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Fewer Applications, Falling Denial Rates

Identifying Home Loan Trends in Tennessee from Home Mortgage Disclosure Act (HMDA) Data

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INTRODUCTION

This report provides an overview of mortgage market activity and lending patterns in Tennessee using the Home Mortgage Disclosure Act (HMDA) data from 2005 until 2014 and compares different demographic groups and lender types. To determine if there are any particular trends in mortgage loan applications, originations and denials in Tennessee, ten years of HMDA data is included in the analysis. All the information provided in this report is related to the mortgage loan applications in Tennessee, unless noted. This is the second annual report utilizing HMDA for a Tennessee-specific examination.

1. What is HMDA?

The HMDA data are the most comprehensive source of publicly available information on the mortgage market. The HMDA data are useful in determining whether financial institutions are serving the housing needs in their communities and in identifying possible discriminatory lending patterns. HMDA data can be used in identifying overall market trends in residential financing even though it does not include all residential loan applications because some institutions are exempt from HMDA reporting requirements.

The HMDA requires many depository and non-depository lenders to collect and disclose information about housing-related loans (including home purchase, home improvement and refinancing) and applications for those loans in addition to applicants' and borrowers' income, race, ethnicity and gender. The law governing HMDA was enacted in 1975, initially falling within the regulatory authority of the Federal Reserve Board. In 2011, regulatory authority was transferred to the Consumer Financial Protection Bureau.¹ Whether an institution is required to report depends on its asset size, its location, and whether it is in the business of residential mortgage lending.²

In this report, we also looked at Tennessee Housing Development Agency's (THDA's) share in Tennessee home loans market in 2014. THDA does not report to HMDA because THDA is not the direct lender, but the lenders originating the loans for THDA borrowers report to HMDA. We compared the home purchase loans reported in HMDA data files in Tennessee in 2014 with the THDA loan portfolio.

2. Key Findings

• In 2014, 262,821 home purchase, refinancing and home improvement loan applications for oneto four-family dwellings were submitted to financial institutions in Tennessee. In 2014, both the loan applications and originations were lower than 2013. Both loan applications and loan originations were at their lowest levels in the 10-year study period. In fact, the loan originations

¹ History of HMDA, <u>http://www.ffiec.gov/hmda/history2.htm</u>

² Banks, credit unions or saving associations (institutions) that had a home or branch office in a Metropolitan Statistical Area (MSA); whose total assets exceeded the coverage threshold on the preceding December 31 and that originated at least one home purchase loan (excluding temporary financing such as a construction loan) or refinancing of a home purchase loan secured by a first lien on a one- to four-family dwelling, in the preceding calendar year, must report. The exemption threshold of the HMDA data changed over the years. In December 2014, the CFPB increased the asset exemption threshold for depository institutions to \$44 million for data collection in 2015, and did not change the exemption thresholds for non-depository institutions. The institutions that are not federally insured or regulated are exempt from reporting. Also, the originated loans that are not insured, guaranteed or supplemented by a federal agency are not reported. For more information about HMDA data fields_see: A Guide to HMDA Reporting: Getting it Right (Edition effective January, 1, 2013), *Federal Financial Institutions Examination Council*, at http://www.ffiec.gov/hmda/pdf/2013guide.pdf

in 2014 was 50 percent of the number of loans originated in Tennessee in 2005, which was the peak year of loan origination.

- Five large lenders, including Regions, Quicken Loans, Mortgage Investors Group (MIG), Wells Fargo and First Community Mortgage originated nearly one fifth of all the loans, in 2014.
- In 2014, 57 percent of all first-lien home purchase loans originated for one- to four-family owner-occupied homes were conventional, while 21 percent were Federal Housing Administration (FHA)-insured, 13 percent were insured by the Veterans Administration (VA) and 10 percent were Farm Services Agency (FSA)/Rural Housing Services (RHS)-insured. While the share of conventional loans and loans insured by VA and FSA/RHS increased compared to their level in 2013, the share of FHA-insured loans declined in 2014.
- Conventional home purchase loan originations, while increased from the lowest level of 41 percent in 2010, was still substantially lower than the peak level of 85 percent that was reached in 2005 and 2006.
- Minority and lower income borrowers used nonconventional government-insured (FHA, VA and/or FSA/RHS insured) loans more often than conventional loans. In 2014, 73 percent of all African-American/black borrowers and 61 percent of all Hispanic or Latino borrowers used nonconventional loans for home purchase, while in the same year, only 43 percent of all home purchase loans were nonconventional. Low-income borrowers also mostly used nonconventional loans in 2014.
- In 2014, the average loan amount for VA-insured loans was higher than the average conventional loan amount. The applicants who used VA insurance also had higher average incomes than borrowers with FHA-insured and FSA/RHS-insured loans.
- In 2014, the denial rate of all borrowers in different race categories (including conventional and nonconventional loans) who applied for a home purchase loan was 12.4 percent in Tennessee. With 20.6 percent, black or African American borrowers had the highest denial rate in 2014. Denial rates for all race categories were lower in 2014 compared to 2013. In fact, including conventional and nonconventional loans, the denial rates in 2014 were the lowest between 2005 and 2014, regardless of borrower's race.
- In 2014, THDA funded 15.5 percent of all comparable FHA-insured first lien home purchase loans in Tennessee, which was one percentage point lower than THDA's share in the FHA-insured mortgage loans market in 2013.

PART A. TENNESSEE HMDA DATA ANALYSIS

I. MORTGAGE APPLICATIONS AND ORIGINATIONS

In 2014, 1,032 institutions reported data on 262,821 home mortgage applications in Tennessee. These loan applications in 2014 led to 130,220 loan originations, a 56 percent approval rate³, in the amount of approximately \$22 billion. The number of both applications and originations in 2014 were lower than they were in 2013. In the nation, similar to Tennessee, the number of reporting institutions and the number of mortgage loans reported also declined in 2014 compared to 2013. Although both the number of reporting institutions and number of applications fluctuated widely, in 2014, the number of applications was at the lowest level in the 10-year period covered in this report. Except temporary peak levels created mostly by increased refinance activity through historically low interest rates and mortgage modification programs in 2009 and 2012, the mortgage loan applications in Tennessee were in a downward trend for this 10-year period. Regulatory changes such as the ability to pay rule and qualified mortgage rule and the significant changes to the Home Ownership and Equity Protection Act (HOEPA) were among the reasons for the decline in mortgage loan applications and originations despite the continued low interest rates (Bhutta, Popper, and Ringo, 2015). These new regulations resulted in greater scrutiny on a borrower's ability to pay debts secured by a dwelling or changed definitions around mortgages such that more mortgages would fall into the High Cost category and thus be viewed as greater risks. The sum result was a contracting of available mortgage lending.

Activity Year	Number of Reporting Institutions	Number of Applications	Number of Loans Originated	Dollar Value ⁴ of Loans Originated
2005	1,198	637,308	259,778	\$30,098,732
2006	1,299	608,566	252,001	\$30,733,054
2007	1,268	512,117	217,392	\$29,398,208
2008	1,185	365,839	163,188	\$23,883,211
2009	1,126	406,028	187,776	\$29,506,366
2010	1,034	335,917	153,282	\$24,100,292
2011	983	304,377	137,943	\$21,726,542
2012	1,012	373,362	180,686	\$29,927,384
2013	1,053	358,454	172,612	\$28,097,932
2014	1,032	262,821	130,220	\$22,211,166

Table 1. Number of Reporting Institutions, Total Number of Applications and Originations and Dollar
Value of Loans Originated by Year, 2005-2014, Tennessee

In reviewing the 10 years of data found in Table 1, 2014 saw a 25 percent decline in the number of loans originated from 2013. Similarly, the dollar value of loans originated declined by 21 percent compared to 2013. This is the lowest level of originations in the ten years covered in this report, down 50 percent from the 2005 peak.

³ Excluding the applications withdrawn by applicant and files closed for incompleteness.

⁴ Nominal dollar value.

In 2014, 15 institutions originated more than 36 percent of all the loans. The five lenders with the highest number of loan originations were Regions Bank, Quicken Loans, Mortgage Investors Group (MIG), Wells Fargo and First Community Mortgage, respectively. Of 1,032 institutions reporting to HMDA, 128 institutions did not have any loans originated.⁵ JP Morgan Chase had the fourth highest number of loans applications in 2014, but only 15 percent of those reported loans were originated in 2014. Wells Fargo has originated the highest number of mortgage loans in Tennessee since 2009, and even when it was not the institution with most loans, it was always among the first four institutions with the highest number of loan originations during the 10-year period. Mortgage Investors Group (MIG) was among the top 10 institutions with the highest number of loans originated in the 10-year period in Tennessee. MIG has been the top originating agent of Tennessee Housing Development Agency (THDA) loans for over 10 years.

II. HOME PURCHASE VERSUS REFINANCE⁶

According to HMDA data, in 2014, 245,935 home purchase, refinancing and home improvement loan applications for one- to four-family dwellings were submitted⁷ to financial institutions in Tennessee. In the same year, there were an additional 601 reported loan applications for multifamily dwellings and 16,285 applications for manufactured homes.

In 2014, similar to the previous year, the annual decline in loan applications and originations was mostly the result of the decline in refinancing activity. As Figure 1 displays, in 2013 and 2014, the number of refinance loans originated for 1 one- to four-family dwellings declined. Every year since the financial crisis in 2008, a relatively higher proportion of all loans originated for one- to four-family dwellings were for the purpose of refinance rather than home purchase until 2014. In the years following the financial crisis, declining interest rates encouraged the mortgage borrowers to refinance their previously high interest rate loans. During that period after the crisis, a majority of mortgage activity was for refinancing purposes rather than home purchasing. As the interest rates started increasing from their historically low levels, the refinance activity slowed down, and home purchase mortgages increased. In 2014, 57 percent of all loans originated by reporting lending institutions were for home purchase and 37 percent were for refinancing. In 2009, for example, 63 percent of all loans originated in Tennessee were for refinance purposes.

⁵ Institutions also report the loans that were originated before and they purchased from other institutions during the calendar year. It is also possible that some lenders had loan applications, but those were denied or withdrawn by the borrower and were not originated.

⁶ First lien owner-occupied, one- to four-family mortgage loans originated for home purchase and refinance purposes in 2013 and 2014 by county can be found in Appendix A.

⁷ That number also includes the loans originated in the previous years and purchased by the financial institutions during the year, and preapproval requests.

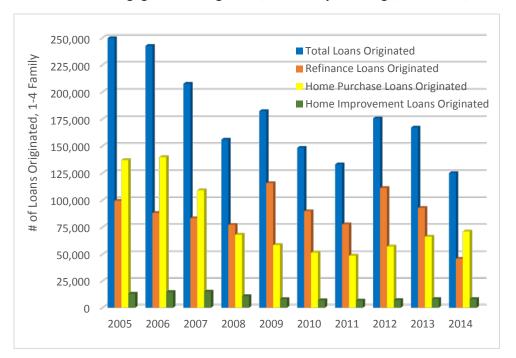


Figure 1. The Number of Mortgage Loans Originated, 1-4 Family Dwellings, 2005-2014, Tennessee

While overall originations are at their lowest in 10 years, home purchases are on the rise. In 2014, the applications for one- to four-family dwellings home purchase loans were two percent lower than previous year, but the originations were seven percent higher than 2013. This continues the upward trend in purchase originations occurring since 2011. Refinance mortgage loan originations for one- to four-family properties declined by 51 percent from 2013 to 2014, in Tennessee. This is consistent with the national trend where in 2014, the refinance mortgage loan originations for one- to four-family homes in the nation declined by 55 percent compared to 2013.⁸

⁸ Neil Bhutta, Jack Popper, and Daniel R. Ringo (2015), "The 2014 Home Mortgage Disclosure Act Data," *Federal Reserve Bulletin*, vol. 101 (November), <u>http://www.federalreserve.gov/pubs/bulletin/2015/pdf/2014_HMDA.pdf</u>

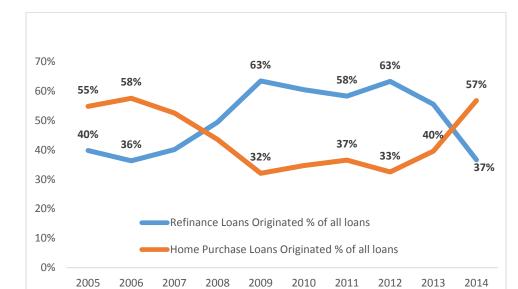


Figure 2. The Percent of Home Purchase and Refinance Mortgage Loan Originations in Total Loan Originations, 1-4 Family Dwellings, 2005–2014, Tennessee

Tennessee's peak year for the refinancing loan origination was 2009. In that year, the refinancing of mortgages for one- to four-family homes increased by 50 percent annually. The Home Affordable Refinance Program (HARP) that started in March 2009 and historically low mortgage interest rates were possible reasons for this substantial increase. Another big jump in the refinancing loans happened in 2012 when the loans originated for refinance purpose increased by 43 percent annually with a volume almost matching that of 2009. However, both in 2013 and 2014, the refinance loan originations declined. In 2014, 37 percent of all loans originated were for refinance purposes, down from 56 percent in 2013 (see Figure 2).

