with loan denial in more detail in our discussion of multivariate probit results below. Descriptive breakdowns of denial rates and reasons by geography, loan type, loan amount, applicant race/ethnicity and gender, and insuring agency are also provided in Appendix B.

C. Predictors of Denial

As discussed earlier in the Data and Methods section, we estimated a series of multivariate probit models to identify significant predictors of loan denial at the application level. Detailed estimation results for these models are provided in Appendix D. Overall, our multivariate analysis of the factors that predict loan denial indicates that the likelihood of denial is lower for applicants with higher household incomes and for loans insured by the FHA or VA (compared with conventional loans), all else equal. The probability of denial also decreases for intermediate values of DTI ratio (that is, values above 20% and below 50%) and increases substantially for DTI ratio of 50% or more. This pattern is consistent with the idea that lenders prefer to see a moderate amount of debt usage, indicating that the borrower can handle debt but is not overextended; it may also reflect rules governing DTI limits for Qualified Mortgages.⁵⁰ The probability of denial is also higher in those cases where CLTV exceeds 80%, and when CLTV is not used in the credit decision. Denial probabilities are also higher for Blacks, Hispanics, and Indigenous peoples than for Whites. Although these factors consistently predict denial across loan types, the magnitude of the marginal effects for these factors does vary, sometimes substantially, by loan type. In addition, we observe associations between the loan amount and application channel and the probability of denial that vary with loan type not only in magnitude but also in direction. We discuss these differences and their implications in more detail below. We primarily report results at the national level, but we highlight differences between Texas and the nation where relevant.

How Household Income Predicts Denial

For site-built mortgages, a 10% increase in household income reduces the probability of denial by about 0.1 percentage points. The comparable marginal effect for manufactured housing mortgages is about twice as large (0.2 percentage points), and that for manufactured housing personal property loans is roughly 10 times as large (1.1 percentage points). This pattern suggests that manufactured housing lenders, especially those making personal property loans, place greater weight on household income than do site-built lenders when making credit decisions. However, it also suggests that income overall plays a relatively small role in credit decisions compared with other factors.

How the Debt-to-Income Ratio Predicts Denial

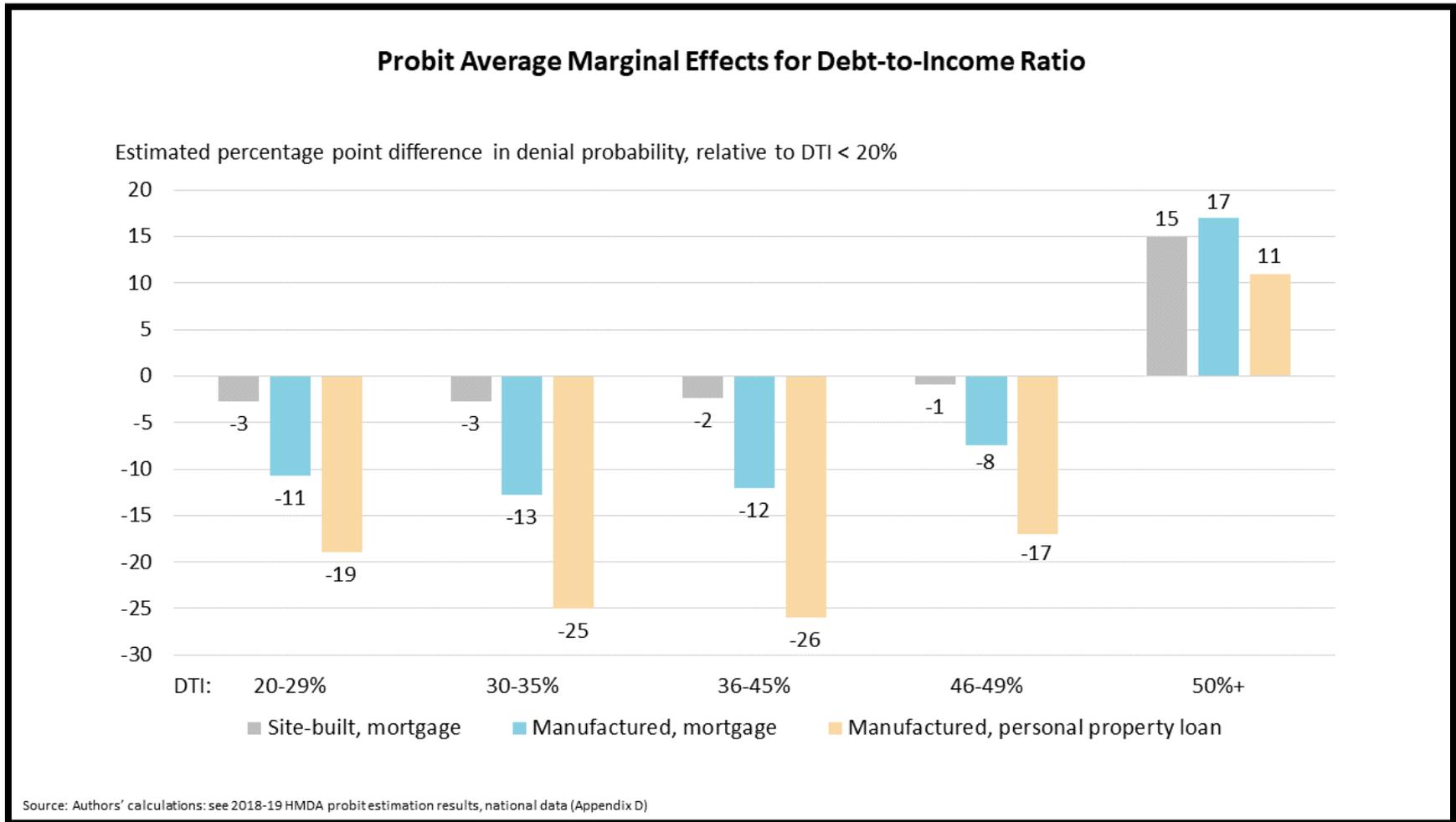
We observe much larger average marginal effects for DTI ratio, which suggests a greater role for cash flow than for income per se (see Figure 17). For site-built loans, the probability of denial is 1 to 3 percentage points lower for a DTI ratio of at least 20% but less than 50%, compared with applications with a DTI ratio below 20%.⁵¹ For a DTI ratio above 50%, the denial probability is about 15 percentage points higher than for applications where the DTI ratio is below 20%. For manufactured housing mortgages, the denial probability is about 8 to 13 percentage points lower for DTI ratios between 20% and 50%, but about 17 percentage points higher for DTI ratios above 50%, compared with DTI ratios below 20%. For manufactured housing personal property loan applications, those with DTI ratios between 20% and 50% have denial rates that are 17 to 26 percentage points lower than applications with DTI ratios below 20%, and a DTI ratio above 50% increases the probability of denial by 11 percentage points. Thus, the high-DTI ratio (> 50%) penalty is higher for mortgages than for personal

⁵⁰ https://files.consumerfinance.gov/f/201310_cfpb_qm-guide-for-lenders.pdf.

⁵¹ The overall denial rate for loans with a DTI ratio < 20% is 7% for site-built mortgage applications, 45% for manufactured housing mortgage applications, and 67% for manufactured housing personal property loans.

property loans, which is consistent with the idea that cash flow is a more important consideration for larger loans (recall that mortgages tend to involve larger loan amounts on average) than for smaller ones.

Figure 17



How the Combined Loan-to-Value Ratio Predicts Denial

In addition, the probability of denial generally increases with CLTV (relative to a CLTV < 80%), or if CLTV was not used in the credit decision. For site-built housing, a CLTV of at least 80% increases the risk of denial by between 1 and 5 percentage points. The probability of denial is also about 2 percentage points higher when CLTV is not used in the credit decision. However, the latter effect is much more pronounced for manufactured units than for site-built units: The risk of denial for manufactured housing mortgages rises by 1 percentage point for CLTVs of 80-89%, 5 percentage points for CLTVs of 90-96%, 7 percentage points for CLTVs of 97-99%, 13 percentage points for CLTVs of 100% or more, and 36 percentage points if CLTV is not used in the credit decision.⁵² While the denial risk penalty for high-CLTVs is lower in Texas (by 3 to 5 percentage points, generally), we see a similar marginal effect for cases where CLTV was not used in the credit decision (i.e., the denial probability increases by 38 percentage points). Similarly, for manufactured housing personal property loans, the probability of denial increases by 14 percentage points for CLTVs of 80-89%, 17-19 percentage points for CLTVs of 90-100%+, and 26 percentage points if CLTV was not used in the credit decision. The results for Texas are similar for CLTVs of 90-99% or CLTV is not used in the credit decision. These results confirm our previous descriptive findings regarding the importance of CLTV in underwriting differences by housing type.

How the Insuring Agency Predicts Denial

With respect to lending agency, FHA and VA loans exhibit lower denial probabilities than conventional loans, and the difference is again larger for manufactured housing mortgage applications than for site-built mortgage applications. For site-built mortgages, the denial probability is 1 percentage point lower for FHA loans and 4 percentage points lower for VA loans, when compared with conventional loans. For manufactured housing mortgages, the denial probability is about 16 percentage points lower for FHA loans and 17 percentage points lower for VA loans, compared with conventional loans. Exploring the reasons for these interagency differences in denial rates is beyond the scope of this paper but may represent a fruitful area for further research. While we also observe similar, statistically significant agency effects for personal property loans, in practice there are very few nonconventional personal property loans in the data set, so this result should be interpreted with caution.

⁵² Note that the analysis should not be interpreted as causal. Lender usage of CLTV is correlated with other lender underwriting differences, such as the type/source of credit score used in the credit decision, and here serves as an indicator for what appear to be systematic differences in underwriting models. This represents a potential area where lenders, agencies, and industry groups may wish to discuss/share best practices.

How the Application Channel Predicts Denial

The relationship of the application channel (direct or indirect) to the loan type also exhibits differences by loan type (see Figure 18). For site-built mortgages, applying directly to the lender is associated with a lower probability of denial, by nearly 1 percentage point. However, the reverse appears to be true for manufactured housing applications. For these mortgages, a direct application to the originating lender is associated with an increase in the denial probability of about 2 percentage points, which rises to 3 percentage points in Texas. The comparable marginal effect for personal property loans is 15 percentage points, which rises to nearly 20 percentage points in Texas. This pattern suggests that it may be easier for buyers of manufactured homes to obtain financing if they work with a broker or apply through a retailer (i.e., some type of indirect channel).

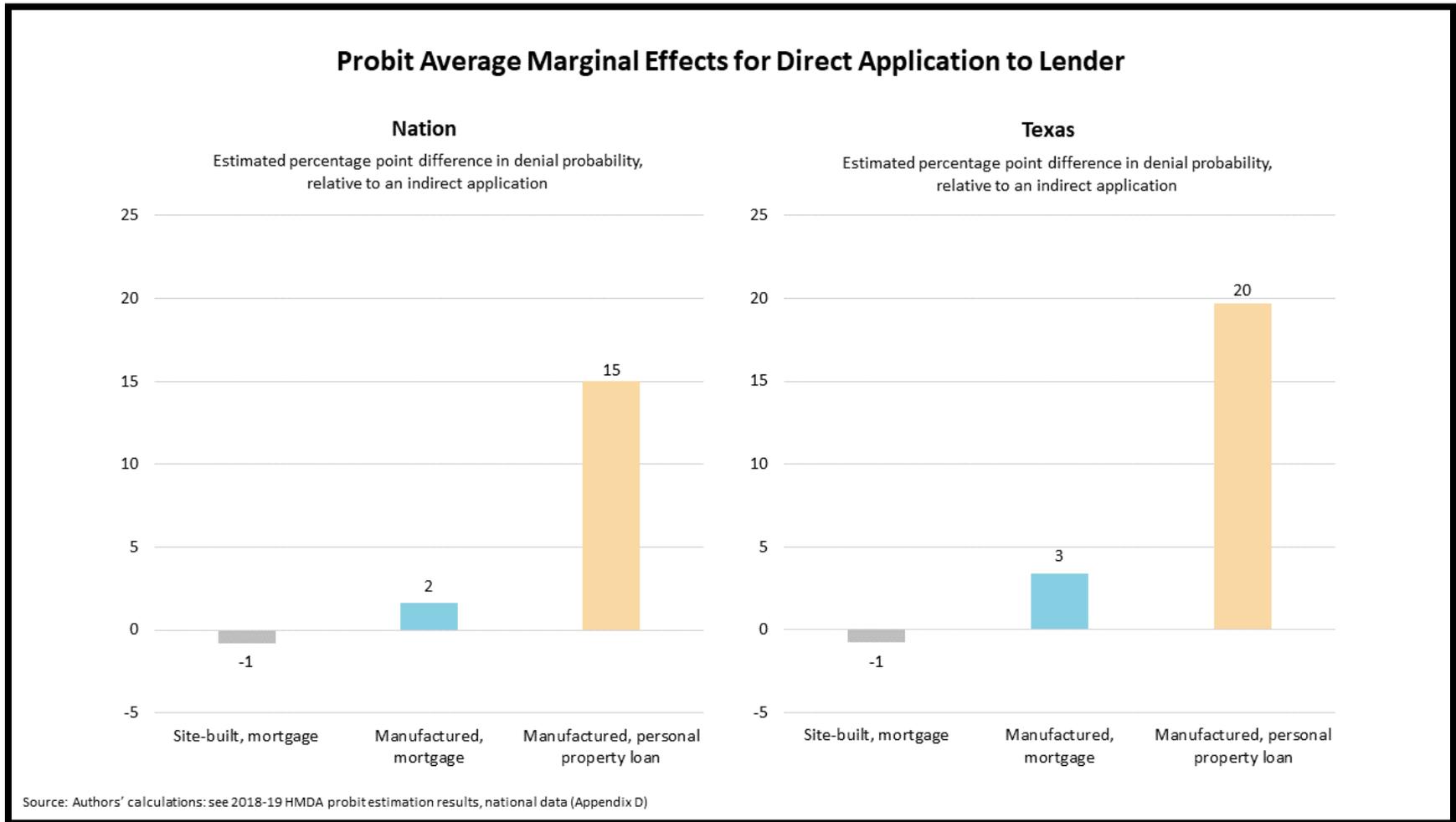
How Loan Size Predicts Denial

For mortgages (both site-built and manufactured units), denial probabilities are lower for larger loans (> \$150,000), except for manufactured housing mortgages in Texas (see Figure 19). Nationally, a loan amount above \$150,000 is associated with a 3-percentage-point lower probability of denial for site-built mortgages⁵³ and a 2-percentage-point lower probability of denial for manufactured housing mortgages. In Texas, a loan amount above \$150,000 is again associated with a 3-percentage-point lower probability of denial for site-built mortgages, but with a 2-percentage-point increase in denial risk for manufactured housing mortgages.⁵⁴ For personal property loans, the overall relationship between loan amount and the probability of denial is reversed: Denial probabilities are lower for smaller loans. Nationally, the denial probability is about 9 percentage points higher for personal property loan applications for amounts above \$150,000, compared with personal property loan applications for smaller amounts. In Texas, this increase in denial risk rises to 15 percentage points. Again, these results suggest that personal credit history and cash flow likely play a greater role in the lender's credit decision when land is not provided as collateral.

⁵³ Goodman, Bai, and Li (2018) find that the denial rate for smaller loans (less than \$150,000) is higher than that for larger loans (\$150,000+) even when borrower credit history is taken into consideration. The following blog post summarizes these findings: <https://www.urban.org/urban-wire/why-do-lenders-deny-small-dollar-mortgages-higher-rates>.

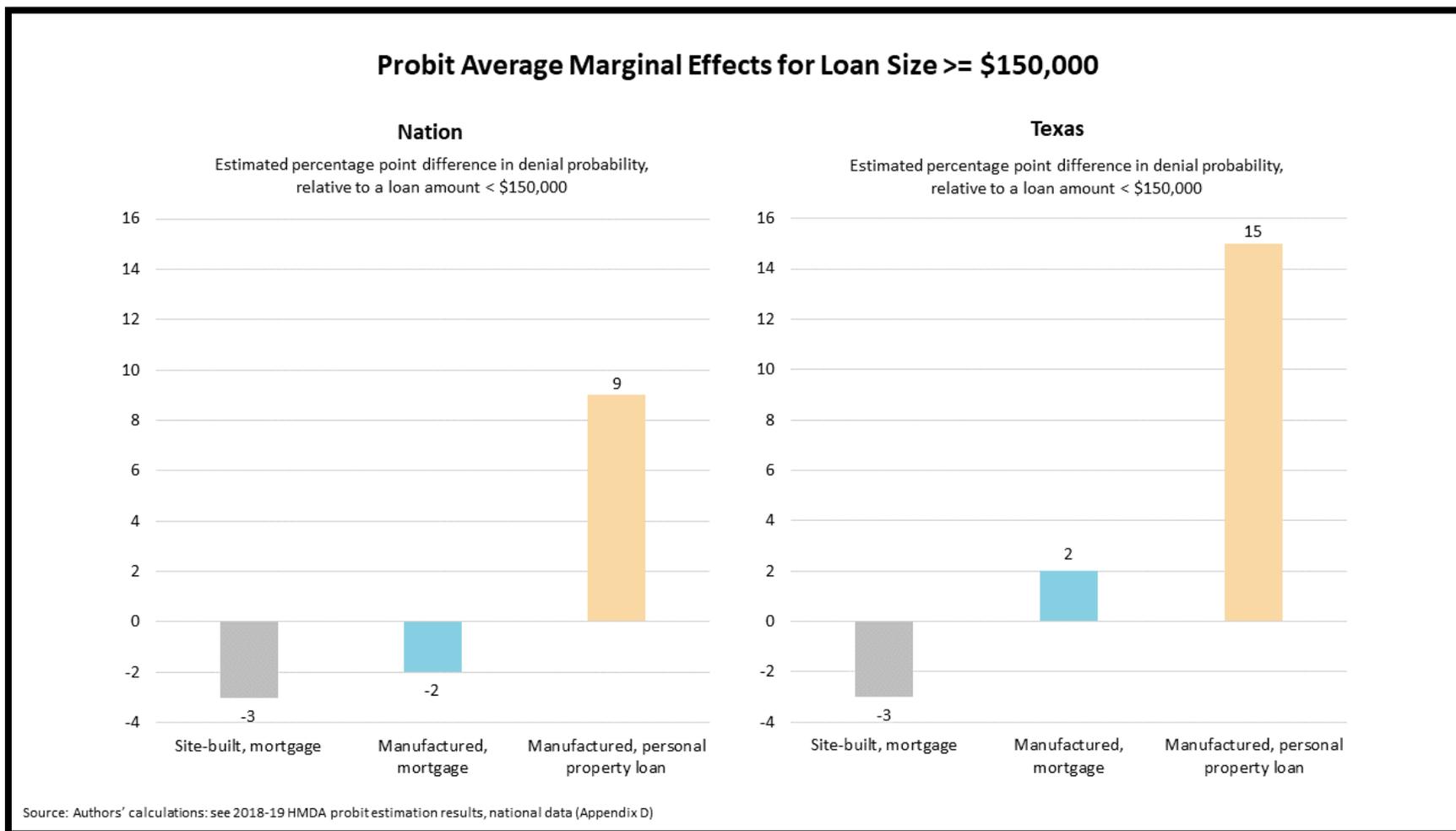
⁵⁴ We speculate that because some of the major manufactured housing lenders in Texas make both mortgages and personal property loans, and since the latter are more common, it may be that manufactured housing mortgages in Texas are underwritten more like manufactured housing personal property loans in this regard.

Figure 18⁵⁵



⁵⁵ See Appendix G for a supplemental analysis of the cost of credit by application channel.

Figure 19



How Borrower Race/Ethnicity Predicts Denial

We observe smaller but statistically significant effects for borrower race/ethnicity, and these also differ in magnitude by loan type. For site-built mortgages, the probability of denial is about 4 percentage points higher for Blacks than for Whites, about 2 percentage points higher for Hispanics than for Whites, and about 3 percentage points higher for Indigenous peoples than for Whites. For manufactured housing mortgages, these differences rise to 9 percentage points for Blacks, 3 percentage points for Hispanics, and 6 percentage points for Indigenous peoples. For personal property loans, we see an increase in denial risk of 10 percentage points for Blacks, 3 percentage points for Hispanics, and 4 percentage points for Indigenous peoples, compared with that of Whites. Since we do not observe credit histories, these effects may partly reflect omitted credit-history-related information.

How Borrower Gender Predicts Denial

For site-built applications and all else equal, the denial rate is similar by gender. Nationally, male applicants are denied at a rate 0.3 percentage points higher than female applicants, and the gender difference in denial rates is not significantly different from zero in Texas. In contrast, female applicants are denied at slightly higher rates than male applicants for manufactured housing loan applications. For manufactured housing mortgage applications, the male denial rate is lower than the female denial rate by about 2 percentage points, both nationally and in Texas. For manufactured housing personal property loans, this difference rises to 3 percentage points nationally and about 4 percentage points in Texas. As for the racial/ethnic denial rate differences noted above, these gender differences in denial rates may partly reflect unobserved credit histories or other financial information that tends to differ systematically across demographic groups.

How County Characteristics Predict Denial

The marginal effects for the county-level ACS variables are generally quite small (less than 1 percentage point), but we do see a slightly higher probability of denial in counties where a larger share of the population speaks limited English. For all loan types nationally, this marginal effect is about 0.1 percentage points, which rises to 0.4 percentage points for manufactured housing mortgages in Texas. Thus, a 1-percentage-point increase in the local population primarily speaking a language other than English is associated with an increase in the denial probability of 0.1 percentage points for all loan types nationally, and 0.4 percentage points for manufactured housing mortgage applications in Texas. This result may indicate a role for language barriers in impeding credit access. Moreover, the denial probability for site-built mortgages is higher in counties where there is a greater percentage of manufactured/mobile homes; the magnitude of this marginal effect is again about 0.1 percentage points nationally and in Texas. However, the reverse is true for manufactured housing applications, as denial probabilities for these loans are lower (a marginal effect of 0.1-0.3 percentage points in absolute value) in counties with a greater percentage of manufactured/mobile housing units. Thus, a 1-percentage-point increase in the representation of these units as a share of the housing stock is associated with a reduction in denial risk of 0.1-0.3 percentage points. This latter pattern may reflect a substitution effect whereby counties in which it is more difficult to get a site-built mortgage gravitate toward manufactured

housing over time. Detailed estimation results for the HMDA probit models are presented in Appendix D.⁵⁶

⁵⁶ The models presented include county-level ACS variable and state fixed effects. However, excluding these variables from the models does not meaningfully change the results.

V. Results: Applying to Multiple Lenders

A. Multiple Applications and Prior Denials

Borrowers may be motivated to apply to multiple lenders for a variety of reasons, such as a desire to obtain better loan terms, a lack of knowledge about the lending process, or concern about qualifying for a loan. Our descriptive analysis of the MHOS data reveals that about 33% of MHOS respondents applied to multiple lenders during the process of obtaining financing for their manufactured homes. This percentage falls slightly, to 32%, for personal property borrowers and rises to 36% among mortgage borrowers. For detailed tables presenting the borrower characteristics summarized in this section, see Appendix E.

How Borrowers Who Applied to Multiple Lenders Compare With Those Who Did Not

In most respects, borrowers who applied to multiple lenders look similar to those who did not. The distributions of borrower income, most income sources, credit score, education, first-time homeowner status, race/ethnicity, language spoken, single or joint property title, metro classification, and likelihood of applying through or being referred for financing by the seller or retailer all look similar for these two groups. However, we do observe small differences with respect to age, marital status, whether a DTI ratio is present in the borrower's credit file, the receipt of retirement income, structural characteristics, and the prevalence of land ownership. Survey respondents who did not apply to multiple lenders are slightly older, on average, than those who did so: About half (48%) of those who applied to one lender were 45 years or older, compared with 42% of those who applied to multiple lenders. Those who did not apply to multiple lenders were also slightly more likely to receive income in the form of Social Security, pension, or other retirement benefits (28% versus 23%). A missing DTI ratio was slightly less common for those who applied to multiple lenders than for those who did not (8% versus 11%). In addition, respondents who applied to multiple lenders were more likely never to have been married (14% versus 10%). A greater proportion of units purchased by respondents who applied to multiple lenders were new rather than used (76% versus 61%) and had more than one section (61% versus 54%). Applicants who applied to multiple lenders were also slightly more likely to own the land on which their manufactured homes are sited (64% versus 60%). Those who applied to multiple lenders were also less likely to report low loan process knowledge at the beginning of the loan shopping process (15% versus 20%) and were more likely to say that they were concerned about qualifying for a loan (72% versus 67%).

Additional small differences between those who applied to multiple lenders and those who did not become apparent when we break down the data by loan type (see Table 5). Among personal property borrowers, those who applied to multiple lenders were slightly more likely to have a credit score above 700 (26% versus 22%), less likely to have a missing credit score (5% versus 9%), and less likely to have a missing DTI ratio (8% versus 13%). They were also more likely to have income from wages or salaries (81% versus 77%); less likely to have Social Security, pension, or other retirement income (25% versus 29%); and less likely to be 65 years or older (13% versus 17%). Moreover, a larger percentage of the manufactured housing units purchased by those personal property borrowers who applied to multiple

lenders were new (86% versus 68%) and were located in nonmetro areas (28% versus 23%). Personal property borrowers who applied to multiple lenders were about half as likely as those who submitted one application to indicate that they had low prior loan process knowledge (12% versus 21%), were slightly more likely to volunteer that they had applied through or been referred by the seller or retailer (22% versus 19%), and were slightly more likely to indicate that they were concerned about qualifying for a loan (69% versus 66%).

Among mortgage borrowers, those who applied to multiple lenders were slightly more likely to report incomes of \$65,000 or more (41% versus 37%) and more likely to have a missing DTI ratio (9% versus 4%). They were less likely to report income from business or self-employment (12% versus 17%); less likely to report Social Security, pension, or other retirement income (16% versus 23%); more likely to have completed a college degree (32% versus 26%); more likely never to have been married (14% versus 5%); and less likely to be White (66% versus 71%). The housing units purchased by mortgage borrowers who submitted multiple applications were more likely to be new (48% versus 40%), more likely to have two sections (82% versus 71%), more likely to be located in large metro areas (51% versus 40%), and less likely to be located in nonmetro areas (25% versus 32%). Mortgage borrowers who applied to multiple lenders were more likely to indicate low loan process knowledge than those who applied to only one lender (24% versus 15%), less likely to indicate that they had applied through or been referred by the seller/retailer (7% versus 13%), and more likely to be concerned about qualifying for a loan (80% versus 68%).

Thus, with regard to loan process knowledge, we see that personal property borrowers who applied to multiple lenders were, on average, more informed than those who did not, whereas mortgage borrowers who applied to multiple lenders were less informed, on average, than those who did not. Moreover, the application channel and concern about qualifying for a loan are more strongly associated with the number of applications submitted for mortgage borrowers than for personal property borrowers.

Table 5: Borrower Characteristics by Loan Type and Number of Applications	Loan Type			
	Mortgage		Personal property	
	Applied to multiple lenders		Applied to multiple lenders	
	No	Yes	No	Yes
Income of \$65,000 or more	37%	41%	24%	26%
Receives wage income	81%	81%	77%	81%
Receives retirement income	23%	16%	29%	25%
Receives business income	17%	12%	13%	13%
Credit score 700+	25%	17%	22%	26%
Missing credit score	5%	10%	9%	5%
Missing debt-to-income ratio	4%	9%	13%	8%
Age 65 or older	10%	11%	17%	13%
Completed college	26%	32%	22%	24%
Never married	5%	14%	12%	14%
White	71%	66%	57%	60%
Purchased new housing unit	40%	48%	68%	86%
Purchased two-section housing unit	71%	82%	49%	53%
Located in large metro area	40%	51%	52%	45%
Located in medium/small metro area	28%	24%	26%	26%
Located in nonmetro area	32%	25%	23%	28%
Low loan process knowledge	15%	24%	21%	12%
Seller/retailer assistance (volunteered)	13%	7%	19%	22%
Concerned about qualifying for a loan	68%	80%	66%	69%

Source: Authors' calculations: see Manufactured Home Owners Survey data descriptive results (Appendix E). Note: The percentages presented are column percentages.

How Borrowers Who Applied to Multiple Lenders Because of Prior Loan Denials Compare With Borrowers Who Applied to Multiple Lenders for Other Reasons

Among those survey participants who applied to multiple lenders, about 31% did so because they had been turned down on a prior loan application. Comparable figures for personal property borrowers and mortgage borrowers, respectively, are 32% and 29%. Compared with borrowers who applied to multiple lenders for other reasons, those who applied to multiple lenders because they were turned down on a prior application were more likely to be located in medium/small metro areas (35% versus 21%) and less likely to be located in large metro or nonmetro areas. Those turned down on a prior application were also less likely to have an income of at least \$65,000 (21% versus 34%), less likely to have a credit score of at least 700 (14% versus 28%), and slightly more likely to have a missing DTI ratio (10% versus 7%). In addition, they were more likely to be 65 years or older (16% versus 10%), less likely to have completed a college degree (23% versus 27%), more likely to be divorced (19% versus 12%), and slightly less likely to be White (58% versus 63%). Those turned down on a prior application were also more likely to be first-time homeowners (57% versus 47%), more likely to be purchasing a one-section unit (46% versus 36%), and less likely to own the land on which their homes were sited (58% versus 66%). They also were more likely to indicate low loan process knowledge (18% versus 13%), more likely to have applied through the lender or been referred by their retailer or seller when obtaining the loans they used to purchase their homes (27% versus 15%), and more likely to be concerned about qualifying for a loan (89% versus 65%).

Breaking these results down by loan type, we see roughly similar patterns among personal property borrowers who submitted multiple loan applications (see Table 6). Those who did so because they were turned down on a prior application were about half as likely to have incomes of \$65,000 or more (14% versus 31%) and about half as likely to have a credit score of at least 700 (15% versus 32%), compared with personal property borrowers who submitted multiple loan applications for other reasons. They were also slightly more likely to be 65 years or older (15% versus 11%), less likely to be college graduates (18% versus 26%), more likely to be separated or divorced (25% versus 16%), less likely to be White (54% versus 63%), and more likely to be Hispanic (36% versus 27%). In addition, personal property borrowers who were turned down on earlier applications were more likely to be first-time homeowners (57% versus 47%) and more likely to be purchasing used housing units (21% versus 11%). Housing units purchased by this group were also more likely to have only one section (50% versus 45%) and less likely to be sited on land owned by the borrower (44% versus 54%). Respondents with low loan process knowledge represent 15% of those who were turned down on a prior application, compared with 10% of those who were not. Moreover, respondents who were turned down on a prior application were more likely than respondents who were not turned down to volunteer that they applied through or were referred by their seller or retailer when obtaining the loan that they used for home purchase (30% versus 19%), and much more likely to say that they were concerned about qualifying for a loan (92% versus 59%).

Consistent with the pattern observed for personal property borrowers, among those mortgage borrowers who submitted multiple applications, those who did so because they had been turned down previously were more likely to be 65 years or older (19% versus 7%) and more likely to be married (74% versus 65%) or divorced (18% versus 12%), compared with those who submitted multiple applications

for other reasons. They were also more likely to be White (71% versus 64%) and less likely to speak a language other than English (20% versus 25%) but also more likely to say that it was important for the lender to be able to communicate in their primary language if it was not English (17% versus 8%). Mortgage borrowers turned down on a prior application were also more likely to be first-time homeowners (56% versus 48%), more likely to have joint titles (73% versus 61%), and more likely to be purchasing new housing units (58% versus 44%). Housing units purchased by this group were again more likely to have only one section (32% versus 68%) and to be located in medium/small metro areas (35% versus 20%). Those borrowers reporting low loan process knowledge represent 26% of those turned down on a prior application, compared with 23% of those not previously turned down. Moreover, about 16% of those turned down on a prior application applied through or were referred by the seller or retailer when obtaining their loan, compared with 3% of those who were not turned down before. However, concern about qualifying for a loan appears to be similar among applicants previously turned down as compared with those who were not previously turned down (79% versus 81%).

Overall, these patterns suggest that those borrowers who applied to multiple lenders because they had previously been turned down for a loan tended, on average, to be those with lower credit ratings and lower incomes, who were buying smaller units and were less informed about the loan process. The fact that these borrowers were more likely to volunteer that they had obtained their loans via indirect application channels (i.e., with assistance from the seller or retailer) also suggests that doing so may have facilitated credit access for these borrowers: An application submitted through these channels would have been the point at which they finally succeeded in obtaining home purchase financing. Detailed tables summarizing these results are provided in Appendix E. We also provide a supplemental analysis discussing the cost of credit in Appendix G.

Table 6: Characteristics of Borrowers Who Applied to Multiple Lenders by Loan Type and Whether Turned Down on Prior Application	Loan Type			
	Mortgage		Personal property	
	Turned down on earlier application		Turned down on earlier application	
	No	Yes	No	Yes
Income of \$65,000 or more	40%	42%	31%	14%
Credit score above 700	20%	11%	32%	15%
Missing credit score	12%	6%	5%	4%
Age 65 or older	7%	19%	11%	15%
Completed college	30%	35%	26%	18%
Married	65%	74%	63%	54%
Separated	1%	2%	3%	6%
Divorced	12%	18%	13%	19%
White	64%	71%	62%	54%
Hispanic	29%	21%	27%	36%
Speaks language other than English	25%	20%	28%	28%
Located in medium/small metro area	20%	35%	22%	36%
Owns land on which unit is sited	100%	100%	54%	44%
First-time homeowner	48%	56%	47%	57%
Joint property title	61%	73%	49%	52%
Purchased new housing unit	44%	58%	89%	79%
Purchased two-section housing unit	88%	68%	55%	50%
Low loan process knowledge	23%	26%	10%	15%
Seller/retailer assistance (volunteered)	3%	16%	19%	30%
Concerned about qualifying for a loan	81%	79%	59%	92%

Source: Authors' calculations: see Manufactured Home Owners Survey data descriptive results (Appendix E). Note: The percentages presented are column percentages.

B. Predictors of Multiple Applications

Our multivariate analysis of the MHOS data generally confirms the above descriptive results. Across both loan types and all else equal, the most salient predictor of multiple applications appears to be timing: More recent buyers (i.e., those who purchased during 2016-18 instead of in 2015) were more likely to submit multiple applications.

Among personal property borrowers, those who were younger, located in rural areas, more informed about the loan process, and had higher credit scores were significantly more likely to apply to multiple lenders. Compared with borrowers younger than 45, those 65 or older were about 10 percentage points less likely to apply to multiple lenders. Moreover, those borrowers with credit scores above 700 were about 8 percentage points more likely than those with credit scores below 580 to do so. Multiple applications were more likely in nonmetro areas, as personal property applicants in these areas had an 8-percentage-point higher likelihood of applying to multiple lenders. Finally, low prior loan process knowledge reduces the likelihood of submitting multiple applications by about 15 percentage points, indicating that personal property borrowers who were better informed were more likely to apply to multiple lenders.⁵⁷ This result highlights the important role played by borrower knowledge in navigating the process of obtaining a personal property loan for manufactured housing.

Among mortgage borrowers, those who had missing DTI ratios or were concerned about qualifying for a loan were more likely to apply to multiple lenders. A missing DTI ratio increases the likelihood of multiple applications by 25 percentage points, and being concerned about qualifying for a loan does so by 12 percentage points. This result suggests that a thin credit history contributes to a greater number of applications among manufactured housing mortgage borrowers. Multiple applications were also less likely for borrowers who applied through or were referred to their lenders by their sellers or retailers (and volunteered this info during the survey) when obtaining their home purchase loans; applying in this way lowers the probability of submitting multiple applications by 20 percentage points. Consistent with the MHOS descriptive analysis and HMDA multivariate analysis above, this result suggests that there are some cases in which it is advantageous for manufactured housing borrowers to use indirect application channels, as these may facilitate credit access in this specialized lending space. Detailed estimation results for the multivariate probit models are provided in Appendix F.

⁵⁷ As we note in Appendix G, borrowers who apply to multiple lenders do not necessarily obtain loans with lower interest rates.

VI. Conclusions

Our exploratory analysis of loan denials and loan shopping behavior in the context of obtaining financing to purchase manufactured housing has yielded several insights of potential interest to policymakers, manufactured housing lenders, and consumers. First, we have confirmed that denial rates are substantially higher for loan applications for manufactured housing, compared with site-built housing, and that credit history is more likely to be given by lenders as a reason for denying manufactured housing loan applications, compared with site-built applications. Second, our analysis suggests that this pattern likely reflects some combination of population differences in credit histories and lender differences in underwriting processes and standards, although the relative contributions of these factors remain unclear. The fact that we observe differences in denial rates and reasons for manufactured housing by insuring agency (with denial rates lower and collateral more frequently cited as a denial reason for FHA and VA loans than for conventional loans, which are more frequently denied due to credit history) supports the idea that lending programs for manufactured housing vary considerably. In consequence, there may be scope for industrywide and interagency conversations that facilitate lender learning as to how to provide home purchase financing to manufactured homebuyers profitably and flexibly as this segment of the housing market continues to expand. Third, the results suggest that, in contrast with buyers of site-built housing, buyers of manufactured housing may benefit from working with a loan broker or other indirect application channel that provides access to specialized manufactured housing lenders, rather than applying directly to a traditional lender, and from casting a wide net when shopping for credit. Although loan costs can be more variable for applications submitted through indirect channels, they appear to be roughly comparable across application channels, at the median. These points represent a potential topic for consumer education.

However, several limitations of the analysis should be kept in mind. First, HMDA does not permit the identification of individual borrowers. Therefore, it is not clear whether the higher denial rates observed for manufactured housing reflect serious obstacles to obtaining home purchase financing or simply the fact that manufactured housing is a niche housing market requiring borrowers to be somewhat more savvy and active loan shoppers in order to be successful. Second, the MHOS data is limited to Texas, which represents a growth market, both generally and with respect to manufactured housing. It is not clear how buyers of manufactured homes in less economically vibrant areas of the country may fare in obtaining financing to purchase manufactured housing. Third, our analysis leverages data collected before the COVID-19 pandemic, and it is unclear how or whether our findings may generalize to a period of lockdowns, higher unemployment, and fiscal stimulus, or to its aftermath.

Given that the study of home purchase financing for modern manufactured housing is, overall, in its infancy, the analysis has also yielded a variety of questions that suggest potential directions for future research. First, in what ways do lenders perceive manufactured housing to be different from site-built housing, and how do these perceived differences relate to lender variation in underwriting practices with respect to manufactured housing? Second, what lending practices and loan features, if any, would make manufactured housing loans profitable for lenders, convenient for consumers, and attractive to secondary market investors? Third, how do manufactured housing loans perform over time? Finally, to what extent do borrower financial circumstances, versus variation in lender credit standards and underwriting practices, account for the higher denial rates observed for manufactured housing compared with site-built housing? We encourage the research community to explore these and related

questions as a means of furthering informed dialogue and public policies with respect to manufactured housing finance.

References

Acolin, Arthur, Laurie Goodman, and Susan M. Wachter. "Accessing Homeownership With Credit Constraints," *Housing Policy Debate* 29, no. 1 (2019): 108-125, DOI: 10.1080/10511482.2018.1452042.

Aman, Destiny D., and Brent Yarnal. "Home Sweet Mobile Home? Benefits and Challenges of Mobile Home Ownership in Rural Pennsylvania," *Applied Geography* 30, no. 1 (2010): 84-95, DOI: 10.1016/j.apgeog.2009.09.001 .

Bhutta, Neil, and Glenn B. Canner. "Mortgage Market Conditions and Borrower Outcomes: Evidence From the 2012 HMDA Data and Matched HMDA-Credit Record Data," *Federal Reserve Bulletin* 99, no. 4 (2013), https://www.federalreserve.gov/Pubs/Bulletin/2013/pdf/2012_HMDA.pdf.

Bostic, Raphael W. "The Role of Race in Mortgage Lending: Revisiting the Boston Fed Study," *Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series* (1997), <https://www.federalreserve.gov/econres/feds/the-role-of-race-in-mortgage-lending-revisiting-the-boston-fed-study.htm>.

Burkhart, Ann M. "Bringing Manufactured Housing Into the Real Estate Finance System," *Pepperdine Law Review* 37, no. 2 (2010): 427-457, <https://digitalcommons.pepperdine.edu/cgi/viewcontent.cgi?article=1042&context=plr>.

Burkhart, Ann M. "Taxing Manufactured Homes," *The Tax Lawyer* 67, no. 4 (2014): 909-977, <https://www.jstor.org/stable/24247835>.

Calhoun, Michael, Tom Feltner, and Peter Smith. "Supporting Mortgage Lending in Rural Communities," Brookings Institution (Washington, D.C., 2018), https://www.brookings.edu/wp-content/uploads/2018/01/es_2018_01_10_rural_housing_report.pdf.

Capon, Noel. "Credit Scoring Systems: A Critical Analysis," *Journal of Marketing* 46, no. 2 (1982): 82-91, DOI: 10.1177/002224298204600209.

Capozza, Dennis R., Ryan D. Israelsen, and Thomas A. Thomson. "Appraisal, Agency and Atypicality: Evidence From Manufactured Homes," *Real Estate Economics* 33, no. 3 (2005): 509-537, DOI: 10.1111/j.1540-6229.2005.00128.x .

Carr, James H., and Isaac F. Megbolugbe. "The Federal Reserve Bank of Boston Study on Mortgage Lending Revisited," *Journal of Housing Research* 4, no 2 (1993): 277-313, <https://www.jstor.org/stable/24832778>.

Choi, Jung Hyun, and Laurie Goodman. "22 Million Renters and Owners of Manufactured Homes Are Mostly Left Out of Pandemic Assistance," Urban Institute (Washington, D.C., 2020), <https://www.urban.org/urban-wire/22-million-renters-and-owners-manufactured-homes-are-mostly-left-out-pandemic-assistance> .

Clark, Jared A. "Out of House and Home: The Disparate Application of Louisiana's Eviction Laws to Mobile Home Owners," *Louisiana Law Review* 77, no. 4 (2017): 9, <https://digitalcommons.law.lsu.edu/lalrev/vol77/iss4/9>.

Consumer Financial Protection Bureau. "Consumers' Mortgage Shopping Experience: A First Look at Results From the National Survey of Mortgage Borrowers," CFPB (Washington, D.C., 2015), https://files.consumerfinance.gov/f/201501_cfpb_consumers-mortgage-shopping-experience.pdf.

Consumer Financial Protection Bureau. "Data Point: 2019 Mortgage Market Activity and Trends," CFPB (Washington, D.C., 2020), https://files.consumerfinance.gov/f/documents/cfpb_2019-mortgage-market-activity-trends_report.pdf.

Consumer Financial Protection Bureau. "Manufactured-Housing Consumer Finance in the United States," CFPB (Washington, D.C., 2014), https://files.consumerfinance.gov/f/201409_cfpb_report_manufactured-housing.pdf.

Consumer Financial Protection Bureau. "Manufactured Housing Finance: New Insights From the Home Mortgage Disclosure Act Data," CFPB (Washington, D.C., 2021), https://files.consumerfinance.gov/f/documents/cfpb_manufactured-housing-finance-new-insights-hmda_report_2021-05.pdf.

Consumer Financial Protection Bureau. "What Is a Loan-to-Value Ratio in an Auto Loan?," CFPB (Washington, D.C., 2016), <https://www.consumerfinance.gov/ask-cfpb/what-is-a-loan-to-value-ratio-in-an-auto-loan-en-769/>.

Dahlstrom, William. "Zoning Regulations in Texas," in *A Guide to Urban Planning in Texas Communities* (Chicago: American Planning Association, 2013): 137-158, <https://txplanningguide-ojs-utexas.tdl.org/txplanningguide/index.php/tpg/issue/view/2>.

Ding, Lei. "Information Externalities and Residential Mortgage Lending in the Hardest Hit Housing Market: The Case of Detroit," *Cityscape: A Journal of Policy Development and Research* 16, no. 1 (2014): 233-252, <https://www.jstor.org/stable/26326869>.

Edelman, Sarah, and Michela Zonta. "A New Bill in Congress Would Make Mobile Home Loans Even More Predatory," *Talk Poverty* (Center for American Progress, Washington, D.C., 2017), <https://talkpoverty.org/2017/11/30/new-bill-congress-make-mobile-home-loans-even-predatory>.

Fannie Mae. "Manufactured Housing Landscape 2020," Fannie Mae (Washington, D.C.), accessed Feb. 12, 2021, <https://multifamily.fanniemae.com/news-insights/multifamily-market-commentary/manufactured-housing-landscape-2020>.

Federal Housing Finance Agency. "U.S. House Price Index Report - 2Q 2018," FHFA (Washington, D.C., 2018), <https://www.fhfa.gov/AboutUs/Reports/Pages/US-House-Price-Index-Report-2Q-2018.aspx>.

Finkelstein, Brad. "Reg Reform for Manufactured Home Sellers Sparks Loan Steering Debate," *National Mortgage News* (2018), <https://www.nationalmortgagenews.com/news/regulatory-reform-for-mobile-home-sellers-sparks-loan-steering-debate>.

Ford, Carmel. "Cost of Constructing a Home," National Association of Home Builders (Washington, D.C., Feb. 3, 2020),

<https://www.nahbclassic.org/generic.aspx?sectionID=734&genericContentID=271883&channelID=311>.

Fulton, William. "Can Texas Afford to Lose Its Housing Affordability Advantage?," Kinder Institute for Urban Research (Houston, Rice University, 2020), accessed Feb. 26, 2021,

<https://kinder.rice.edu/urbanedge/2020/04/14/can-texas-afford-lose-its-housing-affordability-advantage>.

Goodman, Laurie, and Bhargavi Ganesh. "Challenges to Obtaining Manufactured Home Financing," Urban Institute (Washington, D.C., 2018a),

https://www.urban.org/sites/default/files/publication/98687/challenges_to_obtaining_manufactured_home_financing_0.pdf.

Goodman, Laurie, and Bhargavi Ganesh. "Four Ways Financing Differs for Manufactured Homes," Urban Institute (Washington, D.C., 2018b), <https://www.urban.org/urban-wire/four-ways-financing-differs-manufactured-homes>.