In Table 2, the number of loans reported to HMDA and various types of action taken by the financial institutions are separated for one- to four-family, manufactured and multifamily dwellings, and the loans for one- to four-family dwellings are further separated based on the loan purpose (purchase, refinance and home improvement).

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
1-4 Family										
Home Purchas	se									
Reported*	263,386	274,524	208,406	128,363	118,638	103,839	98,742	113,508	128,899	126,868
Originated	136,983	139,701	109,089	68,014	58,509	51,531	48,691	57,175	66,207	71,069
Denied	27,896	30,772	22,986	13,178	9,544	8,794	8,746	10,815	11,663	10,178
Purchased**	56,162	65,645	49,407	30,998	37,257	32,500	30,869	33,452	36,210	31,450
Other***	42,345	38,406	26,924	16,173	13,328	11,014	10,436	12,066	14,819	14,171
Refinancing										
Reported	304,721	271,172	241,947	194,989	259,264	204,643	174,109	226,436	194,628	101,059
Originated	99,488	88,152	83,347	77,133	115,722	89,818	77,683	111,247	92,850	45,902
Denied	82,274	72,496	71,222	53,211	40,090	34,880	30,917	35,426	36,566	24,410
Purchased	34,052	37,561	34,354	28,452	59,245	42,693	30,675	36,017	25,970	9,681
Other	88,907	72,963	53,024	36,193	44,207	37,252	34,834	43,746	39,242	21,066
Home Improve	ement									
Reported	35,528	36,252	36,081	27,157	17,118	14,056	14,064	16,029	16,806	18,008
Originated	13,189	14,752	15,171	10,865	8,089	7,080	6,793	7,241	8,126	8,145
Denied	13,782	14,465	14,455	11,129	5,488	4,944	5,393	6,584	6,674	7,490
Purchased	804	1,398	1,106	1,458	1,084	685	600	720	547	465
Other	7,753	5,637	5,349	3,705	2,457	1,347	1,278	1,484	1,459	1,908
Multifamily										
Reported	606	604	574	634	407	363	436	585	593	601
Originated	479	461	452	493	321	296	354	489	478	493
Denied	54	64	57	49	44	29	36	42	40	42
Purchased	34	29	15	59	13	9	13	7	9	3
Other	39	50	50	33	29	29	33	47	66	63
Manufacture	ł									
Reported	33,067	26,014	25,109	14,696	10,601	13,016	17,026	16,804	17,528	16,285
Originated	9,639	8,935	9,333	6,683	5,135	4,557	4,422	4,534	4,951	4,611
Denied	13,783	11,041	9,297	4,722	3,287	5,618	7,898	8,214	8,166	7,302
Purchased	2,906	925	2,421	1,115	583	272	252	211	224	286
Other	6,739	5,113	4,058	2,176	1,596	2,569	4,454	3,845	4,187	4,086

Table 2. The Number of Loans Reported and Action Taken by the Financial Institutions, 2005-2014,Tennessee

*Reported includes all the loans reported by the financial institutions to HMDA during the year regardless of the action taken.

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

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

In 2008, loans originated for multifamily home purchases were at the highest level of the 10-year period covered in this report. In 2009 and 2010, the number of multifamily loans originated declined, but since 2011, has increased. In 2014, the number of loans for multifamily homes reached its peak level in 2008.

In 2014, 14 percent of all first-lien home purchase loans on owner-occupied one- to four-family dwellings originated in the state were in Davidson County, followed by Shelby County with 10 percent and Rutherford County with seven percent. In 22 counties, home purchase loans for first lien owner occupied one- to four-family dwellings increased compared to 2013. Decatur and Hardeman Counties' home purchase loan originations remained unchanged from 2013 to 2014, while the balance, 71 counties saw a decline in origination. Hancock County experienced the largest annual percentage increase in 2014, but the total number of home purchase loans originated for first-lien, owner occupied one- to four-family dwellings increased from 11 to 26. The largest increase in home purchase loans among the counties with 1,000 and more originations in 2014 was in Maury County (17 percent). In contrast, the first-lien refinance loans on one- to four-family dwellings declined in all counties. See Appendix A for the home purchase and refinance loans originated in 2013 and 2014 by county.

Even with a six percent annual increase in 2014, the number of first-lien home purchase loans originated for one- to four-family owner occupied dwellings in Tennessee was not completely back to the level in 2007, just before the housing market crisis. In the state, home purchase loans originated in 2014 were 76 percent of the loans originated in 2007. Home purchase loan originations in the Nashville Metropolitan Statistical Area (MSA) in 2014 was 86 percent of the level in 2007. The following table provides the number of first-lien home purchase loans originated for owner-occupied one- to four-family dwellings by the MSAs between 2007 and 2014 and also shows how the loan origination in 2014 is compared to 2007.⁹

⁹ Office of Management and Budget (OMB) released the revised delineations of Metropolitan Statistical Areas in February 28, 2013, which affected the HMDA data collected on or after January 1, 2014. After the change in 2013, Maury County was added to the Nashville MSA; Stewart County was excluded from the Clarksville MSA; Campbell, Morgan and Roane Counties were added to the Knoxville MSA; Grainger County was removed from the Morristown MSA and added to the Knoxville MSA; and Crockett County was added to the Jackson MSA. To accurately compare the loan originations in 2014 to previous years, we used the 2013 MSA delineations for all years between 2007 and 2014. This way, the change between two different time periods will be the result of change in the mortgage activity rather than the change in geography.

									2014 Originations
	2007	2008	2009	2010	2011	2012	2013	2014	as % of 2007
Chattanooga	4,726	3,436	3,222	2,842	2,632	3,166	3,837	4,010	85%
Clarksville	4,221	2,362	3,305	2,515	2,952	3,042	2,912	3,183	75%
Cleveland	1,076	867	720	663	682	747	934	964	90%
Jackson	1,494	1,113	1,008	811	782	836	982	934	63%
Johnson City	2,220	1,646	1,397	1,271	1,246	1,417	1,503	1,538	69%
Kingsport-Bristol	2,218	1,748	1,391	1,309	1,176	1,390	1,533	1,588	72%
Knoxville	11,292	8,131	7,107	6,295	5,672	6,532	7,770	8,294	73%
Memphis	12,916	8,042	7,686	6,687	5,745	6,463	6,999	7,124	55%
Morristown	1,062	744	638	577	551	600	691	807	76%
Nashville	29,168	20,613	18,137	16,237	15,462	19,243	23,333	25,228	86%
TENNESSEE	81,647	56,122	51,377	45,433	42,716	50,279	58,613	61,998	76%

Table 3. First-Lien Home Purchase Loans Originated for Owner-Occupied 1-4 Family Dwellings, 2007-2014, MSA and State

According to the table, in the Nashville MSA, the number of first-lien home purchase loans for the owner-occupied one- to four-family dwellings declined annually between 2007 and 2011, and has increased in the last three years. In 2014, the home purchase loans originated in the Nashville MSA increased by eight percent compared to 2013. Forty-one percent of all home purchase loans originated in the state were in the Nashville MSA during 2014. Of all the MSAs, the Cleveland-Bradley County MSA is the closest to returning to its 2007 pre-recession level. The Memphis-Shelby MSA is the furthest from its 2007 level, reaching just 55 percent of pre-recession home purchase loans in 2014.

									2014
									Originations
	2007	2008	2009	2010	2011	2012	2013	2014	as % of 2007
Chattanooga	4,332	3,559	5,844	4,548	3,948	5,841	4,936	2,425	56%
Clarksville	1,584	1,499	2,713	2,134	2,493	3,727	2,580	1,371	87%
Cleveland	1,366	1,087	1,755	1,549	1,239	1,733	1,310	663	49%
Jackson MSA	1,086	1,075	1,528	1,341	1,032	1,549	1,359	674	62%
Johnson City	1,842	2,000	3,101	2,304	1,971	2,646	2,146	940	51%
Kingsport-Bristol	2,023	2,113	3,385	2,284	1,953	2,574	2,089	1,048	52%
Knoxville	9,722	9,833	17,962	13,201	10,271	14,940	11,763	5,398	56%
Memphis	8,870	7,068	11,963	10,326	8,256	13,151	10,633	4,891	55%
Morristown	1,197	1,219	1,769	1,302	1,076	1,404	1,216	660	55%
Nashville	20,524	21,050	36,832	29,531	24,996	35,387	29,281	14,094	69%
TENNESSEE	65 <i>,</i> 456	63 <i>,</i> 839	105,611	80,768	68,283	98,720	79,463	37,793	58%

Table 4. First-Lien Refinance Loans Originated for Owner-Occupied 1-4 Family Dwellings, 2007-2014,MSA and State

The distance is further away for all MSAs' refinance loan levels when comparing 2007 to 2014. For the refinance loans, we also compared the number of loans originated in 2014 to the number of loans

originated in 2007, the onset of the housing crisis, however; unlike home purchase loans, which were declining in the state and all the MSAs between 2007 and 2011, and started to increase after 2011, the refinance loan originations had two previous peaks in 2009 and 2012. The number of first-lien refinance loans for the owner-occupied one- to four-family dwellings in 2014 was 58 percent of the refinance loans originated in 2007. Even though the number of mortgages for refinance purpose declined by 47 percent in 2014 compared to 2013, the Clarksville MSA was the closest to the level of refinancing activity before the housing market crash. When 2014 refinance loan origination is compared to the peak levels of 2009 and 2012, the slowdown in 2014 refinance loan originations is even more visible. The refinance mortgage volume in 2014 was only 36 percent of the highest level¹⁰ of 2009 and 38 percent of the second highest level of 2013. A seventy percent decline from the 2009 peak in Knoxville and Johnson City MSAs was the largest decline among the MSAs in 2014.

III. CONVENTIONAL VERSUS GOVERNMENT-INSURED LOANS¹¹

Table X further breaks down the first-lien loans originated for owner-occupied one- to four-family dwellings by loan type. In 2014, 57 percent of all first-lien home purchase loans originated for one- to four-family owner-occupied homes were conventional, while 21 percent were Federal Housing Administration (FHA)-insured, 13 percent were insured by the Veterans Administration (VA) and 10 percent were Farm Services Agency (FSA)/Rural Housing Services (RHS)-insured. While the share of loans insured by FHA declined in 2014 compared to 2013, the gap was filled by conventional loans and loans insured by VA and FSA/RHS.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Home Purchase Loans										
Total # of Loans Originated	98,307	95,477	81,647	56,122	51,377	45,433	42,716	50,279	58,613	61,998
Conventional	85.2%	85.4%	83.3%	58.3%	41.0%	41.3%	44.2%	49.1%	54.7%	56.8%
FHA	9.7%	9.4%	9.8%	30.9%	41.8%	41.8%	34.1%	30.0%	24.3%	20.5%
VA	4.2%	4.3%	5.4%	6.6%	9.9%	9.9%	12.4%	11.5%	11.7%	12.6%
FSA/RHS	1.0%	0.9%	1.5%	4.1%	7.3%	7.0%	9.3%	9.4%	9.3%	10.2%
Refinance Loans										
Total # of Loans Originated	80,420	66,105	65,456	63,839	105,611	80,768	68,283	98,720	79,463	37,793
Conventional	95.2%	95.3%	90.7%	75.3%	73.7%	78.2%	77.9%	75.5%	75.9%	73.7%
FHA	3.6%	4.0%	8.3%	23.2%	22.6%	17.9%	14.1%	14.9%	15.1%	12.8%
VA	1.3%	0.6%	1.0%	1.5%	3.6%	3.8%	7.9%	9.2%	8.5%	13.4%
FSA/RHS	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%	0.4%	0.4%	0.1%

Table 5. First-Lien Loans Originated for Owner-Occupied 1-4 Family Dwellings, 2005-2014, Tennessee

In 2014, 57 percent of home purchase loans and 74 percent of refinance loans were conventional (see Figure 3). In any given year from 2005 until 2014, a higher percentage of refinance loans than home purchase loans were conventional. Until 2008, 80 percent or more of all first-lien loans originated for

¹⁰ For the 10-year period that is considered in this study. We do not have state level HMDA data before 2004.

¹¹ First lien, owner-occupied, home purchase loans for one- to four-family dwellings separated by insurer (conventional, FHA-, VA- and FSA/RHS-insured) and by county can be found at Appendix B.

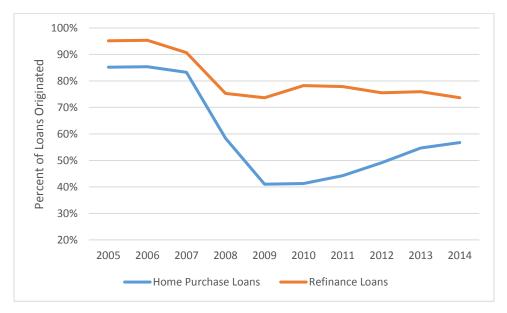
the purchase of owner-occupied one- to four-family dwellings were conventional loans in Tennessee. This declined to 58 percent in 2008, and it hit the bottom with 41 percent in 2009. It is gradually increasing since 2010, but has not returned to the level witnessed before the housing crisis.