Goodman, Laurie, and Bhargavi Ganesh. "More Mortgages for Manufactured Homes Could Mean More Affordable Housing." Urban Institute (Washington, DC, 2018c), accessed July 16, 2021,

<https://www.urban.org/urban-wire/more-mortgages-manufactured-homes-could-mean-more-affordable-housing>.

Goodman, Laurie, Bing Bai, and Wei Li. "Real Denial Rates: A Better Way to Look at Who Is Receiving Mortgage Credit," Urban Institute (Washington, D.C., 2018),

https://www.urban.org/sites/default/files/publication/98823/real_denial_rates_2.pdf.

Goodman, Laurie, Edward Golding, Bing Bai, and Sarah Strochak. "New Evidence Shows Manufactured Homes Appreciate as Well as Site-Built Homes," Urban Institute (Washington, D.C., 2018)

<https://www.urban.org/urban-wire/new-evidence-shows-manufactured-homes-appreciate-well-site-built-homes>.

Green, Richard K. *Introduction to Mortgages and Mortgage Backed Securities* (Cambridge, Massachusetts, Academic Press, 2014),

<https://www.sciencedirect.com/book/9780124017436/introduction-to-mortgages-and-mortgage-backed-securities?via=ihub>.

Hirasuna, Donald P., and Ryan Allen. "The Resurgence of Denial Rates for Home Loans: An Examination of Disparate Effects on Groups of Applicants in the Upper Midwest," *Housing Policy Debate* 22, no. 4 (2012): 573-603, DOI: 10.1080/10511482.2012.697910.

Holeywell, Ryan. "Forget What You've Heard, Houston Really Does Have Zoning (Sort Of)," Kinder Institute for Urban Research (Houston, Rice University), accessed June 16, 2021,

<https://kinder.rice.edu/2015/09/08/forget-what-youve-heard-houston-really-does-have-zoning-sort-of>.

Housing Assistance Council. "Mortgage Lending in Rural Communities," HAC (Washington, D.C., 2008).

- Jewell, Kevin. "Manufactured Housing Appreciation: Stereotypes and Data," Consumers Union Southwest Regional Office (Austin, Texas, 2003), <https://advocacy.consumerreports.org/wp-content/uploads/2013/04/Appreciation.pdf>.
- Johnson, Kevin, and Richard M. Todd. "Manufactured-Home Lending to American Indians in Indian Country Remains Highly Concentrated," Federal Reserve Bank of Minneapolis (2017), <https://www.minneapolisfed.org/article/2017/the-market-for-manufactured-home-loans-to-american-indian-and-alaska-native-borrowers-in-indian-country-remains-highly-concentrated>.
- Jones, Mel, Ted Koebel, Andrew McCoy, Spencer Shanholtz, and Julia Moeller. "Mobile and Manufactured Homes in Central Appalachia and Alabama: Age, Condition and Need for Replacement," Virginia Center for Housing Research (Virginia Tech: Blacksburg, 2016), https://www.vchr.vt.edu/sites/vchr/files/upload/publications/VCHR_Study_Final_092016.pdf.
- Kinder Institute for Urban Research. "Houston Doesn't Have Zoning, But There Are Workarounds," Kinder Institute (Houston: Rice University, 2020), accessed June 16, 2021, <https://kinder.rice.edu/urbanedge/2020/01/09/no-zoning-in-houston-there-are-workarounds>.
- Li, Wei, Laurie Goodman, Ellen Seidman, Jim Parrott, Jun Zhu, and Bing Bai. "Measuring Mortgage Credit Accessibility," Urban Institute (Washington, D.C., 2014), https://www.urban.org/research/publication/measuring-mortgage-credit-accessibility/view/full_report.
- Listokin, David, Kenneth Temkin, Nancy Pindus, and David Stanek. "Mortgage Lending on Tribal Land: A Report From the Assessment of American Indian, Alaska Native, and Native Hawaiian Housing Needs," U.S. Department of Housing and Urban Development (Washington, D.C., 2017), <https://www.huduser.gov/portal/sites/default/files/pdf/NAHSG-Lending.pdf>.
- MacTavish, Katherine, Michelle Eley, and Sonya Salamon. "Housing Vulnerability Among Rural Trailer-Park Households," *Georgetown Journal on Poverty Law and Policy* 13 (2006): 95-118, <https://heinonline.org/HOL/LandingPage?handle=hein.journals/geojovlp13&div=2&id=&page=>.
- Manufactured Housing Institute. "2020 Manufactured Housing Facts: Industry Overview," MHI (Arlington, Virginia, 2020), <https://www.manufacturedhousing.org/wp-content/uploads/2020/07/2020-MHI-Quick-Facts-updated-05-2020.pdf>.
- McCargo, Alanna, Bing Bai, Taz George, and Sarah Stochak. "Small-Dollar Mortgages for Single-Family Residential Properties," Urban Institute (Washington, D.C., 2018), <https://www.urban.org/research/publication/small-dollar-mortgages-single-family-residential-properties>.
- Mitchell, Kathy. "In Over Our Heads: Predatory Lending and Fraud in Manufactured Housing," Consumers Union Southwest Regional Office (Austin, Texas) Public Policies Series vol. 5, no. 1 (2002), <https://vdocument.in/in-over-our-heads-predatory-lending-and-fraud-in-in-over-our-heads-predatory.html>.
- Mota, Nuno. "An Analysis of Small Balance Loan Origination in Rural and High-Needs Rural Areas," Fannie Mae (Washington, D.C., 2019), <https://www.fanniemae.com/media/33316/display>.

Munnell, Alicia H., Geoffrey M. B. Tootell, Lynn E. Browne, and James McEneaney. "Mortgage Lending in Boston: Interpreting HMDA Data" (revised), *American Economic Review* 86, no. 1 (1996): 25-53, <https://www.jstor.org/stable/2118254>.

Munnell, Alicia H., Lynne E. Browne, James McEneaney, and Geoffrey M. B. Tootell. "Mortgage Lending in Boston: Interpreting HMDA Data," Federal Reserve Bank of Boston, no. 92-7 (1992), <https://www.bostonfed.org/publications/research-department-working-paper/1992/mortgage-lending-in-boston-interpreting-hmda-data.aspx>.

National Association of Realtors. "2016 Profile of Home Buyers and Sellers," <https://www.nar.realtor/sites/default/files/reports/2016/2016-profile-of-home-buyers-and-sellers-10-31-2016.pdf>.

National Consumer Law Center. "How Are the Federal SAFE Act, the Federal Truth in Lending Act, State Loan Originator Regulation, and Manufactured Housing Related?" (November 2015), https://www.nclc.org/images/pdf/manufactured_housing/How-does-SAFE-Act.pdf.

National Consumer Law Center. "Titling Reform: How States Can Encourage GSE Investment in Manufactured Homes," (2016), https://www.nclc.org/images/pdf/manufactured_housing/Titling_Reform-How_States_Can_Encourage_GSE_Invest_Manuf_Homes.pdf.

Next Modular. "Manufactured or Modular Home – What's the Difference?" (n.d.), accessed June 9, 2021, <https://www.nextmodular.com/modular-manufactured-prefabricated-home/>.

Nickerson, David, and Robert Jones. "Collateral Risk and Demographic Discrimination in Mortgage Market Equilibria," *Review of Economics & Finance* 9, no. 3 (2017): 13-28, <http://www.bapress.ca/ref/ref-article/1923-7529-2017-03-13-16.pdf>.

Perry, Vanessa Gail. "A Loan at Last? Race and Racism in Mortgage Lending," in *Race in the Marketplace: Crossing Critical Boundaries* (London: Palgrave Macmillan, 2019): 173-192, https://link.springer.com/chapter/10.1007%2F978-3-030-11711-5_11.

Pritchard, Justin. "Manufactured and Mobile Home Loans – Chattel or Standard Home Loan?," accessed from The Balance website Feb. 16, 2021, <https://www.thebalance.com/borrowing-tips-for-manufactured-and-mobile-home-loans-4148186-mobile-manufactured-or-modular>.

Richardson, Jason, and Jad Edlebi. "Preliminary Analysis of 2019 HMDA Mortgage Lending Data," National Community Reinvestment Coalition (Washington, D.C., 2020), accessed June 14, 2021, <https://ncrc.org/preliminary-analysis-of-2019-hdma-mortgage-lending-data/>.

Schmitz, Amy J. "Promoting the Promise Manufactured Homes Provide for Affordable Housing." *Journal of Affordable Housing and Community Development Law* 13, no. 3 (2004): 384-415, <https://www.jstor.org/stable/25782701>.

Stiglitz, Joseph E., and Andrew Weiss. "Credit Rationing in Markets with Imperfect Information," *The American Economic Review* 71, no. 3 (1981): 393-410, <https://www.jstor.org/stable/1802787>.

Sullivan, Esther. "Displaced in Place: Manufactured Housing, Mass Eviction, and the Paradox of State Intervention," *American Sociological Review* 82, no. 2 (2017): 243-269, DOI: 10.1177/0003122416688667.

Sullivan, Esther. *Manufactured Insecurity: Mobile Home Parks and Americans' Tenuous Right to Place* (Oakland: University of California Press, 2018), <https://www.jstor.org/stable/10.1525/j.ctv2n7dp2>

Texas Economic Development/Office of the Texas Governor. "Why Texas?" (2021), accessed Feb. 24, 2021, <https://gov.texas.gov/business/page/why-texas>.

UNC Center for Community Capital and Freddie Mac. "The Loan Shopping Experiences of Manufactured Homeowners: Survey Report." Freddie Mac (2020), <https://sf.freddiemac.com/content/assets/resources/pdf/report/manufactured-homeowners-survey-and-report-on-loan-shopping-experiences.pdf>.

U.S. Census Bureau, American Housing Survey. "American Housing Survey – Table Creator: 2019 National – General Housing Data – All Occupied Units" (2020a), <https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html>.

U.S. Census Bureau, American Housing Survey. "American Housing Survey – Table Creator: 2019 Texas – General Housing Data – All Occupied Units" (2020b), <https://www.census.gov/programs-surveys/ahs/data/interactive/ahstablecreator.html>.

U.S. Census Bureau, Manufactured Housing Survey. "Cost & Size Comparison: New Manufactured Homes and New Single-Family Site-Built Homes (1995-2013)," (2016).

U.S. Census Bureau, Manufactured Housing Survey. "Cost & Size Comparison: New Manufactured Homes and New Single-Family Site-Built Homes (2014-2020)," (2021), <https://www.census.gov/data/tables/time-series/econ/mhs/annual-data.html>.

U.S. Census Bureau, Manufactured Housing Survey. "Manufactured Housing Annual Shipment to States: 2014-2020," (2020c), <https://www.census.gov/data/tables/time-series/econ/mhs/shipments.html>.

U.S. Department of Housing and Urban Development. "Commentary on Model State Law," accessed on Feb. 15, 2021, https://www.hud.gov/program_offices/housing/rmra/safe/cmsl.

U.S. Department of Housing and Urban Development. "Manufactured Housing and Standards - Frequently Asked Questions," accessed Feb. 3, 2021, https://www.hud.gov/program_offices/housing/rmra/mhs/faqs.

Walker, Kevin. "Steps Forward: Delivery of Competitive Manufactured Home Financing in Land-Lease Communities, Especially With Long-Term Security of Tenure," CFED (formerly the Corporation for Enterprise Development, Washington, D.C., 2016).

West, Sean. "Manufactured Housing Finance and the Secondary Market," *Community Development Investment Review* 2, no. 1 (2006): 35-47, <https://core.ac.uk/download/pdf/6942898.pdf>.

Wheeler, Christopher H., and Luke M. Olson. "Racial Differences in Mortgage Denials Over the Housing Cycle: Evidence From U.S. Metropolitan Areas," *Journal of Housing Economics* 30 (2015): 33-49, DOI: 10.1016/j.jhe.2015.10.004 .

Yezer, Anthony M. "A Review of Statistical Problems in the Measurement of Mortgage Market Discrimination and Credit Risk" (special report, Research Institute for Housing America, Mortgage Bankers Association, 2010), <https://www.mba.org/news-research-and-resources/research-and-economics/research-institute-for-housing-america/published-reports/2011-2009/a-review-of-statistical-problems-in-the-measurement-of-mortgage-market-discrimination-and-credit-risk> .

Appendix A: HMDA Data Preparation

The combined public HMDA data sets for 2018 and 2019 consist of approximately 33 million loan application records, of which about 2.5 million, or 7.6%, reflect loan applications made in Texas. We restrict this data to retain only applications for first-lien, single-family home purchase loans for properties intended for owner occupation as primary residences, and for which the loan type (mortgage or personal property loan) and state are known. These restrictions permit an analytic focus on loan applications most relevant to the questions of whether limited access to credit is preventing U.S. borrowers from buying homes in which they intend to live, and of how credit access may differ by loan type.

In addition, we exclude applications where the loan is designated as a reverse mortgage, an open-ended line of credit, or for business or commercial purposes, as well as loans with alternative features, including interest-only payments, balloon payments, or other nonamortizing features. With these loan feature restrictions, we focus on mainstream loan products that are relatively homogeneous except for differences in the underlying property type and the usage of land as security. As indicated in Tables A1, A2, and A3 below, alternative loan features are generally uncommon for both site-built units and manufactured units. Nationally, loans with alternative features represent 2.7% of applications; this figure falls to 2.6% for site-built housing and rises slightly to 3.4% for manufactured housing. This pattern primarily reflects the incidence of loans carrying interest-only payments, which represent about 2% of applications for site-built housing nationally and in Texas. Loans with interest-only payments represent less than 1% of personal property loan applications for manufactured housing; in contrast, loans with interest-only payments represent about 6% of mortgage applications for manufactured housing nationally, and 12% in Texas. However, since personal property loans represent the bulk of financing for manufactured housing, the overall incidence of alternative loan features in the data remains low.

Although alternative loan features appear infrequently in the data, a potential concern with excluding them from the analytic sample is that it could bias the denial rate results if loans with alternative features have systematically different denial rates than traditional loans. However, we show below in Tables A4-A9, which present the lender action taken when alternative loan features are either included or excluded from the sample, that the fraction of loan applications denied changes very little when loans with alternative features are excluded. Nationally, the percentage of loan applications denied falls from 10.3% to 10.1% overall; denied applications similarly decrease from 7.7% to 7.5% for site-built housing and increase from 42.9% to 43.2% for manufactured housing. The fact that denial rates remain stable gives us confidence that excluding loans with alternative features does not meaningfully impact our analysis.

To reduce the potential impact of data entry errors and outliers on the analysis, we make several additional adjustments to the data. First, we Winsorize household income at the 1st and 99th percentiles (\$0 and \$610,000). Second, in an effort to achieve a common area of support for the property value distributions for site-built and manufactured housing mortgage applications, we limit the overall property value distribution in the data to values less than or equal to \$405,000, which is the 99th

percentile⁵⁸ of the property value distribution for mortgage applications for manufactured housing.⁵⁹ Manufactured units and site-built units often differ in value not only because of structural differences but also because of differences in whether land value is included. The analysis aims to compare denial rates for complete manufactured housing applications with those for similarly valued site-built properties, because a smaller loan size may be associated with higher denial rates irrespective of other loan, property, or borrower characteristics. Third, we then exclude extreme values of the loan amount distribution by excluding loan amounts for which the implied original loan-to-value (LTV) ratio exceeds 105%. This value represents the 99th percentile of the observed combined loan-to-value (CLTV) ratio distribution in the data.

Tables A10-A12 and Figures A1 and A2 show the impact of these decisions on the property value and loan amount distributions. Although the median property values for each property and loan type remain largely stable, the 99th percentile of the national property distribution falls from about \$1.4 million to \$405,000. This change reflects the fact that the property value distribution for site-built units overall has a much longer upper tail than that for manufactured units, even those where land is included in the property value estimate. After the property value distribution has been truncated, the median property value for manufactured housing personal property loan applications (\$65,000) is approximately half that for manufactured housing mortgage applications (\$125,000), which is again very roughly half that for mortgage applications for site-built housing (\$225,000). These differences reflect both underlying structural differences across property types and the extent to which land is included in the valued property. The truncated loan amount distribution is similar to the property value distribution, both overall and by loan type, which reflects the generally high LTV ratios in the sample (more than 80% of observed CLTVs are 80% or higher). In addition, we lose approximately 2 million loan applications due to missing property value information. Examination of these cases indicates that the majority of applications with missing property values are either incomplete or withdrawn applications. The data also does not appear to be systematically missing due to the reporting practices of any particular lender; more than 5,000 lenders are represented, of which more than 1,300 provided missing property data for manufactured unit applications.

To calculate denial rates and explore the reasons for loan denials, we further limit the sample to complete loan applications because in those cases the lender is in a position to make an informed lending decision. Specifically, we consider approved loans to be those with a loan activity status of either “Loan originated” or “Application approved but not accepted”; the latter indicates that the loan was approved by the financial institution but was declined by the borrower. Similarly, we consider denied loans to be those for which the application has a loan activity status of “Application denied by financial institution” and for which the denial reason given was not “Credit application incomplete.” We count total loan applications as the sum of loans falling into these three status categories, and we calculate the denial rate as the ratio of loan denials to total loan applications.

Although we exclude loan applications with an activity status of “File closed for incompleteness” when calculating denial rates, because these cases represent incomplete applications, it is worth noting that a

⁵⁸ The property value distribution has a long upper tail and contains outliers for both property and loan types. For this reason, we limit the distribution at the 99th percentile.

⁵⁹ Note that Government-Sponsored Enterprise (GSE) single-family conforming loan limits for 2018 and 2019 were \$453,100 and \$484,350, respectively.

larger fraction of overall manufactured housing loan applications than those for site-built housing appears to fall into this category (refer again to Tables A4-A10). Nationally, files closed for incompleteness represent about 2% of applications for site-built housing but about 17% of applications for manufactured housing, irrespective of loan type. Given that HMDA does not permit us to identify individual borrowers, it is not clear whether a greater percentage of manufactured housing applications are closed for incompleteness because borrowers are submitting multiple applications, some of which are left unfinished, or for some other reason.

As an incomplete application can also be given as a possible reason for loan denial, we also exclude denied applications listed as incomplete. We believe that the denial reason “Credit application incomplete” essentially represents noise in the data, given that lenders can alternatively select an action taken of “File closed for incompleteness.” As indicated in Tables A13-A15, about 2% of denied manufactured housing applications are classified as denied for incompleteness, compared with about 12% of applications for site-built housing. It is not clear from the HMDA reporting guidelines why lenders would systematically use one of these avenues for reporting incomplete applications instead of the other, so these differences by property type may represent idiosyncratic variation within the industry.

In combination, the above sample restrictions yield a sample of about 6.3 million loan applications, which we use for the descriptive analysis of denial rates and decisions summarized in Sections IV.A. and IV.B. Detailed results tables for the descriptive analysis are provided in Appendix B.

For the purpose of our subsequent multivariate probit analysis (summarized in Section IV.C.), we also exclude applications that have item-missing data on key variables of interest, which brings our final analytic sample size to about 5.5 million applications. Tables A16-A19 document the amount of data loss due to item-missing data for the variables that we consider in our multivariate analysis, both overall and by loan and property type. The overall rate of missingness is higher for manufactured unit applications (about 18%) than for site-built units (about 11%). Although some applications are dropped due to missing demographic information, much of the missing data results from the fact that lenders did not report property location information (county and/or census tract), which we use to append county-level NCHS and ACS data. According to the HMDA reporting guide, lenders can choose not to report local geography if the site for a manufactured housing unit has not been identified at the time the application is considered, or if the census tract is located in a county where the population is less than 30,000. Thus, our analytic sample may somewhat underrepresent housing units in rural areas.

In deciding which applications to retain in the analytic sample and which variable transformations to consider during modeling, we paid special attention to the amount of missing data present for the key underwriting measures of income, DTI ratio, and CLTV. In HMDA, these measures will typically be missing (i.e., given a value of “NA”) in cases where the lender decided not to use this information in making credit decisions. Because the rate of missingness for income and DTI ratio is relatively low (less than 2%) irrespective of property and loan type, we simply exclude applications with missing data for these variables. In contrast, 34% of manufactured housing mortgage applications and 81% of manufactured housing personal property loan applications in our analytic sample have missing CLTV information. Therefore, we treat CLTV as a categorical measure; one category comprises cases where CLTV was not used in the credit decision. Summary statistics for the analytic sample and probit estimation results are provided in Appendices C and D.

Table A1: Alternative Loan Features, Purchase Applications for Single-Family, Owner-Occupied Residential Units	Nation		Texas	
	N	Percent of applications	N	Percent of applications
Reverse mortgage	5,443	0.1%	320	0.0%
Open-ended line of credit	63,658	0.6%	3,456	0.3%
Business or commercial purposes	11,899	0.1%	702	0.1%
Negative amortization	1,134	0.0%	43	0.0%
Interest-only payments	202,212	1.9%	16,547	1.6%
Balloon payment	43,779	0.4%	2,168	0.2%
Other nonamortizing features	12,065	0.1%	844	0.1%
One or more of the above alternative loan features	285,978	2.7%	21,213	2.0%
Total loan applications	10,762,681	100.0%	1,065,144	100.0%

Table A2: Alternative Loan Features, Purchase Applications for Single-Family, Owner-Occupied Residential Site-Built Units	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of applications	N	Percent of applications
Reverse mortgage	5,331	0.1%	317	0.0%
Open-ended line of credit	63,120	0.6%	3,444	0.4%
Business or commercial purposes	11,767	0.1%	689	0.1%
Negative amortization	1,112	0.0%	43	0.0%
Interest-only payments	179,102	1.8%	11,622	1.2%
Balloon payment	41,223	0.4%	2,099	0.2%
Other nonamortizing features	11,948	0.1%	841	0.1%
One or more of the above alternative loan features	260,090	2.6%	16,203	1.7%
Total loan applications	9,992,548	100.0%	935,748	100.0%

Table A3: Alternative Loan Features, Purchase Applications for Single-Family, Owner-Occupied Residential Manufactured Housing Units	Nation						Texas					
	Manufactured housing						Manufactured housing					
	All loan types		Mortgage		Personal property loan		All loan types		Mortgage		Personal property loan	
	N	Percent of applications	N	Percent of applications	N	Percent of applications	N	Percent of applications	N	Percent of applications	N	Percent of applications
Reverse mortgage	112	0.0%	111	0.0%	1	0.0%	3	0.0%	3	0.0%	0	0.0%
Open-ended line of credit	538	0.1%	519	0.2%	19	0.0%	12	0.0%	11	0.0%	1	0.0%
Business or commercial purposes	132	0.0%	92	0.0%	40	0.0%	13	0.0%	10	0.0%	3	0.0%
Negative amortization	22	0.0%	18	0.0%	4	0.0%	0	0.0%	0	0.0%	0	0.0%
Interest-only payments	23,110	3.0%	20,489	6.1%	2,621	0.6%	4,925	3.8%	4,920	12.4%	5	0.0%
Balloon payment	2,556	0.3%	1,699	0.5%	857	0.2%	69	0.1%	28	0.1%	41	0.0%
Other nonamortizing features	117	0.0%	90	0.0%	27	0.0%	3	0.0%	3	0.0%	0	0.0%
One or more of the above alternative loan features	25,888	3.4%	22,359	6.7%	3,529	0.8%	5,010	3.9%	4,962	12.5%	48	0.1%
Total loan applications	770,133	100.0%	334,228	100.0%	435,905	100.0%	129,396	100.0%	39,785	100.0%	89,611	100.0%

Table A4: Lender Action Taken, Purchase Applications for Single-Family, Owner-Occupied Residential Units	Nation		Texas	
	N	Percent of applications	N	Percent of applications
Lender action taken				
Loan originated	7,550,895	70.2%	686,044	64.4%
Application approved but not accepted	282,800	2.6%	32,241	3.0%
Application denied	1,103,704	10.3%	135,292	12.7%
Application withdrawn by applicant	1,436,035	13.3%	162,493	15.3%
File closed for incompleteness	334,522	3.1%	45,217	4.2%
Preapproval request denied	24,409	0.2%	1,699	0.2%
Preapproval request approved but not accepted	30,316	0.3%	2,158	0.2%
Total loan applications	10,762,681	100.0%	1,065,144	100.0%

Table A5: Lender Action Taken, Purchase Applications for Single-Family, Owner-Occupied Residential Units Without Alternative Loan Features	Nation		Texas	
	N	Percent of applications	N	Percent of applications
Lender action taken				
Loan originated	7,378,466	70.4%	676,215	64.8%
Application approved but not accepted	268,944	2.6%	30,518	2.9%
Application denied	1,052,959	10.1%	130,357	12.5%
Application withdrawn by applicant	1,399,117	13.4%	159,025	15.2%
File closed for incompleteness	323,475	3.1%	44,031	4.2%
Preapproval request denied	23,984	0.2%	1,667	0.2%
Preapproval request approved but not accepted	29,758	0.3%	2,118	0.2%
Total loan applications	10,476,703	100.0%	1,043,931	100.0%

Table A6: Lender Action Taken, Purchase Applications for Single-Family, Owner-Occupied Residential Site-Built Units	Nation		Texas	
	Site-built housing		Site-built housing	
	N	Percent of applications	N	Percent of applications
Lender action taken				
Loan originated	7,340,083	73.5%	657,433	70.3%
Application approved but not accepted	233,840	2.3%	25,116	2.7%
Application denied	773,432	7.7%	74,740	8.0%
Application withdrawn by applicant	1,389,790	13.9%	154,958	16.6%
File closed for incompleteness	202,563	2.0%	19,760	2.1%
Preapproval request denied	23,032	0.2%	1,598	0.2%
Preapproval request approved but not accepted	29,808	0.3%	2,143	0.2%
Total loan applications	9,992,548	100.0%	935,748	100.0%

Table A7: Lender Action Taken, Purchase Applications for Single-Family Owner-Occupied Residential Site-Built Units without Alternative Loan Features	Nation		Texas	
	Site-built housing		Site-built housing	
	N	Percent of applications	N	Percent of applications
Lender action taken				
Loan originated	7,174,429	73.7%	648,260	70.5%
Application approved but not accepted	223,349	2.3%	23,966	2.6%
Application denied	731,265	7.5%	71,755	7.8%
Application withdrawn by applicant	1,358,607	14.0%	152,944	16.6%
File closed for incompleteness	192,930	2.0%	18,950	2.1%
Preapproval request denied	22,620	0.2%	1,566	0.2%
Preapproval request approved but not accepted	29,258	0.3%	2,104	0.2%
Total loan applications	9,732,458	100.0%	919,545	100.0%

Table A8: Lender Action Taken, Purchase Applications for Single-Family, Owner-Occupied Residential Manufactured Housing Units	Nation						Texas					
	Manufactured housing						Manufactured housing					
	All loan types		Mortgage		Personal property loan		All loan types		Mortgage		Personal property loan	
	N	Percent of applications	N	Percent of applications	N	Percent of applications	N	Percent of applications	N	Percent of applications	N	Percent of applications
Lender action taken												
Loan originated	210,812	27.4%	117,980	35.3%	92,832	21.3%	28,611	22.1%	9,375	23.6%	19,236	21.5%
Application approved but not accepted	48,960	6.4%	15,196	4.5%	33,764	7.7%	7,125	5.5%	2,000	5.0%	5,125	5.7%
Application denied	330,272	42.9%	109,695	32.8%	220,577	50.6%	60,552	46.8%	15,445	38.8%	45,107	50.3%
Application withdrawn by applicant	46,245	6.0%	34,677	10.4%	11,568	2.7%	7,535	5.8%	4,496	11.3%	3,039	3.4%
File closed for incompleteness	131,959	17.1%	54,925	16.4%	77,034	17.7%	25,457	19.7%	8,353	21.0%	17,104	19.1%
Preapproval request denied	1,377	0.2%	1,294	0.4%	83	0.0%	101	0.1%	101	0.3%	0	0.0%
Preapproval request approved but not accepted	508	0.1%	461	0.1%	47	0.0%	15	0.0%	15	0.0%	0	0.0%
Total loan applications	770,133	100.0%	334,228	100.0%	435,905	100.0%	129,396	100.0%	39,785	100.0%	89,611	100.0%

Table A9: Lender Action Taken, Purchase Applications for Single-Family, Owner-Occupied Residential Manufactured Housing Units Without Alternative Loan Features	Nation						Texas					
	Manufactured housing						Manufactured housing					
	All loan types		Mortgage		Personal property loan		All loan types		Mortgage		Personal property loan	
	N	Percent of applications	N	Percent of applications	N	Percent of applications	N	Percent of applications	N	Percent of applications	N	Percent of applications
Lender action taken												
Loan originated	204,037	27.4%	112,667	36.1%	91,370	21.1%	27,955	22.5%	8,759	25.2%	19,196	21.4%
Application approved but not accepted	45,595	6.1%	12,278	3.9%	33,317	7.7%	6,552	5.3%	1,427	4.1%	5,125	5.7%
Application denied	321,694	43.2%	102,674	32.9%	219,020	50.7%	58,602	47.1%	13,503	38.8%	45,099	50.4%
Application withdrawn by applicant	40,510	5.4%	29,001	9.3%	11,509	2.7%	6,081	4.9%	3,042	8.7%	3,039	3.4%
File closed for incompleteness	130,545	17.5%	53,511	17.2%	77,034	17.8%	25,081	20.2%	7,977	22.9%	17,104	19.1%
Preapproval request denied	1,364	0.2%	1,285	0.4%	79	0.0%	101	0.1%	101	0.3%	0	0.0%
Preapproval request approved but not accepted	500	0.1%	453	0.1%	47	0.0%	14	0.0%	14	0.0%	0	0.0%
Total loan applications	744,245	100.0%	311,869	100.0%	432,376	100.0%	124,386	100.0%	34,823	100.0%	89,563	100.0%

Table A10: Property Value Distribution, Purchase Applications for Single-Family, Owner-Occupied Residential Units Without Alternative Loan Features			Property Value							
			N	N missing	Minimum	Mean	Median	95th percentile	99th percentile	Max
Nation	Manufactured housing	Mortgage	222,828	89,041	5,000	139,357	115,000	275,000	405,000	560,015,000
		Personal property loan	290,387	141,989	5,000	76,112	65,000	155,000	235,000	25,775,000
	Site-built housing	Mortgage	7,843,114	1,889,344	5,000	341,556	265,000	785,000	1,465,000	2,147,483,647
	All properties			8,356,329	2,120,374	5,000	326,940	255,000	765,000	1,425,000	2,147,483,647
Texas	Manufactured housing	Mortgage	22,865	11,958	5,000	152,519	125,000	225,000	295,000	560,015,000
		Personal property loan	62,467	27,096	5,000	72,799	65,000	135,000	175,000	695,000
	Site-built housing	Mortgage	718,039	201,506	5,000	301,041	255,000	625,000	1,115,000	100,005,000
	All properties			803,371	240,560	5,000	279,067	235,000	595,000	1,065,000	560,015,000

Table A11: Truncated Property Value Distribution, Purchase Applications for Single-Family, Owner-Occupied Residential Units Without Alternative Loan Features			Property Value							
			N	N missing	Minimum	Mean	Median	95th percentile	99th percentile	Max
Nation	Manufactured housing	Mortgage	197,862	0	5,000	132,982	125,000	275,000	355,000	405,000
		Personal property loan	277,753	0	5,000	74,227	65,000	145,000	235,000	405,000
	Site-built housing	Mortgage	5,961,143	0	5,000	227,810	225,000	375,000	405,000	405,000
	All properties			6,436,758	0	5,000	218,267	215,000	375,000	405,000
Texas	Manufactured housing	Mortgage	19,491	0	5,000	132,544	125,000	225,000	295,000	405,000
		Personal property loan	58,026	0	5,000	73,249	65,000	135,000	175,000	395,000
	Site-built housing	Mortgage	590,805	0	5,000	236,724	235,000	375,000	405,000	405,000
	All properties			668,322	0	5,000	219,492	215,000	375,000	405,000

Table A12: Truncated Loan Amount Distribution, Purchase Applications for Single-Family, Owner-Occupied Residential Units Without Alternative Loan Features			Loan Amount							
			N	N missing	Minimum	Mean	Median	95th percentile	99th percentile	Max
Nation	Manufactured housing	Mortgage	197,862	0	5,000	121,152	105,000	245,000	325,000	425,000
		Personal property loan	277,753	0	5,000	67,297	55,000	135,000	195,000	415,000
	Site-built housing	Mortgage	5,961,143	0	5,000	202,355	195,000	345,000	385,000	425,000
	All properties		6,436,758	0	5,000	194,031	185,000	345,000	385,000	425,000
Texas	Manufactured housing	Mortgage	19,491	0	5,000	122,679	115,000	215,000	275,000	415,000
		Personal property loan	58,026	0	5,000	68,908	65,000	135,000	165,000	395,000
	Site-built housing	Mortgage	590,805	0	5,000	211,616	205,000	335,000	375,000	425,000
	All properties		668,322	0	5,000	196,632	195,000	335,000	375,000	425,000

Figure A1

Property Value Histograms, Purchase Applications for Single-Family, Owner-Occupied Residential Units

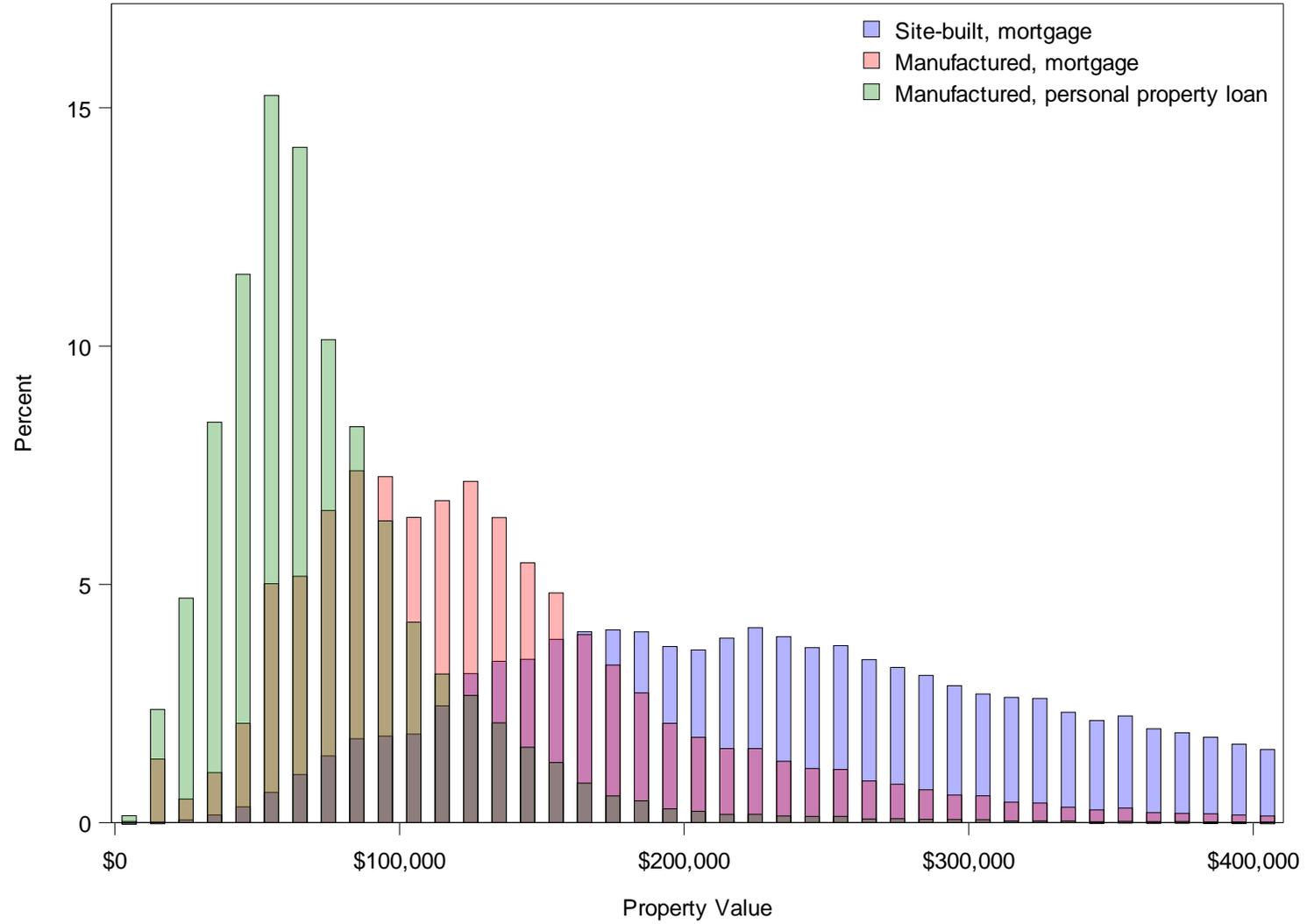


Figure A2

Loan Amount Histograms, Purchase Applications for Single-Family, Owner-Occupied Residential Units

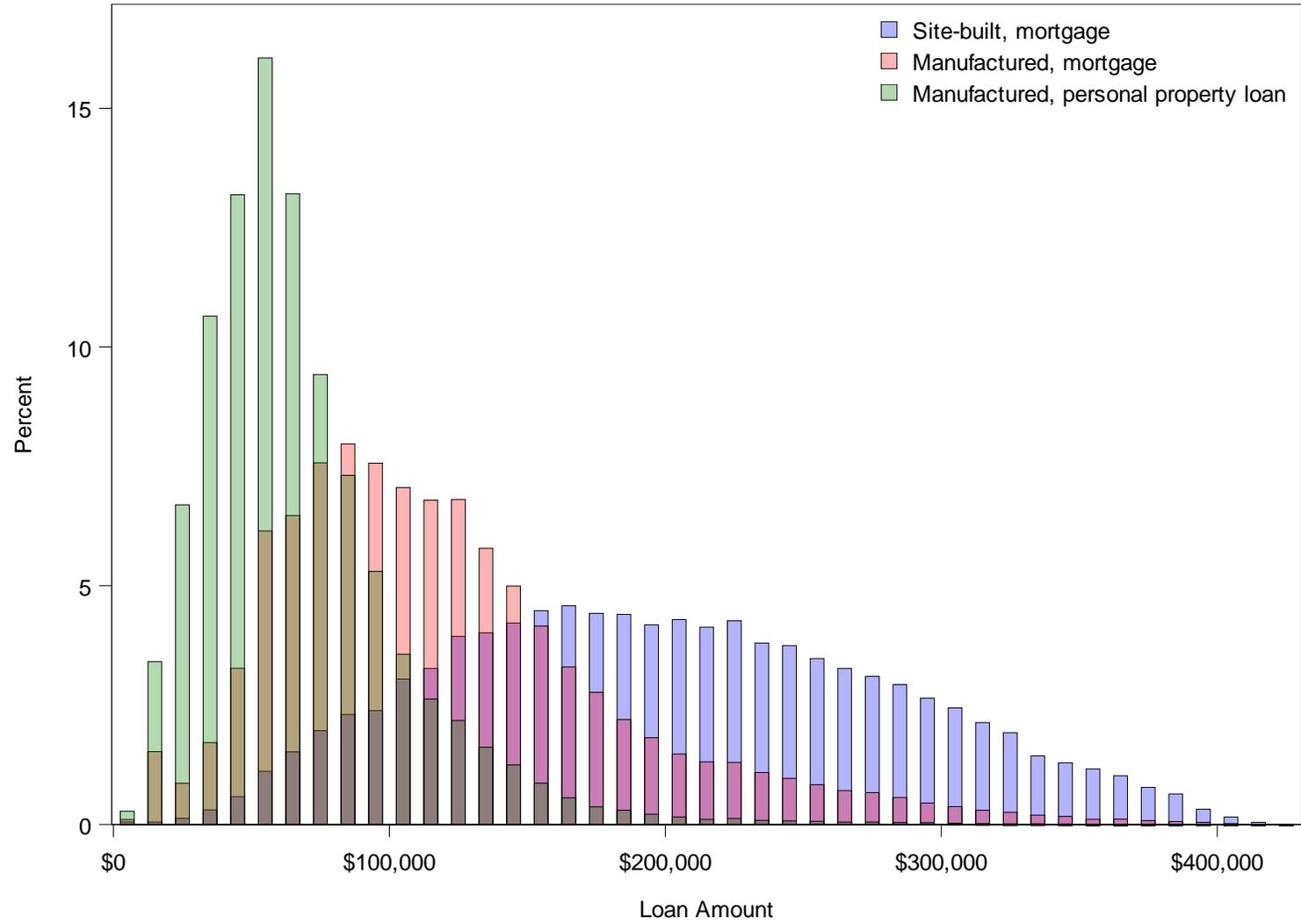


Table A13: Denial Reasons (Not Mutually Exclusive) by Geography and Loan Type	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	754,993	100.0%	100,706	100.0%
Debt-to-income ratio	262,722	34.8%	38,159	37.9%
Employment history	41,081	5.4%	5,423	5.4%
Credit history	276,905	36.7%	43,726	43.4%
Collateral	92,871	12.3%	7,036	7.0%
Insufficient cash	69,462	9.2%	8,965	8.9%
Unverifiable information	73,328	9.7%	10,810	10.7%
Credit application incomplete	65,748	8.7%	8,023	8.0%
Mortgage insurance denied	2,331	0.3%	132	0.1%
Other	92,948	12.3%	11,453	11.4%

Table A14: Denial Reasons (Not Mutually Exclusive) by Geography and Loan Type, Site-Built Housing	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	495,946	100.0%	53,046	100.0%
Debt-to-income ratio	167,484	33.8%	20,101	37.9%
Employment history	29,382	5.9%	3,112	5.9%
Credit history	119,435	24.1%	12,773	24.1%
Collateral	82,339	16.6%	6,189	11.7%
Insufficient cash	50,101	10.1%	4,711	8.9%
Unverifiable information	42,452	8.6%	5,560	10.5%
Credit application incomplete	60,244	12.1%	6,695	12.6%
Mortgage insurance denied	2,241	0.5%	127	0.2%
Other	66,514	13.4%	6,535	12.3%

Table A15: Denial Reasons (Not Mutually Exclusive) by Geography and Loan Type, Manufactured Housing	Nation						Texas					
	Manufactured housing						Manufactured housing					
	All loan types		Mortgage		Personal property loan		All loan types		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	259,047	100.0%	79,810	100.0%	179,237	100.0%	47,660	100.0%	10,009	100.0%	37,651	100.0%
Debt-to-income ratio	95,238	36.8%	27,244	34.1%	67,994	37.9%	18,058	37.9%	3,986	39.8%	14,072	37.4%
Employment history	11,699	4.5%	3,730	4.7%	7,969	4.4%	2,311	4.8%	418	4.2%	1,893	5.0%
Credit history	157,470	60.8%	42,681	53.5%	114,789	64.0%	30,953	64.9%	6,172	61.7%	24,781	65.8%
Collateral	10,532	4.1%	8,610	10.8%	1,922	1.1%	847	1.8%	675	6.7%	172	0.5%
Insufficient cash	19,361	7.5%	6,389	8.0%	12,972	7.2%	4,254	8.9%	1,016	10.2%	3,238	8.6%
Unverifiable information	30,876	11.9%	12,221	15.3%	18,655	10.4%	5,250	11.0%	1,207	12.1%	4,043	10.7%
Credit application incomplete	5,504	2.1%	1,973	2.5%	3,531	2.0%	1,328	2.8%	249	2.5%	1,079	2.9%
Mortgage insurance denied	90	0.0%	85	0.1%	5	0.0%	5	0.0%	4	0.0%	1	0.0%
Other	26,434	10.2%	5,492	6.9%	20,942	11.7%	4,918	10.3%	509	5.1%	4,409	11.7%

Table A16: Missing Data Assessment, All Housing Types	Nation		Texas	
	N	N missing	N	N missing
Activity year	6,340,322	0	657,769	0
Property value	6,340,322	0	657,769	0
Units in structure	6,340,322	0	657,769	0
Income	6,296,094	44,228	654,284	3,485
Loan amount	6,340,322	0	657,769	0
Combined loan-to-value ratio	6,339,909	413	657,714	55
Race/Ethnicity	6,054,140	286,182	619,389	38,380
Gender	6,008,339	331,983	618,603	39,166
Age	6,338,551	1,771	657,615	154
Coborrower	6,340,322	0	657,769	0
Debt-to-income ratio	6,303,754	36,568	652,930	4,839
Application channel	6,339,185	1,137	657,681	88
Agency type	6,340,322	0	657,769	0
Land ownership status (MH only)	468,465	5,871,857	76,059	581,710
State	6,340,322	0	657,769	0
County metro classification	6,267,497	72,825	646,107	11,662
County percent racial/ethnic minority	6,267,497	72,825	646,107	11,662
County percent Hispanic	6,267,497	72,825	646,107	11,662
County percent non-Hispanic White	6,267,497	72,825	646,107	11,662
County percent non-Hispanic Black	6,267,497	72,825	646,107	11,662
County percent non-Hispanic Asian	6,267,497	72,825	646,107	11,662
County percent non-Hispanic Indigenous peoples	6,267,497	72,825	646,107	11,662
County percent foreign born	6,267,497	72,825	646,107	11,662
County percent speaking other language, English limited	6,267,497	72,825	646,107	11,662
County percent in poverty	6,266,980	73,342	646,107	11,662
County percent manufactured/mobile homes	6,267,497	72,825	646,107	11,662
County percent owner-occupied housing units	6,267,497	72,825	646,107	11,662
County percent owner-occupied housing units with mortgage	6,267,497	72,825	646,107	11,662
County median value of owner-occupied housing units	6,267,494	72,828	646,104	11,665
County percent housing units built in 2010 or later	6,267,497	72,825	646,107	11,662

Table A17: Missing Data Assessment, Site-Built Housing	Nation		Texas	
	Site-built housing		Site-built housing	
	N	N missing	N	N missing
Activity year	5,871,300	0	581,614	0
Property value	5,871,300	0	581,614	0
Units in structure	5,871,300	0	581,614	0
Income	5,827,521	43,779	578,154	3,460
Loan amount	5,871,300	0	581,614	0
Combined loan-to-value ratio	5,870,903	397	581,559	55
Race/Ethnicity	5,591,593	279,707	543,969	37,645
Gender	5,561,775	309,525	546,614	35,000
Age	5,869,568	1,732	581,463	151
Coborrower	5,871,300	0	581,614	0
Debt-to-income ratio	5,840,734	30,566	577,115	4,499
Application channel	5,870,237	1,063	581,532	82
Agency type	5,871,300	0	581,614	0
Land ownership status (MH only)	0	5,871,300	0	581,614
State	5,871,300	0	581,614	0
County metro classification	5,850,853	20,447	579,743	1,871
County percent racial/ethnic minority	5,850,853	20,447	579,743	1,871
County percent Hispanic	5,850,853	20,447	579,743	1,871
County percent non-Hispanic White	5,850,853	20,447	579,743	1,871
County percent non-Hispanic Black	5,850,853	20,447	579,743	1,871
County percent non-Hispanic Asian	5,850,853	20,447	579,743	1,871
County percent non-Hispanic Indigenous peoples	5,850,853	20,447	579,743	1,871
County percent foreign born	5,850,853	20,447	579,743	1,871
County percent speaking other language, English limited	5,850,853	20,447	579,743	1,871
County percent in poverty	5,850,685	20,615	579,743	1,871
County percent manufactured/mobile homes	5,850,853	20,447	579,743	1,871
County percent owner-occupied housing units	5,850,853	20,447	579,743	1,871
County percent owner-occupied housing units with mortgage	5,850,853	20,447	579,743	1,871
County median value of owner-occupied housing units	5,850,853	20,447	579,743	1,871
County percent housing units built in 2010 or later	5,850,853	20,447	579,743	1,871

Table A18: Missing Data Assessment, Manufactured Housing, Mortgages	Nation		Texas	
	Manufactured housing		Manufactured housing	
	Mortgage		Mortgage	
	N	N missing	N	N missing
Activity year	194,884	0	19,208	0
Property value	194,884	0	19,208	0
Units in structure	194,884	0	19,208	0
Income	194,509	375	19,191	17
Loan amount	194,884	0	19,208	0
Combined loan-to-value ratio	194,871	13	19,208	0
Race/Ethnicity	192,533	2,351	19,044	164
Gender	186,067	8,817	18,400	808
Age	194,864	20	19,207	1
Coborrower	194,884	0	19,208	0
Debt-to-income ratio	192,859	2,025	19,141	67
Application channel	194,832	52	19,202	6
Agency type	194,884	0	19,208	0
Land Ownership status (MH only)	194,800	84	19,204	4
State	194,884	0	19,208	0
County metro classification	175,392	19,492	17,362	1,846
County percent racial/ethnic minority	175,392	19,492	17,362	1,846
County percent Hispanic	175,392	19,492	17,362	1,846
County percent non-Hispanic White	175,392	19,492	17,362	1,846
County percent non-Hispanic Black	175,392	19,492	17,362	1,846
County percent non-Hispanic Asian	175,392	19,492	17,362	1,846
County percent non-Hispanic Indigenous peoples	175,392	19,492	17,362	1,846
County percent foreign born	175,392	19,492	17,362	1,846
County percent speaking other language, English limited	175,392	19,492	17,362	1,846
County percent in poverty	175,287	19,597	17,362	1,846
County percent manufactured/mobile homes	175,392	19,492	17,362	1,846
County percent owner-occupied housing units	175,392	19,492	17,362	1,846
County percent owner-occupied housing units with mortgage	175,392	19,492	17,362	1,846
County median value of owner-occupied housing units	175,392	19,492	17,362	1,846
County percent housing units built in 2010 or later	175,392	19,492	17,362	1,846

Table A19: Missing Data Assessment, Manufactured Housing, Personal Property Loans	Nation		Texas	
	Manufactured housing		Manufactured housing	
	Personal property loan		Personal property loan	
	N	N missing	N	N missing
Activity year	274,138	0	56,947	0
Property value	274,138	0	56,947	0
Units in structure	274,138	0	56,947	0
Income	274,064	74	56,939	8
Loan amount	274,138	0	56,947	0
Combined loan-to-value ratio	274,135	3	56,947	0
Race/Ethnicity	270,014	4,124	56,376	571
Gender	260,497	13,641	53,589	3,358
Age	274,119	19	56,945	2
Coborrower	274,138	0	56,947	0
Debt-to-income ratio	270,161	3,977	56,674	273
Application channel	274,116	22	56,947	0
Agency type	274,138	0	56,947	0
Land ownership status (MH only)	273,665	473	56,855	92
State	274,138	0	56,947	0
County metro classification	241,252	32,886	49,002	7,945
County percent racial/ethnic minority	241,252	32,886	49,002	7,945
County percent Hispanic	241,252	32,886	49,002	7,945
County percent non-Hispanic White	241,252	32,886	49,002	7,945
County percent non-Hispanic Black	241,252	32,886	49,002	7,945
County percent non-Hispanic Asian	241,252	32,886	49,002	7,945
County percent non-Hispanic Indigenous peoples	241,252	32,886	49,002	7,945
County percent foreign born	241,252	32,886	49,002	7,945
County percent speaking other language, English limited	241,252	32,886	49,002	7,945
County percent in poverty	241,008	33,130	49,002	7,945
County percent manufactured/mobile homes	241,252	32,886	49,002	7,945
County percent owner-occupied housing units	241,252	32,886	49,002	7,945
County percent owner-occupied housing units with mortgage	241,252	32,886	49,002	7,945
County median value of owner-occupied housing units	241,249	32,889	48,999	7,948
County percent housing units built in 2010 or later	241,252	32,886	49,002	7,945

Appendix B: HMDA Descriptive Tables

Applications and Denials	Nation						Texas					
	Applications		Denials		Denials not due to credit history		Applications		Denials		Denials not due to credit history	
	N	Share of applications	N	Denial rate	N	Denial rate	N	Share of applications	N	Denial rate	N	Denial rate
All	6,340,322	100.0%	689,245	10.9%	414,955	6.5%	657,769	100.0%	92,683	14.1%	49,535	7.5%
Geography												
Texas	657,769	10.4%	92,683	14.1%	49,535	7.5%	657,769	100.0%	92,683	14.1%	49,535	7.5%
Other states	5,682,553	89.6%	596,562	10.5%	365,420	6.4%	.	.	.	.	.	.
Property type												
Manufactured housing	469,022	7.4%	253,543	54.1%	97,237	20.7%	76,155	11.6%	46,332	60.8%	15,865	20.8%
Site-built housing	5,871,300	92.6%	435,702	7.4%	317,718	5.4%	581,614	88.4%	46,351	8.0%	33,670	5.8%
Loan type												
Mortgage	6,066,184	95.7%	513,539	8.5%	353,185	5.8%	600,822	91.3%	56,111	9.3%	37,330	6.2%
Personal property loan	274,138	4.3%	175,706	64.1%	61,770	22.5%	56,947	8.7%	36,572	64.2%	12,205	21.4%
Loan amount												
<\$150,000	2,101,050	33.1%	400,983	19.1%	203,063	9.7%	187,365	28.5%	55,515	29.6%	23,380	12.5%
\$150,000+	4,239,272	66.9%	288,262	6.8%	211,892	5.0%	470,404	71.5%	37,168	7.9%	26,155	5.6%
Race/ethnicity												
Other or unknown	980,219	15.5%	128,414	13.1%	81,340	8.3%	120,674	18.3%	17,423	14.4%	10,445	8.7%
White	3,933,874	62.0%	334,444	8.5%	201,769	5.1%	287,776	43.8%	29,130	10.1%	15,534	5.4%
Black	541,537	8.5%	97,233	18.0%	52,081	9.6%	52,949	8.0%	9,129	17.2%	4,848	9.2%
Hispanic	835,848	13.2%	121,061	14.5%	75,751	9.1%	192,646	29.3%	36,467	18.9%	18,439	9.6%
Indigenous peoples	48,844	0.8%	8,093	16.6%	4,014	8.2%	3,724	0.6%	534	14.3%	269	7.2%
Gender												
Unknown	331,983	5.2%	44,198	13.3%	29,813	9.0%	39,166	6.0%	6,196	15.8%	3,841	9.8%
Female	2,171,038	34.2%	266,032	12.3%	152,776	7.0%	204,757	31.1%	32,393	15.8%	16,604	8.1%
Male	3,837,301	60.5%	379,015	9.9%	232,366	6.1%	413,846	62.9%	54,094	13.1%	29,090	7.0%

Applications and Denials	Nation						Texas					
	Applications		Denials		Denials not due to credit history		Applications		Denials		Denials not due to credit history	
	N	Share of applications	N	Denial rate	N	Denial rate	N	Share of applications	N	Denial rate	N	Denial rate
Agency												
Conventional (not FHA, VA, RHS, or FSA)	3,871,734	61.1%	457,044	11.8%	252,799	6.5%	390,580	59.4%	66,794	17.1%	31,980	8.2%
Federal Housing Administration (FHA)	1,597,390	25.2%	169,445	10.6%	119,275	7.5%	183,014	27.8%	19,781	10.8%	13,503	7.4%
Veterans Affairs (VA)	661,792	10.4%	41,596	6.3%	28,077	4.2%	77,762	11.8%	5,220	6.7%	3,397	4.4%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	209,406	3.3%	21,160	10.1%	14,804	7.1%	6,413	1.0%	888	13.8%	655	10.2%

Applications and Denials, Site-Built Housing	Nation						Texas					
	Site-built housing						Site-built housing					
	Mortgage						Mortgage					
	Applications		Denials		Denials not due to credit history		Applications		Denials		Denials not due to credit history	
	N	Share of applications	N	Denial rate	N	Denial rate	N	Share of applications	N	Denial rate	N	Denial rate
All	5,871,300	100.0%	435,702	7.4%	317,718	5.4%	581,614	100.0%	46,351	8.0%	33,670	5.8%
Loan amount												
<\$150,000	1,690,234	28.8%	165,458	9.8%	114,580	6.8%	117,717	20.2%	12,417	10.5%	8,690	7.4%
\$150,000+	4,181,066	71.2%	270,244	6.5%	203,138	4.9%	463,897	79.8%	33,934	7.3%	24,980	5.4%
Race/ethnicity												
Other or unknown	900,009	15.3%	80,165	8.9%	61,411	6.8%	108,267	18.6%	9,752	9.0%	7,610	7.0%
White	3,668,657	62.5%	210,293	5.7%	152,528	4.2%	260,180	44.7%	14,397	5.5%	10,559	4.1%
Black	497,097	8.5%	64,485	13.0%	42,721	8.6%	49,258	8.5%	6,385	13.0%	4,159	8.4%
Hispanic	763,564	13.0%	76,900	10.1%	58,584	7.7%	160,582	27.6%	15,531	9.7%	11,153	6.9%
Indigenous peoples	41,973	0.7%	3,859	9.2%	2,474	5.9%	3,327	0.6%	286	8.6%	189	5.7%
Gender												
Unknown	309,525	5.3%	31,018	10.0%	23,664	7.6%	35,000	6.0%	3,489	10.0%	2,631	7.5%
Female	1,987,999	33.9%	155,404	7.8%	111,753	5.6%	178,825	30.7%	15,245	8.5%	10,918	6.1%
Male	3,573,776	60.9%	249,280	7.0%	182,301	5.1%	367,789	63.2%	27,617	7.5%	20,121	5.5%
Agency												
Conventional (not FHA, VA, RHS, or FSA)	3,473,701	59.2%	213,710	6.2%	163,559	4.7%	319,838	55.0%	21,325	6.7%	16,742	5.2%
Federal Housing Administration (FHA)	1,542,191	26.3%	161,702	10.5%	113,277	7.3%	178,547	30.7%	19,079	10.7%	13,012	7.3%
Veterans Affairs (VA)	647,503	11.0%	39,616	6.1%	26,483	4.1%	76,905	13.2%	5,099	6.6%	3,291	4.3%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	207,905	3.5%	20,674	9.9%	14,399	6.9%	6,324	1.1%	848	13.4%	625	9.9%

Applications and Denials, Manufactured Housing	Nation						Texas					
	Manufactured housing						Manufactured housing					
	Applications		Denials		Denials not due to credit history		Applications		Denials		Denials not due to credit history	
	N	Share of applications	N	Denial rate	N	Denial rate	N	Share of applications	N	Denial rate	N	Denial rate
All	469,022	100.0%	253,543	54.1%	97,237	20.7%	76,155	100.0%	46,332	60.8%	15,865	20.8%
Loan type												
Mortgage	194,884	41.6%	77,837	39.9%	35,467	18.2%	19,208	25.2%	9,760	50.8%	3,660	19.1%
Personal property loan	274,138	58.4%	175,706	64.1%	61,770	22.5%	56,947	74.8%	36,572	64.2%	12,205	21.4%
Loan amount												
<\$150,000	410,816	87.6%	235,525	57.3%	88,483	21.5%	69,648	91.5%	43,098	61.9%	14,690	21.1%
\$150,000+	58,206	12.4%	18,018	31.0%	8,754	15.0%	6,507	8.5%	3,234	49.7%	1,175	18.1%
Race/ethnicity												
Other or unknown	80,210	17.1%	48,249	60.2%	19,929	24.8%	12,407	16.3%	7,671	61.8%	2,835	22.9%
White	265,217	56.5%	124,151	46.8%	49,241	18.6%	27,596	36.2%	14,733	53.4%	4,975	18.0%
Black	44,440	9.5%	32,748	73.7%	9,360	21.1%	3,691	4.8%	2,744	74.3%	689	18.7%
Hispanic	72,284	15.4%	44,161	61.1%	17,167	23.7%	32,064	42.1%	20,936	65.3%	7,286	22.7%
Indigenous peoples	6,871	1.5%	4,234	61.6%	1,540	22.4%	397	0.5%	248	62.5%	80	20.2%
Gender												
Unknown	22,458	4.8%	13,180	58.7%	6,149	27.4%	4,166	5.5%	2,707	65.0%	1,210	29.0%
Female	183,039	39.0%	110,628	60.4%	41,023	22.4%	25,932	34.1%	17,148	66.1%	5,686	21.9%
Male	263,525	56.2%	129,735	49.2%	50,065	19.0%	46,057	60.5%	26,477	57.5%	8,969	19.5%
Agency												
Conventional (not FHA, VA, RHS, or FSA)	398,033	84.9%	243,334	61.1%	89,240	22.4%	70,742	92.9%	45,469	64.3%	15,238	21.5%
Federal Housing Administration (FHA)	55,199	11.8%	7,743	14.0%	5,998	10.9%	4,467	5.9%	702	15.7%	491	11.0%
Veterans Affairs (VA)	14,289	3.0%	1,980	13.9%	1,594	11.2%	857	1.1%	121	14.1%	106	12.4%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	1,501	0.3%	486	32.4%	405	27.0%	89	0.1%	40	44.9%	30	33.7%

Applications and Denials, Manufactured Housing, Mortgages	Nation						Texas					
	Manufactured housing						Manufactured housing					
	Mortgage						Mortgage					
	Applications		Denials		Denials not due to credit history		Applications		Denials		Denials not due to credit history	
	N	Share of applications	N	Denial rate	N	Denial rate	N	Share of applications	N	Denial rate	N	Denial rate
All	194,884	100.0%	77,837	39.9%	35,467	18.2%	19,208	100.0%	9,760	50.8%	3,660	19.1%
Loan amount												
<\$150,000	145,508	74.7%	65,030	44.7%	28,879	19.8%	14,045	73.1%	7,456	53.1%	2,814	20.0%
\$150,000+	49,376	25.3%	12,807	25.9%	6,588	13.3%	5,163	26.9%	2,304	44.6%	846	16.4%
Race/ethnicity												
Other or unknown	27,933	14.3%	14,246	51.0%	6,669	23.9%	2,721	14.2%	1,505	55.3%	622	22.9%
White	129,562	66.5%	43,703	33.7%	20,635	15.9%	9,230	48.1%	4,036	43.7%	1,508	16.3%
Black	14,106	7.2%	9,991	70.8%	3,434	24.3%	803	4.2%	560	69.7%	173	21.5%
Hispanic	20,753	10.6%	8,730	42.1%	4,220	20.3%	6,321	32.9%	3,587	56.7%	1,330	21.0%
Indigenous peoples	2,530	1.3%	1,167	46.1%	509	20.1%	133	0.7%	72	54.1%	27	20.3%
Gender												
Unknown	8,817	4.5%	4,060	46.0%	2,180	24.7%	808	4.2%	423	52.4%	218	27.0%
Female	67,163	34.5%	31,477	46.9%	13,457	20.0%	6,032	31.4%	3,388	56.2%	1,230	20.4%
Male	118,904	61.0%	42,300	35.6%	19,830	16.7%	12,368	64.4%	5,949	48.1%	2,212	17.9%
Agency												
Conventional (not FHA, VA, RHS, or FSA)	125,545	64.4%	67,885	54.1%	27,675	22.0%	14,034	73.1%	8,931	63.6%	3,055	21.8%
Federal Housing Administration (FHA)	53,801	27.6%	7,547	14.0%	5,835	10.8%	4,248	22.1%	675	15.9%	473	11.1%
Veterans Affairs (VA)	14,057	7.2%	1,929	13.7%	1,561	11.1%	838	4.4%	114	13.6%	102	12.2%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	1,481	0.8%	476	32.1%	396	26.7%	88	0.5%	40	45.5%	30	34.1%

Applications and Denials, Manufactured Housing, Personal Property Loans	Nation						Texas					
	Manufactured housing						Manufactured housing					
	Personal property loan						Personal property loan					
	Applications		Denials		Denials not due to credit history		Applications		Denials		Denials not due to credit history	
	N	Share of applications	N	Denial rate	N	Denial rate	N	Share of applications	N	Denial rate	N	Denial rate
All	274,138	100.0%	175,706	64.1%	61,770	22.5%	56,947	100.0%	36,572	64.2%	12,205	21.4%
Loan amount												
<\$150,000	265,308	96.8%	170,495	64.3%	59,604	22.5%	55,603	97.6%	35,642	64.1%	11,876	21.4%
\$150,000+	8,830	3.2%	5,211	59.0%	2,166	24.5%	1,344	2.4%	930	69.2%	329	24.5%
Race/ethnicity												
Other or unknown	52,277	19.1%	34,003	65.0%	13,260	25.4%	9,686	17.0%	6,166	63.7%	2,213	22.8%
White	135,655	49.5%	80,448	59.3%	28,606	21.1%	18,366	32.3%	10,697	58.2%	3,467	18.9%
Black	30,334	11.1%	22,757	75.0%	5,926	19.5%	2,888	5.1%	2,184	75.6%	516	17.9%
Hispanic	51,531	18.8%	35,431	68.8%	12,947	25.1%	25,743	45.2%	17,349	67.4%	5,956	23.1%
Indigenous peoples	4,341	1.6%	3,067	70.7%	1,031	23.8%	264	0.5%	176	66.7%	53	20.1%
Gender												
Unknown	13,641	5.0%	9,120	66.9%	3,969	29.1%	3,358	5.9%	2,284	68.0%	992	29.5%
Female	115,876	42.3%	79,151	68.3%	27,566	23.8%	19,900	34.9%	13,760	69.1%	4,456	22.4%
Male	144,621	52.8%	87,435	60.5%	30,235	20.9%	33,689	59.2%	20,528	60.9%	6,757	20.1%
Agency												
Conventional (not FHA, VA, RHS, or FSA)	272,488	99.4%	175,449	64.4%	61,565	22.6%	56,708	99.6%	36,538	64.4%	12,183	21.5%
Federal Housing Administration (FHA)	1,398	0.5%	196	14.0%	163	11.7%	219	0.4%	27	12.3%	18	8.2%
Veterans Affairs (VA)	232	0.1%	51	22.0%	33	14.2%	19	0.0%	7	36.8%	4	21.1%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	20	0.0%	10	50.0%	9	45.0%	1	0.0%	.	0.0%	.	0.0%

Denial Reasons (Not Mutually Exclusive)	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	689,245	100.0%	92,683	100.0%
Debt-to-income ratio	259,970	37.7%	37,809	40.8%
Employment history	40,539	5.9%	5,354	5.8%
Credit history	274,290	39.8%	43,148	46.6%
Collateral	91,243	13.2%	6,926	7.5%
Insufficient cash	67,601	9.8%	8,866	9.6%
Unverifiable information	70,102	10.2%	10,367	11.2%
Mortgage insurance denied	2,286	0.3%	129	0.1%
Other	90,916	13.2%	11,166	12.0%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	414,955	100.0%	49,535	100.0%
Debt-to-income ratio	188,520	45.4%	25,853	52.2%
Employment history	32,295	7.8%	3,973	8.0%
Credit history	0	0.0%	0	0.0%
Collateral	87,002	21.0%	6,567	13.3%
Insufficient cash	46,198	11.1%	4,976	10.0%
Unverifiable information	64,590	15.6%	9,391	19.0%
Mortgage insurance denied	1,551	0.4%	100	0.2%
Other	65,565	15.8%	6,632	13.4%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	435,702	100.0%	46,351	100.0%
Debt-to-income ratio	165,290	37.9%	19,950	43.0%
Employment history	28,963	6.6%	3,089	6.7%
Credit history	117,984	27.1%	12,681	27.4%
Collateral	80,824	18.6%	6,090	13.1%
Insufficient cash	48,387	11.1%	4,624	10.0%
Unverifiable information	40,256	9.2%	5,397	11.6%
Mortgage insurance denied	2,196	0.5%	124	0.3%
Other	64,742	14.9%	6,307	13.6%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	317,718	100.0%	33,670	100.0%
Debt-to-income ratio	139,185	43.8%	16,485	49.0%
Employment history	25,519	8.0%	2,689	8.0%
Credit history	0	0.0%	0	0.0%
Collateral	78,225	24.6%	5,905	17.5%
Insufficient cash	39,471	12.4%	3,843	11.4%
Unverifiable information	37,217	11.7%	5,099	15.1%
Mortgage insurance denied	1,489	0.5%	96	0.3%
Other	54,434	17.1%	5,285	15.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	253,543	100.0%	46,332	100.0%
Debt-to-income ratio	94,680	37.3%	17,859	38.5%
Employment history	11,576	4.6%	2,265	4.9%
Credit history	156,306	61.6%	30,467	65.8%
Collateral	10,419	4.1%	836	1.8%
Insufficient cash	19,214	7.6%	4,242	9.2%
Unverifiable information	29,846	11.8%	4,970	10.7%
Mortgage insurance denied	90	0.0%	5	0.0%
Other	26,174	10.3%	4,859	10.5%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	97,237	100.0%	15,865	100.0%
Debt-to-income ratio	49,335	50.7%	9,368	59.0%
Employment history	6,776	7.0%	1,284	8.1%
Credit history	0	0.0%	0	0.0%
Collateral	8,777	9.0%	662	4.2%
Insufficient cash	6,727	6.9%	1,133	7.1%
Unverifiable information	27,373	28.2%	4,292	27.1%
Mortgage insurance denied	62	0.1%	4	0.0%
Other	11,131	11.4%	1,347	8.5%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	77,837	100.0%	175,706	100.0%	9,760	100.0%	36,572	100.0%
Debt-to-income ratio	27,076	34.8%	67,604	38.5%	3,948	40.5%	13,911	38.0%
Employment history	3,695	4.7%	7,881	4.5%	412	4.2%	1,853	5.1%
Credit history	42,370	54.4%	113,936	64.8%	6,100	62.5%	24,367	66.6%
Collateral	8,515	10.9%	1,904	1.1%	668	6.8%	168	0.5%
Insufficient cash	6,327	8.1%	12,887	7.3%	1,011	10.4%	3,231	8.8%
Unverifiable information	11,830	15.2%	18,016	10.3%	1,174	12.0%	3,796	10.4%
Mortgage insurance denied	85	0.1%	5	0.0%	4	0.0%	1	0.0%
Other	5,410	7.0%	20,764	11.8%	503	5.2%	4,356	11.9%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	35,467	100.0%	61,770	100.0%	3,660	100.0%	12,205	100.0%
Debt-to-income ratio	13,470	38.0%	35,865	58.1%	1,725	47.1%	7,643	62.6%
Employment history	2,347	6.6%	4,429	7.2%	250	6.8%	1,034	8.5%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	7,629	21.5%	1,148	1.9%	545	14.9%	117	1.0%
Insufficient cash	2,679	7.6%	4,048	6.6%	341	9.3%	792	6.5%
Unverifiable information	11,158	31.5%	16,215	26.3%	1,040	28.4%	3,252	26.6%
Mortgage insurance denied	59	0.2%	3	0.0%	4	0.1%	0	0.0%
Other	3,123	8.8%	8,008	13.0%	260	7.1%	1,087	8.9%

Denial Reasons (Not Mutually Exclusive), Loan Amount < \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	400,983	100.0%	55,515	100.0%
Debt-to-income ratio	140,262	35.0%	21,195	38.2%
Employment history	21,694	5.4%	2,903	5.2%
Credit history	197,920	49.4%	32,135	57.9%
Collateral	44,020	11.0%	3,030	5.5%
Insufficient cash	37,215	9.3%	5,185	9.3%
Unverifiable information	40,478	10.1%	5,736	10.3%
Mortgage insurance denied	994	0.2%	39	0.1%
Other	48,941	12.2%	6,406	11.5%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, Loan Amount < \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	203,063	100.0%	23,380	100.0%
Debt-to-income ratio	88,509	43.6%	12,420	53.1%
Employment history	15,552	7.7%	1,832	7.8%
Credit history	0	0.0%	0	0.0%
Collateral	41,166	20.3%	2,788	11.9%
Insufficient cash	21,152	10.4%	2,008	8.6%
Unverifiable information	37,053	18.2%	5,027	21.5%
Mortgage insurance denied	658	0.3%	30	0.1%
Other	30,032	14.8%	2,749	11.8%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Loan Amount < \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	165,458	100.0%	12,417	100.0%
Debt-to-income ratio	53,211	32.2%	4,646	37.4%
Employment history	11,060	6.7%	766	6.2%
Credit history	50,878	30.7%	3,727	30.0%
Collateral	35,950	21.7%	2,414	19.4%
Insufficient cash	19,757	11.9%	1,287	10.4%
Unverifiable information	11,835	7.2%	1,003	8.1%
Mortgage insurance denied	920	0.6%	35	0.3%
Other	24,617	14.9%	1,855	14.9%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, Loan Amount < \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	114,580	100.0%	8,690	100.0%
Debt-to-income ratio	43,582	38.0%	3,704	42.6%
Employment History	9,451	8.2%	629	7.2%
Credit history	0	0.0%	0	0.0%
Collateral	34,597	30.2%	2,328	26.8%
Insufficient cash	15,273	13.3%	1,001	11.5%
Unverifiable information	10,695	9.3%	927	10.7%
Mortgage insurance denied	611	0.5%	27	0.3%
Other	20,056	17.5%	1,515	17.4%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Loan Amount < \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	235,525	100.0%	43,098	100.0%
Debt-to-income ratio	87,051	37.0%	16,549	38.4%
Employment history	10,634	4.5%	2,137	5.0%
Credit history	147,042	62.4%	28,408	65.9%
Collateral	8,070	3.4%	616	1.4%
Insufficient cash	17,458	7.4%	3,898	9.0%
Unverifiable information	28,643	12.2%	4,733	11.0%
Mortgage insurance denied	74	0.0%	4	0.0%
Other	24,324	10.3%	4,551	10.6%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Loan Amount < \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	88,483	100.0%	14,690	100.0%
Debt-to-Income ratio	44,927	50.8%	8,716	59.3%
Employment history	6,101	6.9%	1,203	8.2%
Credit history	0	0.0%	0	0.0%
Collateral	6,569	7.4%	460	3.1%
Insufficient cash	5,879	6.6%	1,007	6.9%
Unverifiable information	26,358	29.8%	4,100	27.9%
Mortgage insurance denied	47	0.1%	3	0.0%
Other	9,976	11.3%	1,234	8.4%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Loan Amount < \$150,000	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	65,030	100.0%	170,495	100.0%	7,456	100.0%	35,642	100.0%
Debt-to-income ratio	21,840	33.6%	65,211	38.2%	2,995	40.2%	13,554	38.0%
Employment history	2,974	4.6%	7,660	4.5%	315	4.2%	1,822	5.1%
Credit history	36,151	55.6%	110,891	65.0%	4,642	62.3%	23,766	66.7%
Collateral	6,269	9.6%	1,801	1.1%	465	6.2%	151	0.4%
Insufficient cash	5,056	7.8%	12,402	7.3%	749	10.0%	3,149	8.8%
Unverifiable information	10,823	16.6%	17,820	10.5%	973	13.0%	3,760	10.5%
Mortgage insurance denied	69	0.1%	5	0.0%	3	0.0%	1	0.0%
Other	4,370	6.7%	19,954	11.7%	390	5.2%	4,161	11.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Loan Amount < \$150,000	Nation				Texas			
	Manufactured Housing				Manufactured Housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	28,879	100.0%	59,604	100.0%	2,814	100.0%	11,876	100.0%
Debt-to-income ratio	10,545	36.5%	34,382	57.7%	1,307	46.4%	7,409	62.4%
Employment history	1,825	6.3%	4,276	7.2%	190	6.8%	1,013	8.5%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	5,512	19.1%	1,057	1.8%	358	12.7%	102	0.9%
Insufficient cash	2,087	7.2%	3,792	6.4%	259	9.2%	748	6.3%
Unverifiable information	10,295	35.6%	16,063	26.9%	878	31.2%	3,222	27.1%
Mortgage insurance denied	44	0.2%	3	0.0%	3	0.1%	0	0.0%
Other	2,336	8.1%	7,640	12.8%	190	6.8%	1,044	8.8%

Denial Reasons (Not Mutually Exclusive), Loan Amount >= \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	288,262	100.0%	37,168	100.0%
Debt-to-income ratio	119,708	41.5%	16,614	44.7%
Employment history	18,845	6.5%	2,451	6.6%
Credit history	76,370	26.5%	11,013	29.6%
Collateral	47,223	16.4%	3,896	10.5%
Insufficient cash	30,386	10.5%	3,681	9.9%
Unverifiable information	29,624	10.3%	4,631	12.5%
Mortgage insurance denied	1,292	0.4%	90	0.2%
Other	41,975	14.6%	4,760	12.8%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, Loan Amount >= \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	211,892	100.0%	26,155	100.0%
Debt-to-income ratio	100,011	47.2%	13,433	51.4%
Employment history	16,743	7.9%	2,141	8.2%
Credit history	0	0.0%	0	0.0%
Collateral	45,836	21.6%	3,779	14.4%
Insufficient cash	25,046	11.8%	2,968	11.3%
Unverifiable information	27,537	13.0%	4,364	16.7%
Mortgage insurance denied	893	0.4%	70	0.3%
Other	35,533	16.8%	3,883	14.8%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Loan Amount >= \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	270,244	100.0%	33,934	100.0%
Debt-to-income ratio	112,079	41.5%	15,304	45.1%
Employment history	17,903	6.6%	2,323	6.8%
Credit history	67,106	24.8%	8,954	26.4%
Collateral	44,874	16.6%	3,676	10.8%
Insufficient cash	28,630	10.6%	3,337	9.8%
Unverifiable information	28,421	10.5%	4,394	12.9%
Mortgage insurance denied	1,276	0.5%	89	0.3%
Other	40,125	14.8%	4,452	13.1%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, Loan Amount >= \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	203,138	100.0%	24,980	100.0%
Debt-to-income ratio	95,603	47.1%	12,781	51.2%
Employment history	16,068	7.9%	2,060	8.2%
Credit history	0	0.0%	0	0.0%
Collateral	43,628	21.5%	3,577	14.3%
Insufficient cash	24,198	11.9%	2,842	11.4%
Unverifiable information	26,522	13.1%	4,172	16.7%
Mortgage insurance denied	878	0.4%	69	0.3%
Other	34,378	16.9%	3,770	15.1%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Loan Amount >= \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	18,018	100.0%	3,234	100.0%
Debt-to-income ratio	7,629	42.3%	1,310	40.5%
Employment history	942	5.2%	128	4.0%
Credit history	9,264	51.4%	2,059	63.7%
Collateral	2,349	13.0%	220	6.8%
Insufficient cash	1,756	9.7%	344	10.6%
Unverifiable information	1,203	6.7%	237	7.3%
Mortgage insurance denied	16	0.1%	1	0.0%
Other	1,850	10.3%	308	9.5%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Loan Amount >= \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	8,754	100.0%	1,175	100.0%
Debt-to-income ratio	4,408	50.4%	652	55.5%
Employment history	675	7.7%	81	6.9%
Credit history	0	0.0%	0	0.0%
Collateral	2,208	25.2%	202	17.2%
Insufficient cash	848	9.7%	126	10.7%
Unverifiable information	1,015	11.6%	192	16.3%
Mortgage insurance denied	15	0.2%	1	0.1%
Other	1,155	13.2%	113	9.6%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Loan Amount >= \$150,000	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	12,807	100.0%	5,211	100.0%	2,304	100.0%	930	100.0%
Debt-to-income ratio	5,236	40.9%	2,393	45.9%	953	41.4%	357	38.4%
Employment history	721	5.6%	221	4.2%	97	4.2%	31	3.3%
Credit history	6,219	48.6%	3,045	58.4%	1,458	63.3%	601	64.6%
Collateral	2,246	17.5%	103	2.0%	203	8.8%	17	1.8%
Insufficient cash	1,271	9.9%	485	9.3%	262	11.4%	82	8.8%
Unverifiable information	1,007	7.9%	196	3.8%	201	8.7%	36	3.9%
Mortgage insurance denied	16	0.1%	0	0.0%	1	0.0%	0	0.0%
Other	1,040	8.1%	810	15.5%	113	4.9%	195	21.0%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Loan Amount >= \$150,000	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	6,588	100.0%	2,166	100.0%	846	100.0%	329	100.0%
Debt-to-income ratio	2,925	44.4%	1,483	68.5%	418	49.4%	234	71.1%
Employment history	522	7.9%	153	7.1%	60	7.1%	21	6.4%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	2,117	32.1%	91	4.2%	187	22.1%	15	4.6%
Insufficient cash	592	9.0%	256	11.8%	82	9.7%	44	13.4%
Unverifiable information	863	13.1%	152	7.0%	162	19.1%	30	9.1%
Mortgage insurance denied	15	0.2%	0	0.0%	1	0.1%	0	0.0%
Other	787	11.9%	368	17.0%	70	8.3%	43	13.1%

Denial Reasons (Not Mutually Exclusive), White Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	334,444	100.0%	29,130	100.0%
Debt-to-income ratio	117,125	35.0%	11,002	37.8%
Employment history	19,841	5.9%	1,498	5.1%
Credit history	132,675	39.7%	13,596	46.7%
Collateral	51,229	15.3%	2,898	9.9%
Insufficient cash	32,103	9.6%	2,762	9.5%
Unverifiable information	30,865	9.2%	2,920	10.0%
Mortgage insurance denied	1,243	0.4%	45	0.2%
Other	45,246	13.5%	3,619	12.4%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, White Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	201,769	100.0%	15,534	100.0%
Debt-to-income ratio	85,754	42.5%	7,560	48.7%
Employment history	15,637	7.7%	1,113	7.2%
Credit history	0	0.0%	0	0.0%
Collateral	48,907	24.2%	2,767	17.8%
Insufficient cash	21,934	10.9%	1,575	10.1%
Unverifiable information	28,554	14.2%	2,726	17.5%
Mortgage insurance denied	836	0.4%	35	0.2%
Other	32,640	16.2%	2,069	13.3%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, White Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	210,293	100.0%	14,397	100.0%
Debt-to-income ratio	73,387	34.9%	5,681	39.5%
Employment history	14,053	6.7%	886	6.2%
Credit history	57,765	27.5%	3,838	26.7%
Collateral	44,023	20.9%	2,499	17.4%
Insufficient cash	22,504	10.7%	1,336	9.3%
Unverifiable information	17,282	8.2%	1,543	10.7%
Mortgage insurance denied	1,171	0.6%	43	0.3%
Other	31,266	14.9%	1,896	13.2%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, White Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	152,528	100.0%	10,559	100.0%
Debt-to-income ratio	62,142	40.7%	4,774	45.2%
Employment history	12,313	8.1%	779	7.4%
Credit history	0	0.0%	0	0.0%
Collateral	42,734	28.0%	2,436	23.1%
Insufficient cash	18,298	12.0%	1,137	10.8%
Unverifiable information	15,886	10.4%	1,458	13.8%
Mortgage insurance denied	785	0.5%	33	0.3%
Other	26,312	17.3%	1,586	15.0%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, White Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	124,151	100.0%	14,733	100.0%
Debt-to-income ratio	43,738	35.2%	5,321	36.1%
Employment history	5,788	4.7%	612	4.2%
Credit history	74,910	60.3%	9,758	66.2%
Collateral	7,206	5.8%	399	2.7%
Insufficient cash	9,599	7.7%	1,426	9.7%
Unverifiable information	13,583	10.9%	1,377	9.3%
Mortgage insurance denied	72	0.1%	2	0.0%
Other	13,980	11.3%	1,723	11.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, White Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	49,241	100.0%	4,975	100.0%
Debt-to-income ratio	23,612	48.0%	2,786	56.0%
Employment history	3,324	6.8%	334	6.7%
Credit history	0	0.0%	0	0.0%
Collateral	6,173	12.5%	331	6.7%
Insufficient cash	3,636	7.4%	438	8.8%
Unverifiable information	12,668	25.7%	1,268	25.5%
Mortgage insurance denied	51	0.1%	2	0.0%
Other	6,328	12.9%	483	9.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, White Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	43,703	100.0%	80,448	100.0%	4,036	100.0%	10,697	100.0%
Debt-to-income ratio	14,077	32.2%	29,661	36.9%	1,593	39.5%	3,728	34.9%
Employment history	2,194	5.0%	3,594	4.5%	163	4.0%	449	4.2%
Credit history	23,068	52.8%	51,842	64.4%	2,528	62.6%	7,230	67.6%
Collateral	5,999	13.7%	1,207	1.5%	322	8.0%	77	0.7%
Insufficient cash	3,735	8.5%	5,864	7.3%	431	10.7%	995	9.3%
Unverifiable information	6,099	14.0%	7,484	9.3%	432	10.7%	945	8.8%
Mortgage insurance denied	70	0.2%	2	0.0%	2	0.0%	0	0.0%
Other	3,554	8.1%	10,426	13.0%	240	5.9%	1,483	13.9%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, White Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	20,635	100.0%	28,606	100.0%	1,508	100.0%	3,467	100.0%
Debt-to-income ratio	7,243	35.1%	16,369	57.2%	672	44.6%	2,114	61.0%
Employment history	1,379	6.7%	1,945	6.8%	99	6.6%	235	6.8%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	5,430	26.3%	743	2.6%	276	18.3%	55	1.6%
Insufficient cash	1,700	8.2%	1,936	6.8%	162	10.7%	276	8.0%
Unverifiable information	5,762	27.9%	6,906	24.1%	395	26.2%	873	25.2%
Mortgage insurance denied	49	0.2%	2	0.0%	2	0.1%	0	0.0%
Other	2,085	10.1%	4,243	14.8%	121	8.0%	362	10.4%

Denial Reasons (Not Mutually Exclusive), Black Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	97,233	100.0%	9,129	100.0%
Debt-to-income ratio	39,358	40.5%	4,010	43.9%
Employment history	4,964	5.1%	510	5.6%
Credit history	45,152	46.4%	4,281	46.9%
Collateral	9,094	9.4%	515	5.6%
Insufficient cash	9,880	10.2%	864	9.5%
Unverifiable information	8,720	9.0%	849	9.3%
Mortgage insurance denied	306	0.3%	19	0.2%
Other	12,051	12.4%	1,123	12.3%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, Black Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	52,081	100.0%	4,848	100.0%
Debt-to-income ratio	26,347	50.6%	2,768	57.1%
Employment history	3,840	7.4%	380	7.8%
Credit history	0	0.0%	0	0.0%
Collateral	8,531	16.4%	481	9.9%
Insufficient cash	6,593	12.7%	497	10.3%
Unverifiable information	7,959	15.3%	774	16.0%
Mortgage insurance denied	212	0.4%	14	0.3%
Other	8,058	15.5%	705	14.5%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Black Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	64,485	100.0%	6,385	100.0%
Debt-to-Income ratio	26,915	41.7%	3,023	47.3%
Employment history	3,789	5.9%	408	6.4%
Credit history	21,764	33.8%	2,226	34.9%
Collateral	8,653	13.4%	483	7.6%
Insufficient cash	7,674	11.9%	601	9.4%
Unverifiable information	5,433	8.4%	650	10.2%
Mortgage insurance denied	303	0.5%	18	0.3%
Other	9,228	14.3%	842	13.2%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, Black Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	42,721	100.0%	4,159	100.0%
Debt-to-income ratio	21,270	49.8%	2,339	56.2%
Employment history	3,230	7.6%	336	8.1%
Credit history	0	0.0%	0	0.0%
Collateral	8,227	19.3%	464	11.2%
Insufficient cash	5,892	13.8%	454	10.9%
Unverifiable information	4,910	11.5%	602	14.5%
Mortgage insurance denied	209	0.5%	13	0.3%
Other	7,283	17.0%	645	15.5%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Black Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	32,748	100.0%	2,744	100.0%
Debt-to-income ratio	12,443	38.0%	987	36.0%
Employment history	1,175	3.6%	102	3.7%
Credit history	23,388	71.4%	2,055	74.9%
Collateral	441	1.3%	32	1.2%
Insufficient cash	2,206	6.7%	263	9.6%
Unverifiable information	3,287	10.0%	199	7.3%
Mortgage insurance denied	3	0.0%	1	0.0%
Other	2,823	8.6%	281	10.2%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Black Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	9,360	100.0%	689	100.0%
Debt-to-income ratio	5,077	54.2%	429	62.3%
Employment history	610	6.5%	44	6.4%
Credit history	0	0.0%	0	0.0%
Collateral	304	3.2%	17	2.5%
Insufficient cash	701	7.5%	43	6.2%
Unverifiable information	3,049	32.6%	172	25.0%
Mortgage insurance denied	3	0.0%	1	0.1%
Other	775	8.3%	60	8.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Black Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	9,991	100.0%	22,757	100.0%	560	100.0%	2,184	100.0%
Debt-to-income ratio	3,941	39.4%	8,502	37.4%	220	39.3%	767	35.1%
Employment history	355	3.6%	820	3.6%	11	2.0%	91	4.2%
Credit history	6,557	65.6%	16,831	74.0%	387	69.1%	1,668	76.4%
Collateral	312	3.1%	129	0.6%	24	4.3%	8	0.4%
Insufficient cash	653	6.5%	1,553	6.8%	46	8.2%	217	9.9%
Unverifiable information	1,458	14.6%	1,829	8.0%	71	12.7%	128	5.9%
Mortgage insurance denied	3	0.0%	0	0.0%	1	0.2%	0	0.0%
Other	461	4.6%	2,362	10.4%	28	5.0%	253	11.6%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Black Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	3,434	100.0%	5,926	100.0%	173	100.0%	516	100.0%
Debt-to-income ratio	1,590	46.3%	3,487	58.8%	84	48.6%	345	66.9%
Employment history	198	5.8%	412	7.0%	8	4.6%	36	7.0%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	246	7.2%	58	1.0%	14	8.1%	3	0.6%
Insufficient cash	219	6.4%	482	8.1%	11	6.4%	32	6.2%
Unverifiable information	1,379	40.2%	1,670	28.2%	62	35.8%	110	21.3%
Mortgage insurance denied	3	0.1%	0	0.0%	1	0.6%	0	0.0%
Other	197	5.7%	578	9.8%	9	5.2%	51	9.9%