The decline in conventional loans for home purchases in 2008 and 2009 was related to the decline in the availability of conventional loan options in the Tennessee housing market.¹² For many Tennesseans who wanted to obtain a home purchase loan during that time period, the FHA was the only option available. Immergluck (2011) argues that FHA played a crucial part as lender of last resort for many homebuyers when FHA lending surged in the late 2008, after conventional lenders, the Government Sponsored Enterprises (GSEs) and private mortgage insurers pulled back from the mortgage markets and became more conservative.

In recent years, the Federal Housing Administration has increased the mortgage insurance premiums (MIP) and up front mortgage insurance payments several times and required MIP for the life of the loan unless borrowers refinance the loan. These changes increased the cost of purchasing a home using FHA-insured mortgage loans. According to Zandi and deRitis (2015), FHA mortgage insurance premiums that increased even more than the Fannie and Freddie guarantee fees compared to the recession made FHA loans only a better deal for mortgage borrowers with a credit score of less than 680 who put five percent or less down. They also argue that without a reduction in its mortgage insurance premiums, FHA's share of lending will fall even more as the GSEs' loan program of three percent down takes off. After the expiration of the provisions of the Economic Stimulus Act of 2008, at the end of 2013, the FHA reduced the loan limits for its single family insurance program in 652 counties, while increasing them in 89 counties. ¹³ Goodman, Seidman and Zhu (2014) predicted that mortgage markets in some communities would be harmed by the declining FHA loan limits even if it was modest overall. For these reasons, FHA-insured loans are declining compared to conventional loans and other government insurers.

¹² For example, in their analysis of 2008 HMDA data, Avery et al. argue that declining home prices and weak economy made difficult for private lending institutions to offer any mortgage loan without a government guarantee. Additionally after Private Mortgage Insurance (PMI) companies tightened their credit standards, for many individuals without adequate funds for downpayment government-insured loans were the available options. The fact that Economic Stimulus Act of 2008 raised the conforming limits for loans insured by FHA and VA in addition to the loans purchased by Fannie Mae and Freddie Mac.
¹³ Goodman, Laurie, Ellen Seidman and Jun Zhu. "FHA Loan Limits: What Areas Are the Most Affected?" Urban Institute. January 15, 2014.

Figure 3. Share of Conventional Loans in Home Purchase and Refinance Loans Originated, 2005-2014, Tennessee



Refinance loans were almost exclusively conventional before the housing market crisis (higher than 90 percent). When the housing market crisis began, this share declined, but still more than 70 percent of all refinance loans originated were conventional.

Among the non-conventional government-insured loans (both the home purchase and refinance), the majority of the originated loans were FHA-insured. The share of FHA-insured loans in the total nonconventional loans originated for home purchase declined from 2004 until 2007, but when the housing crisis started in 2008, increased from 59 percent to 74 percent. During that time, the majority of nonconventional loans were insured by FHA. However, especially since 2010, the percent of FHA-insured home loans originated declined, while VA and FSA/RHS shares slightly increased. Increases in the mortgage insurance premiums (MIP) for the FHA insurance and the extended period required to pay the insurance were likely factors that caused a decline in the FHA share of the nonconventional loan market.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Home Purchase Loans										
Total # of Loans Originated	98,307	95,477	81,647	56,122	51,377	45,433	42,716	50,279	58,613	61,998
Conventional	85.2%	85.4%	83.3%	58.3%	41.0%	41.3%	44.2%	49.1%	54.7%	56.8%
FHA	9.7%	9.4%	9.8%	30.9%	41.8%	41.8%	34.1%	30.0%	24.3%	20.5%
VA	4.2%	4.3%	5.4%	6.6%	9.9%	9.9%	12.4%	11.5%	11.7%	12.6%
FSA/RHS	1.0%	0.9%	1.5%	4.1%	7.3%	7.0%	9.3%	9.4%	9.3%	10.2%
Refinance Loans										
Total # of Loans Originated	80,420	66,105	65,456	63,839	105,611	80,768	68,283	98,720	79,463	37,793
Conventional	95.2%	95.3%	90.7%	75.3%	73.7%	78.2%	77.9%	75.5%	75.9%	73.7%
FHA	3.6%	4.0%	8.3%	23.2%	22.6%	17.9%	14.1%	14.9%	15.1%	12.8%
VA FSA/RHS	1.3% 0.0%	0.6% 0.0%	1.0% 0.0%	1.5% 0.0%	3.6% 0.1%	3.8% 0.1%	7.9% 0.2%	9.2% 0.4%	8.5% 0.4%	13.4% 0.1%

Table 6. Non-Conventional, Government Insured First-Lien Loans Originated for Owner-Occupied 1-4Family Dwellings by Insurer, 2005-2014, Tennessee

IV. MORTGAGE LOANS FOR NON-OWNER-OCCUPIED HOMES

Financial institutions also report the loan applications and originations for non-owner-occupied homes: rental properties, second homes and/or vacation homes. As Figure 4 shows, the number of first-lien mortgage loans originated for non-owner-occupied home purchases was highest in 2006, and substantially declined in subsequent years. Refinance loans for non-owner-occupied homes fluctuated year over year. Both home purchase and refinance loans for the non-owner-occupied homes started increasing in 2011, but the increase in refinance loans was more evident. It is possible that HMDA underestimates non-owner occupied home purchase loan originations because of high number of cash only purchases by investors.

Between 2004 and 2008, there were more home purchase loans originated for non-owner-occupied than for refinance loans. After 2008, refinance loans started to dominate the second home mortgage loan originations. First-lien loans for non-owner-occupied home purchases increased in 2004 and 2005 and reached the 10-year peak in 2006. Between 2006 and 2011, home purchase loans declined. In 2014, home purchase loans for the non-owner-occupied homes increased from the previous year by 15 percent, but they were still just 41 percent of the highest level in 2006. In the meantime, the refinance loans declined by 40 percent and reached a level even lower than the lowest level during the housing market crisis.

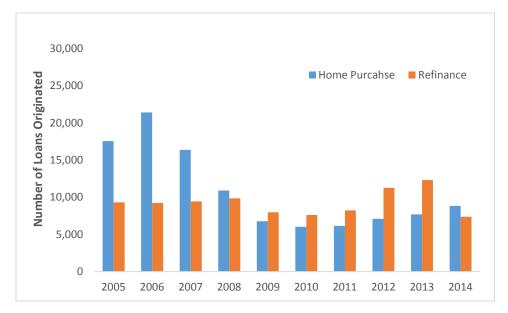
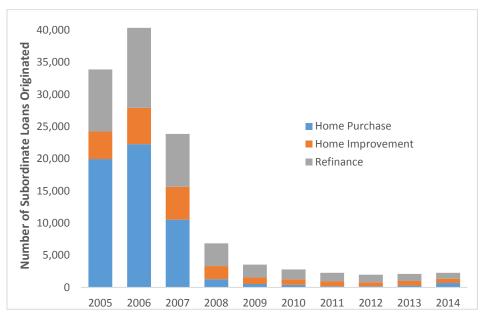


Figure 4. First-Lien Mortgages Originated for Non-Owner-Occupied Homes, 2005-2014, Tennessee

V. SUBORDINATE (JUNIOR) LIEN LOANS

One option for borrowers who apply for home purchase loans when they have less than 20 percent of the purchase price as downpayment is to acquire junior lien loans. Borrowers may also use subordinate lien loans for refinancing their previous mortgage loans or for home improvement. During the years before the housing market crisis, there was a high volume of subordinate lien loan applications and a high volume of them were originated. Since the housing crisis in 2008, the subordinate lien loan applications and originations declined substantially. The following figure displays the trend in subordinate loans originated for one- to four-family owner-occupied home mortgage loans between 2005 and 2014 separated by the loan purpose.

Figure 5. Subordinate Lien Mortgages Originated for 1-4 Family Owner-Occupied Homes by Loan Purpose, 2005-2014, Tennessee



The subordinate lien loan originations peaked in 2006 and substantially declined in the following years. The rate of decline slowed in recent years, but still junior lien loan originations are not anywhere close to their level before the housing crisis. For example, in 2006, almost 41,000 subordinate lien loans were originated in Tennessee. In 2007, junior lien loan originations declined by 41 percent to approximately 24,000. In 2008, the annual decline rate was 71 percent and the number of loans originated dropped to less than 7,000. The decline in the junior lien loans coincided with the increase in nonconventional loan originations. It is possible that applicants who do not have enough money for downpayment and closing costs and who cannot obtain junior lien loans are relying more on government backed mortgages. In 2014, subordinate lien loans originated increased by nine percent annually.

VI. APPLICANT INCOMES AND LOAN AMOUNTS

Financial institutions reporting to HMDA report the loan amounts requested and the applicant income that is considered in making the underwriting decision. The income information is not always required.¹⁴ For example, the income was not provided for approximately 17 percent of the reported loan applications in 2014. The following table compares the average and median income levels (for those

¹⁴ In some occasions financial institutions reporting HMDA data may mark the "applicant's income" field as "not applicable (NA)." Some of these reasons: the institution does not take the applicant's income into account when making underwriting decisions, the loan or application is for a multifamily dwelling, the transaction is a loan purchase and the institution chooses not to collect the information, the transaction is a loan to an employee of the institution and the institution seeks to protect the employee's privacy, even though institution relied on his or her income, or the borrower or applicant is a corporation, partnership, or other entity that is not a natural person. For more information about HMDA data fields see: A Guide to HMDA Reporting: Getting it Right (Edition effective January, 1, 2013), Federal Financial Institutions Examination Council, at http://www.ffiec.gov/hmda/pdf/2013guide.pdf

with non-missing income information) and average and median loan amounts for conventional and nonconventional loans separated by years.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Conventional										
Average Income	\$81	\$80	\$82 	\$79	\$98 	\$102 	\$99	\$99 	\$94	\$93
Median Income	\$60	\$60	\$61	\$59	\$73	\$75	\$73	\$73	\$68	\$67
Average Loan Amount	\$155	\$162	\$171	\$160	\$190	\$190	\$185	\$183	\$175	\$181
Median Loan Amount	\$128	\$132	\$139	\$130	\$157	\$154	\$147	\$148	\$139	\$144
FHA										
Average Income	\$55	\$58	\$60	\$57	\$63	\$63	\$63	\$62	\$60	\$58
Median Income	\$48	\$52	\$54	\$50	\$54	\$54	\$53	\$53	\$51	\$49
Average Loan Amount	\$131	\$152	\$144	\$140	\$159	\$156	\$151	\$150	\$148	\$143
Median Loan Amount	\$127	\$139	\$141	\$131	\$147	\$143	\$138	\$138	\$135	\$131
VA										
Average Income	\$69	\$69	\$68	\$65	\$73	\$74	\$76	\$79	\$75	\$73
Median Income	\$62	\$61	\$61	\$57	\$63	\$64	\$66	\$67	\$64	\$62
Average Loan Amount	\$172	\$179	\$180	\$168	\$189	\$190	\$183	\$187	\$188	\$187
Median Loan Amount	\$163	\$165	\$164	\$154	\$171	\$171	\$165	\$167	\$168	\$166
FSA/RHS										
Average Income	\$44	\$44	\$43	\$38	\$43	\$43	\$42	\$42	\$43	\$44
Median Income	\$41	\$43	\$40	\$37	\$41	\$40	\$39	\$39	\$40	\$40
Average Loan Amount	\$114	\$115	\$114	\$103	\$123	\$124	\$124	\$125	\$124	\$126
Median Loan Amount	\$107	\$109	\$108	\$96	\$119	\$119	\$120	\$121	\$120	\$121
ALL LOANS										
Average Income	\$80	\$79	\$80	\$73	\$86	\$89	\$87	\$88	\$85	\$82
Median Income	\$59	\$59	\$60	\$55	\$65	\$66	\$65	\$66	\$62	\$60
Average Loan Amount	\$154	\$162	\$169	\$155	\$180	\$179	\$175	\$175	\$169	\$172
Median Loan Amount	\$128	\$133	\$140	\$130	\$152	\$150	\$144	\$145	\$139	\$141

NOTE: The applications in the table include first-lien mortgage loans for owner-occupied one-to four-family dwellings.

An average borrower who applied for a conventional loan had a higher income than FHA and FSA/RHS nonconventional loan applicants in every year between 2005 and 2014. Borrowers who applied for loans insured by FSA/RHS had the lowest average and median income. In 2014, borrowers who applied for conventional loans had \$93,000 while borrowers who used FSA/RHS insured loans had \$44,000 average annual income and borrowers with FHA-insured loans had \$58,000 of average annual income. Over the years, especially for borrowers with conventional loans, the average incomes were relatively higher than the median incomes, which might be an indication of some outliers on the high end of income spectrum (some borrowers had relatively much higher income than the average borrower). For example in 2014, an average borrower with a conventionally insured loan had \$93,000 while the median income of all the conventional loan borrowers was \$67,000.

¹⁵ The dollar amounts are inflation adjusted for 2016.

Average loan amounts for VA-insured loans were as high as, in fact some years even higher than, average conventional loan amounts. The applicants who used VA insurance also had higher average incomes than borrowers in other nonconventional loan categories. In 2014, average loan amount decreased from 2013 for the loans insured by FHA and VA and increased for conventional loans and the loans insured by FSA/RHS. Borrowers who used FSA/RHS-insured loans, on average, had lower income and borrowed less than the borrowers who used other loan types.