Denial Reasons (Not Mutually Exclusive), Hispanic Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	121,061	100.0%	36,467	100.0%
Debt-to-income ratio	51,115	42.2%	15,363	42.1%
Employment history	7,954	6.6%	2,323	6.4%
Credit history	45,310	37.4%	18,028	49.4%
Collateral	13,717	11.3%	2,091	5.7%
Insufficient cash	12,546	10.4%	3,389	9.3%
Unverifiable information	14,002	11.6%	4,267	11.7%
Mortgage insurance denied	389	0.3%	43	0.1%
Other	16,579	13.7%	4,167	11.4%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, Hispanic Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	75,751	100.0%	18,439	100.0%
Debt-to-income ratio	37,419	49.4%	9,975	54.1%
Employment history	6,422	8.5%	1,654	9.0%
Credit history	0	0.0%	0	0.0%
Collateral	13,064	17.2%	1,953	10.6%
Insufficient cash	8,617	11.4%	1,799	9.8%
Unverifiable information	12,491	16.5%	3,710	20.1%
Mortgage insurance denied	267	0.4%	34	0.2%
Other	12,443	16.4%	2,456	13.3%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Hispanic Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	76,900	100.0%	15,531	100.0%
Debt-to-income ratio	31,967	41.6%	6,805	43.8%
Employment history	5,531	7.2%	1,108	7.1%
Credit history	18,316	23.8%	4,378	28.2%
Collateral	12,453	16.2%	1,812	11.7%
Insufficient cash	8,872	11.5%	1,625	10.5%
Unverifiable information	8,986	11.7%	1,833	11.8%
Mortgage insurance denied	383	0.5%	41	0.3%
Other	12,395	16.1%	2,229	14.4%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, Hispanic Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	58,584	100.0%	11,153	100.0%
Debt-to-income ratio	27,116	46.3%	5,505	49.4%
Employment history	4,921	8.4%	957	8.6%
Credit history	0	0.0%	0	0.0%
Collateral	12,023	20.5%	1,742	15.6%
Insufficient cash	7,450	12.7%	1,332	11.9%
Unverifiable information	8,427	14.4%	1,735	15.6%
Mortgage insurance denied	262	0.4%	33	0.3%
Other	10,654	18.2%	1,895	17.0%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Hispanic Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	44,161	100.0%	20,936	100.0%
Debt-to-income ratio	19,148	43.4%	8,558	40.9%
Employment history	2,423	5.5%	1,215	5.8%
Credit history	26,994	61.1%	13,650	65.2%
Collateral	1,264	2.9%	279	1.3%
Insufficient cash	3,674	8.3%	1,764	8.4%
Unverifiable information	5,016	11.4%	2,434	11.6%
Mortgage insurance denied	6	0.0%	2	0.0%
Other	4,184	9.5%	1,938	9.3%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Hispanic Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	17,167	100.0%	7,286	100.0%
Debt-to-income ratio	10,303	60.0%	4,470	61.4%
Employment history	1,501	8.7%	697	9.6%
Credit history	0	0.0%	0	0.0%
Collateral	1,041	6.1%	211	2.9%
Insufficient cash	1,167	6.8%	467	6.4%
Unverifiable information	4,064	23.7%	1,975	27.1%
Mortgage insurance denied	5	0.0%	1	0.0%
Other	1,789	10.4%	561	7.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Hispanic Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	8,730	100.0%	35,431	100.0%	3,587	100.0%	17,349	100.0%
Debt-to-income ratio	3,621	41.5%	15,527	43.8%	1,515	42.2%	7,043	40.6%
Employment history	490	5.6%	1,933	5.5%	180	5.0%	1,035	6.0%
Credit history	4,510	51.7%	22,484	63.5%	2,257	62.9%	11,393	65.7%
Collateral	995	11.4%	269	0.8%	222	6.2%	57	0.3%
Insufficient cash	831	9.5%	2,843	8.0%	365	10.2%	1,399	8.1%
Unverifiable information	1,218	14.0%	3,798	10.7%	444	12.4%	1,990	11.5%
Mortgage insurance denied	5	0.1%	1	0.0%	1	0.0%	1	0.0%
Other	566	6.5%	3,618	10.2%	153	4.3%	1,785	10.3%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Hispanic Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	4,220	100.0%	12,947	100.0%	1,330	100.0%	5,956	100.0%
Debt-to-income ratio	1,926	45.6%	8,377	64.7%	667	50.2%	3,803	63.9%
Employment history	336	8.0%	1,165	9.0%	103	7.7%	594	10.0%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	870	20.6%	171	1.3%	172	12.9%	39	0.7%
Insufficient cash	352	8.3%	815	6.3%	118	8.9%	349	5.9%
Unverifiable information	1,069	25.3%	2,995	23.1%	373	28.0%	1,602	26.9%
Mortgage insurance denied	5	0.1%	0	0.0%	1	0.1%	0	0.0%
Other	395	9.4%	1,394	10.8%	92	6.9%	469	7.9%

Denial Reasons (Not Mutually Exclusive), Indigenous Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	8,093	100.0%	534	100.0%
Debt-to-income ratio	2,918	36.1%	210	39.3%
Employment history	464	5.7%	38	7.1%
Credit history	4,079	50.4%	265	49.6%
Collateral	795	9.8%	36	6.7%
Insufficient cash	741	9.2%	55	10.3%
Unverifiable information	832	10.3%	48	9.0%
Mortgage insurance denied	12	0.1%	0	0.0%
Other	952	11.8%	77	14.4%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, Indigenous Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	4,014	100.0%	269	100.0%
Debt-to-income ratio	1,889	47.1%	139	51.7%
Employment history	334	8.3%	29	10.8%
Credit history	0	0.0%	0	0.0%
Collateral	728	18.1%	33	12.3%
Insufficient cash	421	10.5%	31	11.5%
Unverifiable information	758	18.9%	43	16.0%
Mortgage insurance denied	6	0.1%	0	0.0%
Other	599	14.9%	50	18.6%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Indigenous Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	3,859	100.0%	286	100.0%
Debt-to-income ratio	1,452	37.6%	121	42.3%
Employment history	239	6.2%	24	8.4%
Credit history	1,385	35.9%	97	33.9%
Collateral	648	16.8%	30	10.5%
Insufficient cash	459	11.9%	31	10.8%
Unverifiable information	293	7.6%	28	9.8%
Mortgage insurance denied	12	0.3%	0	0.0%
Other	589	15.3%	45	15.7%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, Indigenous Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	2,474	100.0%	189	100.0%
Debt-to-income ratio	1,125	45.5%	93	49.2%
Employment history	209	8.4%	20	10.6%
Credit history	0	0.0%	0	0.0%
Collateral	609	24.6%	28	14.8%
Insufficient cash	337	13.6%	26	13.8%
Unverifiable information	256	10.3%	27	14.3%
Mortgage insurance denied	6	0.2%	0	0.0%
Other	443	17.9%	35	18.5%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Indigenous Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	4,234	100.0%	248	100.0%
Debt-to-income ratio	1,466	34.6%	89	35.9%
Employment history	225	5.3%	14	5.6%
Credit history	2,694	63.6%	168	67.7%
Collateral	147	3.5%	6	2.4%
Insufficient cash	282	6.7%	24	9.7%
Unverifiable information	539	12.7%	20	8.1%
Mortgage insurance denied	0	0.0%	0	0.0%
Other	363	8.6%	32	12.9%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Indigenous Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	1,540	100.0%	80	100.0%
Debt-to-income ratio	764	49.6%	46	57.5%
Employment history	125	8.1%	9	11.3%
Credit history	0	0.0%	0	0.0%
Collateral	119	7.7%	5	6.3%
Insufficient cash	84	5.5%	5	6.3%
Unverifiable information	502	32.6%	16	20.0%
Mortgage insurance denied	0	0.0%	0	0.0%
Other	156	10.1%	15	18.8%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Indigenous Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	1,167	100.0%	3,067	100.0%	72	100.0%	176	100.0%
Debt-to-income ratio	359	30.8%	1,107	36.1%	26	36.1%	63	35.8%
Employment history	59	5.1%	166	5.4%	2	2.8%	12	6.8%
Credit history	658	56.4%	2,036	66.4%	45	62.5%	123	69.9%
Collateral	114	9.8%	33	1.1%	6	8.3%	0	0.0%
Insufficient cash	88	7.5%	194	6.3%	11	15.3%	13	7.4%
Unverifiable information	186	15.9%	353	11.5%	6	8.3%	14	8.0%
Mortgage insurance denied	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	78	6.7%	285	9.3%	7	9.7%	25	14.2%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Indigenous Borrowers	Nation				Texas			
	Manufactured Housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	509	100.0%	1,031	100.0%	27	100.0%	53	100.0%
Debt-to-income ratio	184	36.1%	580	56.3%	12	44.4%	34	64.2%
Employment history	42	8.3%	83	8.1%	0	0.0%	9	17.0%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	101	19.8%	18	1.7%	5	18.5%	0	0.0%
Insufficient cash	30	5.9%	54	5.2%	4	14.8%	1	1.9%
Unverifiable information	175	34.4%	327	31.7%	4	14.8%	12	22.6%
Mortgage insurance denied	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other	45	8.8%	111	10.8%	5	18.5%	10	18.9%

Denial Reasons (Not Mutually Exclusive), Male Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	379,015	100.0%	54,094	100.0%
Debt-to-income ratio	134,271	35.4%	20,767	38.4%
Employment history	23,585	6.2%	3,247	6.0%
Credit history	146,649	38.7%	25,004	46.2%
Collateral	52,076	13.7%	4,089	7.6%
Insufficient cash	38,183	10.1%	5,414	10.0%
Unverifiable information	40,687	10.7%	6,408	11.8%
Mortgage insurance denied	1,399	0.4%	89	0.2%
Other	52,236	13.8%	6,626	12.2%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, Male Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	232,366	100.0%	29,090	100.0%
Debt-to-income ratio	100,694	43.3%	14,604	50.2%
Employment history	19,024	8.2%	2,418	8.3%
Credit history	0	0.0%	0	0.0%
Collateral	49,744	21.4%	3,871	13.3%
Insufficient cash	26,212	11.3%	3,057	10.5%
Unverifiable information	37,510	16.1%	5,776	19.9%
Mortgage insurance denied	962	0.4%	70	0.2%
Other	38,341	16.5%	4,016	13.8%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Male Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	249,280	100.0%	27,617	100.0%
Debt-to-income ratio	92,211	37.0%	11,694	42.3%
Employment history	17,465	7.0%	1,926	7.0%
Credit history	66,979	26.9%	7,496	27.1%
Collateral	45,776	18.4%	3,549	12.9%
Insufficient cash	27,347	11.0%	2,761	10.0%
Unverifiable information	24,389	9.8%	3,426	12.4%
Mortgage insurance denied	1,349	0.5%	85	0.3%
Other	38,081	15.3%	3,792	13.7%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, Male Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	182,301	100.0%	20,121	100.0%
Debt-to-income ratio	77,913	42.7%	9,664	48.0%
Employment history	15,376	8.4%	1,672	8.3%
Credit history	0	0.0%	0	0.0%
Collateral	44,324	24.3%	3,431	17.1%
Insufficient cash	22,403	12.3%	2,323	11.5%
Unverifiable information	22,583	12.4%	3,229	16.0%
Mortgage insurance denied	925	0.5%	66	0.3%
Other	32,243	17.7%	3,200	15.9%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Male Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	129,735	100.0%	26,477	100.0%
Debt-to-income ratio	42,060	32.4%	9,073	34.3%
Employment history	6,120	4.7%	1,321	5.0%
Credit history	79,670	61.4%	17,508	66.1%
Collateral	6,300	4.9%	540	2.0%
Insufficient cash	10,836	8.4%	2,653	10.0%
Unverifiable information	16,298	12.6%	2,982	11.3%
Mortgage insurance denied	50	0.0%	4	0.0%
Other	14,155	10.9%	2,834	10.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Male Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	50,065	100.0%	8,969	100.0%
Debt-to-income ratio	22,781	45.5%	4,940	55.1%
Employment history	3,648	7.3%	746	8.3%
Credit history	0	0.0%	0	0.0%
Collateral	5,420	10.8%	440	4.9%
Insufficient cash	3,809	7.6%	734	8.2%
Unverifiable information	14,927	29.8%	2,547	28.4%
Mortgage insurance denied	37	0.1%	4	0.0%
Other	6,098	12.2%	816	9.1%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Male Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	42,300	100.0%	87,435	100.0%	5,949	100.0%	20,528	100.0%
Debt-to-income ratio	12,959	30.6%	29,101	33.3%	2,194	36.9%	6,879	33.5%
Employment history	2,044	4.8%	4,076	4.7%	263	4.4%	1,058	5.2%
Credit history	22,470	53.1%	57,200	65.4%	3,737	62.8%	13,771	67.1%
Collateral	5,356	12.7%	944	1.1%	442	7.4%	98	0.5%
Insufficient cash	3,837	9.1%	6,999	8.0%	685	11.5%	1,968	9.6%
Unverifiable information	6,563	15.5%	9,735	11.1%	698	11.7%	2,284	11.1%
Mortgage insurance denied	50	0.1%	0	0.0%	4	0.1%	0	0.0%
Other	3,198	7.6%	10,957	12.5%	310	5.2%	2,524	12.3%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Male Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	19,830	100.0%	30,235	100.0%	2,212	100.0%	6,757	100.0%
Debt-to-income ratio	6,661	33.6%	16,120	53.3%	969	43.8%	3,971	58.8%
Employment history	1,330	6.7%	2,318	7.7%	155	7.0%	591	8.7%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	4,833	24.4%	587	1.9%	370	16.7%	70	1.0%
Insufficient cash	1,630	8.2%	2,179	7.2%	235	10.6%	499	7.4%
Unverifiable information	6,174	31.1%	8,753	28.9%	609	27.5%	1,938	28.7%
Mortgage insurance denied	37	0.2%	0	0.0%	4	0.2%	0	0.0%
Other	1,930	9.7%	4,168	13.8%	171	7.7%	645	9.5%

Denial Reasons (Not Mutually Exclusive), Female Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	266,032	100.0%	32,393	100.0%
Debt-to-income ratio	110,190	41.4%	14,667	45.3%
Employment history	14,585	5.5%	1,777	5.5%
Credit history	113,256	42.6%	15,789	48.7%
Collateral	31,618	11.9%	2,194	6.8%
Insufficient cash	25,335	9.5%	2,869	8.9%
Unverifiable information	24,418	9.2%	3,094	9.6%
Mortgage insurance denied	788	0.3%	32	0.1%
Other	33,244	12.5%	3,805	11.7%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, Female Borrowers	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	152,776	100.0%	16,604	100.0%
Debt-to-income ratio	75,372	49.3%	9,407	56.7%
Employment history	11,268	7.4%	1,278	7.7%
Credit history	0	0.0%	0	0.0%
Collateral	29,924	19.6%	2,067	12.4%
Insufficient cash	16,862	11.0%	1,573	9.5%
Unverifiable information	22,352	14.6%	2,808	16.9%
Mortgage insurance denied	516	0.3%	24	0.1%
Other	23,013	15.1%	2,164	13.0%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Female Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	155,404	100.0%	15,245	100.0%
Debt-to-income ratio	61,983	39.9%	6,851	44.9%
Employment history	9,760	6.3%	957	6.3%
Credit history	43,651	28.1%	4,327	28.4%
Collateral	28,048	18.0%	1,935	12.7%
Insufficient cash	17,686	11.4%	1,533	10.1%
Unverifiable information	13,431	8.6%	1,628	10.7%
Mortgage insurance denied	753	0.5%	31	0.2%
Other	22,492	14.5%	2,075	13.6%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, Female Borrowers	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	111,753	100.0%	10,918	100.0%
Debt-to-income ratio	51,539	46.1%	5,604	51.3%
Employment history	8,554	7.7%	829	7.6%
Credit history	0	0.0%	0	0.0%
Collateral	27,061	24.2%	1,878	17.2%
Insufficient cash	14,216	12.7%	1,241	11.4%
Unverifiable information	12,347	11.0%	1,541	14.1%
Mortgage insurance denied	492	0.4%	24	0.2%
Other	18,534	16.6%	1,715	15.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Female Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	110,628	100.0%	17,148	100.0%
Debt-to-income ratio	48,207	43.6%	7,816	45.6%
Employment history	4,825	4.4%	820	4.8%
Credit history	69,605	62.9%	11,462	66.8%
Collateral	3,570	3.2%	259	1.5%
Insufficient cash	7,649	6.9%	1,336	7.8%
Unverifiable information	10,987	9.9%	1,466	8.5%
Mortgage insurance denied	35	0.0%	1	0.0%
Other	10,752	9.7%	1,730	10.1%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Female Borrowers	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	41,023	100.0%	5,686	100.0%
Debt-to-income ratio	23,833	58.1%	3,803	66.9%
Employment history	2,714	6.6%	449	7.9%
Credit history	0	0.0%	0	0.0%
Collateral	2,863	7.0%	189	3.3%
Insufficient cash	2,646	6.5%	332	5.8%
Unverifiable information	10,005	24.4%	1,267	22.3%
Mortgage insurance denied	24	0.1%	0	0.0%
Other	4,479	10.9%	449	7.9%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Female Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	31,477	100.0%	79,151	100.0%	3,388	100.0%	13,760	100.0%
Debt-to-income ratio	12,883	40.9%	35,324	44.6%	1,618	47.8%	6,198	45.0%
Employment history	1,441	4.6%	3,384	4.3%	130	3.8%	690	5.0%
Credit history	18,020	57.2%	51,585	65.2%	2,158	63.7%	9,304	67.6%
Collateral	2,687	8.5%	883	1.1%	194	5.7%	65	0.5%
Insufficient cash	2,253	7.2%	5,396	6.8%	283	8.4%	1,053	7.7%
Unverifiable information	4,363	13.9%	6,624	8.4%	378	11.2%	1,088	7.9%
Mortgage insurance denied	31	0.1%	4	0.0%	0	0.0%	1	0.0%
Other	1,962	6.2%	8,790	11.1%	169	5.0%	1,561	11.3%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Female Borrowers	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	13,457	100.0%	27,566	100.0%	1,230	100.0%	4,456	100.0%
Debt-to-income ratio	6,061	45.0%	17,772	64.5%	671	54.6%	3,132	70.3%
Employment history	877	6.5%	1,837	6.7%	79	6.4%	370	8.3%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	2,354	17.5%	509	1.8%	146	11.9%	43	1.0%
Insufficient cash	938	7.0%	1,708	6.2%	92	7.5%	240	5.4%
Unverifiable information	4,110	30.5%	5,895	21.4%	340	27.6%	927	20.8%
Mortgage insurance denied	21	0.2%	3	0.0%	0	0.0%	0	0.0%
Other	1,032	7.7%	3,447	12.5%	74	6.0%	375	8.4%

Denial Reasons (Not Mutually Exclusive), Conventional Loans	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	457,044	100.0%	66,794	100.0%
Debt-to-income ratio	171,679	37.6%	26,534	39.7%
Employment history	22,596	4.9%	3,395	5.1%
Credit history	204,245	44.7%	34,814	52.1%
Collateral	56,645	12.4%	4,264	6.4%
Insufficient cash	42,243	9.2%	6,414	9.6%
Unverifiable information	49,367	10.8%	7,670	11.5%
Mortgage insurance denied	1,446	0.3%	63	0.1%
Other	55,170	12.1%	7,805	11.7%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, Conventional Loans	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	252,799	100.0%	31,980	100.0%
Debt-to-income ratio	116,359	46.0%	16,856	52.7%
Employment history	16,678	6.6%	2,305	7.2%
Credit history	0	0.0%	0	0.0%
Collateral	53,561	21.2%	4,004	12.5%
Insufficient cash	25,819	10.2%	2,990	9.3%
Unverifiable information	45,812	18.1%	6,897	21.6%
Mortgage insurance denied	894	0.4%	41	0.1%
Other	34,832	13.8%	3,806	11.9%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Conventional Loans	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	213,710	100.0%	21,325	100.0%
Debt-to-income ratio	79,380	37.1%	8,880	41.6%
Employment history	11,639	5.4%	1,173	5.5%
Credit history	50,151	23.5%	4,583	21.5%
Collateral	50,197	23.5%	3,723	17.5%
Insufficient cash	24,078	11.3%	2,233	10.5%
Unverifiable information	20,410	9.6%	2,778	13.0%
Mortgage insurance denied	1,386	0.6%	62	0.3%
Other	30,555	14.3%	3,074	14.4%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, Conventional Loans	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	163,559	100.0%	16,742	100.0%
Debt-to-income ratio	68,975	42.2%	7,641	45.6%
Employment history	10,450	6.4%	1,059	6.3%
Credit history	0	0.0%	0	0.0%
Collateral	48,601	29.7%	3,621	21.6%
Insufficient cash	19,933	12.2%	1,907	11.4%
Unverifiable information	19,256	11.8%	2,679	16.0%
Mortgage insurance denied	856	0.5%	40	0.2%
Other	25,083	15.3%	2,576	15.4%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Conventional Loans	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	243,334	100.0%	45,469	100.0%
Debt-to-income ratio	92,299	37.9%	17,654	38.8%
Employment history	10,957	4.5%	2,222	4.9%
Credit history	154,094	63.3%	30,231	66.5%
Collateral	6,448	2.6%	541	1.2%
Insufficient cash	18,165	7.5%	4,181	9.2%
Unverifiable information	28,957	11.9%	4,892	10.8%
Mortgage insurance denied	60	0.0%	1	0.0%
Other	24,615	10.1%	4,731	10.4%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Conventional Loans	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	89,240	100.0%	15,238	100.0%
Debt-to-income ratio	47,384	53.1%	9,215	60.5%
Employment history	6,228	7.0%	1,246	8.2%
Credit history	0	0.0%	0	0.0%
Collateral	4,960	5.6%	383	2.5%
Insufficient cash	5,886	6.6%	1,083	7.1%
Unverifiable information	26,556	29.8%	4,218	27.7%
Mortgage insurance denied	38	0.0%	1	0.0%
Other	9,749	10.9%	1,230	8.1%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Conventional Loans	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	67,885	100.0%	175,449	100.0%	8,931	100.0%	36,538	100.0%
Debt-to-income ratio	24,764	36.5%	67,535	38.5%	3,751	42.0%	13,903	38.1%
Employment history	3,096	4.6%	7,861	4.5%	372	4.2%	1,850	5.1%
Credit history	40,210	59.2%	113,884	64.9%	5,876	65.8%	24,355	66.7%
Collateral	4,607	6.8%	1,841	1.0%	381	4.3%	160	0.4%
Insufficient cash	5,295	7.8%	12,870	7.3%	951	10.6%	3,230	8.8%
Unverifiable information	11,010	16.2%	17,947	10.2%	1,098	12.3%	3,794	10.4%
Mortgage insurance denied	57	0.1%	3	0.0%	1	0.0%	0	0.0%
Other	3,885	5.7%	20,730	11.8%	383	4.3%	4,348	11.9%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Conventional Loans	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	27,675	100.0%	61,565	100.0%	3,055	100.0%	12,183	100.0%
Debt-to-income ratio	11,578	41.8%	35,806	58.2%	1,580	51.7%	7,635	62.7%
Employment history	1,815	6.6%	4,413	7.2%	214	7.0%	1,032	8.5%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	3,871	14.0%	1,089	1.8%	273	8.9%	110	0.9%
Insufficient cash	1,854	6.7%	4,032	6.5%	292	9.6%	791	6.5%
Unverifiable information	10,408	37.6%	16,148	26.2%	968	31.7%	3,250	26.7%
Mortgage insurance denied	36	0.1%	2	0.0%	1	0.0%	0	0.0%
Other	1,767	6.4%	7,982	13.0%	148	4.8%	1,082	8.9%

Denial Reasons (Not Mutually Exclusive), FHA Loans	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	169,445	100.0%	19,781	100.0%
Debt-to-income ratio	66,334	39.1%	8,907	45.0%
Employment history	13,074	7.7%	1,504	7.6%
Credit history	50,170	29.6%	6,278	31.7%
Collateral	24,798	14.6%	1,978	10.0%
Insufficient cash	20,966	12.4%	2,062	10.4%
Unverifiable information	15,592	9.2%	1,960	9.9%
Mortgage insurance denied	579	0.3%	51	0.3%
Other	24,030	14.2%	2,426	12.3%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, FHA Loans	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	119,275	100.0%	13,503	100.0%
Debt-to-income ratio	54,505	45.7%	7,165	53.1%
Employment history	11,462	9.6%	1,291	9.6%
Credit history	0	0.0%	0	0.0%
Collateral	23,926	20.1%	1,897	14.0%
Insufficient cash	17,079	14.3%	1,687	12.5%
Unverifiable information	14,127	11.8%	1,804	13.4%
Mortgage insurance denied	459	0.4%	44	0.3%
Other	20,637	17.3%	2,050	15.2%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, FHA Loans	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	161,702	100.0%	19,079	100.0%
Debt-to-income ratio	64,409	39.8%	8,734	45.8%
Employment history	12,563	7.8%	1,465	7.7%
Credit history	48,425	29.9%	6,067	31.8%
Collateral	22,074	13.7%	1,757	9.2%
Insufficient cash	20,099	12.4%	2,013	10.6%
Unverifiable information	14,836	9.2%	1,897	9.9%
Mortgage insurance denied	555	0.3%	47	0.2%
Other	22,889	14.2%	2,329	12.2%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, FHA Loans	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	113,277	100.0%	13,012	100.0%
Debt-to-income ratio	52,923	46.7%	7,041	54.1%
Employment history	11,010	9.7%	1,257	9.7%
Credit history	0	0.0%	0	0.0%
Collateral	21,314	18.8%	1,689	13.0%
Insufficient cash	16,383	14.5%	1,647	12.7%
Unverifiable information	13,431	11.9%	1,744	13.4%
Mortgage insurance denied	441	0.4%	41	0.3%
Other	19,627	17.3%	1,960	15.1%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, FHA Loans	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	7,743	100.0%	702	100.0%
Debt-to-income ratio	1,925	24.9%	173	24.6%
Employment history	511	6.6%	39	5.6%
Credit history	1,745	22.5%	211	30.1%
Collateral	2,724	35.2%	221	31.5%
Insufficient cash	867	11.2%	49	7.0%
Unverifiable information	756	9.8%	63	9.0%
Mortgage insurance denied	24	0.3%	4	0.6%
Other	1,141	14.7%	97	13.8%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, FHA Loans	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	5,998	100.0%	491	100.0%
Debt-to-income ratio	1,582	26.4%	124	25.3%
Employment history	452	7.5%	34	6.9%
Credit history	0	0.0%	0	0.0%
Collateral	2,612	43.5%	208	42.4%
Insufficient cash	696	11.6%	40	8.1%
Unverifiable information	696	11.6%	60	12.2%
Mortgage insurance denied	18	0.3%	3	0.6%
Other	1,010	16.8%	90	18.3%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, FHA Loans	Nation				Texas			
	Manufactured housing				Manufactured Housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	7,547	100.0%	196	100.0%	675	100.0%	27	100.0%
Debt-to-income ratio	1,867	24.7%	58	29.6%	165	24.4%	8	29.6%
Employment history	491	6.5%	20	10.2%	36	5.3%	3	11.1%
Credit history	1,712	22.7%	33	16.8%	202	29.9%	9	33.3%
Collateral	2,681	35.5%	43	21.9%	213	31.6%	8	29.6%
Insufficient cash	854	11.3%	13	6.6%	48	7.1%	1	3.7%
Unverifiable information	690	9.1%	66	33.7%	61	9.0%	2	7.4%
Mortgage insurance denied	23	0.3%	1	0.5%	3	0.4%	1	3.7%
Other	1,124	14.9%	17	8.7%	94	13.9%	3	11.1%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, FHA Loans	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	5,835	100.0%	163	100.0%	473	100.0%	18	100.0%
Debt-to-income ratio	1,530	26.2%	52	31.9%	116	24.5%	8	44.4%
Employment history	436	7.5%	16	9.8%	32	6.8%	2	11.1%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	2,572	44.1%	40	24.5%	201	42.5%	7	38.9%
Insufficient cash	684	11.7%	12	7.4%	39	8.2%	1	5.6%
Unverifiable information	632	10.8%	64	39.3%	58	12.3%	2	11.1%
Mortgage insurance denied	18	0.3%	0	0.0%	3	0.6%	0	0.0%
Other	996	17.1%	14	8.6%	89	18.8%	1	5.6%

Denial Reasons (Not Mutually Exclusive), VA Loans	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	41,596	100.0%	5,220	100.0%
Debt-to-income ratio	14,357	34.5%	1,987	38.1%
Employment history	3,325	8.0%	417	8.0%
Credit history	13,519	32.5%	1,823	34.9%
Collateral	7,008	16.8%	598	11.5%
Insufficient cash	3,189	7.7%	340	6.5%
Unverifiable information	3,761	9.0%	656	12.6%
Mortgage insurance denied	140	0.3%	12	0.2%
Other	6,848	16.5%	701	13.4%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, VA Loans	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	28,077	100.0%	3,397	100.0%
Debt-to-income ratio	11,395	40.6%	1,531	45.1%
Employment history	2,843	10.1%	345	10.2%
Credit history	0	0.0%	0	0.0%
Collateral	6,834	24.3%	586	17.3%
Insufficient cash	2,387	8.5%	259	7.6%
Unverifiable information	3,411	12.1%	613	18.0%
Mortgage insurance denied	117	0.4%	12	0.4%
Other	5,774	20.6%	574	16.9%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, VA Loans	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	39,616	100.0%	5,099	100.0%
Debt-to-income ratio	13,988	35.3%	1,965	38.5%
Employment history	3,231	8.2%	415	8.1%
Credit history	13,133	33.2%	1,808	35.5%
Collateral	6,068	15.3%	542	10.6%
Insufficient cash	3,034	7.7%	331	6.5%
Unverifiable information	3,651	9.2%	644	12.6%
Mortgage insurance denied	136	0.3%	12	0.2%
Other	6,493	16.4%	674	13.2%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, VA Loans	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	26,483	100.0%	3,291	100.0%
Debt-to-income ratio	11,093	41.9%	1,511	45.9%
Employment history	2,759	10.4%	343	10.4%
Credit history	0	0.0%	0	0.0%
Collateral	5,922	22.4%	531	16.1%
Insufficient cash	2,262	8.5%	251	7.6%
Unverifiable information	3,313	12.5%	602	18.3%
Mortgage insurance denied	113	0.4%	12	0.4%
Other	5,455	20.6%	550	16.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, VA Loans	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	1,980	100.0%	121	100.0%
Debt-to-income ratio	369	18.6%	22	18.2%
Employment history	94	4.7%	2	1.7%
Credit history	386	19.5%	15	12.4%
Collateral	940	47.5%	56	46.3%
Insufficient cash	155	7.8%	9	7.4%
Unverifiable information	110	5.6%	12	9.9%
Mortgage insurance denied	4	0.2%	0	0.0%
Other	355	17.9%	27	22.3%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, VA Loans	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	1,594	100.0%	106	100.0%
Debt-to-income ratio	302	18.9%	20	18.9%
Employment history	84	5.3%	2	1.9%
Credit history	0	0.0%	0	0.0%
Collateral	912	57.2%	55	51.9%
Insufficient cash	125	7.8%	8	7.5%
Unverifiable information	98	6.1%	11	10.4%
Mortgage insurance denied	4	0.3%	0	0.0%
Other	319	20.0%	24	22.6%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, VA Loans	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	1,929	100.0%	51	100.0%	114	100.0%	7	100.0%
Debt-to-income ratio	360	18.7%	9	17.6%	22	19.3%	0	0.0%
Employment history	94	4.9%	0	0.0%	2	1.8%	0	0.0%
Credit history	368	19.1%	18	35.3%	12	10.5%	3	42.9%
Collateral	926	48.0%	14	27.5%	56	49.1%	0	0.0%
Insufficient cash	153	7.9%	2	3.9%	9	7.9%	0	0.0%
Unverifiable information	108	5.6%	2	3.9%	12	10.5%	0	0.0%
Mortgage insurance denied	3	0.2%	1	2.0%	0	0.0%	0	0.0%
Other	338	17.5%	17	33.3%	22	19.3%	5	71.4%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, VA Loans	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	1,561	100.0%	33	100.0%	102	100.0%	4	100.0%
Debt-to-income ratio	297	19.0%	5	15.2%	20	19.6%	0	0.0%
Employment history	84	5.4%	0	0.0%	2	2.0%	0	0.0%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	898	57.5%	14	42.4%	55	53.9%	0	0.0%
Insufficient cash	123	7.9%	2	6.1%	8	7.8%	0	0.0%
Unverifiable information	96	6.1%	2	6.1%	11	10.8%	0	0.0%
Mortgage insurance denied	3	0.2%	1	3.0%	0	0.0%	0	0.0%
Other	307	19.7%	12	36.4%	20	19.6%	4	100.0%

Denial Reasons (Not Mutually Exclusive), Conventional Loans Where Loan Amount < \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	315,123	100.0%	49,356	100.0%
Debt-to-income ratio	113,221	35.9%	18,902	38.3%
Employment history	14,970	4.8%	2,469	5.0%
Credit history	170,881	54.2%	30,153	61.1%
Collateral	27,779	8.8%	1,943	3.9%
Insufficient cash	26,821	8.5%	4,569	9.3%
Unverifiable information	34,300	10.9%	5,269	10.7%
Mortgage insurance denied	672	0.2%	14	0.0%
Other	35,674	11.3%	5,584	11.3%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, Conventional Loans Where Loan Amount < \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	144,242	100.0%	19,203	100.0%
Debt-to-income ratio	66,738	46.3%	10,650	55.5%
Employment history	9,818	6.8%	1,477	7.7%
Credit history	0	0.0%	0	0.0%
Collateral	25,498	17.7%	1,756	9.1%
Insufficient cash	12,945	9.0%	1,530	8.0%
Unverifiable information	31,572	21.9%	4,597	23.9%
Mortgage insurance denied	410	0.3%	9	0.0%
Other	18,617	12.9%	2,035	10.6%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Conventional Loans Where Loan Amount < \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	86,619	100.0%	6,825	100.0%
Debt-to-income ratio	27,708	32.0%	2,499	36.6%
Employment history	4,759	5.5%	363	5.3%
Credit history	25,405	29.3%	1,918	28.1%
Collateral	22,432	25.9%	1,510	22.1%
Insufficient cash	10,119	11.7%	713	10.4%
Unverifiable information	6,275	7.2%	579	8.5%
Mortgage insurance denied	622	0.7%	13	0.2%
Other	12,417	14.3%	1,119	16.4%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, Conventional Loans Where Loan Amount < \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	61,214	100.0%	4,907	100.0%
Debt-to-income ratio	23,052	37.7%	2,035	41.5%
Employment history	4,083	6.7%	302	6.2%
Credit history	0	0.0%	0	0.0%
Collateral	21,546	35.2%	1,464	29.8%
Insufficient cash	7,671	12.5%	557	11.4%
Unverifiable information	5,782	9.4%	537	10.9%
Mortgage insurance denied	382	0.6%	8	0.2%
Other	9,581	15.7%	879	17.9%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Conventional Loans Where Loan Amount < \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	228,504	100.0%	42,531	100.0%
Debt-to-income ratio	85,513	37.4%	16,403	38.6%
Employment history	10,211	4.5%	2,106	5.0%
Credit history	145,476	63.7%	28,235	66.4%
Collateral	5,347	2.3%	433	1.0%
Insufficient cash	16,702	7.3%	3,856	9.1%
Unverifiable information	28,025	12.3%	4,690	11.0%
Mortgage insurance denied	50	0.0%	1	0.0%
Other	23,257	10.2%	4,465	10.5%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Conventional Loans Where Loan Amount < \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	83,028	100.0%	14,296	100.0%
Debt-to-income ratio	43,686	52.6%	8,615	60.3%
Employment history	5,735	6.9%	1,175	8.2%
Credit history	0	0.0%	0	0.0%
Collateral	3,952	4.8%	292	2.0%
Insufficient cash	5,274	6.4%	973	6.8%
Unverifiable information	25,790	31.1%	4,060	28.4%
Mortgage insurance denied	28	0.0%	1	0.0%
Other	9,036	10.9%	1,156	8.1%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Conventional Loans Where Loan Amount < \$150,000	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	58,215	100.0%	170,289	100.0%	6,917	100.0%	35,614	100.0%
Debt-to-income ratio	20,356	35.0%	65,157	38.3%	2,857	41.3%	13,546	38.0%
Employment history	2,567	4.4%	7,644	4.5%	287	4.1%	1,819	5.1%
Credit history	34,622	59.5%	110,854	65.1%	4,478	64.7%	23,757	66.7%
Collateral	3,592	6.2%	1,755	1.0%	287	4.1%	146	0.4%
Insufficient cash	4,312	7.4%	12,390	7.3%	707	10.2%	3,149	8.8%
Unverifiable information	10,270	17.6%	17,755	10.4%	932	13.5%	3,758	10.6%
Mortgage insurance denied	47	0.1%	3	0.0%	1	0.0%	0	0.0%
Other	3,332	5.7%	19,925	11.7%	311	4.5%	4,154	11.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, Conventional Loans Where Loan Amount < \$150,000	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	23,593	100.0%	59,435	100.0%	2,439	100.0%	11,857	100.0%
Debt-to-income ratio	9,351	39.6%	34,335	57.8%	1,214	49.8%	7,401	62.4%
Employment history	1,471	6.2%	4,264	7.2%	164	6.7%	1,011	8.5%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	2,937	12.4%	1,015	1.7%	194	8.0%	98	0.8%
Insufficient cash	1,493	6.3%	3,781	6.4%	225	9.2%	748	6.3%
Unverifiable information	9,791	41.5%	15,999	26.9%	840	34.4%	3,220	27.2%
Mortgage insurance denied	26	0.1%	2	0.0%	1	0.0%	0	0.0%
Other	1,418	6.0%	7,618	12.8%	117	4.8%	1,039	8.8%

Denial Reasons (Not Mutually Exclusive), FHA Loans Where Loan Amount < \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	63,902	100.0%	5,098	100.0%
Debt-to-income ratio	20,602	32.2%	1,959	38.4%
Employment history	4,991	7.8%	356	7.0%
Credit history	19,990	31.3%	1,667	32.7%
Collateral	12,090	18.9%	883	17.3%
Insufficient cash	8,792	13.8%	552	10.8%
Unverifiable information	4,786	7.5%	385	7.6%
Mortgage insurance denied	225	0.4%	20	0.4%
Other	8,934	14.0%	605	11.9%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, FHA Loans Where Loan Amount < \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	43,912	100.0%	3,431	100.0%
Debt-to-income ratio	16,500	37.6%	1,503	43.8%
Employment history	4,269	9.7%	291	8.5%
Credit history	0	0.0%	0	0.0%
Collateral	11,652	26.5%	838	24.4%
Insufficient cash	7,030	16.0%	432	12.6%
Unverifiable information	4,248	9.7%	353	10.3%
Mortgage insurance denied	178	0.4%	16	0.5%
Other	7,678	17.5%	531	15.5%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, FHA Loans Where Loan Amount < \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	58,397	100.0%	4,630	100.0%
Debt-to-income ratio	19,318	33.1%	1,835	39.6%
Employment history	4,631	7.9%	328	7.1%
Credit history	18,715	32.0%	1,512	32.7%
Collateral	10,126	17.3%	740	16.0%
Insufficient cash	8,148	14.0%	516	11.1%
Unverifiable information	4,250	7.3%	352	7.6%
Mortgage insurance denied	205	0.4%	17	0.4%
Other	8,135	13.9%	541	11.7%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, FHA Loans Where Loan Amount < \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	39,682	100.0%	3,118	100.0%
Debt-to-income ratio	15,464	39.0%	1,421	45.6%
Employment history	3,957	10.0%	266	8.5%
Credit history	0	0.0%	0	0.0%
Collateral	9,767	24.6%	707	22.7%
Insufficient cash	6,511	16.4%	402	12.9%
Unverifiable information	3,753	9.5%	322	10.3%
Mortgage insurance denied	163	0.4%	14	0.4%
Other	6,976	17.6%	472	15.1%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, FHA Loans Where Loan Amount < \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	5,505	100.0%	468	100.0%
Debt-to-income ratio	1,284	23.3%	124	26.5%
Employment history	360	6.5%	28	6.0%
Credit history	1,275	23.2%	155	33.1%
Collateral	1,964	35.7%	143	30.6%
Insufficient cash	644	11.7%	36	7.7%
Unverifiable information	536	9.7%	33	7.1%
Mortgage insurance denied	20	0.4%	3	0.6%
Other	799	14.5%	64	13.7%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, FHA Loans Where Loan Amount < \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	4,230	100.0%	313	100.0%
Debt-to-income ratio	1,036	24.5%	82	26.2%
Employment history	312	7.4%	25	8.0%
Credit history	0	0.0%	0	0.0%
Collateral	1,885	44.6%	131	41.9%
Insufficient cash	519	12.3%	30	9.6%
Unverifiable information	495	11.7%	31	9.9%
Mortgage insurance denied	15	0.4%	2	0.6%
Other	702	16.6%	59	18.8%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, FHA Loans Where Loan Amount < \$150,000	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	5,345	100.0%	160	100.0%	447	100.0%	21	100.0%
Debt-to-income ratio	1,236	23.1%	48	30.0%	116	26.0%	8	38.1%
Employment history	344	6.4%	16	10.0%	25	5.6%	3	14.3%
Credit history	1,253	23.4%	22	13.8%	149	33.3%	6	28.6%
Collateral	1,933	36.2%	31	19.4%	138	30.9%	5	23.8%
Insufficient cash	636	11.9%	8	5.0%	36	8.1%	0	0.0%
Unverifiable information	473	8.8%	63	39.4%	31	6.9%	2	9.5%
Mortgage insurance denied	19	0.4%	1	0.6%	2	0.4%	1	4.8%
Other	784	14.7%	15	9.4%	62	13.9%	2	9.5%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, FHA Loans Where Loan Amount < \$150,000	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	4,092	100.0%	138	100.0%	298	100.0%	15	100.0%
Debt-to-income ratio	993	24.3%	43	31.2%	74	24.8%	8	53.3%
Employment history	300	7.3%	12	8.7%	23	7.7%	2	13.3%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	1,857	45.4%	28	20.3%	127	42.6%	4	26.7%
Insufficient cash	512	12.5%	7	5.1%	30	10.1%	0	0.0%
Unverifiable information	433	10.6%	62	44.9%	29	9.7%	2	13.3%
Mortgage insurance denied	15	0.4%	0	0.0%	2	0.7%	0	0.0%
Other	689	16.8%	13	9.4%	58	19.5%	1	6.7%

Denial Reasons (Not Mutually Exclusive), VA Loans Where Loan Amount < \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	10,111	100.0%	780	100.0%
Debt-to-income ratio	2,788	27.6%	237	30.4%
Employment history	758	7.5%	60	7.7%
Credit history	3,101	30.7%	236	30.3%
Collateral	2,170	21.5%	150	19.2%
Insufficient cash	857	8.5%	52	6.7%
Unverifiable information	671	6.6%	66	8.5%
Mortgage insurance denied	41	0.4%	4	0.5%
Other	2,031	20.1%	158	20.3%

Denial Reasons (Not Mutually Exclusive), Where Not Denied Due to Credit History, VA Loans Where Loan Amount < \$150,000	Nation		Texas	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	7,010	100.0%	544	100.0%
Debt-to-income ratio	2,296	32.8%	185	34.0%
Employment history	645	9.2%	48	8.8%
Credit history	0	0.0%	0	0.0%
Collateral	2,107	30.1%	144	26.5%
Insufficient cash	621	8.9%	38	7.0%
Unverifiable information	598	8.5%	62	11.4%
Mortgage insurance denied	37	0.5%	4	0.7%
Other	1,725	24.6%	129	23.7%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, VA Loans Where Loan Amount < \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	8,926	100.0%	706	100.0%
Debt-to-income ratio	2,582	28.9%	224	31.7%
Employment history	704	7.9%	59	8.4%
Credit history	2,868	32.1%	225	31.9%
Collateral	1,625	18.2%	119	16.9%
Insufficient cash	763	8.5%	48	6.8%
Unverifiable information	607	6.8%	59	8.4%
Mortgage insurance denied	38	0.4%	4	0.6%
Other	1,798	20.1%	137	19.4%

Denial Reasons (Not Mutually Exclusive), Site-Built Housing, Where Not Denied Due to Credit History, VA Loans Where Loan Amount < \$150,000	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	6,058	100.0%	481	100.0%
Debt-to-income ratio	2,129	35.1%	174	36.2%
Employment history	599	9.9%	47	9.8%
Credit history	0	0.0%	0	0.0%
Collateral	1,577	26.0%	114	23.7%
Insufficient cash	548	9.0%	35	7.3%
Unverifiable information	543	9.0%	56	11.6%
Mortgage insurance denied	34	0.6%	4	0.8%
Other	1,516	25.0%	111	23.1%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, VA Loans Where Loan Amount < \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	1,185	100.0%	74	100.0%
Debt-to-income ratio	206	17.4%	13	17.6%
Employment history	54	4.6%	1	1.4%
Credit history	233	19.7%	11	14.9%
Collateral	545	46.0%	31	41.9%
Insufficient cash	94	7.9%	4	5.4%
Unverifiable information	64	5.4%	7	9.5%
Mortgage insurance denied	3	0.3%	0	0.0%
Other	233	19.7%	21	28.4%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, VA Loans Where Loan Amount < \$150,000	Nation		Texas	
	Manufactured housing		Manufactured housing	
	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	952	100.0%	63	100.0%
Debt-to-income ratio	167	17.5%	11	17.5%
Employment history	46	4.8%	1	1.6%
Credit history	0	0.0%	0	0.0%
Collateral	530	55.7%	30	47.6%
Insufficient cash	73	7.7%	3	4.8%
Unverifiable information	55	5.8%	6	9.5%
Mortgage insurance denied	3	0.3%	0	0.0%
Other	209	22.0%	18	28.6%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, VA Loans Where Loan Amount < \$150,000	Nation				Texas			
	Manufactured Housing				Manufactured Housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	1,147	100.0%	38	100.0%	67	100.0%	7	100.0%
Debt-to-income ratio	200	17.4%	6	15.8%	13	19.4%	0	0.0%
Employment history	54	4.7%	0	0.0%	1	1.5%	0	0.0%
Credit history	219	19.1%	14	36.8%	8	11.9%	3	42.9%
Collateral	535	46.6%	10	26.3%	31	46.3%	0	0.0%
Insufficient cash	92	8.0%	2	5.3%	4	6.0%	0	0.0%
Unverifiable information	63	5.5%	1	2.6%	7	10.4%	0	0.0%
Mortgage insurance denied	2	0.2%	1	2.6%	0	0.0%	0	0.0%
Other	219	19.1%	14	36.8%	16	23.9%	5	71.4%

Denial Reasons (Not Mutually Exclusive), Manufactured Housing, Where Not Denied Due to Credit History, VA Loans Where Loan Amount < \$150,000	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications	N	Percent of denied applications
Denied Applications	928	100.0%	24	100.0%	59	100.0%	4	100.0%
Debt-to-income ratio	163	17.6%	4	16.7%	11	18.6%	0	0.0%
Employment history	46	5.0%	0	0.0%	1	1.7%	0	0.0%
Credit history	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Collateral	520	56.0%	10	41.7%	30	50.8%	0	0.0%
Insufficient cash	71	7.7%	2	8.3%	3	5.1%	0	0.0%
Unverifiable information	54	5.8%	1	4.2%	6	10.2%	0	0.0%
Mortgage insurance denied	2	0.2%	1	4.2%	0	0.0%	0	0.0%
Other	200	21.6%	9	37.5%	14	23.7%	4	100.0%

Appendix C: HMDA Summary Statistics

Summary Statistics, Continuous Measures, Analytic Sample, All Housing Types	Nation						Texas					
	N	Mean	Median	Min	Max	Std	N	Mean	Median	Min	Max	Std
Property value	5,589,462	217,104	215,000	5,000	405,000	92,065	562,925	217,632	215,000	5,000	405,000	88,897
Loan amount	5,589,462	193,454	185,000	5,000	425,000	84,037	562,925	195,861	195,000	5,000	425,000	80,444
Income	5,589,462	76,216	67,000	0	610,000	45,486	562,925	84,300	74,000	0	610,000	48,068
County percent racial/ethnic minority	5,589,462	34	31	0	99	20	562,925	54	53	8	99	18
County percent Hispanic	5,589,462	15	9	0	99	15	562,925	36	30	3	99	19
County percent non-Hispanic White	5,589,462	66	69	1	100	20	562,925	46	47	1	92	18
County percent non-Hispanic Black	5,589,462	12	8	0	87	12	562,925	11	9	0	53	7
County percent non-Hispanic Asian	5,589,462	3	3	0	42	3	562,925	5	3	0	20	4
County percent non-Hispanic Indigenous peoples	5,589,462	1	0	0	91	2	562,925	0	0	0	7	0
County percent foreign born	5,589,462	10	8	0	53	8	562,925	15	13	0	41	8
County percent speaking other language, English limited	5,589,462	6	4	0	44	6	562,925	12	11	0	44	7
County percent poor	5,589,462	14	14	2	55	5	562,925	14	14	3	40	5
County percent manufactured/mobile homes	5,589,462	7	4	0	59	7	562,925	8	4	0	37	7
County percent owner-occupied housing units	5,589,462	67	67	20	92	9	562,925	64	62	34	88	9
County percent owner-occupied housing units with mortgage	5,589,462	63	65	6	89	9	562,925	59	61	10	74	10
County median value of owner-occupied housing units	5,589,462	200,600	177,400	20,700	1,056,500	84,399	562,925	173,594	165,300	31,400	452,500	55,690
County percent housing units built in 2010 or later	5,589,462	5	4	0	36	3	562,925	9	8	0	24	4

Summary Statistics, Categorical Measures, Analytic Sample, All Housing Types (Column Percentages)	Nation		Texas	
	N	Percent	N	Percent
All	5,589,462	100.0%	562,925	100.0%
Activity year				
2018	2,758,722	49.4%	270,510	48.1%
2019	2,830,740	50.6%	292,415	51.9%
Geography				
Texas	562,925	10.1%	562,925	100.0%
Other states	5,026,537	89.9%	.	.
Units in structure				
1 Unit	5,529,702	98.9%	561,407	99.7%
2+ Units	59,760	1.1%	1,518	0.3%
Land ownership status (MH only)				
Not applicable	5,203,147	93.1%	500,815	89.0%
Does not directly own land	157,677	2.8%	28,493	5.1%
Directly owns land	228,638	4.1%	33,617	6.0%
Metro classification				
Large metro	2,798,889	50.1%	391,727	69.6%
Medium/Small metro	2,039,909	36.5%	122,764	21.8%
Nonmetro	750,664	13.4%	48,434	8.6%
Race/ethnicity				
White	3,830,162	68.5%	279,093	49.6%
Black	521,800	9.3%	51,215	9.1%
Hispanic	811,354	14.5%	184,351	32.7%
Indigenous peoples	46,968	0.8%	3,608	0.6%
Other or unknown	379,178	6.8%	44,658	7.9%
Gender				
Female	2,015,430	36.1%	185,960	33.0%
Male	3,574,032	63.9%	376,965	67.0%
Age				
<25	422,659	7.6%	35,986	6.4%
25-34	1,923,238	34.4%	197,570	35.1%
35-44	1,321,113	23.6%	146,252	26.0%
45-54	902,140	16.1%	93,758	16.7%
55-64	616,040	11.0%	56,846	10.1%
65+	404,272	7.2%	32,513	5.8%
Coborrower				
No	3,399,493	60.8%	317,674	56.4%
Yes	2,189,969	39.2%	245,251	43.6%

Summary Statistics, Categorical Measures, Analytic Sample, All Housing Types (Column Percentages)	Nation		Texas	
	N	Percent	N	Percent
Combined loan-to-value ratio				
<80%	596,348	10.7%	50,783	9.0%
80-89%	916,380	16.4%	80,931	14.4%
90-96%	2,149,647	38.5%	223,715	39.7%
97-99%	659,167	11.8%	62,561	11.1%
100+%	869,544	15.6%	83,401	14.8%
Not used in credit decision	398,376	7.1%	61,534	10.9%
Debt-to-income ratio				
<20%	263,313	4.7%	20,705	3.7%
20-29%	902,566	16.1%	74,443	13.2%
30-35%	930,645	16.6%	84,427	15.0%
36-45%	2,076,661	37.2%	201,595	35.8%
46-49%	719,803	12.9%	80,009	14.2%
50%+	696,474	12.5%	101,746	18.1%
Loan amount				
<\$150,000	1,865,774	33.4%	161,680	28.7%
\$150,000+	3,723,688	66.6%	401,245	71.3%
Application channel				
Did not apply directly to financial institution	772,995	13.8%	59,480	10.6%
Applied directly to financial institution	4,816,467	86.2%	503,445	89.4%
Agency type				
Conventional (not FHA, VA, RHS, or FSA)	3,335,637	59.7%	322,318	57.3%
Federal Housing Administration (FHA)	1,453,337	26.0%	164,341	29.2%
Veterans Affairs (VA)	603,902	10.8%	70,348	12.5%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	196,586	3.5%	5,918	1.1%

Summary Statistics, Continuous Measures, Analytic Sample, Site-Built Housing	Nation						Texas					
	Site-built housing						Site-built housing					
	Mortgage						Mortgage					
	N	Mean	Median	Min	Max	Std	N	Mean	Median	Min	Max	Std
Property value	5,203,147	225,777	225,000	5,000	405,000	87,868	500,815	233,543	225,000	5,000	405,000	79,374
Loan amount	5,203,147	201,074	195,000	5,000	425,000	80,619	500,815	209,823	205,000	5,000	425,000	72,485
Income	5,203,147	77,892	68,000	0	610,000	45,776	500,815	87,583	78,000	0	610,000	48,305
County percent racial/ethnic minority	5,203,147	34	31	0	99	20	500,815	55	53	9	99	18
County percent Hispanic	5,203,147	15	9	0	99	15	500,815	36	30	3	99	19
County percent non-Hispanic White	5,203,147	66	69	1	100	20	500,815	45	47	1	91	18
County percent non-Hispanic Black	5,203,147	12	8	0	87	12	500,815	11	9	0	34	7
County percent non-Hispanic Asian	5,203,147	4	3	0	42	3	500,815	5	4	0	20	4
County percent non-Hispanic Indigenous peoples	5,203,147	1	0	0	91	2	500,815	0	0	0	2	0
County percent foreign born	5,203,147	10	8	0	53	8	500,815	16	15	0	41	8
County percent speaking other language, English limited	5,203,147	6	4	0	44	6	500,815	12	11	0	44	7
County percent poor	5,203,147	14	14	2	55	5	500,815	14	14	3	40	5
County percent manufactured/mobile homes	5,203,147	6	4	0	59	6	500,815	7	3	0	37	6
County percent owner-occupied housing units	5,203,147	66	67	20	92	9	500,815	63	61	46	88	8
County percent owner-occupied housing units with mortgage	5,203,147	64	65	10	89	8	500,815	61	62	10	74	9
County median value of owner-occupied housing units	5,203,147	202,740	180,500	20,700	1,056,500	82,670	500,815	176,725	165,300	34,100	420,500	55,235
County percent housing units built in 2010 or later	5,203,147	5	4	0	36	3	500,815	9	8	0	24	4

Summary Statistics, Categorical Measures, Analytic Sample, Site-Built Housing (Column Percentages)	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent	N	Percent
All	5,203,147	100.0%	500,815	100.0%
Activity year				
2018	2,570,907	49.4%	240,923	48.1%
2019	2,632,240	50.6%	259,892	51.9%
Geography				
Texas	500,815	9.6%	500,815	100.0%
Other states	4,702,332	90.4%	.	.
Units in structure				
1 Unit	5,143,873	98.9%	499,359	99.7%
2+ Units	59,274	1.1%	1,456	0.3%
Land ownership status (MH only)				
Not applicable	5,203,147	100.0%	500,815	100.0%
Metro classification				
Large metro	2,691,264	51.7%	362,811	72.4%
Medium/Small metro	1,893,588	36.4%	105,575	21.1%
Nonmetro	618,295	11.9%	32,429	6.5%
Race/ethnicity				
White	3,596,159	69.1%	255,198	51.0%
Black	487,824	9.4%	48,211	9.6%
Hispanic	747,816	14.4%	157,143	31.4%
Indigenous peoples	41,259	0.8%	3,260	0.7%
Other or unknown	330,089	6.3%	37,003	7.4%
Gender				
Female	1,859,571	35.7%	163,678	32.7%
Male	3,343,576	64.3%	337,137	67.3%
Age				
<25	382,396	7.3%	29,197	5.8%
25-34	1,819,787	35.0%	178,836	35.7%
35-44	1,242,023	23.9%	131,589	26.3%
45-54	835,293	16.1%	82,982	16.6%
55-64	560,325	10.8%	49,727	9.9%
65+	363,323	7.0%	28,484	5.7%
Coborrower				
No	3,163,572	60.8%	279,608	55.8%
Yes	2,039,575	39.2%	221,207	44.2%

Summary Statistics, Categorical Measures, Analytic Sample, Site-Built Housing (Column Percentages)	Nation		Texas	
	Site-built housing		Site-built housing	
	Mortgage		Mortgage	
	N	Percent	N	Percent
Combined loan-to-value ratio				
<80%	573,619	11.0%	49,755	9.9%
80-89%	891,517	17.1%	79,567	15.9%
90-96%	2,085,495	40.1%	218,047	43.5%
97-99%	645,207	12.4%	60,334	12.0%
100+%	845,258	16.2%	81,325	16.2%
Not used in credit decision	162,051	3.1%	11,787	2.4%
Debt-to-income ratio				
<20%	231,867	4.5%	15,386	3.1%
20-29%	838,305	16.1%	64,664	12.9%
30-35%	874,623	16.8%	76,098	15.2%
36-45%	1,969,996	37.9%	185,912	37.1%
46-49%	685,606	13.2%	74,529	14.9%
50%+	602,750	11.6%	84,226	16.8%
Loan amount				
<\$150,000	1,530,313	29.4%	105,189	21.0%
\$150,000+	3,672,834	70.6%	395,626	79.0%
Application channel				
Did not apply directly to financial institution	721,009	13.9%	56,199	11.2%
Applied directly to financial institution	4,482,138	86.1%	444,616	88.8%
Agency type				
Conventional (not FHA, VA, RHS, or FSA)	3,015,525	58.0%	265,241	53.0%
Federal Housing Administration (FHA)	1,401,926	26.9%	160,190	32.0%
Veterans Affairs (VA)	590,515	11.3%	69,548	13.9%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	195,181	3.8%	5,836	1.2%

Summary Statistics, Continuous Measures, Analytic Sample, Manufactured Housing, Mortgages	Nation						Texas					
	Manufactured housing						Manufactured Housing					
	Mortgage						Mortgage					
	N	Mean	Median	Min	Max	Std	N	Mean	Median	Min	Max	Std
Property value	163,870	136,245	125,000	5,000	405,000	69,211	16,490	134,062	135,000	5,000	405,000	54,330
Loan amount	163,870	123,632	115,000	5,000	425,000	63,791	16,490	123,659	125,000	5,000	415,000	51,716
Income	163,870	55,137	49,000	0	610,000	33,265	16,490	63,543	57,000	0	610,000	37,259
County percent racial/ethnic minority	163,870	28	24	0	99	18	16,490	42	40	9	99	18
County percent Hispanic	163,870	13	7	0	99	15	16,490	31	24	4	99	19
County percent non-Hispanic White	163,870	72	76	1	100	18	16,490	58	60	1	91	18
County percent non-Hispanic Black	163,870	10	5	0	87	12	16,490	8	6	0	53	6
County percent non-Hispanic Asian	163,870	2	1	0	40	2	16,490	2	1	0	20	2
County percent non-Hispanic Indigenous peoples	163,870	1	0	0	82	5	16,490	0	0	0	2	0
County percent foreign born	163,870	6	5	0	53	6	16,490	9	8	0	41	6
County percent speaking other language, English limited	163,870	4	3	0	44	4	16,490	8	6	0	44	5
County percent poor	163,870	16	15	2	55	5	16,490	14	14	3	40	5
County percent manufactured/mobile homes	163,870	16	14	0	59	9	16,490	16	15	2	37	8
County percent owner-occupied housing units	163,870	70	71	26	92	7	16,490	70	72	34	88	8
County percent owner-occupied housing units with mortgage	163,870	56	57	10	85	10	16,490	51	51	10	74	11
County median value of owner-occupied housing units	163,870	162,439	148,200	31,400	994,100	71,520	16,490	146,926	139,800	31,400	326,800	49,605
County percent housing units built in 2010 or later	163,870	5	4	0	36	3	16,490	8	7	0	24	4

Summary Statistics, Continuous Measures, Analytic Sample, Manufactured Housing, Personal Property Loans	Nation						Texas					
	Manufactured housing						Manufactured housing					
	Personal property loan						Personal property loan					
	N	Mean	Median	Min	Max	Std	N	Mean	Median	Min	Max	Std
Property value	222,445	73,817	65,000	5,000	405,000	41,832	45,620	73,167	65,000	5,000	395,000	33,325
Loan amount	222,445	66,653	55,000	5,000	415,000	37,429	45,620	68,692	65,000	5,000	395,000	31,781
Income	222,445	52,557	45,000	0	610,000	34,739	45,620	55,758	48,000	0	610,000	36,112
County percent racial/ethnic minority	222,445	35	33	0	99	21	45,620	49	46	8	99	20
County percent Hispanic	222,445	16	7	0	99	18	45,620	35	29	3	99	21
County percent non-Hispanic White	222,445	65	67	1	100	21	45,620	51	54	1	92	20
County percent non-Hispanic Black	222,445	13	8	0	87	14	45,620	9	7	0	34	7
County percent non-Hispanic Asian	222,445	3	1	0	36	4	45,620	3	1	0	20	3
County percent non-Hispanic Indigenous peoples	222,445	1	0	0	90	6	45,620	0	0	0	7	0
County percent foreign born	222,445	8	5	0	53	8	45,620	12	11	0	41	7
County percent speaking other language, English limited	222,445	5	3	0	44	6	45,620	10	8	0	44	7
County percent poor	222,445	16	16	3	55	6	45,620	15	15	3	40	5
County percent manufactured/mobile homes	222,445	14	12	0	59	10	45,620	14	14	0	37	9
County percent owner-occupied housing units	222,445	68	69	20	92	8	45,620	68	68	34	88	9
County percent owner-occupied housing units with mortgage	222,445	56	57	6	85	12	45,620	51	52	10	74	12
County median value of owner-occupied housing units	222,445	178,657	151,600	20,700	994,100	117,037	45,620	148,854	139,800	31,400	452,500	53,956
County percent housing units built in 2010 or later	222,445	5	4	0	36	3	45,620	8	8	0	24	4

Summary Statistics, Categorical Measures, Analytic Sample, Manufactured Housing (Column Percentages)	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent	N	Percent	N	Percent	N	Percent
All	163,870	100.0%	222,445	100.0%	16,490	100.0%	45,620	100.0%
Activity year								
2018	80,003	48.8%	107,812	48.5%	7,782	47.2%	21,805	47.8%
2019	83,867	51.2%	114,633	51.5%	8,708	52.8%	23,815	52.2%
Geography								
Texas	16,490	10.1%	45,620	20.5%	16,490	100.0%	45,620	100.0%
Other states	147,380	89.9%	176,825	79.5%	.	.	.	.
Units in structure								
1 Unit	163,420	99.7%	222,409	100.0%	16,432	99.6%	45,616	100.0%
2+ Units	450	0.3%	36	0.0%	58	0.4%	4	0.0%
Land ownership status (MH only)								
Does not directly own land	1,438	0.9%	156,239	70.2%	172	1.0%	28,321	62.1%
Directly owns land	162,432	99.1%	66,206	29.8%	16,318	99.0%	17,299	37.9%
Metro classification								
Large metro	35,699	21.8%	71,926	32.3%	7,500	45.5%	21,416	46.9%
Medium/Small metro	64,446	39.3%	81,875	36.8%	4,246	25.7%	12,943	28.4%
Nonmetro	63,725	38.9%	68,644	30.9%	4,744	28.8%	11,261	24.7%
Race/ethnicity								
White	117,253	71.6%	116,750	52.5%	8,441	51.2%	15,454	33.9%
Black	10,390	6.3%	23,586	10.6%	664	4.0%	2,340	5.1%
Hispanic	18,694	11.4%	44,844	20.2%	5,620	34.1%	21,588	47.3%
Indigenous peoples	2,159	1.3%	3,550	1.6%	121	0.7%	227	0.5%
Other or unknown	15,374	9.4%	33,715	15.2%	1,644	10.0%	6,011	13.2%
Gender								
Female	57,265	34.9%	98,594	44.3%	5,330	32.3%	16,952	37.2%
Male	106,605	65.1%	123,851	55.7%	11,160	67.7%	28,668	62.8%
Age								
<25	16,362	10.0%	23,901	10.7%	1,410	8.6%	5,379	11.8%
25-34	46,140	28.2%	57,311	25.8%	5,177	31.4%	13,557	29.7%
35-44	33,988	20.7%	45,102	20.3%	4,051	24.6%	10,612	23.3%
45-54	28,755	17.5%	38,092	17.1%	2,998	18.2%	7,778	17.0%
55-64	22,416	13.7%	33,299	15.0%	1,895	11.5%	5,224	11.5%
65+	16,209	9.9%	24,740	11.1%	959	5.8%	3,070	6.7%
Coborrower								
No	100,580	61.4%	135,341	60.8%	9,572	58.0%	28,494	62.5%
Yes	63,290	38.6%	87,104	39.2%	6,918	42.0%	17,126	37.5%

Summary Statistics, Categorical Measures, Analytic Sample, Manufactured Housing (Column Percentages)	Nation				Texas			
	Manufactured housing				Manufactured housing			
	Mortgage		Personal property loan		Mortgage		Personal property loan	
	N	Percent	N	Percent	N	Percent	N	Percent
Combined loan-to-value ratio								
<80%	12,026	7.3%	10,703	4.8%	463	2.8%	565	1.2%
80-89%	14,985	9.1%	9,878	4.4%	686	4.2%	678	1.5%
90-96%	51,139	31.2%	13,013	5.8%	3,840	23.3%	1,828	4.0%
97-99%	9,975	6.1%	3,985	1.8%	780	4.7%	1,447	3.2%
100+%	19,380	11.8%	4,906	2.2%	1,065	6.5%	1,011	2.2%
Not used in credit decision	56,365	34.4%	179,960	80.9%	9,656	58.6%	40,091	87.9%
Debt-to-income ratio								
<20%	8,783	5.4%	22,663	10.2%	662	4.0%	4,657	10.2%
20-29%	25,103	15.3%	39,158	17.6%	2,017	12.2%	7,762	17.0%
30-35%	25,197	15.4%	30,825	13.9%	2,149	13.0%	6,180	13.5%
36-45%	53,775	32.8%	52,890	23.8%	4,828	29.3%	10,855	23.8%
46-49%	17,596	10.7%	16,601	7.5%	1,734	10.5%	3,746	8.2%
50%+	33,416	20.4%	60,308	27.1%	5,100	30.9%	12,420	27.2%
Loan amount								
<\$150,000	120,173	73.3%	215,288	96.8%	11,965	72.6%	44,526	97.6%
\$150,000+	43,697	26.7%	7,157	3.2%	4,525	27.4%	1,094	2.4%
Application channel								
Did not apply directly to financial institution	19,211	11.7%	32,775	14.7%	1,160	7.0%	2,121	4.6%
Applied directly to financial institution	144,659	88.3%	189,670	85.3%	15,330	93.0%	43,499	95.4%
Agency type								
Conventional (not FHA, VA, RHS, or FSA)	99,111	60.5%	221,001	99.4%	11,674	70.8%	45,403	99.5%
Federal Housing Administration (FHA)	50,195	30.6%	1,216	0.5%	3,954	24.0%	197	0.4%
Veterans Affairs (VA)	13,176	8.0%	211	0.1%	781	4.7%	19	0.0%
USDA Rural Housing Service or Farm Service Agency (RHS or FSA)	1,388	0.8%	17	0.0%	81	0.5%	1	0.0%

Property and Loan Type by Race/Ethnicity (Column Percentages), Nation			Race/Ethnicity									
			White		Black		Hispanic		Indigenous peoples		Other or unknown	
			N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
All			3,830,162	100.0%	521,800	100.0%	811,354	100.0%	46,968	100.0%	379,178	100.0%
Nation	Manufactured housing	Mortgage	117,253	3.1%	10,390	2.0%	18,694	2.3%	2,159	4.6%	15,374	4.1%
		Personal property loan	116,750	3.0%	23,586	4.5%	44,844	5.5%	3,550	7.6%	33,715	8.9%
	Site-built housing	Mortgage	3,596,159	93.9%	487,824	93.5%	747,816	92.2%	41,259	87.8%	330,089	87.1%

Property and Loan Type by Race/Ethnicity (Column Percentages), Texas			Race/Ethnicity									
			White		Black		Hispanic		Indigenous peoples		Other or unknown	
			N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
All			279,093	100.0%	51,215	100.0%	184,351	100.0%	3,608	100.0%	44,658	100.0%
Texas	Manufactured housing	Mortgage	8,441	3.0%	664	1.3%	5,620	3.0%	121	3.4%	1,644	3.7%
		Personal property loan	15,454	5.5%	2,340	4.6%	21,588	11.7%	227	6.3%	6,011	13.5%
	Site-built housing	Mortgage	255,198	91.4%	48,211	94.1%	157,143	85.2%	3,260	90.4%	37,003	82.9%

Appendix D: HMDA Probit Models

Probit Estimation Results Predicting Denial for Site-Built Housing Mortgages (Nation)

denial	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
year2019	-.031	.002	-17.22	0	-.034	-.027	***
logincome	-.109	.001	-125.95	0	-.111	-.107	***
male	.023	.002	12.22	0	.019	.027	***
coborrower	-.011	.002	-5.49	0	-.014	-.007	***
directapp	-.067	.003	-26.64	0	-.072	-.062	***
amt150kplus	-.245	.002	-109.64	0	-.249	-.24	***
age : base <25	0	.	.	.	.	.
25-34	-.056	.004	-15.56	0	-.063	-.049	***
35-44	.069	.004	18.43	0	.061	.076	***
45-54	.149	.004	38.28	0	.141	.157	***
55-64	.124	.004	29.28	0	.115	.132	***
65+	.026	.005	5.32	0	.016	.036	***
race : base White	0	.	.	.	.	.
Black	.309	.003	103.90	0	.304	.315	***
Hispanic	.173	.003	63.43	0	.168	.179	***
Indigenous peoples	.208	.009	22.04	0	.189	.226	***
Other	.176	.004	49.16	0	.169	.183	***
dti : base <20%	0	.	.	.	.	.
20-29%	-.246	.005	-50.46	0	-.255	-.236	***
30-35%	-.252	.005	-51.90	0	-.262	-.243	***
36-45%	-.206	.005	-45.43	0	-.215	-.197	***
46-49%	-.072	.005	-14.57	0	-.081	-.062	***
50%+	.726	.005	150.42	0	.717	.736	***
cltv : base <80%	0	.	.	.	.	.
80-89%	.075	.004	19.65	0	.068	.083	***
90-96%	.171	.004	48.02	0	.164	.178	***
97-99%	.179	.004	43.83	0	.171	.187	***
100+%	.39	.004	92.40	0	.382	.399	***
Not used	.188	.006	29.74	0	.175	.2	***
agency : base	0	.	.	.	.	.
Conventional							
FHA	-.099	.002	-41.83	0	-.104	-.095	***
VA	-.393	.004	-99.46	0	-.401	-.386	***
RHS/FSA	.074	.005	15.59	0	.065	.084	***
metroclass : base	0	.	.	.	.	.
Large							
Medium/Small	-.028	.002	-11.39	0	-.033	-.023	***
Nonmetro	.13	.004	34.41	0	.123	.138	***
pcthispanic	-.001	0	-5.72	0	-.002	-.001	***
pctblack	.001	0	7.06	0	.001	.001	***
pctasian	-.001	0	-2.22	.026	-.002	0	**
pctindigenous	.002	0	4.46	0	.001	.003	***
pctenglishltd	.006	0	13.33	0	.005	.007	***
pctmobilehomes	.005	0	22.28	0	.004	.005	***
logmedhval	.049	.005	10.63	0	.04	.058	***
state : base Texas	0	.	.	.	.	.
Alabama	-.022	.008	-2.73	.006	-.038	-.006	***
Alaska	-.122	.022	-5.44	0	-.166	-.078	***
Arizona	.022	.006	3.68	0	.01	.034	***
Arkansas	.015	.01	1.57	.115	-.004	.034	
California	-.054	.006	-8.90	0	-.066	-.042	***
Colorado	.059	.007	7.89	0	.044	.073	***

Connecticut	.09	.01	9.31	0	.071	.109	***
Delaware	-.014	.015	-0.91	.364	-.044	.016	
Washington, DC	.032	.036	0.89	.375	-.038	.102	
Florida	.12	.005	25.58	0	.111	.129	***
Georgia	-.014	.006	-2.24	.025	-.026	-.002	**
Hawaii	.084	.035	2.44	.015	.016	.152	**
Idaho	-.063	.011	-5.78	0	-.085	-.042	***
Illinois	.067	.006	11.59	0	.056	.078	***
Indiana	-.009	.007	-1.24	.215	-.023	.005	
Iowa	-.025	.01	-2.58	.01	-.044	-.006	***
Kansas	-.046	.011	-4.39	0	-.067	-.026	***
Kentucky	.061	.008	7.25	0	.045	.078	***
Louisiana	.007	.009	0.82	.412	-.01	.025	
Maine	.136	.014	9.61	0	.108	.163	***
Maryland	-.049	.008	-5.84	0	-.065	-.033	***
Massachusetts	.07	.009	7.42	0	.052	.089	***
Michigan	.005	.007	0.79	.427	-.008	.018	
Minnesota	-.059	.008	-7.24	0	-.075	-.043	***
Mississippi	-.015	.011	-1.40	.162	-.036	.006	
Missouri	-.027	.008	-3.54	0	-.041	-.012	***
Montana	.027	.016	1.68	.092	-.004	.058	*
Nebraska	-.103	.013	-7.75	0	-.128	-.077	***
Nevada	.027	.009	3.14	.002	.01	.044	***
New Hampshire	.124	.013	9.31	0	.098	.151	***
New Jersey	.061	.007	8.44	0	.047	.076	***
New Mexico	.028	.012	2.40	.017	.005	.052	**
New York	.072	.007	10.50	0	.058	.085	***
North Carolina	-.044	.006	-7.03	0	-.057	-.032	***
North Dakota	-.107	.021	-5.11	0	-.148	-.066	***
Ohio	-.014	.007	-2.06	.039	-.026	-.001	**
Oklahoma	-.102	.009	-11.04	0	-.121	-.084	***
Oregon	-.038	.01	-3.84	0	-.058	-.019	***
Pennsylvania	.035	.006	5.49	0	.023	.048	***
Rhode Island	.049	.015	3.19	.001	.019	.08	***
South Carolina	.032	.008	4.17	0	.017	.047	***
South Dakota	-.124	.019	-6.66	0	-.161	-.088	***
Tennessee	.036	.007	5.10	0	.022	.05	***
Utah	-.045	.009	-4.85	0	-.063	-.027	***
Vermont	.14	.021	6.60	0	.098	.181	***
Virginia	-.068	.007	-9.27	0	-.083	-.054	***
Washington	-.049	.008	-6.03	0	-.065	-.033	***
West Virginia	.094	.013	7.18	0	.069	.12	***
Wisconsin	.054	.008	6.85	0	.038	.069	***
Wyoming	-.018	.021	-0.89	.373	-.058	.022	
Constant	60.916	3.594	16.95	0	53.873	67.96	***

Mean dependent var	0.070	SD dependent var	0.255
Pseudo r-squared	0.108	Number of obs	5203147.000
Chi-square	285903.626	Prob > chi2	0.000
Akaike crit. (AIC)	2353924.429	Bayesian crit. (BIC)	2355109.329

*** $p < .01$, ** $p < .05$, * $p < .1$

Average Marginal Effects:
Probit Specification Predicting Denial for Site-Built Housing Mortgages (Nation)
Average marginal effects Number of obs = 5,203,147

	Delta-method					
	dy/dx	Std.Err.	z	P>z	[95%Conf.	Interval]
year2019	-0.004	0.000	-17.220	0.000	-0.004	-0.003
logincome	-0.013	0.000	-125.800	0.000	-0.013	-0.013
male	0.003	0.000	12.220	0.000	0.002	0.003
coborrower	-0.001	0.000	-5.490	0.000	-0.002	-0.001
directapp	-0.008	0.000	-26.640	0.000	-0.009	-0.007
amt150kplus	-0.029	0.000	-109.200	0.000	-0.030	-0.029
age						
25-34	-0.006	0.000	-15.170	0.000	-0.007	-0.005
35-44	0.008	0.000	18.870	0.000	0.007	0.009
45-54	0.019	0.000	39.670	0.000	0.018	0.020
55-64	0.015	0.001	29.650	0.000	0.014	0.016
65+	0.003	0.001	5.310	0.000	0.002	0.004
race						
Black	0.042	0.000	90.600	0.000	0.041	0.043
Hispanic	0.021	0.000	59.120	0.000	0.021	0.022
Indigenous peoples	0.026	0.001	19.340	0.000	0.023	0.029
Other	0.022	0.000	44.780	0.000	0.021	0.023
dti						
20-29%	-0.027	0.001	-45.480	0.000	-0.028	-0.026
30-35%	-0.028	0.001	-46.470	0.000	-0.029	-0.026
36-45%	-0.023	0.001	-40.360	0.000	-0.024	-0.022
46-49%	-0.009	0.001	-14.190	0.000	-0.010	-0.008
50%+	0.151	0.001	179.290	0.000	0.149	0.152
cltv						
80-89%	0.007	0.000	19.880	0.000	0.007	0.008
90-96%	0.018	0.000	51.430	0.000	0.018	0.019
97-99%	0.019	0.000	44.550	0.000	0.018	0.020
100+%	0.049	0.001	93.470	0.000	0.048	0.050
Not used	0.020	0.001	27.740	0.000	0.019	0.022
agency						
FHA	-0.012	0.000	-42.480	0.000	-0.013	-0.012
VA	-0.040	0.000	-116.390	0.000	-0.041	-0.040
RHS/FSA	0.010	0.001	15.020	0.000	0.009	0.012
metroclass						
Medium/Small	-0.003	0.000	-11.400	0.000	-0.004	-0.003
Nonmetro	0.017	0.001	32.940	0.000	0.016	0.018
pcthispanicpop	-0.000	0.000	-5.720	0.000	-0.000	-0.000
pctnonhisblack	0.000	0.000	7.060	0.000	0.000	0.000
pctnonhisasian	-0.000	0.000	-2.220	0.026	-0.000	-0.000
pctindigenous	0.000	0.000	4.460	0.000	0.000	0.000
pctenglishltd	0.001	0.000	13.330	0.000	0.001	0.001
pctmobilehomes	0.001	0.000	22.280	0.000	0.001	0.001
logmedhval	0.006	0.001	10.630	0.000	0.005	0.007

state						
Alabama	-0.003	0.001	-2.750	0.006	-0.004	-0.001
Alaska	-0.013	0.002	-5.900	0.000	-0.018	-0.009
Arizona	0.003	0.001	3.650	0.000	0.001	0.004
Arkansas	0.002	0.001	1.560	0.118	-0.000	0.004
California	-0.006	0.001	-9.090	0.000	-0.007	-0.005
Colorado	0.007	0.001	7.720	0.000	0.005	0.009
Connecticut	0.011	0.001	8.940	0.000	0.009	0.014
Delaware	-0.002	0.002	-0.910	0.360	-0.005	0.002
Washington, DC	0.004	0.004	0.870	0.385	-0.005	0.013
Florida	0.015	0.001	25.930	0.000	0.014	0.017
Georgia	-0.002	0.001	-2.240	0.025	-0.003	-0.000
Hawaii	0.011	0.005	2.310	0.021	0.002	0.019
Idaho	-0.007	0.001	-5.970	0.000	-0.010	-0.005
Illinois	0.008	0.001	11.490	0.000	0.007	0.010
Indiana	-0.001	0.001	-1.240	0.214	-0.003	0.001
Iowa	-0.003	0.001	-2.610	0.009	-0.005	-0.001
Kansas	-0.005	0.001	-4.490	0.000	-0.008	-0.003
Kentucky	0.008	0.001	7.090	0.000	0.005	0.010
Louisiana	0.001	0.001	0.820	0.413	-0.001	0.003
Maine	0.018	0.002	8.940	0.000	0.014	0.021
Maryland	-0.006	0.001	-5.940	0.000	-0.007	-0.004
Massachusetts	0.009	0.001	7.210	0.000	0.006	0.011
Michigan	0.001	0.001	0.790	0.428	-0.001	0.002
Minnesota	-0.007	0.001	-7.390	0.000	-0.009	-0.005
Mississippi	-0.002	0.001	-1.410	0.159	-0.004	0.001
Missouri	-0.003	0.001	-3.570	0.000	-0.005	-0.001
Montana	0.003	0.002	1.660	0.098	-0.001	0.007
Nebraska	-0.011	0.001	-8.220	0.000	-0.014	-0.009
Nevada	0.003	0.001	3.100	0.002	0.001	0.005
New Hampshire	0.016	0.002	8.720	0.000	0.012	0.020
New Jersey	0.008	0.001	8.280	0.000	0.006	0.009
New Mexico	0.003	0.001	2.350	0.019	0.001	0.006
New York	0.009	0.001	10.320	0.000	0.007	0.011
North Carolina	-0.005	0.001	-7.070	0.000	-0.006	-0.004
North Dakota	-0.012	0.002	-5.480	0.000	-0.016	-0.008
Ohio	-0.002	0.001	-2.070	0.039	-0.003	-0.000
Oklahoma	-0.011	0.001	-11.570	0.000	-0.013	-0.009
Oregon	-0.004	0.001	-3.910	0.000	-0.007	-0.002
Pennsylvania	0.004	0.001	5.460	0.000	0.003	0.006
Rhode Island	0.006	0.002	3.100	0.002	0.002	0.010
South Carolina	0.004	0.001	4.130	0.000	0.002	0.006
South Dakota	-0.014	0.002	-7.210	0.000	-0.017	-0.010
Tennessee	0.004	0.001	5.060	0.000	0.003	0.006
Utah	-0.005	0.001	-4.950	0.000	-0.007	-0.003
Vermont	0.018	0.003	6.080	0.000	0.012	0.024
Virginia	-0.008	0.001	-9.450	0.000	-0.009	-0.006
Washington	-0.006	0.001	-6.140	0.000	-0.007	-0.004
West Virginia	0.012	0.002	6.820	0.000	0.008	0.015
Wisconsin	0.007	0.001	6.730	0.000	0.005	0.009
Wyoming	-0.002	0.002	-0.900	0.367	-0.007	0.003

Note: dy/dx for factor levels is the discrete change from the base level.

Probit Estimation Results Predicting Denial for Site-Built Housing Mortgages (Texas)

denial	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
year2019	-.005	.006	-0.82	.414	-.016	.006	
logincome	-.091	.002	-39.39	0	-.095	-.086	***
male	-.004	.006	-0.73	.465	-.016	.007	
coborrower	0	.006	-0.00	1	-.011	.011	
directapp	-.06	.009	-6.97	0	-.077	-.043	***
amt150kplus	-.2	.007	-26.91	0	-.214	-.185	***
age : base <25	0	.	.	.	.	.
25-34	-.08	.012	-6.52	0	-.105	-.056	***
35-44	.034	.013	2.72	.006	.01	.059	***
45-54	.118	.013	8.94	0	.092	.143	***
55-64	.102	.014	7.11	0	.074	.13	***
65+	-.002	.017	-0.14	.892	-.036	.031	
race : base White	0	.	.	.	.	.
Black	.335	.009	35.73	0	.317	.354	***
Hispanic	.182	.007	25.68	0	.168	.196	***
Indigenous peoples	.145	.034	4.25	0	.078	.211	***
Other	.191	.011	17.60	0	.17	.212	***
dti : base <20%	0	.	.	.	.	.
20-29%	-.31	.018	-17.29	0	-.345	-.275	***
30-35%	-.302	.018	-17.14	0	-.336	-.267	***
36-45%	-.264	.016	-16.02	0	-.296	-.231	***
46-49%	-.14	.017	-8.04	0	-.174	-.106	***
50%+	.621	.017	36.63	0	.588	.655	***
cltv : base <80%	0	.	.	.	.	.
80-89%	.064	.013	5.10	0	.039	.088	***
90-96%	.159	.012	13.75	0	.136	.181	***
97-99%	.092	.013	6.89	0	.066	.118	***
100+%	.261	.014	18.47	0	.234	.289	***
Not used	.196	.022	8.71	0	.152	.24	***
agency : base	0	.	.	.	.	.
Conventional							
FHA	-.154	.007	-20.60	0	-.169	-.139	***
VA	-.381	.012	-30.54	0	-.406	-.357	***
RHS/FSA	.295	.023	12.67	0	.249	.34	***
metroclass : base	0	.	.	.	.	.
Large							
Medium/Small	-.101	.01	-10.62	0	-.12	-.083	***
Nonmetro	.117	.015	7.70	0	.087	.147	***
pcthispanic	.002	0	4.65	0	.001	.003	***
pctblack	.002	.001	3.29	.001	.001	.004	***
pctasian	.003	.001	2.95	.003	.001	.005	***
pctindigenous	-.13	.016	-7.90	0	-.162	-.098	***
pctenglishltd	-.003	.001	-3.15	.002	-.004	-.001	***
pctmobilehomes	.006	.001	9.78	0	.005	.008	***
logmedhval	0	.02	-0.02	.981	-.04	.039	
Constant	8.832	11.355	0.78	.437	-13.423	31.087	
Mean dependent var		0.075	SD dependent var			0.263	
Pseudo r-squared		0.103	Number of obs			500815.000	
Chi-square		27576.736	Prob > chi2			0.000	
Akaike crit. (AIC)		239166.542	Bayesian crit. (BIC)			239589.254	

*** $p < .01$, ** $p < .05$, * $p < .1$

Average Marginal Effects:
Probit Specification Predicting Denial for Site-Built Housing Mortgages (Texas)

Average marginal effects Number of obs = 500,815

	Delta-method					
	dy/dx	Std.Err.	z	P>z	[95%Conf.	Interval]
year2019	-0.001	0.001	-0.820	0.414	-0.002	0.001
logincome	-0.012	0.000	-39.350	0.000	-0.012	-0.011
male	-0.001	0.001	-0.730	0.465	-0.002	0.001
coborrower	-0.000	0.001	0.000	1.000	-0.001	0.001
directapp	-0.008	0.001	-6.960	0.000	-0.010	-0.006
amt150kplus	-0.026	0.001	-26.860	0.000	-0.027	-0.024
age						
25-34	-0.010	0.002	-6.270	0.000	-0.013	-0.007
35-44	0.004	0.002	2.760	0.006	0.001	0.008
45-54	0.016	0.002	9.270	0.000	0.013	0.019
55-64	0.014	0.002	7.210	0.000	0.010	0.017
65+	-0.000	0.002	-0.140	0.892	-0.004	0.004
race						
Black	0.046	0.001	31.460	0.000	0.043	0.049
Hispanic	0.023	0.001	25.100	0.000	0.021	0.024
Indigenous peoples	0.018	0.005	3.870	0.000	0.009	0.026
Other	0.024	0.001	16.100	0.000	0.021	0.027
dti						
20-29%	-0.035	0.002	-15.080	0.000	-0.040	-0.030
30-35%	-0.034	0.002	-14.840	0.000	-0.039	-0.030
36-45%	-0.031	0.002	-13.660	0.000	-0.035	-0.026
46-49%	-0.018	0.002	-7.530	0.000	-0.022	-0.013
50%+	0.129	0.003	46.280	0.000	0.123	0.134
cltv						
80-89%	0.007	0.001	5.150	0.000	0.004	0.010
90-96%	0.019	0.001	14.720	0.000	0.016	0.021
97-99%	0.010	0.001	6.970	0.000	0.007	0.013
100+%	0.033	0.002	18.700	0.000	0.030	0.037
Not used	0.024	0.003	8.070	0.000	0.018	0.029
agency						
FHA	-0.020	0.001	-20.790	0.000	-0.022	-0.018
VA	-0.044	0.001	-34.660	0.000	-0.046	-0.041
RHS/FSA	0.051	0.005	11.020	0.000	0.042	0.060
metroclass						
Medium/Small	-0.012	0.001	-10.960	0.000	-0.015	-0.010
Nonmetro	0.016	0.002	7.300	0.000	0.012	0.021
pcthispanicpop						
pctnonhispblack	0.000	0.000	4.650	0.000	0.000	0.000
pctnonhispblack	0.000	0.000	3.290	0.001	0.000	0.000
pctnonhispasian	0.000	0.000	2.950	0.003	0.000	0.001
pctindigenous	-0.017	0.002	-7.900	0.000	-0.021	-0.012
pctenglishltd	-0.000	0.000	-3.150	0.002	-0.001	-0.000
pctmobilehomes	0.001	0.000	9.780	0.000	0.001	0.001
logmedhval	-0.000	0.003	-0.020	0.981	-0.005	0.005

Note: dy/dx for factor levels is the discrete change from the base level.