In the following figures, we looked at the distribution of home purchase and refinance loans that were originated between 2005 and 2014 in terms of the ranges of loan amount. During this period, the proportion of loans originated with loan amounts more than the national conforming loan limit of \$417,000 was no more than three percent for both home purchase and refinance loans. In 2014, for example, only three percent of home purchase loans and two percent of refinance loans that were originated had loan amounts higher than this limit. For home purchase loans, between 2004 and 2008, the ratio of loans between \$150,000 and \$300,000 increased, while the home purchase loans that were less than \$85,000 declined. The ratio of loans with relatively higher loan amounts dipped in 2008 and 2009, with increases in each subsequent year. In 2014, 42 percent of all borrowers who had home purchase loans had loan amounts between \$150,000 and \$300,000. This price range is becoming increasingly common, in fact in 2014, the median price of homes sold in Tennessee¹⁶ was \$166,000 and the average price was \$207,816. Declining shares of lower priced home purchases in the total home purchase loan origination is another sign of eroding affordability in the housing markets.



Figure 6. Home Purchase Loans Originated, Loan Amount, 2005-2014

¹⁶ THDA tabulations of data obtained from the Property Assessment Division, Comptroller's Office. The median and average prices of homes sold in Tennessee and counties can be found at https://thda.org/research-planning/home-sales-price-by-county

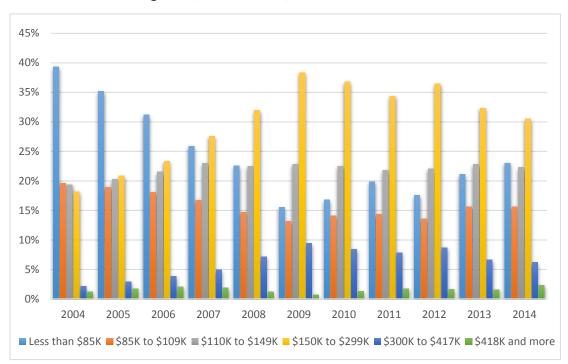


Figure 7. Refinance Loans Originated, Loan Amount, 2005-2014

From 2004 to 2009, the percentage of refinance loans originated for loan amounts less than \$85,000 declined and loans for loan amounts between \$150,000 and \$300,000 and loan amounts between \$300,000 and \$417,000 increased, which means borrowers started refinancing larger loan amounts.

VII. ANALYSIS BY DEMOGRAPHIC GROUPS AND INCOME LEVELS¹⁷

In this section of the report, we look at loan applications, originations and denials based on race, ethnicity and income levels of the applicants. HMDA data report race, ethnicity and gender for both applicant and co-applicant, if available.¹⁸ Each applicant can report belonging to up to five racial groups. In this report, we defined combined race categories. The methodology for determining and defining those combined race categories is explained in Appendix C.

We also looked at the applicants' income compared to the estimated area median family income¹⁹ (AMFI) of the census tract where they reported. The purpose was to identify the percent of loan applications, originations and denials for low-income applicants, and determine if there was any differential treatment of loan applicants based on the income levels. A low-income applicant is defined as someone who earns less than 80 percent of area median family income. The middle-income borrowers earn more than 80 percent but less than 120 percent of the estimated AMFI. If the

 ¹⁷ For the analysis from this point on, we will consider first-lien loans for owner-occupied one to four family dwellings.
 ¹⁸ For the loans that are purchased, the institutions do not have to collect or report race. If the borrower or applicant is not an actual person (for example, a corporation or a partnership), race will be "not applicable."

¹⁹ The MFI reported in HMDA data files and used in these calculations is the estimated Tract MFI, which is the census tract's estimated MFI for each year, based on the HUD estimate for the Metropolitan Statistical Area (MSA)/Metro Division (MD) or non-MSA/MD area where the tract is located. For tracts located outside of an MSA/MD, the MFI is the statewide non-MSA/MD MFI.

borrower's income is more than 120 percent of the estimated AMFI, then the borrower is labeled as a high-income borrower.²⁰

The following table looks at the originated first-lien loans for one- to four-family owner-occupied dwellings based on the borrower characteristics separated by loan purpose, i.e. for home purchase or refinance. According to the table, in recent years, the share of both home purchase and refinance loans originated for black or African American borrowers declined in the total loans originated. In 2005 and 2006, 12 percent of home purchase loans were made to black or African American borrowers, while the same ratio declined to six percent in 2013. In 2014, the home purchase loans made to the African American borrowers slightly increased to 6.4 percent. Both the home purchase and refinance loans to Hispanic or Latino borrowers were slightly higher in 2014 compared to 2013. Home purchase loans to low-income borrowers slightly declined in 2014, while refinance loans increased.²¹

²⁰ This definition of borrower income categories is consistent with Bhutta, Popper and Ringo's analysis of 2013 HMDA data. For more information see Neil Bhutta, Jack Popper and Daniel R. Ringo (2015), "The 2014 Home Mortgage Disclosure Act Data," *Federal Reserve Bulletin*, vol. 101 (November), <u>http://www.federalreserve.gov/pubs/bulletin/2014/pdf/2013 HMDA.pdf</u>
²¹ First-lien, owner-occupied, 1-4 family, home purchase and refinance loan originations by race and by county in 2014 can be found at Appendices D and E.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
				e Purchase						
Borrower Race					200110					
Asian	1.5%	1.4%	1.6%	1.3%	1.6%	1.4%	1.5%	1.6%	1.7%	1.7%
Black or African American	12.0%	11.9%	10.1%	8.0%	7.9%	8.6%	7.3%	7.1%	6.1%	6.4%
White	76.1%	77.3%	79.0%	81.9%	82.5%	82.9%	83.7%	83.9%	84.7%	84.5%
Other Minority	0.4%	0.4%	0.4%	0.3%	0.5%	0.6%	0.6%	0.4%	0.4%	0.5%
Multi-Racial	1.0%	0.9%	1.0%	1.0%	1.0%	0.9%	1.1%	1.1%	1.2%	1.3%
Missing	9.1%	8.0%	8.0%	7.5%	6.5%	5.6%	5.8%	5.8%	5.8%	5.6%
Borrower Ethnicity										
Hispanic or Latino	3.2%	3.5%	3.3%	2.7%	2.4%	2.5%	2.7%	2.7%	3.0%	3.2%
Not Hispanic or Latino	87.3%	88.9%	89.2%	90.2%	90.9%	91.7%	91.3%	91.3%	91.1%	91.2%
Missing and/or NA	9.5%	7.5%	7.5%	7.0%	6.6%	5.8%	5.9%	6.0%	5.9%	5.6%
Borrower Income										
Low to Moderate Income	32.5%	31.0%	30.9%	31.2%	40.1%	38.4%	35.7%	34.8%	30.2%	30.0%
Middle Income	27.6%	26.9%	26.5%	26.8%	26.1%	25.3%	25.5%	25.5%	25.8%	26.4%
High Income	35.7%	38.4%	40.4%	40.3%	32.5%	35.2%	37.8%	38.7%	43.0%	42.9%
Missing	4.3%	3.8%	2.3%	1.6%	1.3%	1.0%	1.0%	0.9%	1.1%	0.7%
			II. Re	efinance Lo	oans					
Borrower Race				-						
Asian	0.6%	0.5%	0.6%	0.7%	1.0%	1.0%	1.2%	1.1%	1.1%	0.9%
Black or African American	11.7%	12.6%	10.9%	7.5%	4.6%	4.3%	4.7%	5.3%	6.8%	8.0%
White	76.8%	76.3%	77.7%	81.9%	84.6%	85.5%	85.1%	84.8%	82.9%	80.4%
Other Minority	0.3%	0.2%	0.3%	0.2%	0.3%	0.3%	0.4%	0.3%	0.4%	0.5%
Multi-Racial	0.8%	0.7%	0.9%	0.9%	1.0%	0.9%	1.0%	1.1%	1.2%	1.6%
Missing	9.8%	9.6%	9.6%	8.8%	8.5%	8.0%	7.7%	7.4%	7.6%	8.7%
Borrower Ethnicity										
Hispanic or Latino	1.4%	1.9%	1.8%	1.7%	1.6%	1.6%	1.8%	1.8%	2.1%	2.3%
Not Hispanic or Latino	87.9%	88.6%	89.2%	90.4%	90.0%	90.3%	90.6%	90.7%	90.1%	89.1%
Missing and/or NA	10.8%	9.4%	9.0%	7.9%	8.4%	8.1%	7.6%	7.5%	7.8%	8.6%
Borrower Income										
Low to Moderate Income	29.9%	30.7%	28.2%	26.5%	21.9%	21.7%	21.3%	20.7%	21.2%	24.7%
Middle Income	26.0%	27.4%	27.2%	25.7%	22.1%	22.5%	21.7%	20.9%	21.4%	21.9%
High Income	34.9%	36.8%	40.1%	41.6%	42.5%	46.7%	44.5%	44.5%	43.0%	39.6%
Missing	9.2%	5.2%	4.6%	6.2%	13.5%	9.1%	12.5%	13.8%	14.3%	13.8%
Number of the Day										
Number of Home Purchase	00 207	05 477	01 617	FC 122	F1 277	45 422	12 710	F0 270	F9 613	61 000
Loans	98,307	95,477	81,647	56,122	51,377	45,433	42,716	50,279	58,613	61,998
Number of Refinance Loans	80,420	66,105	65,456	63,839	105,611	80,768	68,283	98,720	79,463	37,793

Table 8. Borrower Characteristics and Purpose of the Loan, 2005-2014, Tennessee

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

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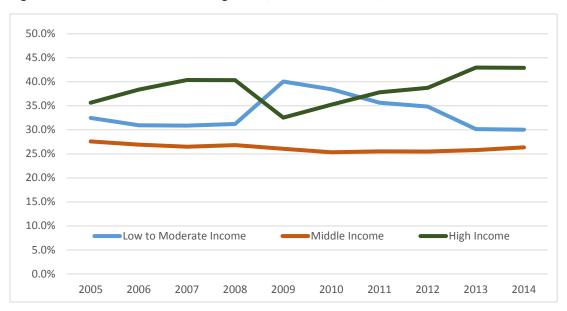
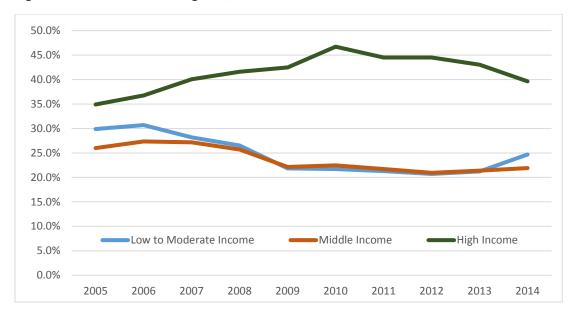


Figure 8. Home Purchase Loans Originated, Borrower Income, 2005-2014

Figure 9. Refinance Loans Originate, Borrower Income, 2005-2014



As the preceding figures²² show, in the study period, high-income borrowers always received higher percentage of refinance loans originated than other income categories. The difference between the percent of refinance loans originated for high-income borrowers and the percent of low-income and middle income borrowers widened in the years leading to the housing market crash, but after 2010, the percentage of high-income borrowers who refinanced mortgages declined, and in the recent years this difference is closing. The picture is quite different for the home purchase loans originated. Before the

²² Not included in the figures is the borrowers whose income information that was not provided. Especially for the refinance loan originations, the borrowers without income information is a relatively higher portion of all refinance loan borrowers. For example in the last three years of this study (2012-2014), 14 percent of all refinance loan borrowers did not have race information.

housing market crash, the percentage of high-income borrowers with a home purchase loan was higher than low-income and middle-income borrowers and it continued increasing until 2008. In 2009, 33 percent of all home purchase loans originated were for higher-income borrowers. In the meantime, more loans were originated for lower-income borrowers after 2008. In 2009, low- to moderate-income borrowers received 40 percent of all home purchase loans originated during the year. Low-income borrowers were aided by recovery programs that sought to get them out of high cost lending products. The percent of loans originated for middle-income borrowers was steady over the years, but always lower than the low- and high-income borrowers.

It is interesting to see if there is any difference in the loan originations for different borrower characteristics depending on whether or not the loan is a conventional or government insured loan. The following table displays the nonconventional, first-lien mortgage loans originated for one- to four-family owner-occupied homes separated by borrower characteristics and loan purpose. The percentages given in the table represent percent of nonconventional loans made to black borrowers, for example, as percent of all loans made to black borrowers (including conventional and nonconventional loans).

The number of first-lien home purchase and refinance loans originated for owner-occupied, one- to four-family dwellings separated by race and county is provided in Appendices D and E.

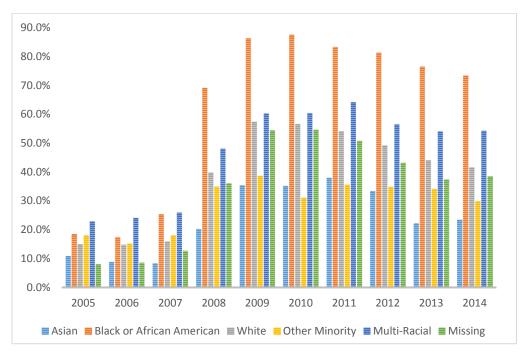
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
			I. Home	Purchase	e Loans					
Borrower Race										
Asian	10.9%	8.9%	8.5%	20.2%	35.4%	35.1%	37.9%	33.4%	22.3%	23.5%
Black or African American	18.5%	17.5%	25.4%	69.2%	86.3%	87.6%	83.3%	81.3%	76.5%	73.4%
White	15.0%	14.8%	16.0%	39.8%	57.3%	56.6%	54.1%	49.2%	44.0%	41.6%
Other Minority	18.1%	15.3%	18.2%	34.9%	38.6%	31.1%	35.5%	34.8%	34.1%	29.9%
Multi-Racial	23.0%	24.2%	26.0%	48.1%	60.3%	60.5%	64.2%	56.5%	54.1%	54.3%
Missing	8.1%	8.6%	12.7%	36.1%	54.3%	54.5%	50.7%	43.1%	37.4%	38.4%
Borrower Ethnicity										
Hispanic or Latino	25.6%	19.9%	21.6%	55.1%	75.2%	75.1%	72.6%	65.5%	61.5%	60.8%
Not Hispanic or Latino	15.2%	14.9%	16.9%	41.8%	59.1%	58.8%	55.9%	51.2%	45.5%	43.0%
Missing and/or NA	7.7%	8.7%	11.8%	34.5%	51.3%	50.1%	45.4%	39.3%	35.2%	36.7%
Borrower Income										
Low to Moderate Income	20.9%	19.5%	20.1%	52.8%	71.6%	73.0%	70.0%	65.8%	60.9%	58.2%
Middle Income	17.7%	19.3%	22.8%	50.8%	65.5%	65.2%	64.2%	58.3%	55.1%	53.4%
High Income	8.0%	8.5%	10.7%	27.6%	39.3%	39.4%	37.5%	33.2%	29.2%	26.9%
All Borrowers	14.8%	14.6%	16.7%	41.7%	59.0%	58.7%	55.8%	50.9%	45.3%	43.2%
		-	II. Rej	finance Lo	oans		-			
Borrower Race										
Asian	5.1%	6.6%	6.9%	17.4%	12.4%	11.8%	11.0%	12.2%	12.7%	12.8%
Black or African American	9.6%	7.0%	16.3%	44.8%	58.5%	48.4%	50.7%	48.9%	45.9%	47.5%
White	4.2%	4.4%	8.4%	22.3%	24.4%	20.5%	20.6%	22.7%	22.0%	23.0%
Other Minority	5.8%	5.6%	9.5%	34.3%	18.3%	14.1%	19.4%	25.5%	24.6%	22.0%
Multi-Racial	11.9%	8.8%	14.9%	32.5%	32.8%	27.7%	29.5%	35.3%	33.6%	57.5%
Missing	3.9%	3.3%	8.7%	30.3%	29.3%	22.1%	23.2%	27.0%	27.3%	33.9%
Borrower Ethnicity										
Hispanic or Latino	15.0%	5.2%	13.4%	34.6%	39.4%	29.8%	33.6%	36.5%	36.5%	35.0%
Not Hispanic or Latino	4.8%	4.8%	9.4%	24.4%	25.9%	21.7%	21.9%	24.3%	23.6%	25.4%
Missing and/or NA	3.7%	3.3%	8.1%	26.9%	28.5%	20.5%	21.8%	23.8%	25.4%	33.4%
Borrower Income										
Low to Moderate Income	2.1%	4.2%	9.3%	26.2%	27.0%	24.4%	20.6%	18.4%	15.0%	17.0%
Middle Income	2.1%	4.8%	10.9%	29.4%	23.4%	22.1%	20.9%	17.6%	15.6%	19.4%
High Income	1.0%	2.3%	5.7%	16.6%	12.3%	12.1%	11.8%	10.0%	9.6%	12.2%
All Borrowers	4.8%	4.7%	9.3%	24.7%	26.3%	21.8%	22.1%	24.5%	24.1%	26.3%
NOTE: Nonconventional, fir										, .

Table 9. Borrower Characteristics and Purpose of the Loan, Nonconventional Loans, 2005-2014,Tennessee

Table 9 reveals that minority and lower income borrowers used nonconventional government-insured (FHA, VA and/or FSA/RHS insured) loans more often than conventional loans. In 2014, for example, 73 percent of all African-American borrowers and 61 percent of all Hispanic or Latino borrowers used nonconventional loans for home purchase, while in the same year, only 43 percent of all home purchase loans were nonconventional. Low-income borrowers also mostly utilized nonconventional loan products in 2014. The data also show that, in all race, ethnicity and income categories, the share of nonconventional loans substantially increased in 2008. For example, in 2007, 25 percent of African-

American home buyers selected nonconventional loans while that percentage increased to 69 percent in 2008 and to 88 percent in 2010. Similar trends are visible in other race categories. In 2014, in *almost* all race categories and for all borrowers, the share of nonconventional loans were lower than in 2013. This is a sign that conventional loan products are returning to the market.

The following figure displays that non-white borrowers are more likely to use nonconventional loans than conventional loans.



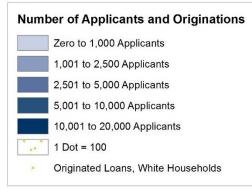


A comparison of borrowers who received nonconventional (FHA, VA or FSA/RHS insured) first lien home purchase loans for owner-occupied one- to four-family dwellings with race and county loan totals is given in Appendix F.

The following maps display the number of loan applications and originations for white and African American borrowers in 2014:

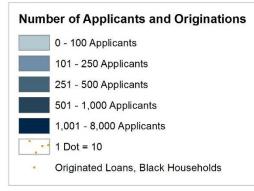


Map 1: Total Loan Applications and Originations, White Applicants, 2014





Map 2: Total Loan Applications and Originations, African American Applicants, 2014



VIII. DENIAL RATES AND DENIAL REASONS

Consistent with Bhutta, Popper and Ringo's analysis of 2014 HMDA data (2015), we calculated the denial rates by dividing the number of loans denied by the financial institution by the total number of loan applications, which excludes the number of applications withdrawn and the applications closed for incompleteness.

In the following table, denial rates are presented as separated by race and loan type, i.e. conventional versus nonconventional. The table shows variations in denial rates across different race categories. *However, the denial rates data in the absence of other important borrower and loan characteristics such as the applicants' credit scores and loan to value (LTV) ratios, should be considered carefully.*

Table 10. Denial Rates, Conventional and Nonconventional Home Purchase Loans, 2005-2014,
Tennessee

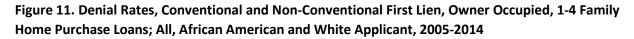
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
I. Home Purchase Loans										
Conventional and Nonconve	ntional									
All Applicants	15.5%	16.8%	16.4%	15.5%	13.5%	14.0%	14.7%	15.6%	14.6%	12.4%
Race										
Asian	13.5%	12.8%	12.5%	16.7%	13.4%	15.4%	16.8%	16.4%	16.3%	13.3%
Black or African American	26.3%	30.7%	31.8%	30.2%	21.0%	21.2%	22.6%	24.7%	24.6%	20.6%
White	12.8%	12.7%	12.9%	13.1%	12.3%	12.7%	13.3%	14.4%	13.3%	11.2%
Other Minority	21.7%	20.6%	22.6%	23.7%	14.1%	16.0%	12.7%	17.6%	20.7%	14.0%
Multi-Racial	13.9%	14.5%	14.9%	17.2%	14.3%	16.0%	14.4%	17.0%	17.9%	12.1%
Missing	19.2%	25.8%	24.1%	20.1%	17.4%	19.6%	21.0%	20.0%	19.3%	19.1%
Ethnicity										
Hispanic	18.9%	17.7%	18.6%	19.5%	16.5%	17.0%	16.1%	19.0%	19.6%	17.1%
Not Hispanic	14.9%	15.9%	15.6%	14.9%	13.0%	13.5%	14.0%	15.1%	14.1%	11.8%
Conventional Only										
All Applicants	16.2%	17.7%	16.9%	15.8%	15.4%	15.1%	15.6%	15.5%	13.0%	10.9%
Race										
Asian	13.9%	13.1%	12.8%	16.8%	13.1%	13.5%	17.0%	16.0%	13.9%	13.2%
Black or African American	28.1%	33.0%	34.5%	39.0%	37.1%	35.3%	31.6%	31.9%	27.7%	22.5%
White	13.2%	13.2%	13.1%	13.4%	14.2%	14.0%	14.5%	14.6%	11.9%	9.8%
Other Minority	24.1%	22.4%	24.1%	27.2%	16.3%	15.3%	14.2%	18.1%	20.6%	11.2%
Multi-Racial	14.6%	16.1%	15.3%	18.0%	17.7%	20.4%	14.3%	17.3%	17.0%	11.6%
Missing	19.5%	26.6%	24.8%	20.0%	18.3%	19.6%	21.3%	17.4%	17.5%	16.9%
Ethnicity										
Hispanic	20.0%	18.7%	19.3%	21.8%	21.7%	20.9%	18.8%	20.6%	17.3%	17.4%
Not Hispanic	15.6%	16.8%	16.1%	15.2%	15.0%	14.6%	14.7%	14.9%	12.4%	10.2%

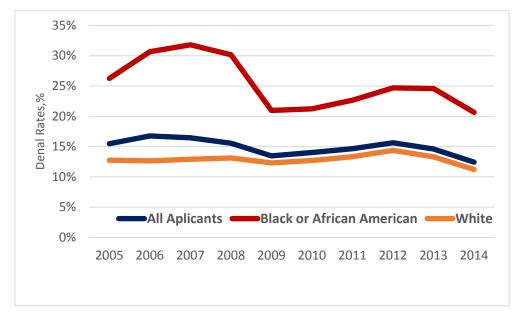
NOTE: First lien mortgage home purchase loans for one-to-four family owner-occupied homes.

In Tennessee, in 2014, the denial rate of all borrowers in different race categories (including conventional and nonconventional loans) who applied for a home purchase loan declined to 12.4 percent from 14.6 percent in 2013. In fact, for all race categories, except Asian applicants, the denial rates in 2014 were the lowest among the years covered in this report (2005 to 2014). With 20.6 percent, black or African American applicants had the highest denial rate in 2014, followed by the applicants whose race information was not provided. Among the nonwhite race categories multiracial applicants had the lowest denial rates. Borrowers who applied for conventional home purchase loans had higher

denial rates than nonconventional applicants in almost all race categories for all years in the 10-year period. Hispanic borrowers also had higher denial rates than the white borrowers and all borrowers who applied for a home purchase loan. The difference between denial rates of whites and other races was even more noticeable for conventional loans. In 2014, 10 percent of white applicants who applied for a conventional home purchase loan were denied, while almost 23 percent of African American applicants were denied for a conventional home purchase loan.

The following figure compares the denial rates of home purchase loans for all applicants, and white and African American applicants.





African American applicants were consistently denied more often than white and all other applicants. The difference was even higher before the housing market crash, declined to the lowest level in 2009 and then increased again until 2012.

Denial rates for refinance loans, in general, were higher than home purchase loans. While the denial rates for home purchase loans declined in 2014 compared to 2013 for almost all race categories, denial rates for refinance loans in 2014 increased. Regardless of race, 34 percent of all borrowers who applied for either conventional or nonconventional refinance loans were denied in 2014 compared to 27 percent denial rate in 2013. In the refinance category, African American and Hispanic borrowers had higher denial rates than white applicants. Borrowers who applied for conventional refinance loans also were denied more in 2014 compared to 2013.

The following table displays the denial rates for refinance loans separated by loan type and applicants' race.