Probit Estimation Results Predicting Denial for Manufactured Housing Mortgages (Nation)

denial	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
year2019	-.061	.008	-8.16	0	-.076	-.047	***
logincome	-.1	.005	-21.04	0	-.109	-.091	***
male	-.076	.008	-9.49	0	-.092	-.06	***
coborrower	-.064	.008	-8.02	0	-.08	-.049	***
directapp	.066	.013	5.07	0	.041	.092	***
amt150kplus	-.075	.011	-6.79	0	-.097	-.053	***
age : base <25	0	.	.	.	.	.
25-34	-.01	.014	-0.73	.466	-.037	.017	
35-44	.017	.014	1.19	.233	-.011	.046	
45-54	-.034	.015	-2.27	.023	-.063	-.005	**
55-64	-.104	.016	-6.50	0	-.135	-.072	***
65+	-.162	.018	-9.05	0	-.197	-.127	***
race : base White	0	.	.	.	.	.
Black	.35	.017	20.97	0	.317	.382	***
Hispanic	.134	.013	10.03	0	.108	.16	***
Indigenous peoples	.218	.033	6.55	0	.153	.283	***
Other	.067	.013	5.16	0	.041	.092	***
dti : base <20%	0	.	.	.	.	.
20-29%	-.389	.018	-22.12	0	-.424	-.355	***
30-35%	-.474	.018	-26.55	0	-.509	-.439	***
36-45%	-.441	.017	-26.56	0	-.474	-.409	***
46-49%	-.272	.019	-14.21	0	-.309	-.234	***
50%+	.557	.018	31.22	0	.522	.592	***
cltv : base <80%	0	.	.	.	.	.
80-89%	.045	.02	2.29	.022	.006	.083	**
90-96%	.226	.017	12.95	0	.192	.26	***
97-99%	.278	.023	11.98	0	.233	.324	***
100+%	.516	.021	24.13	0	.474	.557	***
Not Used	1.208	.017	71.64	0	1.175	1.241	***
agency : base	0	.	.	.	.	.
Conventional							
FHA	-.594	.011	-54.09	0	-.616	-.573	***
VA	-.667	.019	-34.21	0	-.705	-.628	***
RHS/FSA	.144	.038	3.77	0	.069	.218	***
metroclass : base	0	.	.	.	.	.
Large							
Medium/Small	-.003	.011	-0.29	.769	-.025	.019	
Nonmetro	.014	.013	1.06	.289	-.012	.039	
pcthispanic	-.002	.001	-2.29	.022	-.003	0	**
pctblack	.001	0	2.15	.031	0	.002	**
pctasian	.01	.003	3.56	0	.005	.016	***
pctindigenous	-.003	.001	-3.01	.003	-.005	-.001	***
pctenglishltd	.005	.002	2.30	.021	.001	.01	**
pctmobilehomes	-.003	.001	-5.54	0	-.005	-.002	***
logmedhval	-.069	.02	-3.45	.001	-.108	-.03	***
state : base Texas	0	.	.	.	.	.
Alabama	.119	.027	4.35	0	.065	.172	***
Alaska	.64	.2	3.20	.001	.248	1.032	***
Arizona	-.159	.024	-6.72	0	-.205	-.112	***
Arkansas	.101	.033	3.00	.003	.035	.166	***
California	-.108	.029	-3.72	0	-.165	-.051	***
Colorado	-.079	.034	-2.33	.02	-.146	-.013	**
Connecticut	.895	.333	2.69	.007	.242	1.548	***
Delaware	.026	.069	0.37	.71	-.109	.16	

Florida	.05	.019	2.67	.007	.013	.087	***
Georgia	.118	.025	4.78	0	.07	.166	***
Idaho	-.211	.041	-5.15	0	-.292	-.131	***
Illinois	.161	.047	3.44	.001	.07	.253	***
Indiana	-.054	.032	-1.69	.092	-.117	.009	*
Iowa	.171	.068	2.53	.012	.038	.304	**
Kansas	.089	.058	1.55	.121	-.024	.203	
Kentucky	.119	.026	4.51	0	.067	.171	***
Louisiana	-.067	.028	-2.44	.015	-.122	-.013	**
Maine	.003	.052	0.05	.958	-.099	.105	
Maryland	.149	.09	1.65	.099	-.028	.325	*
Massachusetts	.971	.263	3.69	0	.455	1.487	***
Michigan	-.055	.03	-1.82	.069	-.114	.004	*
Minnesota	.087	.051	1.71	.087	-.013	.186	*
Mississippi	.037	.032	1.13	.257	-.027	.1	
Missouri	.015	.034	0.43	.664	-.052	.081	
Montana	.071	.055	1.29	.197	-.037	.18	
Nebraska	.357	.113	3.16	.002	.135	.578	***
Nevada	-.192	.035	-5.55	0	-.259	-.124	***
New Hampshire	.069	.078	0.88	.379	-.084	.221	
New Jersey	.381	.152	2.51	.012	.084	.679	**
New Mexico	.118	.037	3.15	.002	.044	.191	***
New York	-.105	.035	-2.99	.003	-.174	-.036	***
North Carolina	-.101	.021	-4.76	0	-.142	-.059	***
North Dakota	-.079	.097	-0.81	.417	-.269	.111	
Ohio	.024	.032	0.76	.446	-.038	.087	
Oklahoma	.074	.031	2.38	.017	.013	.134	**
Oregon	-.171	.03	-5.63	0	-.231	-.112	***
Pennsylvania	.085	.036	2.36	.018	.014	.156	**
Rhode Island	1.25	.511	2.44	.015	.248	2.253	**
South Carolina	.042	.025	1.69	.092	-.007	.092	*
South Dakota	-.074	.094	-0.78	.436	-.259	.112	
Tennessee	.001	.024	0.04	.97	-.046	.048	
Utah	-.047	.049	-0.96	.336	-.144	.049	
Vermont	-.109	.081	-1.35	.177	-.267	.049	
Virginia	-.028	.031	-0.90	.37	-.089	.033	
Washington	-.265	.027	-9.81	0	-.318	-.212	***
West Virginia	.117	.035	3.38	.001	.049	.185	***
Wisconsin	-.057	.047	-1.23	.218	-.148	.034	
Wyoming	.125	.065	1.92	.055	-.003	.253	*
Constant	125.241	15.183	8.25	0	95.483	155	***

Mean dependent var	0.339	SD dependent var	0.473
Pseudo r-squared	0.310	Number of obs	163870.000
Chi-square	65097.540	Prob > chi2	0.000
Akaike crit. (AIC)	145029.434	Bayesian crit. (BIC)	145890.021

*** $p < .01$, ** $p < .05$, * $p < .1$

Average Marginal Effects:

Probit Specification Predicting Denial for Manufactured Housing Mortgages (Nation)

Average marginal effects

Number of obs = 163,870

	Delta-method					
	dy/dx	Std.Err.	z	P>z	[95%Conf.	Interval]
year2019	-0.015	0.002	-8.170	0.000	-0.019	-0.012
logincome	-0.025	0.001	-21.110	0.000	-0.027	-0.022
male	-0.019	0.002	-9.490	0.000	-0.023	-0.015
coborrower	-0.016	0.002	-8.030	0.000	-0.020	-0.012
directapp	0.016	0.003	5.070	0.000	0.010	0.023
amt150kplus	-0.019	0.003	-6.790	0.000	-0.024	-0.013
age						
25-34	-0.003	0.003	-0.730	0.466	-0.009	0.004
35-44	0.004	0.004	1.190	0.233	-0.003	0.012
45-54	-0.008	0.004	-2.270	0.023	-0.016	-0.001
55-64	-0.026	0.004	-6.480	0.000	-0.033	-0.018
65+	-0.040	0.004	-9.060	0.000	-0.048	-0.031
race						
Black	0.092	0.005	19.920	0.000	0.083	0.101
Hispanic	0.034	0.003	9.860	0.000	0.027	0.041
Indigenous peoples	0.056	0.009	6.340	0.000	0.039	0.074
Other	0.017	0.003	5.100	0.000	0.010	0.023
dti						
20-29%	-0.108	0.005	-21.530	0.000	-0.117	-0.098
30-35%	-0.129	0.005	-25.690	0.000	-0.139	-0.119
36-45%	-0.121	0.005	-25.330	0.000	-0.130	-0.111
46-49%	-0.077	0.005	-14.060	0.000	-0.087	-0.066
50%+	0.170	0.005	31.960	0.000	0.159	0.180
cltv						
80-89%	0.010	0.004	2.290	0.022	0.001	0.018
90-96%	0.053	0.004	13.560	0.000	0.045	0.061
97-99%	0.066	0.006	11.850	0.000	0.055	0.077
100+%	0.133	0.005	24.410	0.000	0.122	0.143
Not Used	0.359	0.004	82.780	0.000	0.351	0.368
agency						
FHA	-0.156	0.003	-53.840	0.000	-0.162	-0.150
VA	-0.172	0.005	-37.640	0.000	-0.181	-0.163
RHS/FSA	0.043	0.011	3.720	0.000	0.020	0.065
metroclass						
Medium/Small	-0.001	0.003	-0.290	0.769	-0.006	0.005
Nonmetro	0.003	0.003	1.060	0.288	-0.003	0.010
pcthispanicpop	-0.000	0.000	-2.290	0.022	-0.001	-0.000
pctnonhisblack	0.000	0.000	2.150	0.031	0.000	0.000
pctnonhisasian	0.003	0.001	3.560	0.000	0.001	0.004
pctindigenous	-0.001	0.000	-3.010	0.003	-0.001	-0.000
pctenglishltd	0.001	0.001	2.300	0.021	0.000	0.003
pctmobilehomes	-0.001	0.000	-5.540	0.000	-0.001	-0.001
logmedhval	-0.017	0.005	-3.450	0.001	-0.027	-0.007

state						
Alabama	0.031	0.007	4.310	0.000	0.017	0.045
Alaska	0.178	0.059	3.040	0.002	0.063	0.293
Arizona	-0.039	0.006	-6.780	0.000	-0.051	-0.028
Arkansas	0.026	0.009	2.970	0.003	0.009	0.043
California	-0.027	0.007	-3.760	0.000	-0.041	-0.013
Colorado	-0.020	0.009	-2.350	0.019	-0.037	-0.003
Connecticut	0.253	0.097	2.590	0.009	0.062	0.444
Delaware	0.007	0.018	0.370	0.711	-0.028	0.041
Florida	0.013	0.005	2.680	0.007	0.003	0.022
Georgia	0.031	0.006	4.750	0.000	0.018	0.043
Idaho	-0.052	0.010	-5.300	0.000	-0.071	-0.033
Illinois	0.042	0.013	3.380	0.001	0.018	0.067
Indiana	-0.014	0.008	-1.700	0.090	-0.030	0.002
Iowa	0.045	0.018	2.470	0.014	0.009	0.081
Kansas	0.023	0.015	1.530	0.126	-0.006	0.053
Kentucky	0.031	0.007	4.480	0.000	0.017	0.045
Louisiana	-0.017	0.007	-2.450	0.014	-0.031	-0.003
Maine	0.001	0.013	0.050	0.958	-0.025	0.027
Maryland	0.039	0.024	1.620	0.106	-0.008	0.086
Massachusetts	0.275	0.076	3.600	0.000	0.125	0.425
Michigan	-0.014	0.008	-1.820	0.068	-0.029	0.001
Minnesota	0.022	0.013	1.690	0.091	-0.004	0.048
Mississippi	0.009	0.008	1.130	0.259	-0.007	0.026
Missouri	0.004	0.009	0.430	0.664	-0.013	0.021
Montana	0.018	0.014	1.280	0.201	-0.010	0.047
Nebraska	0.096	0.032	3.020	0.002	0.034	0.159
Nevada	-0.047	0.008	-5.690	0.000	-0.063	-0.031
New Hampshire	0.018	0.020	0.870	0.384	-0.022	0.057
New Jersey	0.103	0.043	2.400	0.016	0.019	0.187
New Mexico	0.031	0.010	3.100	0.002	0.011	0.050
New York	-0.026	0.009	-3.020	0.002	-0.043	-0.009
North Carolina	-0.025	0.005	-4.760	0.000	-0.036	-0.015
North Dakota	-0.020	0.024	-0.820	0.411	-0.067	0.027
Ohio	0.006	0.008	0.760	0.447	-0.010	0.022
Oklahoma	0.019	0.008	2.360	0.018	0.003	0.035
Oregon	-0.042	0.007	-5.710	0.000	-0.057	-0.028
Pennsylvania	0.022	0.009	2.340	0.020	0.004	0.041
Rhode Island	0.354	0.140	2.540	0.011	0.080	0.628
South Carolina	0.011	0.006	1.680	0.093	-0.002	0.024
South Dakota	-0.019	0.023	-0.790	0.430	-0.065	0.027
Tennessee	0.000	0.006	0.040	0.970	-0.012	0.012
Utah	-0.012	0.012	-0.970	0.333	-0.036	0.012
Vermont	-0.027	0.020	-1.370	0.169	-0.066	0.012
Virginia	-0.007	0.008	-0.900	0.369	-0.023	0.008
Washington	-0.064	0.006	-9.950	0.000	-0.077	-0.052
West Virginia	0.030	0.009	3.340	0.001	0.013	0.048
Wisconsin	-0.014	0.012	-1.240	0.214	-0.037	0.008
Wyoming	0.033	0.017	1.880	0.059	-0.001	0.066

Note: dy/dx for factor levels is the discrete change from the base level.

Probit Estimation Results Predicting Denial for Manufactured Housing Mortgages (Texas)

denial	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
year2019	-.045	.023	-1.98	.047	-.09	-.001	**
logincome	-.163	.017	-9.66	0	-.196	-.13	***
male	-.076	.025	-3.04	.002	-.124	-.027	***
coborrower	-.078	.024	-3.31	.001	-.124	-.032	***
directapp	.124	.052	2.41	.016	.023	.225	**
amt150kplus	.07	.029	2.46	.014	.014	.126	**
age : base <25	0	.	.	.	.	.
25-34	-.11	.044	-2.48	.013	-.196	-.023	**
35-44	-.157	.046	-3.44	.001	-.246	-.068	***
45-54	-.207	.048	-4.36	0	-.301	-.114	***
55-64	-.266	.052	-5.08	0	-.368	-.163	***
65+	-.28	.064	-4.40	0	-.404	-.155	***
race : base White	0	.	.	.	.	.
Black	.308	.06	5.16	0	.191	.425	***
Hispanic	.134	.028	4.73	0	.078	.189	***
Indigenous peoples	.256	.133	1.93	.053	-.004	.516	*
Other	-.04	.039	-1.02	.306	-.115	.036	
dti : base <20%	0	.	.	.	.	.
20-29%	-.68	.063	-10.85	0	-.803	-.557	***
30-35%	-.8	.063	-12.75	0	-.923	-.677	***
36-45%	-.746	.059	-12.67	0	-.862	-.631	***
46-49%	-.565	.065	-8.65	0	-.693	-.437	***
50%+	.108	.06	1.80	.072	-.01	.226	*
cltv : base <80%	0	.	.	.	.	.
80-89%	-.109	.094	-1.16	.244	-.293	.075	
90-96%	.089	.079	1.13	.258	-.066	.244	
97-99%	-.073	.099	-0.74	.46	-.267	.121	
100+%	.169	.101	1.68	.093	-.028	.367	*
Not Used	1.177	.074	15.94	0	1.032	1.321	***
agency : base	0	.	.	.	.	.
Conventional							
FHA	-.465	.043	-10.79	0	-.549	-.381	***
VA	-.514	.086	-5.97	0	-.683	-.345	***
RHS/FSA	.673	.154	4.36	0	.37	.975	***
metroclass : base	0	.	.	.	.	.
Large							
Medium/Small	-.043	.033	-1.30	.192	-.109	.022	
Nonmetro	-.098	.036	-2.69	.007	-.169	-.027	***
pcthispanic	-.004	.001	-3.06	.002	-.007	-.001	***
pctblack	.002	.002	0.98	.33	-.002	.007	
pctasian	-.014	.007	-2.09	.036	-.027	-.001	**
pctindigenous	-.071	.043	-1.63	.102	-.155	.014	
pctenglishltd	.014	.004	3.42	.001	.006	.022	***
pctmobilehomes	-.009	.002	-4.57	0	-.013	-.005	***
logmedhval	-.242	.057	-4.23	0	-.354	-.13	***
Constant	96.441	46.253	2.09	.037	5.788	187.095	**
Mean dependent var		0.476	SD dependent var			0.499	
Pseudo r-squared		0.297	Number of obs			16490.000	
Chi-square		6776.069	Prob > chi2			0.000	
Akaike crit. (AIC)		16120.709	Bayesian crit. (BIC)			16413.708	

*** $p < .01$, ** $p < .05$, * $p < .1$

Average Marginal Effects:

Probit Specification Predicting Denial for Manufactured Housing Mortgages (Texas)

Average marginal effects

Number of obs = 16,490

	Delta-method					
	dy/dx	Std.Err.	z	P>z	[95%Conf.	Interval]
year2019	-0.012	0.006	-1.980	0.047	-0.025	-0.000
logincome	-0.045	0.005	-9.730	0.000	-0.054	-0.036
male	-0.021	0.007	-3.040	0.002	-0.034	-0.007
coborrower	-0.021	0.006	-3.310	0.001	-0.034	-0.009
directapp	0.034	0.014	2.410	0.016	0.006	0.062
amt150kplus	0.019	0.008	2.460	0.014	0.004	0.035
age						
25-34	-0.030	0.012	-2.480	0.013	-0.054	-0.006
35-44	-0.043	0.012	-3.450	0.001	-0.067	-0.019
45-54	-0.057	0.013	-4.370	0.000	-0.082	-0.031
55-64	-0.073	0.014	-5.100	0.000	-0.101	-0.045
65+	-0.077	0.017	-4.410	0.000	-0.111	-0.043
race						
Black	0.085	0.016	5.180	0.000	0.053	0.117
Hispanic	0.037	0.008	4.720	0.000	0.022	0.052
Indigenous peoples	0.071	0.036	1.940	0.052	-0.001	0.142
Other	-0.011	0.011	-1.030	0.305	-0.032	0.010
dti						
20-29%	-0.204	0.018	-11.170	0.000	-0.240	-0.168
30-35%	-0.240	0.018	-13.180	0.000	-0.276	-0.205
36-45%	-0.224	0.017	-13.120	0.000	-0.258	-0.191
46-49%	-0.169	0.019	-8.840	0.000	-0.207	-0.132
50%+	0.031	0.017	1.780	0.075	-0.003	0.065
cltv						
80-89%	-0.028	0.024	-1.160	0.247	-0.076	0.020
90-96%	0.025	0.021	1.150	0.250	-0.017	0.066
97-99%	-0.019	0.026	-0.740	0.461	-0.070	0.032
100+%	0.048	0.028	1.680	0.092	-0.008	0.103
Not used	0.384	0.021	18.730	0.000	0.344	0.424
agency						
FHA	-0.137	0.013	-10.350	0.000	-0.163	-0.111
VA	-0.151	0.025	-6.050	0.000	-0.200	-0.102
RHS/FSA	0.192	0.040	4.780	0.000	0.113	0.271
metroclass						
Medium/Small	-0.012	0.009	-1.310	0.191	-0.030	0.006
Nonmetro	-0.027	0.010	-2.700	0.007	-0.046	-0.007
pcthispanicpop						
pctnonhispanicblack	0.001	0.001	0.980	0.329	-0.001	0.002
pctnonhispanicasian	-0.004	0.002	-2.100	0.036	-0.007	-0.000
pctindigenous	-0.019	0.012	-1.630	0.102	-0.043	0.004
pctenglishltd	0.004	0.001	3.420	0.001	0.002	0.006
pctmobilehomes	-0.002	0.001	-4.580	0.000	-0.004	-0.001
logmedhval	-0.066	0.016	-4.240	0.000	-0.097	-0.036

Note: dy/dx for factor levels is the discrete change from the base level.

Probit Estimation Results Predicting Denial for Manufactured Housing Personal Property Loans (Nation)

denial	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
year2019	-.044	.006	-7.34	0	-.056	-.032	***
logincome	-.379	.007	-55.96	0	-.392	-.365	***
male	-.093	.006	-15.00	0	-.106	-.081	***
coborrower	.014	.006	2.13	.033	.001	.026	**
directapp	.497	.011	46.68	0	.476	.518	***
amt150kplus	.308	.019	16.40	0	.271	.344	***
age : base <25	0	.	.	.	.	.
25-34	.014	.011	1.25	.212	-.008	.035	
35-44	-.013	.011	-1.17	.243	-.036	.009	
45-54	-.116	.012	-9.83	0	-.139	-.093	***
55-64	-.287	.012	-23.52	0	-.311	-.263	***
65+	-.428	.013	-32.23	0	-.454	-.402	***
race : base White	0	.	.	.	.	.
Black	.326	.012	28.05	0	.303	.349	***
Hispanic	.092	.01	9.54	0	.073	.111	***
Indigenous peoples	.117	.026	4.49	0	.066	.168	***
Other	.038	.009	4.34	0	.021	.056	***
dti : base <20%	0	.	.	.	.	.
20-29%	-.586	.011	-51.61	0	-.608	-.564	***
30-35%	-.737	.012	-61.44	0	-.76	-.713	***
36-45%	-.762	.011	-68.51	0	-.784	-.74	***
46-49%	-.527	.014	-37.75	0	-.554	-.5	***
50%+	.446	.012	36.08	0	.422	.47	***
cltv : base <80%	0	.	.	.	.	.
80-89%	.44	.02	21.71	0	.4	.48	***
90-96%	.576	.019	29.98	0	.538	.614	***
97-99%	.544	.026	20.65	0	.492	.596	***
100+%	.612	.025	24.66	0	.563	.66	***
Not used	.825	.016	52.86	0	.794	.855	***
agency : base	0	.	.	.	.	.
Conventional							
FHA	-1.443	.049	-29.46	0	-1.539	-1.347	***
VA	-1.101	.104	-10.57	0	-1.305	-.896	***
RHS/FSA	-.057	.306	-0.19	.852	-.656	.542	
metroclass : base	0	.	.	.	.	.
Large							
Medium/Small	.033	.009	3.86	0	.016	.05	***
Nonmetro	.008	.011	0.76	.444	-.013	.03	
pcthispanic	.001	0	1.35	.176	0	.002	
pctblack	.001	0	3.85	0	.001	.002	***
pctasian	-.002	.001	-1.59	.112	-.005	.001	
pctindigenous	.001	.001	1.73	.083	0	.003	*
pctenglishltd	.003	.001	1.92	.055	0	.006	*
pctmobilehomes	-.006	.001	-11.60	0	-.007	-.005	***
logmedhval	-.034	.015	-2.23	.026	-.063	-.004	**
state : base Texas	0	.	.	.	.	.
Alabama	-.035	.017	-2.00	.045	-.069	-.001	**
Alaska	-.765	.481	-1.59	.112	-1.708	.178	
Arizona	.097	.029	3.34	.001	.04	.154	***
Arkansas	.191	.021	9.19	0	.151	.232	***
California	.253	.021	12.30	0	.213	.293	***
Colorado	.397	.026	15.44	0	.347	.448	***
Connecticut	-.279	.108	-2.59	.01	-.49	-.068	***
Delaware	.223	.057	3.93	0	.112	.335	***

Florida	.22	.016	14.15	0	.19	.251	***
Georgia	.23	.02	11.34	0	.19	.27	***
Idaho	.384	.056	6.82	0	.274	.495	***
Illinois	.269	.034	7.93	0	.202	.335	***
Indiana	.215	.032	6.66	0	.152	.279	***
Iowa	.195	.044	4.46	0	.109	.28	***
Kansas	.145	.048	3.00	.003	.05	.239	***
Kentucky	.243	.021	11.64	0	.202	.284	***
Louisiana	.057	.018	3.19	.001	.022	.092	***
Maine	-.512	.078	-6.57	0	-.665	-.36	***
Maryland	.218	.045	4.85	0	.13	.305	***
Massachusetts	-.886	.126	-7.02	0	-1.134	-.639	***
Michigan	.247	.018	13.48	0	.211	.283	***
Minnesota	.327	.032	10.31	0	.265	.389	***
Mississippi	-.156	.019	-8.01	0	-.194	-.118	***
Missouri	.264	.03	8.83	0	.206	.323	***
Montana	.011	.059	0.19	.85	-.104	.126	
Nebraska	-.09	.073	-1.24	.216	-.232	.052	
Nevada	.266	.049	5.39	0	.169	.363	***
New Hampshire	-.056	.051	-1.09	.276	-.157	.045	
New Jersey	.006	.07	0.09	.931	-.131	.143	
New Mexico	.015	.028	0.54	.591	-.04	.069	
New York	.289	.028	10.50	0	.235	.343	***
North Carolina	-.057	.02	-2.84	.005	-.097	-.018	***
North Dakota	.051	.086	0.58	.559	-.119	.22	
Ohio	.275	.026	10.50	0	.224	.327	***
Oklahoma	.033	.023	1.41	.159	-.013	.078	
Oregon	.44	.027	16.35	0	.387	.492	***
Pennsylvania	.353	.024	14.45	0	.305	.401	***
Rhode Island	-.55	.157	-3.50	0	-.858	-.243	***
South Carolina	.036	.019	1.86	.063	-.002	.073	*
South Dakota	.233	.061	3.85	0	.114	.352	***
Tennessee	.042	.023	1.84	.066	-.003	.087	*
Utah	.546	.044	12.49	0	.46	.632	***
Vermont	-.123	.111	-1.11	.267	-.339	.094	
Virginia	.097	.031	3.18	.001	.037	.157	***
Washington	.238	.033	7.32	0	.174	.302	***
West Virginia	.137	.028	4.84	0	.082	.193	***
Wisconsin	-.013	.042	-0.31	.754	-.095	.069	
Wyoming	.415	.077	5.38	0	.264	.566	***
Constant	92.707	12.081	7.67	0	69.029	116.384	***

Mean dependent var	0.617	SD dependent var	0.486
Pseudo r-squared	0.200	Number of obs	222445.000
Chi-square	59275.586	Prob > chi2	0.000
Akaike crit. (AIC)	236967.800	Bayesian crit. (BIC)	237854.670

*** $p < .01$, ** $p < .05$, * $p < .1$

Average Marginal Effects:

Probit Specification Predicting Denial for Manufactured Housing Personal Property Loans (Nation)

Average marginal effects

Number of obs = 222,445

	Delta-method					
	dy/dx	Std.Err.	z	P>z	[95%Conf.	Interval]
year2019	-0.013	0.002	-7.350	0.000	-0.017	-0.010
logincome	-0.114	0.002	-57.130	0.000	-0.118	-0.110
male	-0.028	0.002	-15.030	0.000	-0.032	-0.024
coborrower	0.004	0.002	2.130	0.033	0.000	0.008
directapp	0.150	0.003	47.350	0.000	0.144	0.156
amt150kplus	0.093	0.006	16.420	0.000	0.082	0.104
age						
25-34	0.004	0.003	1.250	0.213	-0.002	0.010
35-44	-0.004	0.003	-1.170	0.243	-0.011	0.003
45-54	-0.035	0.004	-9.870	0.000	-0.042	-0.028
55-64	-0.088	0.004	-23.680	0.000	-0.096	-0.081
65+	-0.133	0.004	-32.430	0.000	-0.141	-0.125
race						
Black	0.096	0.003	29.010	0.000	0.090	0.103
Hispanic	0.028	0.003	9.570	0.000	0.022	0.034
Indigenous peoples	0.036	0.008	4.540	0.000	0.020	0.051
Other	0.012	0.003	4.340	0.000	0.006	0.017
dti						
20-29%	-0.192	0.004	-54.490	0.000	-0.199	-0.185
30-35%	-0.246	0.004	-65.200	0.000	-0.253	-0.239
36-45%	-0.255	0.003	-75.190	0.000	-0.262	-0.249
46-49%	-0.171	0.004	-38.170	0.000	-0.180	-0.162
50%+	0.110	0.003	34.270	0.000	0.104	0.117
cltv						
80-89%	0.139	0.006	21.940	0.000	0.126	0.151
90-96%	0.183	0.006	30.630	0.000	0.171	0.194
97-99%	0.172	0.008	20.740	0.000	0.156	0.189
100+%	0.194	0.008	24.940	0.000	0.179	0.209
Not used	0.261	0.005	54.440	0.000	0.251	0.270
agency						
FHA	-0.412	0.011	-38.630	0.000	-0.433	-0.392
VA	-0.330	0.027	-12.070	0.000	-0.384	-0.277
RHS/FSA	-0.017	0.093	-0.190	0.852	-0.201	0.166
metroclass						
Medium/Small	0.010	0.003	3.860	0.000	0.005	0.015
Nonmetro	0.003	0.003	0.760	0.444	-0.004	0.009
pcthispanicpop						
pctnonhisblack	0.000	0.000	3.850	0.000	0.000	0.001
pctnonhisasian	-0.001	0.000	-1.590	0.112	-0.002	0.000
pctindigenous	0.000	0.000	1.730	0.083	-0.000	0.001
pctenglishltd	0.001	0.000	1.920	0.055	-0.000	0.002
pctmobilehomes	-0.002	0.000	-11.610	0.000	-0.002	-0.001
logmedhval	-0.010	0.005	-2.230	0.026	-0.019	-0.001

state						
Alabama	-0.011	0.005	-2.000	0.045	-0.021	-0.000
Alaska	-0.234	0.138	-1.700	0.089	-0.503	0.036
Arizona	0.030	0.009	3.360	0.001	0.012	0.047
Arkansas	0.058	0.006	9.310	0.000	0.046	0.070
California	0.076	0.006	12.690	0.000	0.064	0.087
Colorado	0.117	0.007	16.280	0.000	0.103	0.131
Connecticut	-0.087	0.034	-2.580	0.010	-0.153	-0.021
Delaware	0.067	0.017	4.030	0.000	0.035	0.100
Florida	0.066	0.005	14.330	0.000	0.057	0.075
Georgia	0.069	0.006	11.520	0.000	0.057	0.081
Idaho	0.113	0.016	7.220	0.000	0.082	0.144
Illinois	0.080	0.010	8.170	0.000	0.061	0.100
Indiana	0.065	0.010	6.810	0.000	0.046	0.084
Iowa	0.059	0.013	4.550	0.000	0.033	0.084
Kansas	0.044	0.014	3.040	0.002	0.016	0.072
Kentucky	0.073	0.006	11.870	0.000	0.061	0.085
Louisiana	0.017	0.005	3.200	0.001	0.007	0.028
Maine	-0.159	0.024	-6.690	0.000	-0.205	-0.112
Maryland	0.065	0.013	4.970	0.000	0.040	0.091
Massachusetts	-0.268	0.035	-7.740	0.000	-0.335	-0.200
Michigan	0.074	0.005	13.720	0.000	0.064	0.085
Minnesota	0.097	0.009	10.740	0.000	0.079	0.115
Mississippi	-0.048	0.006	-7.990	0.000	-0.060	-0.036
Missouri	0.079	0.009	9.080	0.000	0.062	0.096
Montana	0.003	0.018	0.190	0.850	-0.032	0.039
Nebraska	-0.028	0.023	-1.230	0.218	-0.072	0.016
Nevada	0.080	0.014	5.570	0.000	0.052	0.108
New Hampshire	-0.017	0.016	-1.080	0.278	-0.048	0.014
New Jersey	0.002	0.022	0.090	0.931	-0.040	0.044
New Mexico	0.005	0.009	0.540	0.591	-0.012	0.021
New York	0.086	0.008	10.840	0.000	0.071	0.102
North Carolina	-0.018	0.006	-2.830	0.005	-0.030	-0.005
North Dakota	0.015	0.026	0.590	0.557	-0.036	0.067
Ohio	0.082	0.008	10.790	0.000	0.067	0.097
Oklahoma	0.010	0.007	1.410	0.159	-0.004	0.024
Oregon	0.128	0.007	17.400	0.000	0.114	0.143
Pennsylvania	0.104	0.007	15.050	0.000	0.091	0.118
Rhode Island	-0.170	0.048	-3.590	0.000	-0.264	-0.077
South Carolina	0.011	0.006	1.860	0.063	-0.001	0.022
South Dakota	0.070	0.018	3.960	0.000	0.035	0.105
Tennessee	0.013	0.007	1.840	0.065	-0.001	0.027
Utah	0.156	0.011	13.760	0.000	0.134	0.179
Vermont	-0.038	0.034	-1.100	0.270	-0.105	0.029
Virginia	0.030	0.009	3.200	0.001	0.011	0.048
Washington	0.072	0.010	7.520	0.000	0.053	0.090
West Virginia	0.042	0.009	4.890	0.000	0.025	0.058
Wisconsin	-0.004	0.013	-0.310	0.754	-0.029	0.021
Wyoming	0.122	0.021	5.740	0.000	0.080	0.163

Note: dy/dx for factor levels is the discrete change from the base level.

Probit Estimation Results Predicting Denial for Manufactured Housing Personal Property Loans (Texas)

denial	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
year2019	-.024	.013	-1.86	.063	-.049	.001	*
logincome	-.392	.015	-26.68	0	-.421	-.364	***
male	-.113	.014	-8.14	0	-.141	-.086	***
coborrower	-.003	.014	-0.25	.802	-.031	.024	
directapp	.616	.033	18.75	0	.551	.68	***
amt150kplus	.465	.046	10.13	0	.375	.554	***
age : base <25	0	.	.	.	.	.
25-34	-.016	.022	-0.72	.47	-.06	.028	
35-44	-.052	.023	-2.23	.026	-.098	-.006	**
45-54	-.089	.025	-3.58	0	-.138	-.04	***
55-64	-.246	.027	-9.09	0	-.299	-.193	***
65+	-.348	.032	-10.97	0	-.41	-.286	***
race : base White	0	.	.	.	.	.
Black	.372	.033	11.41	0	.308	.436	***
Hispanic	.073	.017	4.37	0	.04	.106	***
Indigenous peoples	.043	.092	0.47	.641	-.138	.224	
Other	.033	.021	1.57	.116	-.008	.073	
dti : base <20%	0	.	.	.	.	.
20-29%	-.665	.025	-26.47	0	-.714	-.616	***
30-35%	-.823	.026	-31.07	0	-.875	-.771	***
36-45%	-.883	.025	-36.03	0	-.931	-.835	***
46-49%	-.766	.03	-25.59	0	-.825	-.708	***
50%+	.228	.027	8.54	0	.175	.28	***
cltv : base <80%	0	.	.	.	.	.
80-89%	.152	.08	1.91	.056	-.004	.309	*
90-96%	.705	.068	10.43	0	.573	.838	***
97-99%	.526	.069	7.63	0	.391	.661	***
100+%	.031	.074	0.42	.676	-.114	.175	
Not used	.603	.06	10.03	0	.485	.72	***
agency : base	0	.	.	.	.	.
Conventional							
FHA	-1.55	.127	-12.19	0	-1.8	-1.301	***
VA	-.114	.305	-0.37	.708	-.712	.483	
4o	0	.	.	.	.	.
metroclass : base	0	.	.	.	.	.
Large							
Medium/Small	.044	.018	2.42	.015	.008	.08	**
Nonmetro	-.013	.022	-0.59	.557	-.055	.03	
pcthispanic	.001	.001	0.73	.465	-.001	.002	
pctblack	-.002	.001	-1.31	.189	-.004	.001	
pctasian	-.005	.004	-1.39	.165	-.012	.002	
pctindigenous	.041	.027	1.56	.119	-.011	.094	
pctenglishltd	0	.002	-0.24	.812	-.004	.003	
pctmobilehomes	-.009	.001	-8.21	0	-.011	-.007	***
logmedhval	-.069	.032	-2.13	.033	-.133	-.006	**
Constant	53.4	26.112	2.04	.041	2.22	104.579	**
Mean dependent var		0.621	SD dependent var			0.485	
Pseudo r-squared		0.152	Number of obs			45619.000	
Chi-square		9215.176	Prob > chi2			0.000	
Akaike crit. (AIC)		51419.987	Bayesian crit. (BIC)			51742.925	

*** $p < .01$, ** $p < .05$, * $p < .1$

Average Marginal Effects:

Probit Specification Predicting Denial for Manufactured Housing Personal Property Loans (Texas)

Average marginal effects

Number of obs = 45,619

	Delta-method					
	dy/dx	Std.Err.	z	P>z	[95%Conf.	Interval]
year2019	-0.008	0.004	-1.860	0.063	-0.016	0.000
logincome	-0.125	0.005	-27.320	0.000	-0.134	-0.116
male	-0.036	0.004	-8.160	0.000	-0.045	-0.027
coborrower	-0.001	0.004	-0.250	0.802	-0.010	0.008
directapp	0.196	0.010	18.970	0.000	0.176	0.217
amt150kplus	0.148	0.015	10.160	0.000	0.120	0.177
age						
25-34	-0.005	0.007	-0.720	0.470	-0.019	0.009
35-44	-0.016	0.007	-2.240	0.025	-0.031	-0.002
45-54	-0.028	0.008	-3.590	0.000	-0.044	-0.013
55-64	-0.079	0.009	-9.120	0.000	-0.096	-0.062
65+	-0.113	0.010	-10.960	0.000	-0.133	-0.093
race						
Black	0.115	0.010	12.020	0.000	0.096	0.133
Hispanic	0.024	0.005	4.360	0.000	0.013	0.034
Indigenous peoples	0.014	0.030	0.470	0.640	-0.044	0.072
Other	0.011	0.007	1.570	0.116	-0.003	0.024
dti						
20-29%	-0.219	0.008	-28.420	0.000	-0.235	-0.204
30-35%	-0.278	0.008	-33.520	0.000	-0.294	-0.262
36-45%	-0.301	0.007	-40.970	0.000	-0.315	-0.286
46-49%	-0.257	0.010	-26.460	0.000	-0.276	-0.238
50%+	0.057	0.007	8.270	0.000	0.044	0.071
cltv						
80-89%	0.050	0.026	1.920	0.055	-0.001	0.102
90-96%	0.232	0.022	10.600	0.000	0.189	0.275
97-99%	0.175	0.023	7.760	0.000	0.130	0.219
100+%	0.010	0.024	0.420	0.675	-0.037	0.057
Not used	0.199	0.020	10.140	0.000	0.161	0.238
agency						
FHA	-0.454	0.026	-17.710	0.000	-0.505	-0.404
VA	-0.037	0.100	-0.370	0.711	-0.232	0.158
RHS/FSA			(not		estimable)	
metroclass						
Medium/Small	0.014	0.006	2.430	0.015	0.003	0.026
Nonmetro	-0.004	0.007	-0.590	0.557	-0.018	0.010
pcthispanicpop	0.000	0.000	0.730	0.465	-0.000	0.001
pctnonhisblack	-0.001	0.000	-1.310	0.189	-0.001	0.000
pctnonhisasian	-0.002	0.001	-1.390	0.165	-0.004	0.001
pctindigenous	0.013	0.008	1.560	0.119	-0.003	0.030
pctenglishltd	-0.000	0.001	-0.240	0.812	-0.001	0.001
pctmobilehomes	-0.003	0.000	-8.230	0.000	-0.004	-0.002
logmedhval	-0.022	0.010	-2.130	0.033	-0.042	-0.002

Note: dy/dx for factor levels is the discrete change from the base level.

Appendix E: MHOS Descriptive Tables

Loans Overview	N	Sum of weights	Weighted percent	Owns Land		Loan Type		Applied to Multiple Lenders	
				No	Yes	Personal property	Mortgage	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Loan type									
Personal property	993	20,510	75.91	100.00	60.68	100.00	0.00	76.98	73.75
Mortgage	363	6,507	24.09	0.00	39.32	0.00	100.00	23.02	26.25
Applied to multiple lenders									
No	894	18,078	66.91	69.09	65.54	67.86	63.95	100.00	0.00
Yes	462	8,939	33.09	30.91	34.46	32.14	36.05	0.00	100.00
Origination year									
2015	307	6,990	25.87	27.52	24.83	25.49	27.07	29.25	19.04
2016	470	9,353	34.62	34.90	34.44	34.14	36.13	33.51	36.87
2017	483	8,999	33.31	33.12	33.43	33.89	31.49	31.36	37.24
2018	96	1,675	6.20	4.46	7.31	6.48	5.31	5.88	6.84
Metro classification									
Large metro	618	13,001	48.12	62.52	39.01	49.49	43.79	48.76	46.84
Medium/Small metro	334	7,039	26.05	21.85	28.71	25.82	26.79	26.18	25.80
Nonmetro	404	6,978	25.83	15.63	32.28	24.69	29.41	25.07	27.37

Household Income and Pre-Purchase Credit Profile by Loan Type and Whether Applied to Multiple Lenders	N	Sum of weights	Weighted percent	Loan Type		Applied to Multiple Lenders		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
								Applied to multiple lenders		Applied to multiple lenders	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Household income											
No answer	37	727	2.69	2.33	3.84	2.11	3.87	1.82	3.39	3.06	5.21
Less than \$20,000	71	1,516	5.61	6.44	3.01	5.83	5.17	6.66	5.96	3.03	2.97
\$20,000 to \$34,999	235	5,135	19.01	19.96	16.02	20.11	16.78	21.34	17.04	16.00	16.05
\$35,000 to \$49,999	314	6,452	23.88	24.51	21.89	24.57	22.48	24.64	24.24	24.35	17.53
\$50,000 to \$64,999	270	5,606	20.75	21.98	16.88	20.10	22.07	21.14	23.75	16.61	17.34
\$65,000 or more	429	7,581	28.06	24.79	38.37	27.28	29.63	24.40	25.62	36.94	40.90
Credit score											
Missing	67	1,982	7.34	7.62	6.45	8.00	5.99	9.03	4.64	4.56	9.80
300-524	154	3,318	12.28	12.23	12.43	13.33	10.16	13.27	10.05	13.52	10.49
525-579	214	4,814	17.82	18.46	15.78	17.47	18.52	18.67	18.03	13.46	19.91
580-619	185	3,593	13.30	11.99	17.41	13.88	12.11	12.18	11.59	19.57	13.57
620-659	176	3,592	13.29	13.30	13.27	12.24	15.43	12.37	15.28	11.81	15.85
660-699	173	3,420	12.66	12.79	12.25	12.08	13.83	12.16	14.11	11.82	13.02
700 or higher	387	6,300	23.32	23.60	22.42	23.00	23.95	22.33	26.30	25.26	17.37
Debt-to-income ratio status											
DTI ratio present in credit file	1,258	24,373	90.21	88.90	94.36	89.35	91.96	87.24	92.41	96.41	90.73
DTI ratio not present in credit file	98	2,644	9.79	11.10	5.64	10.65	8.04	12.76	7.59	3.59	9.27

Household Income Sources by Loan Type and Whether Applied to Multiple Lenders	N	Sum of weights	Weighted percent	Loan Type		Applied to Multiple Lenders		Loan Type			
				Loan Type		Applied to Multiple Lenders		Personal property		Mortgage	
				Personal property	Mortgage	No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Wages or salary											
No answer	130	2,435	9.01	9.81	6.49	9.76	7.50	10.60	8.16	6.95	5.66
Yes	1,048	21,278	78.76	78.07	80.93	77.78	80.72	76.84	80.66	80.94	80.89
No	178	3,304	12.23	12.12	12.59	12.46	11.77	12.57	11.18	12.10	13.45
Business or self-employment income											
No answer	293	5,642	20.88	22.44	15.98	21.93	18.76	23.37	20.47	17.14	13.93
Yes	180	3,628	13.43	12.98	14.85	13.85	12.57	13.03	12.88	16.61	11.73
No	883	17,747	65.69	64.58	69.17	64.22	68.67	63.61	66.65	66.25	74.34
Interest or dividends											
No answer	307	5,985	22.15	23.61	17.58	23.12	20.20	24.45	21.82	18.67	15.64
Yes	97	1,440	5.33	5.41	5.08	5.34	5.32	5.28	5.68	5.52	4.30
No	952	19,592	72.52	70.98	77.34	71.54	74.48	70.27	72.49	75.81	80.06
Alimony or child support											
No answer	310	5,918	21.90	23.55	16.70	23.13	19.42	24.71	21.11	17.85	14.66
Yes	92	2,250	8.33	8.52	7.71	8.31	8.36	7.90	9.84	9.69	4.21
No	954	18,850	69.77	67.92	75.58	68.55	72.23	67.39	69.06	72.46	81.13
Social Security, pension, or other retirement benefits											
No answer	168	3,625	13.42	13.46	13.29	13.91	12.43	13.80	12.75	14.28	11.52
Yes	431	7,103	26.29	28.06	20.70	27.97	22.89	29.44	25.17	23.06	16.49
No	757	16,290	60.29	58.48	66.02	58.12	64.68	56.77	62.09	62.66	71.98

Borrower Demographic Characteristics by Loan Type and Whether Applied to Multiple Lenders	N	Sum of weights	Weighted percent	Loan Type		Applied to Multiple Lenders		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
								Applied to multiple lenders		Applied to multiple lenders	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes
								Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Age											
No answer	55	1,191	4.41	4.51	4.10	4.06	5.11	4.21	5.13	3.56	5.05
20-34	280	7,866	29.12	29.09	29.19	28.20	30.97	28.25	30.87	28.02	31.26
35-44	272	5,435	20.12	18.96	23.76	19.40	21.58	17.87	21.26	24.49	22.47
45-54	242	4,307	15.94	14.65	20.00	16.55	14.71	15.24	13.43	20.96	18.31
55-64	269	4,435	16.42	17.47	13.10	16.82	15.60	17.79	16.78	13.55	12.31
65+	238	3,782	14.00	15.32	9.85	14.97	12.03	16.63	12.54	9.42	10.60
Educational attainment											
No answer	42	916	3.39	3.55	2.88	3.49	3.19	3.98	2.66	1.85	4.69
Some schooling	74	1,894	7.01	7.11	6.69	7.70	5.62	7.81	5.63	7.31	5.59
High school graduate	371	7,777	28.78	29.19	27.51	29.95	26.43	29.82	27.87	30.38	22.40
Technical school	121	2,497	9.24	9.57	8.20	9.33	9.05	9.37	9.99	9.20	6.41
Some college	413	7,499	27.76	28.16	26.49	26.69	29.92	27.24	30.12	24.87	29.36
College graduate	269	5,295	19.60	18.65	22.60	18.37	22.10	18.12	19.76	19.17	28.67
Postgraduate studies	66	1,139	4.22	3.76	5.65	4.48	3.69	3.66	3.98	7.21	2.87
Marital status											
No answer	44	885	3.28	3.24	3.39	3.49	2.85	3.48	2.73	3.51	3.18
Married	875	17,172	63.56	62.05	68.32	64.19	62.29	62.91	60.23	68.46	68.08
Separated	37	844	3.12	3.47	2.03	3.07	3.23	3.21	4.03	2.63	0.98
Never married	121	3,137	11.61	12.62	8.43	10.36	14.15	11.89	14.17	5.23	14.10
Divorced	209	3,758	13.91	13.78	14.32	13.69	14.36	13.39	14.60	14.68	13.67
Widowed	70	1,221	4.52	4.84	3.52	5.21	3.12	5.12	4.24	5.50	.