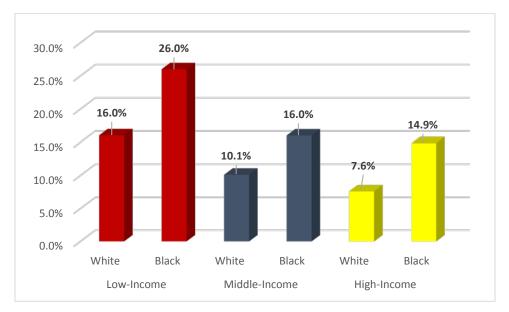
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
II. Refinance Loans										
Conventional and Nonconven	tional									
All Applicants	42.7%	43.3%	44.2%	39.7%	24.3%	26.4%	26.8%	22.6%	26.8%	34.2%
Race										
Asian	37.1%	38.9%	40.2%	35.6%	26.0%	26.4%	25.9%	27.1%	30.2%	41.6%
Black or African American	52.8%	53.4%	60.1%	61.5%	44.6%	45.6%	43.1%	34.7%	39.0%	48.7%
White	34.6%	36.7%	37.4%	34.7%	21.0%	23.1%	23.7%	20.3%	23.7%	30.4%
Other Minority	51.8%	51.8%	47.4%	61.1%	29.3%	37.4%	28.3%	31.1%	32.6%	42.2%
Multi-Racial	43.0%	46.4%	51.5%	48.1%	26.1%	29.4%	26.8%	23.9%	26.3%	30.7%
Missing	63.3%	59.6%	57.5%	47.7%	35.6%	39.6%	41.5%	34.2%	40.3%	45.6%
Ethnicity										
Hispanic	44.4%	38.8%	45.6%	47.5%	30.9%	31.9%	31.7%	28.8%	31.7%	40.9%
Not Hispanic	37.6%	40.5%	42.0%	38.5%	22.9%	24.8%	25.1%	21.4%	25.5%	33.0%
Conventional Only										
All Applicants	43.5%	44.0%	45.1%	39.4%	21.8%	22.9%	24.7%	22.3%	26.4%	32.8%
Race										
Asian	37.9%	39.7%	40.3%	36.0%	24.1%	23.9%	24.4%	26.9%	30.8%	40.0%
Black or African American	54.4%	54.5%	62.5%	67.4%	51.7%	44.1%	45.0%	37.7%	43.2%	51.9%
White	35.2%	37.3%	38.2%	34.2%	19.3%	20.7%	22.2%	20.2%	23.4%	29.0%
Other Minority	52.8%	52.2%	48.3%	65.3%	26.9%	35.0%	27.1%	34.5%	32.9%	39.5%
Multi-Racial	45.0%	47.7%	53.7%	50.1%	25.0%	24.7%	23.9%	24.0%	25.9%	38.5%
Missing	64.0%	60.2%	58.3%	45.0%	28.3%	32.4%	36.9%	32.9%	39.5%	44.4%
Ethnicity										
Hispanic	47.4%	39.1%	47.3%	49.2%	31.8%	30.1%	31.8%	30.1%	34.6%	43.1%
Not Hispanic	38.3%	41.2%	43.0%	38.5%	21.0%	21.9%	23.3%	21.1%	25.1%	31.5%

Table 11. Denial Rates, Conventional and Nonconventional Refinance Loans, 2005-2014, Tennessee

NOTE: First lien mortgage refinance loans for one-to-four family owner-occupied homes.

In the absence of other important loan and borrower characteristics, the denial rates should be treated cautiously. However, even after controlling for income levels, denial rates between white and African American applicants varied substantially. In 2014, less than eight percent of high-income white applicants were denied for a home purchase loan, while nearly 15 percent of African American applicants were denied for a mortgage in the same year. The following figure shows the denial rates of white and African American applicants separated by their income level.

Figure 12. Denial Rates by Race and Income of Applicant, Conventional and Nonconventional Home Purchase Loans, 2014



The difference between the denial rates of African American and white applicants separated by race is even more noticeable when only the conventional home purchase loan applications are included. In 2014, 16 percent of low-income white applicants were denied for a conventional home purchase loan while 32 percent of low-income African American borrowers were denied. This is consistent with the trend of relatively higher portion of nonwhite applicants receiving nonconventional loans.

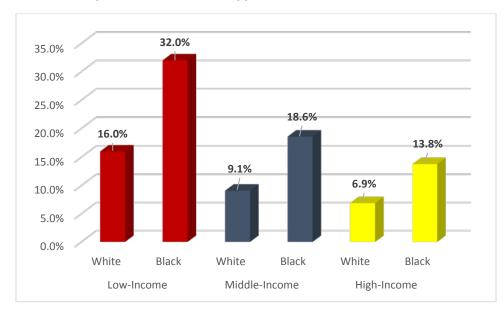


Figure 13. Denial Rates by Race and Income of Applicant, Conventional Home Purchase Loans, 2014

The denial rates for home purchase loans and refinance loans in 2014 separated by county and race are provided in Appendices G and H.

Financial institutions reporting to HMDA can report²³ up to three reasons for denial by choosing among nine²⁴ possible reasons when they deny an applicant. In 2014, among the applications for first-lien oneto four-family owner occupied home purchase loans, financial institutions did not give any reason for 35 percent of applicants they denied. Credit history and debt-to-income (DTI) ratio were the most cited reasons for denials followed by collateral among the denied applications.

The following table represents the denial reasons provided by race categories for the applicants of firstlien home purchase loans for owner occupied one- to four-family dwellings in 2014. Compared to other race categories, a higher percent of other minority and African American applicants were denied without a denial reason. High debt to income ratio was reported more often as a denial reason for other minority and Asian applicants who were denied for a home purchase loan.

				Other	Multi-		
	White	Black	Asian	Minority	Racial	Missing	Total
 Credit History	17.5%	18.6%	12.5%	10.0%	16.2%	19.7%	17.7%
Debt-to-Income Ratio	16.8%	18.9%	23.8%	22.0%	18.8%	18.6%	17.4%
Collateral	11.6%	5.8%	8.3%	10.0%	12.0%	10.9%	10.8%
Other	5.8%	5.4%	4.8%	2.0%	6.0%	8.0%	5.9%
Credit Application Incomplete	4.7%	4.1%	7.1%	0.0%	3.4%	8.8%	5.0%
Unverifiable Information	2.8%	2.3%	3.6%	6.0%	2.6%	2.8%	2.8%
Insufficient Cash*	2.6%	2.9%	4.8%	0.0%	2.6%	3.1%	2.7%
Employment History	2.7%	1.7%	4.8%	2.0%	2.6%	1.6%	2.5%
Mortgage Insurance Denied	0.1%	0.1%	0.0%	0.0%	0.9%	0.7%	0.2%
No Reason provided	35.4%	40.4%	30.4%	48.0%	35.0%	25.8%	35.0%
All Denied (# of Applicants)	6,864	1,083	168	50	117	862	9,144

Table 12. Denial Reasons 1 by Race, 2014

*Insufficient cash for downpayment and closing costs

IX. HIGH COST LOANS

Institutions are also required to report the spread between the annual percentage rate (APR) and the average prime offer rate for a comparable transaction if the spread is equal to or greater than 1.5 percentage points for first-lien loans or 3.5 percentage points for subordinate-lien loans for a homepurchase loan, a refinancing, or a dwelling-secured home improvement loan originated.²⁵

²³ They are not required to report because it is optional except for institutions that are subject to Office of the Comptroller of the Currency (OCC) regulations or Federal Deposit Insurance Corporation (FDIC) regulations ²⁴ Possible denial reasons include: Debt-to-income ratio, Employment history, Credit history, Collateral, Insufficient cash (downpayment, closing costs), Unverifiable information, Credit application incomplete, Mortgage insurance denied, and Other

²⁵ To determine whether the rate spread meets this threshold, institutions use the average prime offer rate (APOR) in effect for the type of transaction as of the date the interest rate was set, and use the APR for the loan, as calculated and disclosed to the consumer. An application that is identified as "not applicable (NA)" could have a difference between the APR and the average prime offer rate that is less than 1.5 percentage points for a first-lien loan and less than 3.5 percentage points for a subordinate-lien loan, it could be an application that did not result in origination, the loan is not subject to Regulation Z, the loan is a home improvement loan that is not dwellingsecured, or the loan is purchased by the financial institution.

The following table compares the occurrence of high cost loans for the first-lien home purchase loans for one- to four-family owner occupied homes by race and ethnicity of the applicants. According to the table, in 2014, the proportion of all home purchase loans (conventional and nonconventional) with interest rates above the high cost threshold increased from the previous year for all race groups, except for the borrowers whose race information was not provided. In 2014, nearly 10 percent of all borrowers received high cost loans. Twenty-two percent of African American borrowers received high cost loans, which was the highest among all racial categories.

In 2005 and 2006, a proportion of borrowers in every race category received high cost loans, but this proportion declined in the subsequent years. All borrowers in different race categories experienced a decline, but the largest decline was among the African American borrowers. In 2007, 34 percent of all African American borrowers received high cost loans, which was 19 percentage points lower than the previous year when more than half of all African American borrowers received high cost loans. In 2011, the percent of borrowers who received high cost loans began increasing again across all racial groups, though the trend is more evident among non-white borrowers.

Almost every year in the 10-year period for all race groups, the borrowers who used conventional home purchase loans had a higher proportion of loans with interest rates higher than the spread threshold. However, in 2013, the proportion of high cost loans for conventional and nonconventional loans was completely reversed. In 2013, borrowers in all race categories who purchased a home using nonconventional loans (including FHA, VA and FSA/RHS insured loans) had a higher occurrence of loans with interest rates above the spread reporting threshold. The same trend continued in 2014. More than 27 percent of African American borrowers received high cost loans.

Table 13. High Cost Loans, Conventional and Nonconventional Home Purchase Loans, 2005-2014,
Tennessee

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
I. Home Purchase Loans										
Conventional and Nonconver	itional									
All Applicants	25.0%	23.9%	14.3%	9.4%	6.0%	3.8%	5.2%	6.8%	8.9%	9.7%
Race										
Asian	15.3%	13.0%	7.3%	5.0%	3.6%	2.3%	3.7%	4.2%	5.8%	7.4%
Black or African American	54.8%	52.6%	33.5%	17.1%	5.9%	3.6%	9.1%	11.5%	17.7%	22.4%
White	19.3%	19.5%	11.8%	9.0%	6.3%	4.0%	5.0%	6.6%	8.5%	9.0%
Other Minority	37.5%	29.8%	24.7%	12.2%	4.5%	3.2%	5.1%	4.5%	10.7%	15.1%
Multi-Racial	22.4%	19.9%	8.8%	6.9%	4.0%	3.0%	4.3%	6.1%	8.9%	9.9%
Missing	34.4%	26.6%	15.6%	7.0%	3.1%	1.5%	3.3%	5.3%	6.4%	6.0%
Ethnicity										
Hispanic	26.0%	31.0%	20.2%	12.1%	6.1%	3.4%	6.3%	7.8%	11.4%	12.6%
Not Hispanic	23.7%	23.5%	14.0%	9.5%	6.2%	3.9%	5.3%	6.9%	8.9%	9.8%
Conventional Only										
All Applicants	29.3%	27.9%	16.6%	10.8%	10.1%	8.1%	7.3%	7.7%	7.1%	5.7%
Race										
Asian	17.1%	14.0%	7.8%	5.2%	4.3%	3.1%	3.3%	3.7%	3.5%	3.5%
Black or African American	67.2%	63.3%	42.8%	25.4%	12.1%	16.3%	14.8%	8.1%	10.7%	8.8%
White	22.7%	22.7%	13.8%	10.6%	10.9%	8.4%	7.7%	8.2%	7.5%	5.8%
Other Minority	45.5%	35.1%	29.7%	17.0%	4.3%	4.6%	4.5%	5.5%	10.8%	12.9%
Multi-Racial	29.0%	26.2%	11.5%	9.8%	5.3%	7.0%	4.8%	6.4%	6.0%	5.3%
Missing	37.4%	29.0%	17.0%	6.3%	3.1%	1.8%	1.6%	2.7%	2.2%	1.8%
Ethnicity										
Hispanic	34.8%	38.5%	25.3%	18.2%	17.7%	12.4%	9.8%	11.7%	11.2%	8.9%
Not Hispanic	27.9%	27.5%	16.3%	10.9%	10.6%	8.4%	7.6%	7.9%	7.3%	5.8%
Nonconventional Only										
All Applicants	0.3%	0.9%	2.6%	7.5%	3.1%	0.8%	3.5%	6.0%	11.1%	15.0%
Race										
Asian	0.6%	2.4%	2.8%	4.0%	2.4%	0.9%	4.2%	5.2%	13.7%	20.0%
Black or African American	0.3%	2.0%	5.9%	13.4%	4.9%	1.8%	7.9%	12.2%	19.9%	27.3%
White	0.2%	0.7%	1.7%	6.5%	2.9%	0.6%	2.8%	5.0%	9.8%	13.4%
Other Minority	1.3%	0.0%	1.9%	3.3%	4.9%	0.0%	6.2%	2.6%	10.5%	20.2%
Multi-Racial	0.5%	0.0%	0.9%	3.8%	3.2%	0.4%	4.0%	5.9%	11.5%	13.8%
Missing	1.0%	0.6%	6.1%	8.3%	3.2%	1.2%	4.9%	8.6%	13.4%	12.7%
Ethnicity										
Hispanic	0.4%	0.7%	1.7%	7.2%	2.2%	0.5%	5.0%	5.8%	11.5%	15.0%
Not Hispanic	0.3%	0.9%	2.4%	7.5%	3.2%	0.8%	3.4%	6.0%	11.0%	15.1%

NOTE: First lien home purchase loans originated for owner occupied one-to-four family dwellings.

The fraction of African American borrowers who received high cost loans was higher than the white borrowers who received high cost loans even in the same income groups. The difference between white and African American borrowers with high cost loans was even more noticeable among the low-income borrowers. Nearly 32 percent of African American borrowers paid interest rates higher than the

threshold level in 2014, while only 13 percent of white borrowers' home purchase loans were considered as high cost.