Borrower Race/Ethnicity and Language Preferences by Loan Type and Whether Applied to Multiple Lenders	N	Sum of weights	Weighted percent	Loan Type		Applied to Multiple Lenders		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
								Applied to multiple lenders		Applied to multiple lenders	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes	Weighted percent	Weighted percent
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Race/ethnicity											
No answer	48	1,094	4.05	4.41	2.91	4.43	3.27	4.93	3.31	2.75	3.18
White	977	16,439	60.85	58.11	69.47	60.68	61.19	57.45	59.50	71.48	65.92
Black	57	1,173	4.34	5.18	1.71	4.15	4.72	5.00	5.55	1.32	2.40
Hispanic	256	8,004	29.62	31.18	24.72	29.90	29.06	31.80	29.88	23.57	26.74
Other	18	308	1.14	1.12	1.19	0.83	1.76	0.82	1.76	0.88	1.75
Speaks language other than English											
No answer	42	811	3.00	3.24	2.25	3.12	2.76	3.54	2.61	1.72	3.18
Yes	244	7,266	26.89	28.33	22.38	26.96	26.77	28.51	27.94	21.77	23.47
No	1,070	18,940	70.10	68.43	75.37	69.92	70.47	67.95	69.45	76.51	73.34
Important that lender spoke primary language other than English											
Skip logic	1,070	18,940	70.10	68.43	75.37	69.92	70.47	67.95	69.45	76.51	73.34
No answer	51	1,109	4.10	4.24	3.68	4.34	3.62	4.46	3.78	3.95	3.18
Important	152	4,553	16.85	18.17	12.68	17.85	14.83	19.04	16.34	13.85	10.61
Not important	83	2,416	8.94	9.16	8.27	7.89	11.07	8.55	10.43	5.68	12.86
Important that lender could provide documents in primary language other than English											
Skip logic	1,070	18,940	70.10	68.43	75.37	69.92	70.47	67.95	69.45	76.51	73.34
No answer	58	1,287	4.76	4.78	4.72	5.16	3.96	5.15	3.98	5.20	3.88
Important	140	4,220	15.62	16.99	11.31	15.76	15.33	17.06	16.84	11.44	11.08
Not important	88	2,571	9.51	9.80	8.60	9.16	10.24	9.84	9.72	6.86	11.70

Borrower Ownership and Property Characteristics by Loan Type and Whether Applied to Multiple Lenders	N	Sum of weights	Weighted percent	Loan Type		Applied to Multiple Lenders		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Applied to multiple lenders		Applied to multiple lenders	
								No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
First-time homeowner											
No	806	13,448	49.78	48.73	53.06	49.69	49.94	48.14	49.98	54.88	49.83
Yes	550	13,569	50.22	51.27	46.94	50.31	50.06	51.86	50.02	45.12	50.17
Title type											
Joint	767	14,254	52.76	48.88	64.99	52.26	53.78	48.36	49.99	65.30	64.43
Single	589	12,763	47.24	51.12	35.01	47.74	46.22	51.64	50.01	34.70	35.57
Unit age											
New	960	17,862	66.12	73.55	42.70	61.33	75.80	67.79	85.70	39.72	47.98
Used	396	9,155	33.88	26.45	57.30	38.67	24.20	32.21	14.30	60.28	52.02
Sections in unit											
1	549	11,695	43.29	49.13	24.88	45.49	38.82	50.38	46.49	29.15	17.29
2	801	15,237	56.40	50.52	74.92	54.23	60.78	49.26	53.19	70.85	82.14
3	6	86	0.32	0.35	0.21	0.28	0.39	0.36	0.33	0.00	0.58
Owns land											
No	447	10,469	38.75	51.05	0.00	40.01	36.20	51.97	49.09	0.00	0.00
Yes	909	16,548	61.25	48.95	100.00	59.99	63.80	48.03	50.91	100.00	100.00
Metro classification											
Large metro	618	13,001	48.12	49.49	43.79	48.76	46.84	51.50	45.26	39.58	51.26
Medium/Small metro	334	7,039	26.05	25.82	26.79	26.18	25.80	25.54	26.40	28.30	24.12
Nonmetro	404	6,978	25.83	24.69	29.41	25.07	27.37	22.96	28.34	32.11	24.63

Borrower Knowledge and Application Channel by Loan Type and Whether Applied to Multiple Lenders	N	Sum of weights	Weighted percent	Loan Type		Applied to Multiple Lenders		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
								Applied to multiple lenders		Applied to multiple lenders	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes	No	Yes
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Low prior loan process knowledge											
No	1,138	22,086	81.75	81.74	81.79	80.07	85.14	78.61	88.33	84.96	76.16
Yes	218	4,931	18.25	18.26	18.21	19.93	14.86	21.39	11.67	15.04	23.84
Applied through seller or retailer (volunteered response)											
No	1,084	22,157	82.01	79.73	89.18	82.16	81.71	80.76	77.58	86.86	93.31
Yes	272	4,860	17.99	20.27	10.82	17.84	18.29	19.24	22.42	13.14	6.69
Concerned about qualifying for a loan											
No	483	8,469	31.35	32.59	27.44	33.15	27.70	33.54	30.57	31.83	19.66
Yes	873	18,548	68.65	67.41	72.56	66.85	72.30	66.46	69.43	68.17	80.34

Borrower Knowledge and Application Channel by Land Ownership and Loan Type	N	Sum of weights	Weighted percent	Owns Land		Loan Type		Owns Land			
				Owns Land		Loan Type		No		Yes	
				No	Yes	Personal property	Mortgage	Loan type		Loan type	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Personal property	Mortgage	Personal property	Mortgage	Weighted percent	Weighted percent
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	0.00	100.00	100.00
Low prior loan process knowledge											
No	1,138	22,086	81.75	75.69	85.58	81.74	81.79	75.69	0.00	88.04	81.79
Yes	218	4,931	18.25	24.31	14.42	18.26	18.21	24.31	0.00	11.96	18.21
Applied through seller or retailer (volunteered response)											
No	1,084	22,157	82.01	83.84	80.85	79.73	89.18	83.84	0.00	75.45	89.18
Yes	272	4,860	17.99	16.16	19.15	20.27	10.82	16.16	0.00	24.55	10.82
Concerned about qualifying for a loan											
No	483	8,469	31.35	25.96	34.75	32.59	27.44	25.96	0.00	39.49	27.44
Yes	873	18,548	68.65	74.04	65.25	67.41	72.56	74.04	0.00	60.51	72.56

Applied to Multiple Lenders: Loans Overview	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application	
				Personal property	Mortgage	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	462	8,939	100.00	100.00	100.00	100.00	100.00
Loan type							
Personal property	335	6,593	73.75	100.00	0.00	72.85	75.72
Mortgage	127	2,346	26.25	0.00	100.00	27.15	24.28
Turned down on earlier application							
No	327	6,132	68.60	67.76	70.94	100.00	0.00
Yes	135	2,807	31.40	32.24	29.06	0.00	100.00
Origination year							
2015	76	1,702	19.04	19.25	18.44	17.10	23.27
2016	160	3,296	36.87	37.33	35.57	37.69	35.09
2017	188	3,329	37.24	35.81	41.28	37.03	37.72
2018	38	612	6.84	7.61	4.71	8.18	3.93
Metro classification							
Large metro	204	4,187	46.84	45.26	51.26	49.27	41.52
Medium/Small metro	109	2,306	25.80	26.40	24.12	21.40	35.41
Nonmetro	149	2,446	27.37	28.34	24.63	29.34	23.06

Applied to Multiple Lenders: Household Income and Pre-Purchase Credit Profile by Loan Type and Whether Turned Down on Earlier Application	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Turned down on earlier application		Turned down on earlier application	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes
Total	462	8,939	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Household income											
No answer	16	346	3.87	3.39	5.21	4.50	2.49	3.79	2.57	6.42	2.26
Less than \$20,000	22	462	5.17	5.96	2.97	3.60	8.61	3.82	10.44	3.00	2.90
\$20,000 to \$34,999	71	1,500	16.78	17.04	16.05	16.00	18.46	15.60	20.06	17.09	13.49
\$35,000 to \$49,999	100	2,009	22.48	24.24	17.53	21.09	25.50	22.45	28.01	17.47	17.68
\$50,000 to \$64,999	93	1,973	22.07	23.75	17.34	21.18	24.01	23.27	24.77	15.57	21.67
\$65,000 or more	160	2,649	29.63	25.62	40.90	33.62	20.92	31.08	14.16	40.45	42.00
Credit score											
Missing	20	536	5.99	4.64	9.80	6.84	4.14	5.11	3.66	11.51	5.61
300-524	46	909	10.16	10.05	10.49	9.08	12.53	9.40	11.42	8.22	16.03
525-579	80	1,655	18.52	18.03	19.91	13.61	29.25	12.96	28.68	15.34	31.05
580-619	58	1,083	12.11	11.59	13.57	13.07	10.02	13.09	8.44	13.01	14.93
620-659	68	1,379	15.43	15.28	15.85	14.51	17.45	13.58	18.86	17.00	13.04
660-699	64	1,236	13.83	14.11	13.02	14.41	12.55	14.15	14.04	15.10	7.92
700 or higher	126	2,141	23.95	26.30	17.37	28.48	14.06	31.72	14.91	19.81	11.42
Debt-to-income ratio status											
DTI ratio present in credit file	432	8,221	91.96	92.41	90.73	92.90	89.92	92.70	91.78	93.43	84.12
DTI ratio not present in credit file	30	718	8.04	7.59	9.27	7.10	10.08	7.30	8.22	6.57	15.88

Applied to Multiple Lenders: Household Income Sources by Loan Type and Whether Turned Down on Earlier Application	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
								Turned down on earlier application		Turned down on earlier application	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes	No	Yes
Total	462	8,939	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Wages or salary											
No answer	35	671	7.50	8.16	5.66	7.61	7.26	8.11	8.26	6.28	4.14
Yes	369	7,216	80.72	80.66	80.89	79.00	84.49	78.97	84.22	79.07	85.35
No	58	1,052	11.77	11.18	13.45	13.39	8.24	12.92	7.52	14.65	10.51
Business or self-employment income											
No answer	89	1,677	18.76	20.47	13.93	18.27	19.81	19.19	23.18	15.83	9.30
Yes	63	1,124	12.57	12.88	11.73	14.56	8.23	15.13	8.14	13.05	8.48
No	310	6,138	68.67	66.65	74.34	67.16	71.96	65.69	68.67	71.12	82.22
Interest or dividends											
No answer	97	1,806	20.20	21.82	15.64	19.95	20.76	20.95	23.67	17.26	11.69
Yes	33	476	5.32	5.68	4.30	6.27	3.25	7.40	2.08	3.23	6.91
No	332	6,658	74.48	72.49	80.06	73.79	75.99	71.66	74.25	79.51	81.40
Alimony or child support											
No answer	96	1,735	19.42	21.11	14.66	18.80	20.76	19.89	23.67	15.88	11.69
Yes	32	747	8.36	9.84	4.21	10.92	2.76	13.23	2.71	4.73	2.94
No	334	6,456	72.23	69.06	81.13	70.28	76.48	66.88	73.63	79.39	85.37
Social Security, pension, or other retirement benefits											
No answer	57	1,111	12.43	12.75	11.52	12.61	12.03	12.75	12.75	12.23	9.81
Yes	126	2,046	22.89	25.17	16.49	22.45	23.86	25.00	25.52	15.60	18.68
No	279	5,782	64.68	62.09	71.98	64.95	64.11	62.25	61.73	72.17	71.51

Applied to Multiple Lenders: Borrower Demographic Characteristics by Loan Type and Whether Turned Down on Earlier Application	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application		Loan Type			
				Loan Type		Turned Down on Earlier Application		Personal property		Mortgage	
				Loan Type		Turned Down on Earlier Application		Turned down on earlier application		Turned down on earlier application	
				Personal property	Mortgage	No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	462	8,939	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Age											
No answer	24	456	5.11	5.13	5.05	4.56	6.30	4.14	7.21	5.69	3.47
20-34	99	2,768	30.97	30.87	31.26	31.05	30.80	30.89	30.82	31.48	30.73
35-44	101	1,929	21.58	21.26	22.47	21.43	21.90	20.58	22.69	23.71	19.43
45-54	80	1,315	14.71	13.43	18.31	16.13	11.61	14.35	11.50	20.91	11.96
55-64	95	1,395	15.60	16.78	12.31	16.78	13.03	18.89	12.34	11.14	15.18
65+	63	1,076	12.03	12.54	10.60	10.05	16.36	11.17	15.43	7.07	19.23
Educational attainment											
No answer	15	285	3.19	2.66	4.69	3.20	3.16	2.52	2.94	5.04	3.85
Some schooling	21	503	5.62	5.63	5.59	7.13	2.32	7.10	2.55	7.23	1.59
High school graduate	112	2,363	26.43	27.87	22.40	23.64	32.53	24.21	35.55	22.12	23.09
Technical school	43	809	9.05	9.99	6.41	8.40	10.48	8.52	13.08	8.06	2.39
Some college	151	2,674	29.92	30.12	29.36	30.34	28.98	31.42	27.38	27.47	33.97
College graduate	99	1,975	22.10	19.76	28.67	23.10	19.91	21.72	15.63	26.79	33.26
Postgraduate studies	21	330	3.69	3.98	2.87	4.18	2.61	4.51	2.86	3.29	1.85
Marital status											
No answer	16	255	2.85	2.73	3.18	3.10	2.31	2.82	2.54	3.83	1.59
Married	299	5,568	62.29	60.23	68.08	63.69	59.23	63.03	54.36	65.48	74.42
Separated	14	289	3.23	4.03	0.98	2.35	5.15	2.99	6.21	0.62	1.85
Never married	49	1,265	14.15	14.17	14.10	15.32	11.60	14.21	14.10	18.31	3.82
Divorced	68	1,283	14.36	14.60	13.67	12.43	18.57	12.68	18.65	11.76	18.32
Widowed	16	279	3.12	4.24	.	3.12	3.14	4.28	4.15	.	.

Applied to Multiple Lenders: Borrower Race/Ethnicity and Language Preferences by Loan Type and Whether Turned Down on Earlier Application	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
								Turned down on earlier application		Turned down on earlier application	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes
				percent	percent	percent	percent	percent	percent	percent	percent
Total	462	8,939	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Race/ethnicity											
No answer	15	293	3.27	3.31	3.18	3.25	3.32	3.04	3.88	3.83	1.59
White	337	5,470	61.19	59.50	65.92	62.60	58.11	62.16	53.92	63.77	71.19
Black	20	422	4.72	5.55	2.40	4.35	5.55	5.62	5.40	0.93	6.00
Hispanic	83	2,598	29.06	29.88	26.74	27.59	32.27	27.06	35.81	29.01	21.22
Other	7	157	1.76	1.76	1.75	2.21	0.76	2.12	1.00	2.47	.
Speaks language other than English											
No answer	13	247	2.76	2.61	3.18	3.17	1.86	2.93	1.94	3.83	1.59
Yes	83	2,393	26.77	27.94	23.47	27.03	26.19	27.76	28.32	25.09	19.52
No	366	6,299	70.47	69.45	73.34	69.79	71.96	69.31	69.73	71.07	78.88
Important that lender spoke primary language other than English											
Skip logic	366	6,299	70.47	69.45	73.34	69.79	71.96	69.31	69.73	71.07	78.88
No answer	15	324	3.62	3.78	3.18	3.80	3.24	3.78	3.77	3.83	1.59
Important	50	1,326	14.83	16.34	10.61	14.76	14.99	17.23	14.46	8.15	16.63
Not important	31	990	11.07	10.43	12.86	11.65	9.81	9.67	12.03	16.95	2.90
Important that lender could provide documents in primary language other than English											
Skip logic	366	6,299	70.47	69.45	73.34	69.79	71.96	69.31	69.73	71.07	78.88
No answer	17	354	3.96	3.98	3.88	4.06	3.72	3.78	4.41	4.81	1.59
Important	49	1,371	15.33	16.84	11.08	15.56	14.84	18.07	14.27	8.82	16.63
Not important	30	915	10.24	9.72	11.70	10.59	9.48	8.83	11.59	15.30	2.90

Applied to Multiple Lenders: Borrower Ownership and Property Characteristics by Loan Type and Whether Turned Down on Earlier Application	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Turned down on earlier application		Turned down on earlier application	
								No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	462	8,939	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
First-time homeowner											
No	272	4,464	49.94	49.98	49.83	52.89	43.50	53.11	43.40	52.29	43.83
Yes	190	4,475	50.06	50.02	50.17	47.11	56.50	46.89	56.60	47.71	56.17
Title type											
Joint	264	4,807	53.78	49.99	64.43	52.16	57.31	48.85	52.38	61.06	72.66
Single	198	4,132	46.22	50.01	35.57	47.84	42.69	51.15	47.62	38.94	27.34
Unit age											
New	367	6,775	75.80	85.70	47.98	76.70	73.83	88.91	78.94	43.92	57.89
Used	95	2,163	24.20	14.30	52.02	23.30	26.17	11.09	21.06	56.08	42.11
Sections in unit											
1	175	3,470	38.82	46.49	17.29	35.50	46.07	44.59	50.47	11.11	32.36
2	284	5,433	60.78	53.19	82.14	63.92	53.93	54.93	49.53	88.07	67.64
3	3	35	0.39	0.33	0.58	0.57	0.00	0.49	0.00	0.81	0.00
Owns land											
No	146	3,236	36.20	49.09	0.00	33.74	41.58	46.32	54.91	0.00	0.00
Yes	316	5,703	63.80	50.91	100.00	66.26	58.42	53.68	45.09	100.00	100.00
Metro classification											
Large metro	204	4,187	46.84	45.26	51.26	49.27	41.52	46.63	42.38	56.34	38.84
Medium/Small metro	109	2,306	25.80	26.40	24.12	21.40	35.41	22.02	35.59	19.71	34.87
Nonmetro	149	2,446	27.37	28.34	24.63	29.34	23.06	31.34	22.03	23.95	26.29

Applied to Multiple Lenders: Borrower Knowledge and Application Channel by Loan Type and Whether Turned Down on Earlier Application	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
								Turned down on earlier application		Turned down on earlier application	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes	No	Yes
Total	462	8,939	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Low prior loan process knowledge											
No	400	7,610	85.14	88.33	76.16	86.51	82.14	90.03	84.76	77.06	73.96
Yes	62	1,329	14.86	11.67	23.84	13.49	17.86	9.97	15.24	22.94	26.04
Applied through seller or retailer (volunteered response)											
No	365	7,304	81.71	77.58	93.31	85.47	73.50	81.13	70.10	97.10	84.07
Yes	97	1,635	18.29	22.42	6.69	14.53	26.50	18.87	29.90	2.90	15.93
Concerned about qualifying for a loan											
No	150	2,477	27.70	30.57	19.66	35.14	11.47	41.13	8.38	19.07	21.10
Yes	312	6,462	72.30	69.43	80.34	64.86	88.53	58.87	91.62	80.93	78.90

Appendix F: MHOS Summary Statistics and Probit Models

Variable	Observations	Sum of Weights	Min	Weighted Mean	Max
Income \$50k to \$64k Indicator (INC50_64K)	1,356	27,017	0.00	0.21	1.00
Income >= \$65k Indicator (INC65K)	1,356	27,017	0.00	0.28	1.00
Wages or Salary Income (WAGES)	1,356	27,017	0.00	0.79	1.00
Business or Self-Employment Income (SELFEMP)	1,356	27,017	0.00	0.13	1.00
Interest or Dividends Income (INCINTDIV)	1,356	27,017	0.00	0.05	1.00
Alimony or Child Support Income (INCALIPAY)	1,356	27,017	0.00	0.08	1.00
Social Security, Pension, or Other Retirement Benefits (INCRETIRE)	1,356	27,017	0.00	0.26	1.00
Age 45 to 54 Indicator (AGE45_54)	1,356	27,017	0.00	0.16	1.00
Age 55 to 64 Indicator (AGE55_64)	1,356	27,017	0.00	0.16	1.00
Age >= 65 Indicator (AGE65)	1,356	27,017	0.00	0.14	1.00
Black Race/Ethnicity Indicator (BLACK)	1,356	27,017	0.00	0.04	1.00
Hispanic Race/Ethnicity Indicator (HISPANIC)	1,356	27,017	0.00	0.30	1.00
HS Graduate Indicator (HSGRAD)	1,356	27,017	0.00	0.66	1.00
College Graduate Indicator (COLLEGEGRAD)	1,356	27,017	0.00	0.24	1.00
Speaks Other Language Indicator (OTHERLANG)	1,356	27,017	0.00	0.27	1.00
Language Barrier Indicator (OTHERLANGIMP)	1,356	27,017	0.00	0.18	1.00
First Owned Home Indicator (FIRSTOWNEDHOME)	1,356	27,017	0.00	0.50	1.00
Joint Property Title Indicator (JOINT)	1,356	27,017	0.00	0.53	1.00
Low Prior Loan Process Knowledge Indicator (LOWPRIORKNOWLEDGE)	1,356	27,017	0.00	0.18	1.00
Concerned about Qualifying for a Loan (QUALCONCERN)	1,356	27,017	0.00	0.69	1.00
Applied Directly to Lender (DIRECTAPP)	1,356	27,017	0.00	0.37	1.00
Applied Through or Referred by Seller Indicator (APPSSELLER)	1,356	27,017	0.00	0.18	1.00
FICO Score Missing Indicator (NOFICO)	1,356	27,017	0.00	0.07	1.00
FICO Score 580-619 Indicator (FICO580_619)	1,356	27,017	0.00	0.13	1.00
FICO Score 620-659 Indicator (FICO620_659)	1,356	27,017	0.00	0.13	1.00
FICO Score 660-699 Indicator (FICO660_699)	1,356	27,017	0.00	0.13	1.00
FICO Score >= 700 Indicator (FICOGE700)	1,356	27,017	0.00	0.23	1.00
DTI Ratio Missing Indicator (NODTI)	1,356	27,017	0.00	0.10	1.00
Personal Property Loan (CHATTEL)	1,356	27,017	0.00	0.76	1.00
Lien Originated in 2016 Indicator (LIENYR2016)	1,356	27,017	0.00	0.34	1.00
Lien Originated in 2017 or 2018 Indicator (LIENYR201718)	1,356	27,017	0.00	0.40	1.00
Medium/Small Metro (MEDSMALLMETRO)	1,356	27,017	0.00	0.26	1.00
Nonmetro (NONMETRO)	1,356	27,017	0.00	0.26	1.00

Probit Estimation Results Predicting Multiple Applications for Borrowers with Personal Property Loans

multapp	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
age45_54	-.197	.129	-1.52	.128	-.451	.057	
age55_64	-.166	.124	-1.34	.18	-.409	.077	
agege65	-.286	.139	-2.06	.04	-.558	-.013	**
fico580_619	.085	.158	0.54	.589	-.224	.394	
fico620_659	.244	.152	1.60	.11	-.055	.543	
fico660_699	.218	.154	1.41	.157	-.084	.52	
ficoge700	.243	.123	1.97	.049	.001	.484	**
lowpriorknowledge	-.44	.134	-3.28	.001	-.704	-.177	***
lienyr2016	.43	.128	3.37	.001	.179	.68	***
lienyr201718	.389	.121	3.21	.001	.151	.628	***
medsmallmetro	.119	.118	1.01	.315	-.113	.35	
nonmetro	.22	.11	2.01	.045	.005	.436	**
Constant	-.818	.136	-5.99	0	-1.086	-.55	***
Mean dependent var		0.337	SD dependent var			0.473	
Number of obs		993.000	F-test			3.124	

*** $p < .01$, ** $p < .05$, * $p < .1$

Average Marginal Effects

Number of strata = 3 Number of obs = 993
 Number of PSUs = 993 Population size = 20,509.566

Delta-method						
	dy/dx	Std.Err.	t	P>t	[95%Conf.	Interval]
age45_54	-0.068	0.044	-1.520	0.128	-0.155	0.020
age55_64	-0.057	0.043	-1.340	0.180	-0.140	0.026
agege65	-0.098	0.047	-2.070	0.039	-0.191	-0.005
fico580_619	0.029	0.054	0.540	0.589	-0.077	0.135
fico620_659	0.084	0.052	1.610	0.107	-0.018	0.186
fico660_699	0.075	0.052	1.420	0.155	-0.028	0.178
ficoge700	0.083	0.042	1.990	0.047	0.001	0.165
lowpriorknowledge	-0.151	0.045	-3.340	0.001	-0.240	-0.062
lienyr2016	0.148	0.043	3.430	0.001	0.063	0.232
lienyr201718	0.134	0.041	3.280	0.001	0.054	0.214
medsmallmetro	0.041	0.040	1.010	0.314	-0.039	0.120
nonmetro	0.076	0.037	2.020	0.043	0.002	0.149

Probit Estimation Results Predicting Multiple Applications for Borrowers with Mortgages

multapp	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
nodti	.704	.354	1.99	.048	.007	1.4	**
qualconcern	.342	.175	1.96	.051	-.002	.686	*
appseller	-.563	.248	-2.27	.024	-1.05	-.075	**
lienyr2016	.154	.211	0.73	.465	-.26	.568	
lienyr201718	.408	.205	1.99	.047	.005	.812	**
Constant	-.807	.204	-3.96	0	-1.208	-.406	***
Mean dependent var		0.350	SD dependent var		0.478		
Number of obs		363.000	F-test		3.358		

*** $p < .01$, ** $p < .05$, * $p < .1$

Average Marginal Effects

Number of strata = 3 Number of obs = 363
 Number of PSUs = 363 Population size = 6,507.4284

Delta-method						
	dy/dx	Std.Err.	t	P>t	[95%Conf.	Interval]
nodti	0.251	0.124	2.030	0.043	0.008	0.494
qualconcern	0.122	0.062	1.980	0.048	0.001	0.243
appseller	-0.201	0.087	-2.310	0.022	-0.372	-0.030
lienyr2016	0.055	0.075	0.740	0.463	-0.092	0.202
lienyr201718	0.146	0.071	2.040	0.042	0.005	0.286

Appendix G: Cost of Credit (Supplemental Analysis)

In this section, we briefly consider the question of how the cost of credit differs by application channel (direct versus indirect), using data from both the HMDA and MHOS. For HMDA, we limit the analytic sample of loan applications considered above to originated loans. All MHOS survey responses reflect originated loans, so we consider the full sample of responses. Tables are provided at the end of the text.

As indicated in Tables G1 and G2, HMDA confirms that median interest rates and rate spreads tend to be higher for manufactured housing loans than for site-built housing loans, and that manufactured housing personal property loans have higher interest rates and rate spreads than manufactured housing mortgages. For site-built housing mortgages nationally, the median interest rate is 4.50%, compared with 5.07% for manufactured housing mortgages and 8.70% for manufactured housing personal property loans. Similarly, the median rate spread for site-built housing mortgages nationally is 0.61 percentage points, compared with 1.54 percentage points for manufactured housing mortgages and 5.14 percentage points for manufactured housing personal property loans. In Texas, the median interest rate for site-built housing mortgages is 4.63%, compared with 5.50% for manufactured housing mortgages and 8.99% for manufactured housing personal property loans. The median rate spread for site-built housing mortgage loans in Texas is 0.71 percentage points, compared with 2.15 percentage points for manufactured housing mortgages and 5.34 percentage points for manufactured housing personal property loans.

Loan costs/fees other than the interest rate are about 4% at the median for manufactured housing mortgages, 3% for manufactured housing personal property loans, and about 2% for site-built mortgages nationally. In Texas, comparable percentages are 5% for manufactured housing mortgages and about 3% for manufactured housing personal property loans and site-built housing mortgages. However, since personal property loans are often much smaller loans, these additional fees are lower at the median for personal property loans than for other loan types in dollar terms. For site-built housing mortgages nationally, the median amount of either total loan costs or points-and-fees (note that lenders report one or the other) is \$4,132, compared with \$4,540 for manufactured housing mortgages and \$1,842 for manufactured housing personal property loans. Origination costs paid directly by the borrower at closing are \$1,150 at the median for site-built housing mortgages, \$1,419 for manufactured housing mortgages, and \$1,350 for manufactured housing personal property loans. Loan costs are somewhat higher in Texas: Total loan costs or points-and-fees for site-built housing mortgages are \$5,176 at the median, compared with \$5,581 for manufactured housing mortgages and \$2,299 for manufactured housing personal property loans. Origination costs paid directly by the borrower at closing are \$1,300 at the median for site-built housing mortgages in Texas, compared with \$2,345 for manufactured housing mortgages and \$2,900 for manufactured housing personal property loans.

HMDA also suggests that median interest rates and rate spreads for manufactured housing loans are comparable, if not slightly better, when originated through indirect application channels than through direct application channels. As summarized in Tables G3 and G4, the median interest rate for site-built housing mortgages nationally is 4.50% regardless of application channel; the median rate spread is 0.61 percentage points for the direct application channel and 0.67 percentage points for the indirect application channel. For manufactured housing mortgages, the median interest rate is 5.13% for the direct application channel and 5.00% for the indirect application channel; similarly, the median rate spread is 1.56 percentage points for the direct application channel and 1.48 percentage points for the indirect application channel. For manufactured housing personal property loans, the median interest

rate is 8.99% for the direct application channel and 7.40% for the indirect application channel; the median rate spread is 5.37 percentage points for the direct application channel and 3.75 percentage points for the indirect application channel. We observe a similar pattern in Texas. This pattern may reflect lender economies of scale due to higher manufactured housing loan volume and specialization. However, consistent with the idea that middlemen are compensated, we do see somewhat higher loan costs/fees associated with indirect mortgage applications, but not for personal property loans, which offer lower fees via indirect application, both overall and upfront at the time of origination. Again, this may be due to economies of scale and specialization among manufactured housing lenders. These results appear to be consistent when we limit the data to loans smaller than \$150,000 (see Tables G5-G8).

If we instead consider HMDA's high-cost loan measure, we do see a slightly higher percentage of high-cost loans coming from indirect application channels, but the fraction of loans that are high-cost in either case is very small. As summarized in Tables G9 and G10, we estimate that 0.0% of site-built housing mortgages, 0.2% of manufactured housing mortgages, and 0.5% of manufactured housing personal property loans originated nationally are high cost. In Texas, comparable percentages are 0.1% for site-built housing mortgages, 0.2% for manufactured housing mortgages, and 0.4% for manufactured housing personal property loans. Tables G11 and G12 break down these numbers by application channel. For site-built housing mortgages nationally, the high-cost loan share is 0.0% for the indirect channel and 0.1% for the direct channel. For manufactured housing mortgages nationally, the high-cost loan share is 0.2% regardless of application channel, and for manufactured housing personal property loans nationally, the high-cost loan share is 0.9% for the indirect application channel and 0.4% for the direct application channel. This pattern suggests that there is slightly more variability in the cost of credit when the application channel is indirect.

The MHOS results provide a somewhat different picture. However, note that (1) more than 40% of MHOS respondents said that they do not know their interest rates, (2) we only know that borrowers applied through or were referred by their seller/retailer if they volunteered this information (i.e., this information was not collected systematically from all survey respondents), and (3) borrowers who were previously turned down on an application were more likely to volunteer that they had assistance from the seller/retailer. As such, there is scope for substantial bias in interest rate estimates, and these estimates should be interpreted with caution.

Overall, as summarized in Table G13 and G14, MHOS respondents who reported an indirect application channel were more likely to say that they were not satisfied that they had received the loan with the best terms to fit their needs (19% for indirect versus 13% for direct) or with the lowest interest rate for which they could qualify (25% for indirect versus 21% for direct). The median interest rate is also higher for those who reported an indirect application channel (8.99% for indirect versus 8.00% for direct), although this difference between the application channels is larger for manufactured housing mortgages (9.00% for indirect versus 6.00% for direct) than for personal property loans (8.99% for indirect versus 8.24% for direct).

Tables G16-G22 consider the related questions of whether the relationship of application channel to loan costs differs based on whether the borrowers applied to multiple lenders and whether they had been turned down on a previous application. In practice, it does not appear that applying to multiple lenders yields a better interest rate than applying to only one lender, or that an indirect application channel yields a better interest rate in either case (single application or multiple applications), although these results lump together the different types of borrowers who apply to multiple lenders for different

reasons. Mortgage borrowers who were previously turned down on an application obtain a higher mortgage interest rate when they use an indirect application channel, but this is not true for personal property borrowers who were previously turned down.

Taken all together, these data patterns (for both the HMDA and MHOS) suggest that indirect applications may result in more expensive credit for some borrowers who take out manufactured housing mortgages, but not necessarily for those who take out manufactured housing personal property loans. In addition, the application channel itself does not necessarily determine loan costs, but we do see more variability at the high end of the interest rate distribution for indirect applications, possibly because the indirect channel provides more access to credit at the margin. Furthermore, given the MHOS responses, it may be that anecdotes about borrowers ending up with higher-cost credit via sellers/retailers partly reflect the tendency of people who were denied on earlier applications due to lower credit scores and whose expectations for credit terms were not met to be more vocal than people who felt that they had a good experience, particularly those getting mortgages from lenders who primarily make personal property loans. Note that about 2% of mortgage borrowers used an indirect application channel and also applied to multiple lenders because they had been previously turned down. An argument can be made that the latter group would benefit from access to lower-cost mortgage credit, but this does not mean that most manufactured housing borrowers who go through indirect application channels are getting more expensive credit than they would via direct channels; in many cases, the opposite appears to be true.

An important limitation of this analysis is that these results are descriptive. That is, we are not controlling for borrower characteristics, other loan characteristics, or the fact that borrowers self-select into loan products and application channels. A formal analysis of credit costs is left for future research.

HMDA Tables – Cost of Credit

Table G1: HMDA Analytic Sample: Loan Costs, Originated Loans		Manufactured Housing		Site-Built Housing	
		N	Median	N	Median
Nation	Interest rate (%)	169,968	5.75	4,697,731	4.50
	Rate spread (%)	165,526	2.33	4,632,859	0.61
	Total loan costs or points and fees (\$)	163,190	3,000.95	4,622,931	4,131.55
	Borrower-paid origination charges (\$)	102,898	1,414.50	4,610,549	1,150.00
	Loan term (months)	170,294	276.00	4,710,806	360.00
	Loan amount (\$)	170,368	95,000.00	4,713,908	195,000.00
	Loan costs as % of loan amount	163,190	3.60	4,622,931	2.39
Texas	Interest rate (%)	22,928	8.14	448,322	4.63
	Rate spread (%)	22,648	4.55	440,360	0.71
	Total loan costs or points and fees (\$)	22,165	2,900.00	441,692	5,175.34
	Borrower-paid origination charges (\$)	8,815	2,486.51	438,186	1,300.00
	Loan term (months)	22,958	276.00	449,468	360.00
	Loan amount (\$)	22,962	75,000.00	449,876	205,000.00
	Loan costs as % of loan amount	22,165	3.87	441,692	2.78

Table G2: HMDA Analytic Sample: Loan Costs, Originated Loans, Manufactured Housing		Manufactured Housing			
		Mortgage		Personal property loan	
		N	Median	N	Median
Nation	Interest rate (%)	100,111	5.07	69,857	8.70
	Rate spread (%)	98,976	1.54	66,550	5.15
	Total loan costs or points and fees (\$)	97,932	4,539.61	65,258	1,841.68
	Borrower-paid origination charges (\$)	97,234	1,419.00	5,664	1,350.00
	Loan term (months)	100,460	360.00	69,834	276.00
	Loan amount (\$)	100,479	125,000.00	69,889	55,000.00
	Loan costs as % of loan amount	97,932	3.98	65,258	2.97
Texas	Interest rate (%)	7,804	5.50	15,124	8.99
	Rate spread (%)	7,749	2.15	14,899	5.34
	Total loan costs or points and fees (\$)	7,488	5,580.98	14,677	2,299.00
	Borrower-paid origination charges (\$)	7,602	2,344.72	1,213	2,900.00
	Loan term (months)	7,838	360.00	15,120	276.00
	Loan amount (\$)	7,838	125,000.00	15,124	65,000.00
	Loan costs as % of loan amount	7,488	4.81	14,677	3.40

Table G3: HMDA Analytic Sample: Loan Costs by Application Channel, Originated Loans		Manufactured Housing				Site-Built Housing			
		Application Channel				Application Channel			
		Did not apply directly to financial institution		Applied directly to financial institution		Did not apply directly to financial institution		Applied directly to financial institution	
		N	Median	N	Median	N	Median	N	Median
Nation	Interest rate (%)	26,960	5.63	143,008	5.88	640,656	4.50	4,057,075	4.50
	Rate spread (%)	24,806	2.03	140,720	2.41	632,904	0.67	3,999,955	0.61
	Total loan costs or points and fees (\$)	23,527	3,772.35	139,663	2,900.00	633,370	4,560.54	3,989,561	4,068.00
	Borrower-paid origination charges (\$)	14,562	939.18	88,336	1,485.00	623,854	985.17	3,986,695	1,190.00
	Loan term (months)	27,126	360.00	143,168	276.00	644,453	360.00	4,066,353	360.00
	Loan amount (\$)	27,152	95,000.00	143,216	85,000.00	645,035	205,000.00	4,068,873	195,000.00
	Loan costs as % of loan amount	23,527	3.68	139,663	3.58	633,370	2.61	3,989,561	2.35
Texas	Interest rate (%)	1,730	5.88	21,198	8.25	50,101	4.50	398,221	4.63
	Rate spread (%)	1,681	2.32	20,967	4.67	49,080	0.68	391,280	0.71
	Total loan costs or points and fees (\$)	1,371	4,227.24	20,794	2,900.00	49,708	5,366.54	391,984	5,149.24
	Borrower-paid origination charges (\$)	866	895.00	7,949	2,658.96	49,039	945.00	389,147	1,349.00
	Loan term (months)	1,734	300.00	21,224	276.00	50,350	360.00	399,118	360.00
	Loan amount (\$)	1,738	105,000.00	21,224	75,000.00	50,361	215,000.00	399,515	205,000.00
	Loan costs as % of loan amount	1,371	3.49	20,794	3.87	49,708	2.82	391,984	2.78

Table G4: HMDA Analytic Sample: Loan Costs by Application Channel, Originated Loans, Manufactured Housing		Manufactured Housing							
		Mortgage				Personal property loan			
		Application channel				Application channel			
		Did not apply directly to financial institution		Applied directly to financial institution		Did not apply directly to financial institution		Applied directly to financial institution	
		N	Median	N	Median	N	Median	N	Median
Nation	Interest rate (%)	14,674	5.00	85,437	5.13	12,286	7.40	57,571	8.99
	Rate spread (%)	14,428	1.48	84,548	1.56	10,378	3.75	56,172	5.37
	Total loan costs or points and fees (\$)	14,211	5,033.42	83,721	4,443.28	9,316	1,477.31	55,942	1,885.70
	Borrower-paid origination charges (\$)	13,922	949.00	83,312	1,485.00	640	699.00	5,024	1,493.18
	Loan term (months)	14,864	360.00	85,596	360.00	12,262	240.00	57,572	276.00
	Loan amount (\$)	14,866	125,000.00	85,613	125,000.00	12,286	65,000.00	57,603	55,000.00
	Loan costs as % of loan amount	14,211	4.06	83,721	3.96	9,316	2.83	55,942	2.99
Texas	Interest rate (%)	895	5.00	6,909	5.50	835	7.90	14,289	8.99
	Rate spread (%)	869	1.58	6,880	2.24	812	4.18	14,087	5.38
	Total loan costs or points and fees (\$)	857	5,729.66	6,631	5,563.01	514	799.50	14,163	2,339.17
	Borrower-paid origination charges (\$)	850	895.00	6,752	2,560.91	16	699.00	1,197	2,900.00
	Loan term (months)	903	360.00	6,935	360.00	831	240.00	14,289	276.00
	Loan amount (\$)	903	135,000.00	6,935	125,000.00	835	65,000.00	14,289	65,000.00
	Loan costs as % of loan amount	857	4.27	6,631	4.88	514	1.45	14,163	3.41

Table G5: HMDA Analytic Sample: Loan Costs by Loan Amount, Originated Loans		Manufactured Housing				Site-Built Housing			
		Loan Amount Category				Loan Amount Category			
		<\$150k		>=\$150k		<\$150k		>=\$150k	
		N	Median	N	Median	N	Median	N	Median
Nation	Interest rate (%)	135,843	6.85	34,125	4.88	1,343,465	4.63	3,354,266	4.50
	Rate spread (%)	131,996	3.03	33,530	1.32	1,323,793	0.79	3,309,066	0.55
	Total loan costs or points and fees (\$)	130,308	2,799.27	32,882	6,364.94	1,319,996	3,249.04	3,302,935	4,648.07
	Borrower-paid origination charges (\$)	71,214	1,273.47	31,684	1,749.32	1,318,862	1,040.00	3,291,687	1,198.00
	Loan term (months)	136,056	276.00	34,238	360.00	1,346,487	360.00	3,364,319	360.00
	Loan amount (\$)	136,116	75,000.00	34,252	195,000.00	1,347,488	115,000.00	3,366,420	235,000.00
	Loan costs as % of loan amount	130,308	3.81	32,882	3.17	1,319,996	3.17	3,302,935	2.08
Texas	Interest rate (%)	20,145	8.49	2,783	5.25	90,642	4.75	357,680	4.50
	Rate spread (%)	19,900	4.86	2,748	1.92	89,210	1.02	351,150	0.64
	Total loan costs or points and fees (\$)	19,619	2,840.10	2,546	7,124.06	89,271	4,062.24	352,421	5,578.50
	Borrower-paid origination charges (\$)	6,328	2,401.80	2,487	2,930.00	88,314	1,290.00	349,872	1,325.56
	Loan term (months)	20,168	276.00	2,790	360.00	90,957	360.00	358,511	360.00
	Loan amount (\$)	20,172	65,000.00	2,790	175,000.00	90,993	125,000.00	358,883	225,000.00
	Loan costs as % of loan amount	19,619	3.87	2,546	3.97	89,271	3.71	352,421	2.54

Table G6: HMDA Analytic Sample: Loan Costs by Loan Amount, Originated Loans, Manufactured Housing		Manufactured Housing							
		Mortgage				Personal property loan			
		Loan amount category				Loan amount category			
		<\$150k		>=\$150k		<\$150k		>=\$150k	
		N	Median	N	Median	N	Median	N	Median
Nation	Interest rate (%)	68,028	5.13	32,083	4.88	67,815	8.75	2,042	6.80
	Rate spread (%)	67,319	1.69	31,657	1.28	64,677	5.22	1,873	2.75
	Total loan costs or points and fees (\$)	66,880	4,033.97	31,052	6,465.65	63,428	1,805.00	1,830	4,679.28
	Borrower-paid origination charges (\$)	66,130	1,270.00	31,104	1,760.44	5,084	1,303.75	580	1,475.00
	Loan term (months)	68,259	360.00	32,201	360.00	67,797	276.00	2,037	276.00
	Loan amount (\$)	68,271	95,000.00	32,208	195,000.00	67,845	55,000.00	2,044	175,000.00
	Loan costs as % of loan amount	66,880	4.40	31,052	3.23	63,428	3.00	1,830	2.79
Texas	Interest rate (%)	5,300	5.63	2,504	5.13	14,845	8.99	279	7.25
	Rate spread (%)	5,267	2.34	2,482	1.84	14,633	5.37	266	3.20
	Total loan costs or points and fees (\$)	5,210	5,149.29	2,278	7,355.24	14,409	2,274.43	268	4,518.89
	Borrower-paid origination charges (\$)	5,185	2,223.27	2,417	2,996.12	1,143	2,900.00	70	1,352.50
	Loan term (months)	5,327	360.00	2,511	360.00	14,841	276.00	279	276.00
	Loan amount (\$)	5,327	105,000.00	2,511	175,000.00	14,845	65,000.00	279	165,000.00
	Loan costs as % of loan amount	5,210	5.17	2,278	4.09	14,409	3.40	268	2.82

Table G7: HMDA Analytic Sample: Loan Costs by Loan Amount and Application Channel, Originated Loans (Multipage Table)			Manufactured Housing				Site-Built Housing			
			Loan Amount Category				Loan Amount Category			
			<\$150k		>=\$150k		<\$150k		>=\$150k	
			N	Median	N	Median	N	Median	N	Median
Nation	Did not apply directly to financial institution	Interest rate (%)	21,249	6.20	5,711	4.88	163,803	4.63	476,853	4.38
		Rate spread (%)	19,304	2.36	5,502	1.27	160,967	0.86	471,937	0.60
		Total loan costs or points and fees (\$)	18,120	3,090.00	5,407	6,459.93	161,466	3,591.41	471,904	5,189.76
		Borrower-paid origination charges (\$)	9,827	895.00	4,735	995.00	159,042	945.00	464,812	995.00
		Loan term (months)	21,357	276.00	5,769	360.00	164,446	360.00	480,007	360.00
		Loan amount (\$)	21,379	85,000.00	5,773	195,000.00	164,786	115,000.00	480,249	235,000.00
		Loan costs as % of loan amount	18,120	3.90	5,407	3.24	161,466	3.38	471,904	2.34
	Applied directly to financial institution	Interest rate (%)	114,594	7.00	28,414	4.88	1,179,662	4.63	2,877,413	4.50
		Rate spread (%)	112,692	3.27	28,028	1.33	1,162,826	0.78	2,837,129	0.54
		Total loan costs or points and fees (\$)	112,188	2,752.10	27,475	6,334.70	1,158,530	3,206.70	2,831,031	4,572.89
		Borrower-paid origination charges (\$)	61,387	1,333.00	26,949	1,924.49	1,159,820	1,062.44	2,826,875	1,245.00
		Loan term (months)	114,699	276.00	28,469	360.00	1,182,041	360.00	2,884,312	360.00
		Loan amount (\$)	114,737	75,000.00	28,479	195,000.00	1,182,702	115,000.00	2,886,171	235,000.00
		Loan costs as % of loan amount	112,188	3.79	27,475	3.15	1,158,530	3.14	2,831,031	2.05

Table G7: HMDA Analytic Sample: Loan Costs by Loan Amount and Application Channel, Originated Loans (Multipage Table)			Manufactured Housing				Site-Built Housing			
			Loan Amount Category				Loan Amount Category			
			<\$150k		>=\$150k		<\$150k		>=\$150k	
			N	Median	N	Median	N	Median	N	Median
Texas	Did not apply directly to financial institution	Interest rate (%)	1,340	6.75	390	4.88	8,506	4.63	41,595	4.38
		Rate spread (%)	1,299	2.87	382	1.40	8,248	0.94	40,832	0.63
		Total loan costs or points and fees (\$)	1,003	2,955.95	368	6,570.82	8,426	4,255.24	41,282	5,769.04
		Borrower-paid origination charges (\$)	525	895.00	341	870.00	8,313	895.00	40,726	955.00
		Loan term (months)	1,341	276.00	393	360.00	8,571	360.00	41,779	360.00
		Loan amount (\$)	1,345	85,000.00	393	175,000.00	8,575	125,000.00	41,786	225,000.00
		Loan costs as % of loan amount	1,003	3.25	368	3.65	8,426	3.69	41,282	2.64
	Applied directly to financial institution	Interest rate (%)	18,805	8.50	2,393	5.25	82,136	4.75	316,085	4.50
		Rate spread (%)	18,601	4.97	2,366	2.02	80,962	1.03	310,318	0.64
		Total loan costs or points and fees (\$)	18,616	2,835.75	2,178	7,187.68	80,845	4,041.58	311,139	5,549.60
		Borrower-paid origination charges (\$)	5,803	2,545.77	2,146	3,337.90	80,001	1,298.00	309,146	1,356.70
		Loan term (months)	18,827	276.00	2,397	360.00	82,386	360.00	316,732	360.00
		Loan amount (\$)	18,827	65,000.00	2,397	175,000.00	82,418	125,000.00	317,097	225,000.00
		Loan costs as % of loan amount	18,616	3.87	2,178	4.05	80,845	3.72	311,139	2.53

Table G8: HMDA Analytic Sample: Loan Costs by Loan Amount, Originated Loans, Manufactured Housing (Multipage Table)			Manufactured Housing							
			Mortgage				Personal property loan			
			Loan amount category				Loan amount category			
			<\$150k		>=\$150k		<\$150k		>=\$150k	
			N	Median	N	Median	N	Median	N	Median
Nation	Did not apply directly to financial institution	Interest rate (%)	9,802	5.13	4,872	4.75	11,447	7.49	839	7.00
		Rate spread (%)	9,645	1.62	4,783	1.17	9,659	3.83	719	2.75
		Total loan costs or points and fees (\$)	9,495	4,605.35	4,716	6,584.00	8,625	1,320.00	691	5,085.65
		Borrower-paid origination charges (\$)	9,306	914.28	4,616	995.00	521	0.00	119	1,095.00
		Loan term (months)	9,931	360.00	4,933	360.00	11,426	240.00	836	276.00
		Loan amount (\$)	9,932	105,000.00	4,934	195,000.00	11,447	65,000.00	839	185,000.00
		Loan costs as % of loan amount	9,495	4.59	4,716	3.30	8,625	2.87	691	2.48
	Applied directly to financial institution	Interest rate (%)	58,226	5.25	27,211	4.88	56,368	9.00	1,203	6.75
		Rate spread (%)	57,674	1.70	26,874	1.31	55,018	5.41	1,154	2.75
		Total loan costs or points and fees (\$)	57,385	3,898.95	26,336	6,435.09	54,803	1,854.64	1,139	4,599.24
		Borrower-paid origination charges (\$)	56,824	1,322.03	26,488	1,938.96	4,563	1,506.20	461	1,475.00
		Loan term (months)	58,328	360.00	27,268	360.00	56,371	276.00	1,201	276.00
		Loan amount (\$)	58,339	95,000.00	27,274	195,000.00	56,398	55,000.00	1,205	175,000.00
		Loan costs as % of loan amount	57,385	4.37	26,336	3.21	54,803	3.01	1,139	2.83

Table G8: HMDA Analytic Sample: Loan Costs by Loan Amount, Originated Loans, Manufactured Housing (Multipage Table)			Manufactured Housing							
			Mortgage				Personal property loan			
			Loan amount category				Loan amount category			
			<\$150k		>=\$150k		<\$150k		>=\$150k	
			N	Median	N	Median	N	Median	N	Median
Texas	Did not apply directly to financial institution	Interest rate (%)	536	5.13	359	4.88	804	7.99	31	6.75
		Rate spread (%)	518	1.75	351	1.36	781	4.32	31	2.26
		Total loan costs or points and fees (\$)	517	5,204.25	340	6,752.98	486	800.00	28	799.00
		Borrower-paid origination charges (\$)	514	895.00	336	861.65	11	699.00	5	955.00
		Loan term (months)	541	360.00	362	360.00	800	240.00	31	300.00
		Loan amount (\$)	541	115,000.00	362	175,000.00	804	65,000.00	31	165,000.00
		Loan costs as % of loan amount	517	4.76	340	3.74	486	1.46	28	0.48
	Applied directly to financial institution	Interest rate (%)	4,764	5.63	2,145	5.13	14,041	9.00	248	7.25
		Rate spread (%)	4,749	2.43	2,131	1.94	13,852	5.41	235	3.70
		Total loan costs or points and fees (\$)	4,693	5,146.50	1,938	7,440.94	13,923	2,314.20	240	4,560.43
		Borrower-paid origination charges (\$)	4,671	2,367.48	2,081	3,396.75	1,132	2,900.00	65	1,415.00
		Loan term (months)	4,786	360.00	2,149	360.00	14,041	276.00	248	276.00
		Loan amount (\$)	4,786	105,000.00	2,149	175,000.00	14,041	65,000.00	248	165,000.00
		Loan costs as % of loan amount	4,693	5.22	1,938	4.17	13,923	3.41	240	2.83

Table G9: HMDA Analytic Sample: High-Cost Loan Status, Originated Loans (Column Percentages)	Nation						Texas					
	N	Percent	Manufactured housing		Site-Built housing		N	Percent	Manufactured housing		Site-Built housing	
			N	Percent	N	Percent			N	Percent	N	Percent
All	4,884,276	100.0%	170,368	100.0%	4,713,908	100.0%	472,838	100.0%	22,962	100.0%	449,876	100.0%
High-cost loan status												
High-cost mortgage	2,841	0.1%	516	0.3%	2,325	0.0%	422	0.1%	71	0.3%	351	0.1%
Not a high-cost mortgage	4,765,295	97.6%	166,904	98.0%	4,598,391	97.5%	460,566	97.4%	22,604	98.4%	437,962	97.4%
Not applicable	116,140	2.4%	2,948	1.7%	113,192	2.4%	11,850	2.5%	287	1.2%	11,563	2.6%

Table G10: HMDA Analytic Sample: High-Cost Loan Status, Originated Loans, Manufactured Housing (Column Percentages)	Nation						Texas					
	N	Percent	Manufactured housing				N	Percent	Manufactured housing			
			Mortgage		Personal property loan				Mortgage		Personal property loan	
N			Percent	N	Percent	N			Percent	N	Percent	
All	170,368	100.0%	100,479	100.0%	69,889	100.0%	22,962	100.0%	7,838	100.0%	15,124	100.0%
High-cost loan status												
High-cost mortgage	516	0.3%	171	0.2%	345	0.5%	71	0.3%	17	0.2%	54	0.4%
Not a high-cost mortgage	166,904	98.0%	98,082	97.6%	68,822	98.5%	22,604	98.4%	7,545	96.3%	15,059	99.6%
Not applicable	2,948	1.7%	2,226	2.2%	722	1.0%	287	1.2%	276	3.5%	11	0.1%

Table G11: HMDA Analytic Sample: High-Cost Loan Status by Application Channel, Originated Loans (Column Percentages)	Nation								Texas							
	Manufactured housing				Site-Built housing				Manufactured housing				Site-Built housing			
	Application channel				Application channel				Application channel				Application channel			
	Did not apply directly to financial institution		Applied directly to financial institution		Did not apply directly to financial institution		Applied directly to financial institution		Did not apply directly to financial institution		Applied directly to financial institution		Did not apply directly to financial institution		Applied directly to financial institution	
	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent
All	27,152	100.0%	143,216	100.0%	645,035	100.0%	4,068,873	100.0%	1,738	100.0%	21,224	100.0%	50,361	100.0%	399,515	100.0%
High-cost loan status																
High-cost mortgage	152	0.6%	364	0.3%	271	0.0%	2,054	0.1%	57	3.3%	14	0.1%	18	0.0%	333	0.1%
Not a high-cost mortgage	26,434	97.4%	140,470	98.1%	620,681	96.2%	3,977,710	97.8%	1,653	95.1%	20,951	98.7%	47,292	93.9%	390,670	97.8%
Not applicable	566	2.1%	2,382	1.7%	24,083	3.7%	89,109	2.2%	28	1.6%	259	1.2%	3,051	6.1%	8,512	2.1%

Table G12: HMDA Analytic Sample: High-Cost Loan Status by Application Channel, Originated Loans, Manufactured Housing (Column Percentages)	Nation								Texas							
	Manufactured housing								Manufactured housing							
	Mortgage				Personal property loan				Mortgage				Personal property loan			
	Application channel				Application channel				Application channel				Application channel			
	Did not apply directly to financial institution		Applied directly to financial institution		Did not apply directly to financial institution		Applied directly to financial institution		Did not apply directly to financial institution		Applied directly to financial institution		Did not apply directly to financial institution		Applied directly to financial institution	
N	Percent	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent	N	Percent	
All	14,866	100.0%	85,613	100.0%	12,286	100.0%	57,603	100.0%	903	100.0%	6,935	100.0%	835	100.0%	14,289	100.0%
High-cost loan status																
High-cost mortgage	37	0.2%	134	0.2%	115	0.9%	230	0.4%	3	0.3%	14	0.2%	54	6.5%	.	.
Not a high-cost mortgage	14,387	96.8%	83,695	97.8%	12,047	98.1%	56,775	98.6%	874	96.8%	6,671	96.2%	779	93.3%	14,280	99.9%
Not applicable	442	3.0%	1,784	2.1%	124	1.0%	598	1.0%	26	2.9%	250	3.6%	2	0.2%	9	0.1%

MHOS Tables – Cost of Credit

Table G13: MHOS: Cost of Credit by Loan Type and Whether Applied Through Seller/Retailer (Multipage Table)	N	Sum of weights	Weighted percent	Loan Type		Applied Through Seller or Retailer (Volunteered Response)		Loan Type				
				Personal property	Mortgage	No	Yes	Personal property		Mortgage		
								Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	
When you took out this loan, what was the dollar amount you borrowed? (RC_Q18)												
No answer	37	761	2.82	2.63	3.41	2.98	2.06	2.90	1.56	3.22	5.04	
Don't know	273	5,956	22.04	21.67	23.22	23.58	15.04	23.34	15.09	24.25	14.75	
Less than \$30,000	108	2,377	8.80	11.02	1.81	9.51	5.55	12.25	6.16	1.80	1.92	
\$30,000-59,999	368	7,688	28.45	33.78	11.66	27.29	33.78	32.91	37.21	11.43	13.49	
\$60,000-89,999	300	5,579	20.65	20.29	21.79	19.11	27.65	18.94	25.60	19.61	39.76	
\$90,000-119,999	150	2,694	9.97	6.95	19.49	9.92	10.18	6.28	9.60	20.20	13.63	
\$120,000 or more	120	1,962	7.26	3.66	18.61	7.60	5.73	3.38	4.77	19.49	11.41	
What is the current monthly loan payment? (RC_Q19)												
No payment (reported value of zero)	13	185	0.68	0.75	0.46	0.64	0.88	0.69	1.03	0.52	.	
No answer	33	607	2.25	2.18	2.46	2.34	1.80	2.41	1.25	2.15	5.04	
Don't know	63	1,268	4.69	3.62	8.06	5.46	1.17	4.32	0.90	8.70	2.81	
\$250-499	241	5,029	18.61	22.56	6.19	18.79	17.80	23.20	20.01	6.36	4.77	
\$500-749	480	10,181	37.69	41.78	24.78	37.50	38.55	41.73	41.99	25.58	18.22	
\$750-999	295	5,688	21.05	19.36	26.41	20.08	25.52	18.70	21.94	23.95	46.64	
\$1,000 or more	231	4,059	15.02	9.76	31.63	15.19	14.28	8.96	12.88	32.74	22.52	

Table G13: MHOS: Cost of Credit by Loan Type and Whether Applied Through Seller/Retailer (Multipage Table)	N	Sum of weights	Weighted percent	Loan Type		Applied Through Seller or Retailer (Volunteered Response)		Loan Type			
				Loan Type		Applied Through Seller or Retailer (Volunteered Response)		Personal property		Mortgage	
				Loan Type		Applied Through Seller or Retailer (Volunteered Response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)	
				Personal property	Mortgage	No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
What is the interest rate on this loan? (RC_Q20)											
No answer	50	937	3.47	3.31	3.96	3.69	2.45	3.42	2.87	4.44	.
Don't know	560	11,475	42.47	42.90	41.12	43.19	39.22	43.77	39.50	41.54	37.58
4-5%	170	2,850	10.55	6.03	24.79	11.53	6.09	6.05	5.94	26.95	6.96
6-7%	231	4,036	14.94	16.16	11.09	14.74	15.85	16.40	15.20	10.05	19.71
8-9%	237	5,239	19.39	20.76	15.08	18.48	23.56	20.31	22.52	13.31	29.70
10-11%	108	2,480	9.18	10.83	3.97	8.38	12.83	10.03	13.98	3.72	6.05
What was the length or term on this loan? (RC_21)											
No answer	31	529	1.96	2.33	0.77	2.08	1.42	2.51	1.66	0.86	.
Don't know	88	1,901	7.04	7.17	6.63	7.42	5.30	7.53	5.72	7.09	2.85
10 years	100	2,388	8.84	11.00	2.01	10.41	1.67	13.38	1.63	2.02	1.92
11-14 years	24	584	2.16	2.68	0.51	2.12	2.34	2.87	1.94	.	4.73
15 years	218	4,075	15.08	16.20	11.58	15.65	12.52	16.99	13.08	11.87	9.16
16-19 years	20	312	1.16	1.29	0.74	0.79	2.82	1.07	2.13	.	6.87
20 years	295	5,933	21.96	25.58	10.55	20.83	27.12	24.32	30.53	10.98	7.01
21-22 years	10	208	0.77	0.64	1.20	0.58	1.66	0.38	1.64	1.12	1.82
23 years	251	4,999	18.50	16.97	23.34	16.36	28.30	14.90	25.12	20.46	47.09
24-29 years	18	299	1.11	1.23	0.70	0.67	3.07	0.73	3.22	0.52	2.19
30 years	301	5,789	21.43	14.91	41.97	23.11	13.78	15.31	13.34	45.07	16.36

Table G13: MHOS: Cost of Credit by Loan Type and Whether Applied Through Seller/Retailer (Multipage Table)	N	Sum of weights	Weighted percent	Loan Type		Applied Through Seller or Retailer (Volunteered Response)		Loan Type					
				Loan Type		Applied Through Seller or Retailer (Volunteered Response)		Personal property		Mortgage			
				Loan Type		Applied Through Seller or Retailer (Volunteered Response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)			
				Personal property	Mortgage	No	Yes	No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Does this loan have ...?: An interest rate that may change over the term of the loan. (RC_Q22A)													
No answer	78	1,553	5.75	6.44	3.55	5.99	4.65	6.70	5.44	3.98	.		
Don't know	272	6,554	24.26	26.07	18.56	25.41	19.02	27.85	19.06	18.53	18.81		
Yes	125	2,458	9.10	9.00	9.41	9.51	7.22	9.40	7.40	9.81	6.13		
No	881	16,453	60.90	58.49	68.48	59.10	69.11	56.05	68.10	67.68	75.06		
Overall, how satisfied are you that the loan you got was the one with the...?: Best terms to fit your needs. (RC_Q38A)													
No answer	74	1,497	5.54	6.35	2.98	6.09	3.05	7.06	3.57	3.35	.		
Very	563	10,990	40.68	39.49	44.44	42.91	30.49	41.08	33.23	48.09	14.29		
Somewhat	547	10,788	39.93	39.41	41.57	38.32	47.29	37.60	46.54	40.34	51.71		
Not at all	172	3,742	13.85	14.75	11.01	12.68	19.17	14.26	16.66	8.23	34.00		
Overall, how satisfied are you that the loan you got was the one with the...? Lowest interest rate for which you could qualify. (RC_Q38B)													
No answer	117	2,116	7.83	8.39	6.06	8.57	4.46	9.20	5.21	6.79	.		
Very	426	8,122	30.06	27.17	39.16	31.08	25.44	27.28	26.75	41.77	17.66		
Somewhat	532	10,949	40.53	41.41	37.73	39.62	44.68	40.49	45.04	37.15	42.56		
Not at all	281	5,830	21.58	23.02	17.04	20.74	25.42	23.03	22.99	14.29	39.78		

Table G14: MHOS: Cost of Credit by Loan Type and Whether Applied Through Seller/Retailer	Loan Type				Applied Through Seller or Retailer (Volunteered Response)			
	Personal property		Mortgage		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	15,526	52,000.00	4,774	90,000.00	16,271	59,000.00	4,029	60,000.00
Monthly payment (\$)	19,166	624.00	5,792	888.00	20,285	665.00	4,673	689.00
Interest rate (%)	11,031	8.45	3,574	6.00	11,770	8.00	2,835	8.99
Loan term (years)	18,561	20.00	6,026	23.00	20,053	20.00	4,534	21.00

Table G14 (cont'd.): MHOS: Cost of Credit by Loan Type and Whether Applied Through Seller/Retailer	Loan Type							
	Personal property				Mortgage			
	Applied through seller or retailer (volunteered response)				Applied through seller or retailer (volunteered response)			
	No		Yes		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	12,062	51,000.00	3,464	58,000.00	4,210	92,000.00	565	75,000.00
Monthly payment (\$)	15,141	615.00	4,024	659.00	5,144	895.00	649	868.00
Interest rate (%)	8,636	8.24	2,396	8.99	3,135	6.00	439	9.00
Loan term (years)	14,711	20.00	3,850	20.00	5,342	23.00	684	23.00

Table G15: MHOS: Cost of Credit by Loan Type and Whether Applied to Multiple Lenders (Multipage Table)	N	Sum of weights	Weighted percent	Loan Type		Applied to Multiple Lenders		Applied to Multiple Lenders			
				Personal property	Mortgage	No	Yes	No		Yes	
								Loan type		Loan type	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Personal property	Mortgage	Personal property	Mortgage
								Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
When you took out this loan, what was the dollar amount you borrowed? (RC_Q18)											
No answer	37	761	2.82	2.63	3.41	3.48	1.48	3.34	3.96	1.13	2.44
Don't know	273	5,956	22.04	21.67	23.22	20.75	24.66	20.38	22.01	24.41	25.36
Less than \$30,000	108	2,377	8.80	11.02	1.81	11.40	3.53	14.16	2.20	4.39	1.13
\$30,000-59,999	368	7,688	28.45	33.78	11.66	29.61	26.12	33.81	15.57	33.74	4.71
\$60,000-89,999	300	5,579	20.65	20.29	21.79	19.70	22.58	19.17	21.47	22.65	22.36
\$90,000-119,999	150	2,694	9.97	6.95	19.49	8.89	12.16	6.00	18.54	8.95	21.19
\$120,000 or more	120	1,962	7.26	3.66	18.61	6.17	9.47	3.16	16.25	4.73	22.80
What is the current monthly loan payment? (RC_Q19)											
No payment (reported value of zero)	13	185	0.68	0.75	0.46	0.61	0.84	0.65	0.47	0.98	0.44
No answer	33	607	2.25	2.18	2.46	2.71	1.31	2.63	2.96	1.22	1.58
Don't know	63	1,268	4.69	3.62	8.06	4.74	4.59	3.22	9.82	4.47	4.95
\$250-499	241	5,029	18.61	22.56	6.19	20.84	14.10	24.85	7.46	17.72	3.94
\$500-749	480	10,181	37.69	41.78	24.78	39.06	34.91	42.71	26.84	39.81	21.13
\$750-999	295	5,688	21.05	19.36	26.41	18.56	26.11	17.03	23.67	24.27	31.27
\$1,000 or more	231	4,059	15.02	9.76	31.63	13.49	18.14	8.91	28.77	11.53	36.70
What is the interest rate on this loan? (RC_Q20)											
No answer	50	937	3.47	3.31	3.96	3.62	3.17	3.70	3.34	2.49	5.07
Don't know	560	11,475	42.47	42.90	41.12	42.54	42.33	43.37	39.77	41.91	43.51
4-5%	170	2,850	10.55	6.03	24.79	11.30	9.02	6.77	26.47	4.48	21.80
6-7%	231	4,036	14.94	16.16	11.09	14.96	14.89	16.17	10.92	16.13	11.41
8-9%	237	5,239	19.39	20.76	15.08	19.41	19.36	20.37	16.19	21.59	13.10
10-11%	108	2,480	9.18	10.83	3.97	8.17	11.23	9.62	3.32	13.40	5.11

Table G15: MHOS: Cost of Credit by Loan Type and Whether Applied to Multiple Lenders (Multipage Table)	N	Sum of weights	Weighted percent	Loan Type		Applied to Multiple Lenders		Applied to Multiple Lenders			
				Personal property	Mortgage	No	Yes	No		Yes	
								Loan type		Loan type	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Personal property	Mortgage	Personal property	Mortgage
								Weighted percent	Weighted percent	Weighted percent	Weighted percent
What was the length or term on this loan? (RC_21)											
No answer	31	529	1.96	2.33	0.77	2.42	1.03	2.86	0.94	1.23	0.46
Don't know	88	1,901	7.04	7.17	6.63	7.99	5.10	8.55	6.15	4.25	7.49
10 years	100	2,388	8.84	11.00	2.01	11.93	2.57	14.84	2.22	2.91	1.64
11-14 years	24	584	2.16	2.68	0.51	2.61	1.25	3.15	0.80	1.70	.
15 years	218	4,075	15.08	16.20	11.58	16.05	13.12	16.50	14.55	15.55	6.31
16-19 years	20	312	1.16	1.29	0.74	1.13	1.22	1.23	0.77	1.40	0.69
20 years	295	5,933	21.96	25.58	10.55	22.37	21.14	25.51	11.85	25.73	8.24
21-22 years	10	208	0.77	0.64	1.20	0.70	0.91	0.54	1.26	0.85	1.08
23 years	251	4,999	18.50	16.97	23.34	14.60	26.41	12.48	21.69	26.46	26.26
24-29 years	18	299	1.11	1.23	0.70	0.78	1.76	0.94	0.25	1.85	1.51
30 years	301	5,789	21.43	14.91	41.97	19.42	25.49	13.41	39.52	18.09	46.30
Does this loan have ... an interest rate that may change over the term of the loan? (RC_Q22A)											
No answer	78	1,553	5.75	6.44	3.55	6.32	4.59	7.28	3.09	4.67	4.37
Don't know	272	6,554	24.26	26.07	18.56	24.72	23.32	26.19	19.79	25.80	16.37
Yes	125	2,458	9.10	9.00	9.41	9.24	8.82	9.55	8.19	7.83	11.58
No	881	16,453	60.90	58.49	68.48	59.72	63.27	56.97	68.93	61.70	67.68
Overall, how satisfied are you that the loan you got was the one with the ... best terms to fit your needs? (RC_Q38A)											
No answer	74	1,497	5.54	6.35	2.98	6.20	4.21	7.12	3.10	4.72	2.78
Very	563	10,990	40.68	39.49	44.44	41.54	38.94	39.82	47.28	38.78	39.40
Somewhat	547	10,788	39.93	39.41	41.57	38.94	41.93	39.63	36.65	38.96	50.29
Not at all	172	3,742	13.85	14.75	11.01	13.32	14.91	13.43	12.98	17.54	7.53

Table G15: MHOS: Cost of Credit by Loan Type and Whether Applied to Multiple Lenders (Multipage Table)	N	Sum of weights	Weighted percent	Loan Type		Applied to Multiple Lenders		Applied to Multiple Lenders			
				Personal property	Mortgage	No	Yes	No		Yes	
								Loan type		Loan type	
				Personal property	Mortgage	No	Yes	Personal property	Mortgage	Personal property	Mortgage
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Overall, how satisfied are you that the loan you got was the one with the ... lowest interest rate for which you could qualify? (RC_Q38B)											
No answer	117	2,116	7.83	8.39	6.06	9.18	5.10	9.98	6.51	5.04	5.27
Very	426	8,122	30.06	27.17	39.16	30.23	29.72	26.91	41.31	27.72	35.35
Somewhat	532	10,949	40.53	41.41	37.73	39.28	43.05	40.88	33.95	42.55	44.45
Not at all	281	5,830	21.58	23.02	17.04	21.31	22.13	22.23	18.23	24.69	14.93

Table G16: MHOS: Cost of Credit by Loan Type and Whether Applied to Multiple Lenders	Loan Type				Applied to Multiple Lenders			
	Personal property		Mortgage		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	15,526	52,000.00	4,774	90,000.00	13,697	56,000.00	6,603	67,000.00
Monthly payment (\$)	19,166	624.00	5,792	888.00	16,622	649.00	8,336	727.00
Interest rate (%)	11,031	8.45	3,574	6.00	9,733	8.00	4,872	8.25
Loan term (years)	18,561	20.00	6,026	23.00	16,196	20.00	8,391	23.00

Table G16 (cont'd.): MHOS: Cost of Credit by Loan Type and Whether Applied to Multiple Lenders	Loan Type							
	Personal property				Mortgage			
	Applied to multiple lenders				Applied to multiple lenders			
	No		Yes		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	10,617	50,000.00	4,909	56,000.00	3,080	86,000.00	1,694	100,000.00
Monthly payment (\$)	13,012	615.00	6,153	656.00	3,610	854.00	2,183	922.00
Interest rate (%)	7,366	8.00	3,666	8.50	2,368	6.00	1,206	6.50
Loan term (years)	12,330	20.00	6,231	20.00	3,866	23.00	2,160	30.00

Table G17: MHOS: Cost of Credit by Loan Type, Whether Applied to Multiple Lenders, and Whether Applied Through Seller/Retailer (Multipage Table)	N	Sum of weights	Weighted percent	Applied to Multiple Lenders							
				No				Yes			
				Loan type				Loan type			
				Personal property		Mortgage		Personal property		Mortgage	
				Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)	
				No	Yes	No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	1,356	27,017	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
When you took out this loan, what was the dollar amount you borrowed? (RC_Q18)											
No answer	37	761	2.82	3.65	2.04	4.01	3.67	1.26	0.70	1.91	9.82
Don't know	273	5,956	22.04	21.73	14.67	23.18	14.29	26.87	15.86	26.01	16.38
Less than \$30,000	108	2,377	8.80	15.99	6.45	2.16	2.47	4.03	5.63	1.21	.
\$30,000-59,999	368	7,688	28.45	33.32	35.86	15.75	14.38	32.03	39.66	4.30	10.38
\$60,000-89,999	300	5,579	20.65	17.43	26.43	18.40	41.76	22.24	24.10	21.61	32.80
\$90,000-119,999	150	2,694	9.97	5.17	9.50	19.24	13.87	8.71	9.77	21.79	12.79
\$120,000 or more	120	1,962	7.26	2.71	5.04	17.26	9.56	4.86	4.27	23.16	17.83
What is the current monthly loan payment? (RC_Q19)											
No payment (reported value of zero)	13	185	0.68	0.51	1.21	0.55	.	1.07	0.70	0.47	.
No answer	33	607	2.25	2.98	1.17	2.85	3.67	1.17	1.39	0.99	9.82
Don't know	63	1,268	4.69	3.78	0.89	10.76	3.61	5.50	0.91	5.30	.
\$250-499	241	5,029	18.61	26.58	17.56	7.66	6.14	15.78	24.43	4.22	.
\$500-749	480	10,181	37.69	42.49	43.65	27.36	23.45	40.04	39.00	22.64	.
\$750-999	295	5,688	21.05	16.18	20.57	21.30	39.32	24.23	24.42	28.34	72.19
\$1,000 or more	231	4,059	15.02	7.48	14.95	29.52	23.82	12.23	9.14	38.04	17.98

Table G17: MHOS: Cost of Credit by Loan Type, Whether Applied to Multiple Lenders, and Whether Applied Through Seller/Retailer (Multipage Table)	N	Sum of weights	Weighted percent	Applied to Multiple Lenders								
				No				Yes				
				Loan type				Loan type				
				Personal property		Mortgage		Personal property		Mortgage		
				Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		
				No	Yes	No	Yes	No	Yes	No	Yes	
				Weighted percent	Weighted percent							
What is the interest rate on this loan? (RC_Q20)												
No answer	50	937	3.47	3.75	3.49	3.84	.	2.71	1.74	5.43	.	
Don't know	560	11,475	42.47	43.99	40.79	40.51	34.88	43.28	37.15	43.26	47.00	
4-5%	170	2,850	10.55	6.96	5.99	29.12	8.96	4.07	5.86	23.36	.	
6-7%	231	4,036	14.94	15.96	17.05	8.73	25.37	17.38	11.83	12.22	.	
8-9%	237	5,239	19.39	20.60	19.39	14.28	28.81	19.68	28.17	11.69	32.80	
10-11%	108	2,480	9.18	8.74	13.28	3.53	1.99	12.87	15.25	4.03	20.20	
What was the length or term on this loan? (RC_21)												
No answer	31	529	1.96	2.93	2.57	1.08	.	1.58	.	0.50	.	
Don't know	88	1,901	7.04	8.78	7.58	6.52	3.67	4.80	2.35	8.03	.	
10 years	100	2,388	8.84	17.88	2.06	2.19	2.47	3.50	0.85	1.76	.	
11-14 years	24	584	2.16	3.66	0.99	.	6.08	1.13	3.64	.	.	
15 years	218	4,075	15.08	17.43	12.60	14.97	11.78	16.00	13.97	6.77	.	
16-19 years	20	312	1.16	0.93	2.52	.	5.86	1.39	1.43	.	10.38	
20 years	295	5,933	21.96	23.85	32.48	12.99	4.33	25.36	26.98	7.65	16.38	
21-22 years	10	208	0.77	0.18	2.04	1.45	.	0.83	0.91	0.58	8.16	
23 years	251	4,999	18.50	10.14	22.31	17.22	51.19	25.38	30.20	25.80	32.80	
24-29 years	18	299	1.11	0.64	2.21	0.28	.	0.92	5.06	0.92	9.82	
30 years	301	5,789	21.43	13.59	12.65	43.29	14.62	19.10	14.59	48.01	22.46	

Table G17: MHOS: Cost of Credit by Loan Type, Whether Applied to Multiple Lenders, and Whether Applied Through Seller/Retailer (Multipage Table)	N	Sum of weights	Weighted percent	Applied to Multiple Lenders								
				No				Yes				
				Loan type				Loan type				
				Personal property		Mortgage		Personal property		Mortgage		
				Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		
				No	Yes	No	Yes	No	Yes	No	Yes	
				Weighted percent	Weighted percent							
Does this loan have ... an interest rate that may change over the term of the loan? (RC_Q22A)												
No answer	78	1,553	5.75	7.52	6.29	3.56	.	4.89	3.91	4.69	.	
Don't know	272	6,554	24.26	28.15	17.97	20.40	15.79	27.18	21.02	15.44	29.32	
Yes	125	2,458	9.10	9.99	7.69	8.52	6.01	8.11	6.87	11.94	6.55	
No	881	16,453	60.90	54.33	68.05	67.52	78.20	59.82	68.20	67.94	64.12	
Overall, how satisfied are you that the loan you got was the one with the ... best terms to fit your needs? (RC_Q38A)												
No answer	74	1,497	5.54	8.10	3.04	3.56	.	4.78	4.54	2.98	.	
Very	563	10,990	40.68	41.44	33.01	51.65	18.39	40.27	33.63	42.22	.	
Somewhat	547	10,788	39.93	36.97	50.79	35.19	46.31	38.99	38.86	48.83	70.53	
Not at all	172	3,742	13.85	13.49	13.16	9.60	35.30	15.97	22.98	5.96	29.47	
Overall, how satisfied are you that the loan you got was the one with the ... lowest interest rate for which you could qualify? (RC_Q38B)												
No Answer	117	2,116	7.83	10.93	6.00	7.49	.	5.40	3.79	5.64	.	
Very	426	8,122	30.06	27.56	24.22	44.12	22.72	26.68	31.34	37.88	.	
Somewhat	532	10,949	40.53	39.76	45.57	33.45	37.22	42.10	44.09	43.25	61.21	
Not at all	281	5,830	21.58	21.75	24.21	14.93	40.06	25.82	20.78	13.22	38.79	

Table G18: MHOS: Cost of Credit by Loan Type, Whether Applied to Multiple Lenders, and Whether Applied Through Seller/Retailer	Applied to Multiple Lenders							
	No							
	Loan type							
	Personal property				Mortgage			
	Applied through seller or retailer (volunteered response)				Applied through seller or retailer (volunteered response)			
	No		Yes		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	8,386	49,000.00	2,231	59,990.00	2,632	90,000.00	449	70,000.00
Monthly payment (\$)	10,422	600.00	2,590	680.00	3,103	854.00	507	865.00
Interest rate (%)	5,874	8.00	1,492	8.99	2,011	5.30	356	7.99
Loan term (years)	9,923	20.00	2,406	20.00	3,339	23.00	527	23.00

Table G18 (cont'd.): MHOS: Cost of Credit by Loan Type, Whether Applied to Multiple Lenders, and Whether Applied Through Seller/Retailer	Applied to Multiple Lenders							
	Yes							
	Loan type							
	Personal property				Mortgage			
	Applied through seller or retailer (volunteered response)				Applied through seller or retailer (volunteered response)			
	No		Yes		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	3,676	59,000.00	1,233	55,274.00	1,578	100,000.00	116	78,000.00
Monthly payment (\$)	4,719	671.00	1,434	620.00	2,041	942.00	141	889.00
Interest rate (%)	2,762	8.50	903	8.90	1,123	6.10	83	9.90
Loan term (years)	4,788	20.00	1,444	23.00	2,003	30.00	157	23.00

Table G19: MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type and Whether Turned Down on Earlier Application (Multipage Table)	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application		Loan Type				
				Loan Type		Turned Down on Earlier Application		Personal property		Mortgage		
				Personal property	Mortgage	No	Yes	Turned down on earlier application		Turned down on earlier application		
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	No	Yes	No	Yes	
Total	462	8,939	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
When you took out this loan, what was the dollar amount you borrowed? (RC_Q18)												
No answer	9	132	1.48	1.13	2.44	1.75	0.87	1.37	0.64	2.78	1.59	
Don't know	96	2,204	24.66	24.41	25.36	24.20	25.65	22.39	28.64	29.06	16.35	
Less than \$30,000	18	316	3.53	4.39	1.13	3.73	3.10	4.89	3.33	0.62	2.39	
\$30,000-59,999	121	2,335	26.12	33.74	4.71	24.55	29.56	32.22	36.94	3.97	6.53	
\$60,000-89,999	112	2,018	22.58	22.65	22.36	21.64	24.62	22.63	22.70	18.99	30.60	
\$90,000-119,999	55	1,087	12.16	8.95	21.19	13.30	9.67	9.99	6.76	22.18	18.77	
\$120,000 or more	51	847	9.47	4.73	22.80	10.82	6.53	6.51	1.00	22.40	23.78	
What is the current monthly loan payment? (RC_Q19)												
No payment (reported value of zero)	6	75	0.84	0.98	0.44	1.22	0.00	1.45	0.00	0.62	0.00	
No answer	9	117	1.31	1.22	1.58	1.27	1.41	1.15	1.35	1.58	1.59	
Don't know	16	411	4.59	4.47	4.95	5.93	1.67	5.55	2.20	6.98	0.00	
\$250-499	63	1,260	14.10	17.72	3.94	13.86	14.62	17.59	17.99	3.85	4.14	
\$500-749	152	3,120	34.91	39.81	21.13	31.38	42.61	35.59	48.66	20.06	23.74	
\$750-999	124	2,334	26.11	24.27	31.27	25.94	26.47	24.95	22.85	28.61	37.77	
\$1,000 or more	92	1,621	18.14	11.53	36.70	20.39	13.21	13.72	6.95	38.31	32.76	
What is the interest rate on this loan? (RC_Q20)												
No answer	16	283	3.17	2.49	5.07	2.88	3.79	2.84	1.76	2.99	10.15	
Don't know	181	3,784	42.33	41.91	43.51	42.04	42.95	39.59	46.77	48.62	31.01	
4-5%	56	807	9.02	4.48	21.80	11.38	3.87	6.61	0.00	24.21	15.92	

Table G19: MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type and Whether Turned Down on Earlier Application (Multipage Table)	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application		Loan Type			
				Loan Type		Turned Down on Earlier Application		Personal property		Mortgage	
				Loan Type		Turned Down on Earlier Application		Turned down on earlier application		Turned down on earlier application	
				Personal property	Mortgage	No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
6-7%	78	1,331	14.89	16.13	11.41	18.73	6.50	21.14	5.61	12.28	9.27
8-9%	84	1,731	19.36	21.59	13.10	18.08	22.17	21.43	21.91	9.06	22.98
10-11%	47	1,004	11.23	13.40	5.11	6.88	20.72	8.39	23.95	2.84	10.67
What was the length or term on this loan? (RC_21)											
No answer	7	92	1.03	1.23	0.46	0.67	1.81	0.92	1.87	0.00	1.59
Don't know	23	456	5.10	4.25	7.49	4.72	5.93	3.50	5.83	8.00	6.24
10 years	12	230	2.57	2.91	1.64	2.37	3.03	3.02	2.68	0.62	4.14
11-14 years	4	112	1.25	1.70	0.00	0.95	1.92	1.30	2.53	0.00	0.00
15 years	67	1,173	13.12	15.55	6.31	15.11	8.79	18.45	9.43	6.12	6.78
16-19 years	7	109	1.22	1.40	0.69	0.18	3.48	0.24	3.84	0.00	2.39
20 years	98	1,889	21.14	25.73	8.24	22.10	19.04	27.09	22.86	8.69	7.12
21-22 years	5	81	0.91	0.85	1.08	0.90	0.93	0.95	0.64	0.77	1.85
23 years	119	2,361	26.41	26.46	26.26	25.61	28.16	26.96	25.41	21.98	36.73
24-29 years	8	157	1.76	1.85	1.51	1.30	2.77	1.33	2.93	1.21	2.26
30 years	112	2,279	25.49	18.09	46.30	26.11	24.15	16.23	21.98	52.61	30.89
Does this loan have...?: An interest rate that may change over the term of the loan. (RC_Q22A)											
No answer	21	411	4.59	4.67	4.37	3.83	6.25	3.68	6.76	4.26	4.65
Don't know	85	2,085	23.32	25.80	16.37	22.08	26.03	23.65	30.30	17.86	12.71
Yes	39	788	8.82	7.83	11.58	10.28	5.61	9.08	5.20	13.50	6.88
No	317	5,656	63.27	61.70	67.68	63.80	62.11	63.59	57.73	64.37	75.76

Table G19: MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type and Whether Turned Down on Earlier Application (Multipage Table)	N	Sum of weights	Weighted percent	Loan Type		Turned Down on Earlier Application		Loan Type			
				Personal property	Mortgage	No	Yes	Personal property		Mortgage	
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Turned down on earlier application		Turned down on earlier application	
								No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Overall, how satisfied are you that the loan you got was the one with the ... best terms to fit your needs? (RC_Q38A)											
No answer	22	377	4.21	4.72	2.78	5.04	2.41	6.04	1.94	2.34	3.85
Very	180	3,481	38.94	38.78	39.40	41.54	33.27	41.00	34.10	42.98	30.65
Somewhat	198	3,748	41.93	38.96	50.29	42.94	39.72	39.73	37.33	51.55	47.19
Not at all	62	1,333	14.91	17.54	7.53	10.48	24.60	13.22	26.62	3.12	18.30
Overall, how satisfied are you that the loan you got was the one with the ... lowest interest rate for which you could qualify? (RC_Q38B)											
No answer	29	456	5.10	5.04	5.27	4.91	5.50	5.20	4.70	4.15	7.99
Very	147	2,657	29.72	27.72	35.35	32.06	24.63	29.66	23.65	38.49	27.69
Somewhat	189	3,848	43.05	42.55	44.45	44.11	40.74	43.25	41.07	46.41	39.68
Not at all	97	1,978	22.13	24.69	14.93	18.92	29.13	21.89	30.57	10.96	24.64

Table G20: MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type and Whether Turned Down on Earlier Application	Loan Type				Turned Down on Earlier Application			
	Personal property		Mortgage		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	4,909	56,000.00	1,694	100,000.00	4,540	68,145.00	2,063	65,000.00
Monthly payment (\$)	6,153	656.00	2,183	922.00	5,615	750.00	2,721	672.00
Interest rate (%)	3,666	8.50	1,206	6.50	3,377	7.50	1,495	9.50
Loan term (years)	6,231	20.00	2,160	30.00	5,801	23.00	2,590	23.00

Table G20 (cont'd.): MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type and Whether Turned Down on Earlier Application	Loan Type							
	Personal property				Mortgage			
	Turned down on earlier application				Turned down on earlier application			
	No		Yes		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	3,406	60,000.00	1,503	55,000.00	1,135	105,000.00	559	91,000.00
Monthly payment (\$)	4,103	679.00	2,050	630.00	1,512	980.00	671	889.00
Interest rate (%)	2,572	8.00	1,094	9.99	805	5.90	401	9.00
Loan term (years)	4,270	20.00	1,962	23.00	1,531	30.00	628	23.00

Table G21: MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type, Whether Turned Down on Earlier Application, and Whether Applied Through Seller/Retailer (Multipage Table)	N	Sum of weights	Weighted percent	Turned Down on Earlier Application							
				No				Yes			
				Loan type				Loan type			
				Personal property		Mortgage		Personal property		Mortgage	
				Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)	
				No	Yes	No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Total	462	8,939	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
When you took out this loan, what was the dollar amount you borrowed? (RC_Q18)											
No answer	9	132	1.48	1.41	1.22	1.91	31.93	0.91	0.00	1.90	0.00
Don't know	96	2,204	24.66	25.51	8.97	29.92	0.00	30.19	25.01	14.96	23.66
Less than \$30,000	18	316	3.53	3.73	9.88	0.64	0.00	4.75	0.00	2.84	0.00
\$30,000-59,999	121	2,335	26.12	29.72	42.97	4.09	0.00	37.65	35.27	4.92	14.99
\$60,000-89,999	112	2,018	22.58	22.89	21.52	19.56	0.00	20.64	27.53	27.42	47.37
\$90,000-119,999	55	1,087	12.16	10.46	7.96	21.60	41.56	4.45	12.18	22.32	0.00
\$120,000 or more	51	847	9.47	6.28	7.49	22.28	26.52	1.42	0.00	25.64	13.98
What is the current monthly loan payment? (RC_Q19)											
No payment (reported value of zero)	6	75	0.84	1.50	1.22	0.64	0.00	0.00	0.00	0.00	0.00
No answer	9	117	1.31	0.85	2.44	0.67	31.93	1.93	0.00	1.90	0.00
Don't know	16	411	4.59	6.84	0.00	7.19	0.00	2.23	2.13	0.00	0.00
\$250-499	63	1,260	14.10	16.12	23.90	3.97	0.00	14.93	25.15	4.92	0.00
\$500-749	152	3,120	34.91	34.06	42.18	20.66	0.00	54.58	34.78	28.24	0.00
\$750-999	124	2,334	26.11	26.72	17.33	28.22	41.56	18.17	33.83	28.66	85.81
\$1,000 or more	92	1,621	18.14	13.90	12.94	38.66	26.52	8.16	4.11	36.28	14.19

Table G21: MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type, Whether Turned Down on Earlier Application, and Whether Applied Through Seller/Retailer (Multipage Table)	N	Sum of weights	Weighted percent	Turned Down on Earlier Application								
				No				Yes				
				Loan type				Loan type				
				Personal property		Mortgage		Personal property		Mortgage		
				Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		
				No	Yes	No	Yes	No	Yes	No	Yes	
				Weighted percent	Weighted percent							
What is the interest rate on this loan? (RC_Q20)												
No answer	16	283	3.17	2.80	3.05	3.08	0.00	2.51	0.00	12.07	w0.00	
Don't know	181	3,784	42.33	42.61	26.60	48.04	68.07	44.91	51.14	29.76	37.63	
4-5%	56	807	9.02	5.75	10.28	24.93	0.00	0.00	0.00	18.93	0.00	
6-7%	78	1,331	14.89	21.58	19.26	12.65	0.00	7.16	1.98	11.02	0.00	
8-9%	84	1,731	19.36	20.41	25.83	8.38	31.93	17.91	31.29	21.04	33.18	
10-11%	47	1,004	11.23	6.85	14.98	2.92	0.00	27.51	15.59	7.17	29.18	
What was the length or term on this loan? (RC_21)												
No answer	7	92	1.03	1.14	0.00	0.00	0.00	2.67	0.00	1.90	0.00	
Don't know	23	456	5.10	3.73	2.51	8.24	0.00	7.40	2.13	7.43	0.00	
10 years	12	230	2.57	3.72	0.00	0.64	0.00	2.97	1.98	4.92	0.00	
11-14 years	4	112	1.25	1.60	0.00	0.00	0.00	0.00	8.48	0.00	0.00	
15 years	67	1,173	13.12	18.19	19.57	6.30	0.00	10.67	6.53	8.07	0.00	
16-19 years	7	109	1.22	0.30	0.00	0.00	0.00	4.05	3.34	0.00	14.99	
20 years	98	1,889	21.14	25.59	33.54	8.00	31.93	24.81	18.29	6.68	9.47	
21-22 years	5	81	0.91	1.17	0.00	0.00	26.52	0.00	2.13	2.20	0.00	
23 years	119	2,361	26.41	27.31	25.43	22.63	0.00	20.67	36.54	34.71	47.37	
24-29 years	8	157	1.76	0.71	4.01	1.24	0.00	1.42	6.46	0.00	14.19	
30 years	112	2,279	25.49	16.53	14.94	52.95	41.56	25.33	14.13	34.10	13.98	

Table G21: MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type, Whether Turned Down on Earlier Application, and Whether Applied Through Seller/Retailer (Multipage Table)	N	Sum of weights	Weighted percent	Turned Down on Earlier Application							
				No				Yes			
				Loan type				Loan type			
				Personal property		Mortgage		Personal property		Mortgage	
				Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)		Applied through seller or retailer (volunteered response)	
				No	Yes	No	Yes	No	Yes	No	Yes
				Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent	Weighted percent
Does this loan have ... an interest rate that may change over the term of the loan? (RC_Q22A)											
No answer	21	411	4.59	3.36	5.03	4.39	0.00	8.61	2.43	5.53	0.00
Don't know	85	2,085	23.32	26.94	9.52	17.44	31.93	27.75	36.29	9.79	28.16
Yes	39	788	8.82	9.37	7.87	13.91	0.00	5.06	5.54	6.39	9.47
No	317	5,656	63.27	60.33	77.58	64.26	68.07	58.58	55.74	78.30	62.37
Overall, how satisfied are you that the loan you got was the one with the ... best terms to fit your needs? (RC_Q38A)											
No answer	22	377	4.21	6.02	6.16	2.41	0.00	1.75	2.39	4.58	0.00
Very	180	3,481	38.94	42.74	33.53	44.26	0.00	34.25	33.76	36.46	0.00
Somewhat	198	3,748	41.93	39.47	40.87	51.06	68.07	37.82	36.18	42.56	71.62
Not at all	62	1,333	14.91	11.77	19.45	2.26	31.93	26.17	27.67	16.39	28.38
Overall, how satisfied are you that the loan you got was the one with the ... lowest interest rate for which you could qualify? (RC_Q38B)											
No answer	29	456	5.10	5.56	3.64	4.27	0.00	5.01	3.98	9.51	0.00
Very	147	2,657	29.72	28.36	35.26	39.64	0.00	22.58	26.14	32.94	0.00
Somewhat	189	3,848	43.05	44.31	38.70	45.76	68.07	36.74	51.24	36.18	58.15
Not at all	97	1,978	22.13	21.78	22.40	10.33	31.93	35.66	18.64	21.38	41.85

Table G22: MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type, Whether Turned Down on Earlier Application, and Whether Applied Through Seller/Retailer	Turned Down on Earlier Application							
	No							
	Loan Type							
	Personal Property				Mortgage			
	Applied through seller or retailer (volunteered response)				Applied through seller or retailer (volunteered response)			
	No		Yes		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	2,649	60,000.00	757	53,000.00	1,102	105,000.00	33	107,000.00
Monthly payment (\$)	3,291	704.00	812	611.00	1,479	980.00	33	823.00
Interest rate (%)	1,979	7.99	593	8.00	790	5.90	15	9.00
Loan term (years)	3,448	20.00	822	20.00	1,483	30.00	48	22.00

Table G22 (cont'd): MHOS: Applied to Multiple Lenders: Cost of Credit by Loan Type, Whether Turned Down on Earlier Application, and Whether Applied Through Seller/Retailer	Turned Down on Earlier Application							
	Yes							
	Loan Type							
	Personal Property				Mortgage			
	Applied through seller or retailer (volunteered response)				Applied through seller or retailer (volunteered response)			
	No		Yes		No		Yes	
	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median	Sum of weights	Median
Loan amount (\$)	1,027	54,000.00	477	60,102.00	476	91,000.00	83	75,000.00
Monthly payment (\$)	1,428	620.00	622	650.00	562	820.00	109	889.00
Interest rate (%)	784	10.00	310	9.50	333	7.50	68	9.90
Loan term (years)	1,340	23.00	622	23.00	520	23.00	109	23.00