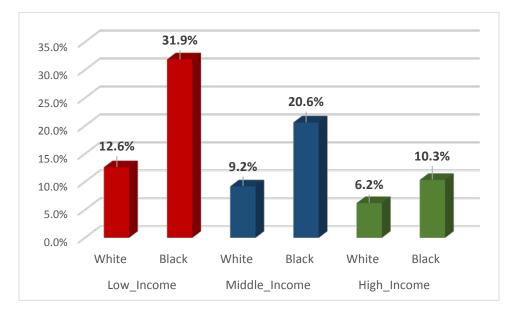


Figure 14. Percent of White and Black Borrowers with High Cost Loans by Income Level, 2014

These patterns also differed by the type of nonconventional loan. Among nonconventional loans, while the borrowers who used VA or FSA/RHS insured loans received comparably less high cost loans, more borrowers with FHA-insured loans had high cost loans and this proportion increased substantially in recent years. For example in 2004, less than one percent of applicants in all nonconventional loan categories had higher-priced loans, in 2013, 20 percent of all borrowers with FHA-insured loans and a negligible proportions of borrowers with VA and FSA/RHS insured loans had higher-priced loans. This proportion of high cost FHA-insured loans increased to 31 percent in 2014. Increasing mortgage insurance premiums (MIP) on FHA insurance is one of the reasons that led to increase in higher-priced loans in recent years. FHA decreased the MIP in January 2015, and it is likely to impact the high cost loans count next year.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
I. Home Purchase Loans	2005	2000	2007	2000	2005	2010	2011	2012	2015	2011
FHA-Insured			-	-	-	-				-
All Applicants	0.4%	1.3%	4.2%	9.6%	4.1%	1.0%	5.6%	10.2%	20.1%	30.8%
Race										
Asian	0.8%	3.0%	3.4%	4.5%	2.4%	1.0%	4.9%	6.2%	16.1%	26.6%
Black or African American	0.4%	2.7%	8.7%	15.7%	5.9%	2.2%	10.8%	16.9%	27.2%	41.2%
White	0.3%	1.0%	2.8%	8.4%	3.8%	0.8%	4.6%	8.8%	18.6%	29.0%
Other Minority	0.0%	0.0%	6.3%	5.9%	7.1%	0.0%	11.5%	5.1%	21.1%	37.0%
Multi-Racial	0.9%	0.0%	1.8%	5.4%	4.8%	0.7%	8.4%	12.5%	28.3%	36.4%
Missing	1.1%	0.9%	10.0%	10.4%	4.3%	1.7%	7.9%	13.3%	22.6%	25.9%
Ethnicity										
Hispanic	0.6%	1.3%	3.0%	9.4%	3.2%	0.7%	8.0%	9.7%	20.2%	28.4%
Not Hispanic	0.4%	1.3%	4.0%	9.6%	4.1%	1.0%	5.5%	10.1%	19.9%	31.2%
VA-Insured			-	-	_					_
All Applicants	0.1%	0.1%	0.1%	1.0%	0.8%	0.1%	0.1%	0.1%	0.1%	0.2%
Race										
Asian	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%
Black or African American	0.0%	0.2%	0.6%	3.2%	1.6%	0.2%	0.5%	0.2%	0.2%	0.3%
White	0.1%	0.1%	0.1%	0.8%	0.8%	0.1%	0.0%	0.1%	0.1%	0.2%
Other Minority	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Multi-Racial	0.0%	0.0%	0.0%	1.1%	0.9%	0.0%	0.0%	0.0%	0.0%	0.9%
Missing	0.5%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ethnicity										
Hispanic	0.0%	0.0%	0.4%	0.0%	0.4%	0.0%	0.4%	0.0%	0.0%	0.0%
Not Hispanic	0.1%	0.1%	0.1%	1.1%	0.9%	0.1%	0.0%	0.1%	0.1%	0.3%
FSA/RHS-Insured										
All Applicants	0.0%	0.4%	0.5%	2.3%	0.8%	0.2%	0.1%	0.1%	1.5%	1.2%
Race										
Asian	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Black or African American	0.0%	2.8%	2.1%	2.9%	0.0%	0.0%	0.0%	0.0%	2.5%	1.4%
White	0.0%	0.3%	0.4%	2.4%	0.9%	0.2%	0.1%	0.1%	1.4%	1.2%
Other Minority	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.5%	14.3%
Multi-Racial	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%
Missing	0.0%	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	5.6%	0.7%
Ethnicity										
Hispanic	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%	0.0%	0.0%	2.3%	1.3%
Not Hispanic	0.0%	0.4%	0.5%	2.4%	0.8%	0.2%	0.1%	0.1%	1.4%	1.2%

Table 14. High Cost Loans, Nonconventional Home Purchase Loans, by Insurer, 2005-2014, Tennessee

NOTE: First lien home purchase loans originated for owner occupied one-to-four family dwellings.

The following table provides the proportion of high cost refinance loans. The proportion of higher-priced refinance loans also increased in 2014, but the magnitude of the increase was not comparable to the increase in the proportion of high cost home purchase loans during the same period.

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
II. Refinance Loans										
Conventional and Nonconver	ntional	-								
All Applicants	33.2%	39.8%	29.1%	18.8%	7.3%	4.2%	4.6%	3.6%	4.4%	6.8%
Race										
Asian	22.2%	27.9%	17.7%	6.1%	2.3%	1.0%	0.9%	1.2%	1.9%	3.0%
Black or African American	57.4%	64.7%	48.4%	32.3%	13.1%	8.3%	7.3%	4.9%	4.8%	6.6%
White	28.3%	34.8%	26.2%	18.2%	7.4%	4.2%	4.8%	3.8%	4.6%	7.4%
Other Minority	38.1%	43.8%	37.3%	13.9%	5.2%	4.3%	4.9%	2.6%	5.2%	8.2%
Multi-Racial	31.3%	39.1%	29.7%	12.7%	5.0%	2.2%	2.9%	2.0%	3.6%	2.7%
Missing	43.3%	47.0%	30.7%	15.0%	4.4%	2.0%	1.7%	1.0%	1.8%	2.7%
Ethnicity										
Hispanic	26.7%	48.2%	28.3%	16.0%	6.5%	3.8%	3.2%	2.6%	3.9%	2.7%
Not Hispanic	32.0%	38.9%	29.0%	19.2%	7.6%	4.3%	4.9%	3.8%	4.6%	6.8%
Conventional Only										
All Applicants	34.8%	41.6%	31.3%	19.7%	7.6%	4.1%	4.4%	3.5%	4.3%	6.4%
Race										
Asian	23.4%	29.6%	19.0%	6.6%	2.2%	1.0%	0.8%	1.4%	1.8%	1.7%
Black or African American	63.4%	69.5%	56.2%	43.1%	19.1%	7.8%	7.3%	4.8%	4.8%	5.4%
White	29.5%	36.4%	28.1%	19.2%	7.8%	4.3%	4.7%	3.8%	4.6%	7.0%
Other Minority	40.4%	46.3%	39.9%	14.4%	5.2%	4.1%	4.0%	2.6%	4.8%	7.0%
Multi-Racial	35.5%	42.4%	33.7%	12.2%	4.2%	2.2%	2.3%	1.5%	2.9%	2.3%
Missing	45.0%	48.5%	32.4%	11.5%	2.4%	1.0%	0.9%	1.0%	1.8%	2.0%
Ethnicity										
Hispanic	31.4%	50.9%	32.0%	16.7%	7.3%	3.7%	2.6%	2.6%	4.1%	4.2%
Not Hispanic	33.6%	40.8%	31.4%	20.5%	8.0%	4.3%	4.7%	3.7%	4.5%	7.1%
NOTE: First lien refinance loans	originated t	for owner	occupied	ona ta fau	r family d	wallings				

Table 15. High Cost Loans, Conventional and Nonconventional Refinance Loans, 2005-2014, Tennessee

NOTE: First lien refinance loans originated for owner occupied one-to-four family dwellings.

PART B. HOME PURCHASE LOAN MARKET SHARE OF THDA

I. Home Loan Market Share of THDA

In this report, we also measured THDA's share in the home loan market. Market share refers to the proportion of loans funded by THDA to all home purchase loans originated by financial institutions and reported in Tennessee. Knowing THDA's share in the home loan market is important to determine how competitive THDA loan products are compared to the other similar loan products available in the market. Knowledge of where THDA's business is relative to the market is also useful when making decisions around marketing and planning.

Using HMDA data to measure THDA's share in the home loan market presents some limitations because of the nature of the HMDA data and THDA's loan program eligibility requirements. As explained previously, HMDA does not require all lenders to report mortgage information, so the data may not represent a complete inventory of loans made, especially in small rural counties.

THDA loan eligibility is subject to income and purchase price limits. Additionally, in approximately a third of the state's counties, loan eligibility is limited to first time homebuyers. To compare like loan products between THDA and those within the HMDA data set, we limited the HMDA loans to those with borrowers meeting the income limits ... and the purchase price limits using the following assumptions... Additionally, because HMDA has loan rather than purchase price, the purchase price from the loan price by assuming a four percent downpayment. There is not a first time homebuyer indicator in HMDA so that limitation is not reflected. All told, this means that the loan counts used is likely to under/overestimate THDA's participation in the market. However, this is a useful comparison to examine our loan market participation, while keeping the limitations in mind.

THDA loans are for low- to moderate-income Tennesseans. To be eligible for a THDA loan, borrowers need to meet income limit requirements for the county where they are purchasing a home. THDA income limits also depend on the family size. Borrowers with three or more people in the household are allowed to have higher incomes and still be eligible for THDA loans. However, HMDA data do not provide any information about the number of people in the household. Therefore, it limits our ability to measure THDA's market share in the home loan market accurately.

THDA's loan programs are meant for modest homes, therefore maximum purchase price limits are in place and vary by county. Financial institutions report the loan amounts²⁶ rather than the purchase price of the homes. Therefore, even if a record of home purchase is within THDA's purchase price range based on the loan amount, depending on the downpayment amount, it might exceed THDA's eligible purchase price limit.

THDA home loan products are designed for the first-time homebuyers unless borrower is buying a home in a federally targeted area or borrower is a veteran. HMDA data does not provide any information on whether borrowers who were reported in the database were first-time homebuyers. Therefore, some of the reported borrowers might not be eligible for a THDA loan even if they met income and purchase price eligibility requirements. However, in the absence of the first-time homebuyer status reporting, first-time homebuyers cannot be estimated.

²⁶ We estimated the purchase price from the loan amounts. This estimation methodology is explained in Appendix I.

Keeping these limitations in mind, THDA's market share for 2014 was estimated. Because majority of THDA loans are FHA-insured therefore, comparing THDA mortgage loans to FHA-insured loans in the market provides a more accurate estimate of THDA's share in the home mortgage loan market.

We applied the before mentioned criteria to determine the loans to borrowers who would be eligible to receive a THDA loan. Only the FHA-insured loans to the borrowers who would be eligible to receive an FHA-insured THDA loan based on income, which was less than or equal to the income limit of the county they purchased their homes, and purchased homes that are less than or equal to THDA's purchase price limit are included. To determine the eligibility based on the income limits, THDA's income limits for a large family (households with three or more people) were used.

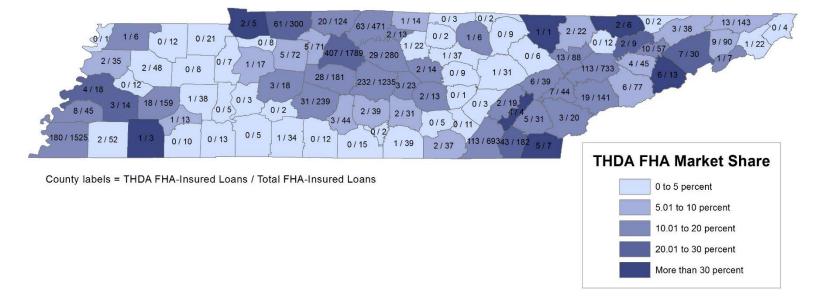
In 2014, there were 9,921 FHA-insured first lien home purchase loans reported for owner-occupied oneto four-family dwellings that met THDA's purchase price and income limit requirements, and THDA funded 1,535 FHA-insured loans. Therefore, THDA was able to serve 15.5 percent of potential homebuyers in the market compared to 16.4 percent of homebuyers who received FHA-insured loans in 2013. The reason for the declining THDA share in 2014 in the FHA-insured home purchase loan market is the declining number of THDA borrowers in 2014. THDA funded FHA-insured loans declined by 17 percent in 2014 compared to 2013.

In 2014, THDA's market share varied by county from zero percent in the counties where THDA did not fund any loans to 100 percent in Meigs County where THDA funded four loans. THDA was able to attract 15 percent or more of the potential FHA borrowers in each of Davidson, Hamilton, Knox, Montgomery Rutherford and Williamson Counties, while THDA's market share was relatively low in Shelby County. THDA funded FHA-insured loans were approximately 19 percent of comparable FHA-insured loans reported in Rutherford County and 23 percent in Davidson County. THDA's market share in Rutherford County declined from 22 percent in 2013. In Meigs County, there were four FHA-insured loans originated for the homebuyers meeting THDA's income and purchase price requirement who would be potential THDA borrowers and they used THDA mortgage products.

THDA's market share in the FHA-insured loans market declined in 32 counties and increased in 37 counties, while rest of the counties did not experience any change. THDA gained the largest increases in market share from 2013 to 2014 especially in small rural counties with relatively small mortgage loan markets. In Davidson County, THDA increased its market share by one percentage point in 2014 compared to 2013, while in other large counties of Nashville MSA THDA's reach to the potential mortgage loan borrowers declined. For example, in Rutherford County, both the number of THDA eligible FHA-insured loans and the actual THDA funded FHA-insured declined in 2014 compared to 2013, 13 percent and 27 percent respectively. That resulted in a, nearly, four percentage point decline in THDA's market share in Rutherford County. Similarly in Williamson, Sumner, Wilson and Maury Counties, THDA's market share declined by anywhere from five percentage points to one percentage point. In the Memphis MSA, Shelby County experienced an annual decline of four percentage points in the market share. Although both the number of FHA-insured THDA funded loans and the number of potential THDA borrowers decreased, 35 percent decline in the THDA funded loans outweighed the 15 percent decline in THDA-eligible FHA-insured loan borrowers. In 2014, THDA's market share in majority of West Tennessee counties declined or remained unchanged, especially in the counties without a THDA-funded loan either in 2013 or 2014.

THDA's market shares in FHA-insured mortgage loans market in 2013 and 2014 by county can be found in Appendix J.

Following map displays THDA's share in the FHA-insured loans market in 2014.



Map 3: THDA's Share in FHA-Insured Home Loans Market, 2014²⁷

²⁷ The FHA-insured home loan market refers to the first-lien home purchase loans for owner occupied 1-4 family dwellings that are originated in 2014 by financial institutions and reported in HMDA data. Only the FHA-insured loans to the borrowers who would be eligible to receive FHA-insured THDA loans based on their income, which was less than or equal to the large family (households with three or more people) income limit of the county they purchased their homes, and purchased homes that are less than or equal to THDA's purchase price limit (estimated by adding a four percent downpayment amount to the loan amount) are included.

REFERENCES

- Avery, R.B., Neil Bhutta, Kenneth P. Brevoort, Glenn B. Canner, and Christa N. Gibbs. 2010. "The 2008
 HMDA Data: The Mortgage Market during a Turbulent Year." *Federal Reserve Bulletin* 101 (14).
 Retrieved from http://www.federalreserve.gov/pubs/bulletin/2010/pdf/hmda08final.pdf
- Bhutta, N., Jack Popper, and Daniel R. Ringo. 2015. "The 2014 Home Mortgage Disclosure Act Data." Federal Reserve Bulletin 101 (14).
- Immergluck, Dan. "From Minor to Major Player: The Geography of FHA Lending during the US Mortgage Crisis." Journal of Urban Affairs 33.1 (2011): 1-20. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1533823
- Park, K.A. 2016. "Temporary Loan Limits as a Natural Experiment in FHA Insurance." U.S. Department of Housing and Urban Development, Office of Policy Development and Research, Housing Finance Working Paper Series Working Paper No. HF-021. Retrieved from

<u>https://www.huduser.gov/portal/sites/default/files/pdf/WhitePaper-FHA-Loan-Limits.pdf</u> Zandi, Mark, and Cristian deRitis. The Case for Lower FHA Premiums. Moody's Analytics, 2015.

Goodman, Laurie, Ellen Seidman and Jun Zhu. "FHA Loan Limits: What Areas Are the Most Affected?" Urban Institute. January 15, 2014.

APPENDIX

APPENDIX A

	Home Pu	rchase	Refina	nce
	2014	2013	2014	2013
Anderson	578	506	445	919
Bedford	375	310	221	401
Benton	90	86	82	164
Bledsoe	36	38	71	121
Blount	1,288	1,137	917	1,948
Bradley	894	869	583	1,163
Campbell	222	183	225	344
Cannon	110	92	71	143
Carroll	109	127	89	233
Carter	297	282	261	507
Cheatham	446	412	308	655
Chester	123	99	98	174
Claiborne	144	135	135	242
Clay	21	19	25	50
Cocke	108	96	101	211
Coffee	345	360	268	494
Crockett	76	75	69	97
Cumberland	354	312	298	589
Davidson	8,512	7,895	4,324	9,657
Decatur	40	40	64	89
DeKalb	130	93	104	179
Dickson	526	420	312	607
Dyer	259	271	174	348
ayette	451	444	300	598
entress	66	65	88	106
ranklin	263	199	210	400
Gibson	351	330	233	473
Giles	159	146	125	276
Grainger	89	99	121	175
Greene	359	373	358	679
Grundy	50	60	69	136
lamblen	442	361	366	716
Hamilton	3,773	3,619	2,101	4,436
Hancock	26	11	31	34
Hardeman	78	78	93	155
Hardin	126	144	150	190
Hawkins	354	332	257	536

First Lien, Owner-Occupied, 1-4 Family Loans Originated

	Home Purchase		Refinance		
	2014	2013	2014	2013	
Haywood	52	76	75	107	
Henderson	155	146	139	261	
Henry	170	159	131	264	
Hickman	130	106	98	193	
Houston	44	41	55	67	
Humphreys	131	97	106	169	
Jackson	29	41	61	82	
Jefferson	365	330	294	500	
Johnson	54	46	56	95	
Knox	5,070	4,877	2,838	6,572	
Lake	12	11	23	41	
Lauderdale	101	110	74	121	
Lawrence	241	213	192	338	
Lewis	45	43	62	104	
Lincoln	199	186	189	350	
Loudon	514	478	329	848	
Macon	159	126	136	221	
Madison	735	808	507	1,088	
Marion	159	136	213	322	
Marshall	279	251	164	326	
Maury	1,155	991	611	1,146	
McMinn	333	306	246	490	
McNairy	138	119	147	217	
Meigs	58	42	42	90	
Monroe	257	239	213	436	
Montgomery	3,183	2,912	1,371	2,580	
Moore	32	40	20	71	
Morgan	70	61	111	128	
Obion	131	137	137	276	
Overton	69	70	79	115	
Perry	19	10	21	40	
Pickett	14	11	8	32	
Polk	70	65	80	147	
Putnam	436	468	347	759	
Rhea	172	165	137	288	
Roane	341	318	319	662	
Robertson	767	742	524	969	
Rutherford	4,433	4,095	2,030	4,537	
Scott	59	40	95	107	

First Lien, Owner-Occupied, 1-4 Family Loans Originated

	Lama Du	urchaca	Dofin	Refinance		
	Home Pu	licitase	Renna	ance		
	2014	2013	2014	2013		
Sequatchie	78	82	111	178		
Sevier	737	657	485	1,064		
Shelby	6,228	6,155	4,143	9,217		
Smith	137	134	108	184		
Stewart	81	89	79	160		
Sullivan	1,234	1,201	791	1,553		
Sumner	2,567	2,430	1,326	2,936		
Tipton	445	400	448	818		
Trousdale	57	53	44	66		
Unicoi	95	85	70	145		
Union	122	111	93	167		
Van Buren	30	16	27	72		
Warren	176	188	149	266		
Washington	1,146	1,136	609	1,494		
Wayne	29	34	43	75		
Weakley	156	182	147	304		
White	149	152	108	231		
Williamson	4,312	4,288	1,969	4,858		
Wilson	2,096	1,917	992	2,233		
TENNESSEE	61,998	58,613	37,793	79,463		

First Lien, Owner-Occupied, 1-4 Family Loans Originated

APPENDIX B

COUNTY	Conventional	FHA	VA	FSA/RHS	ALI
Anderson	320	103	71	84	578
Bedford	120	56	40	159	375
Benton	48	10	12	20	90
Bledsoe	22	4	2	8	36
Blount	643	213	173	259	1,288
Bradley	429	243	87	135	894
Campbell	109	26	20	67	222
Cannon	48	25	5	32	110
Carroll	56	8	6	39	109
Carter	164	27	33	73	297
Cheatham	189	86	51	120	446
Chester	51	16	12	44	123
Claiborne	92	9	8	35	144
Clay	15	3	3	0	22
Cocke	55	15	15	23	108
Coffee	150	45	49	101	345
Crockett	29	13	4	30	70
Cumberland	183	42	65	64	354
Davidson	5,938	2,109	453	12	8,512
Decatur	20	9	2	9	40
DeKalb	56	15	14	45	130
Dickson	244	84	57	141	526
Dyer	108	45	27	79	259
Fayette	251	72	51	77	45:
Fentress	37	10	5	14	66
Franklin	108	45	35	75	263
Gibson	142	58	35	116	352
Giles	64	20	21	54	159
Grainger	45	11	10	23	89
Greene	199	38	36	86	359
Grundy	30	5	3	12	50
Hamblen	189	83	52	118	442
Hamilton	2,338	890	337	208	3,773
Hancock	14	2	2	8	26
Hardeman	40	5	6	27	78
Hardin	41	15	22	48	126
Hawkins	186	48	43	77	354
Haywood	24	14	2	12	52

First Lien, Owner-Occupied, Home Purchase Loans for 1-4 Family Dwellings

COUNTY	Conventional	FHA	VA	FSA/RHS	ALL
Henderson	75	40	10	30	155
Henry	87	26	29	28	170
Hickman	62	22	12	34	130
Houston	22	8	7	7	44
Humphreys	60	20	20	31	131
Jackson	17	2	4	6	29
Jefferson	176	55	40	94	365
Johnson	28	5	13	8	54
Knox	3,340	960	455	315	5,070
Lake	3	2	1	6	12
Lauderdale	32	22	15	32	101
Lawrence	128	41	18	54	241
Lewis	25	5	4	11	45
Lincoln	82	22	26	69	199
Loudon	316	55	54	89	514
Macon	66	18	9	66	159
Madison	393	183	65	94	735
Marion	84	40	11	24	159
Marshall	102	53	32	92	279
Maury	628	306	127	94	1,155
McMinn	163	44	22	104	333
McNairy	53	21	10	54	138
Meigs	31	8	7	12	58
Monroe	112	33	33	79	257
Montgomery	510	362	2,255	56	3,183
Moore	15	4	4	9	32
Morgan	31	8	7	24	70
Obion	70	7	8	46	131
Overton	37	9	8	15	69
Perry	13	3	2	1	19
Pickett	7	2	3	2	14
Polk	38	9	6	17	70
Putnam	258	63	48	67	436
Rhea	86	21	16	49	172
Roane	180	46	55	60	341
Robertson	295	157	100	215	767
Rutherford	2,107	1,449	528	349	4,433
Scott	36	3	3	17	59
Sequatchie	32	13	8	25	78
Sevier	362	105	79	191	737

First Lien, Owner-Occupied, Home Purchase Loans for 1-4 Family Dwellings

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COUNTY	Conventional	FHA	VA	FSA/RHS	ALL
Shelby	3,554	1,997	603	74	6,228
Smith	71	27	7	32	137
Stewart	26	6	35	14	81
Sullivan	910	181	97	46	1,234
Sumner	1,403	612	247	305	2,567
Tipton	134	72	123	116	445
Trousdale	26	13	5	13	57
Unicoi	54	10	11	20	95
Union	60	14	8	40	122
Van Buren	21	1	3	5	30
Warren	83	18	13	62	176
Washington	795	123	136	92	1,146
Wayne	15	8	4	2	29
Weakley	69	22	15	50	156
White	77	11	17	44	149
Williamson	3,587	439	208	78	4,312
Wilson	1,277	393	226	200	2,096
NA	69	1	1	1	72
TENNESSEE	35,190	12,722	7,782	6,304	61,998

First Lien, Owner-Occupied, Home Purchase Loans for 1-4 Family Dwellings

APPENDIX C

Methodology for Determining Combined Race Categories

In this report, we identified and defined the racial groups in the following way (these are combined race categories considering both applicant and co-applicant, if any, and all the racial groups, up to five, reported):

- White Both applicant and co-applicant are white and no other race reported, or the applicant is white and there is no co-applicant
- Black Both applicant and co-applicant are black and no other race reported, or the applicant is black and there is no co-applicant
- Asian Both applicant and co-applicant are Asian and no other race reported, or the applicant is Asian and there is no co-applicant
- Multiracial Both applicant and co-applicant are of different races or either applicant or coapplicant are multiracial, meaning at least one applicant reports more than one race
- Other minority Both the applicant and co-applicant are American Indian or Alaska Native, Native Hawaiian or other Pacific Islander and no other race reported or the applicant is American Indian or Alaska Native, Native Hawaiian or other Pacific Islander and there is no coapplicant
- Missing Race information for both applicant and co-applicant, if any, is reported as either "information not provided" or "not applicable."

We treated the borrower's ethnicity separately rather than combining as "race and ethnicity." According to our classification, a borrower is Hispanic or Latino if the applicant or co applicant is identified as Hispanic or Latino. If neither the applicant nor the co-applicant is Hispanic or Latino, then the borrower is categorized as not Hispanic or Latino. The information is missing if ethnicity is not provided or not applicable for both applicant and co-applicant, if there is any.

APPENDIX D

First-lien, Owner-Occupied, 1-4 Family, Home Purchase Loan Originations by Race, 2014							
County	White	Black	Asian	Other	Multi-Racial	Missing	TOTAL
Anderson	530	7	5	2	4	30	578
Bedford	337	14	2	1	7	14	375
Benton	84	1	1	0	1	3	90
Bledsoe	35	0	0	0	0	1	36
Blount	1,162	23	2	2	10	89	1,288
Bradley	841	13	3	6	7	24	894
Campbell	212	2	0	0	1	7	222
Cannon	103	0	1	3	0	3	110
Carroll	97	6	0	1	1	4	109
Carter	286	0	1	3	2	5	297
Cheatham	413	4	1	0	4	24	446
Chester	111	5	4	1	0	2	123
Claiborne	141	1	0	0	1	1	144
Clay	17	0	0	1	0	3	21
Cocke	106	0	0	0	0	2	108
Coffee	311	4	2	5	5	18	345
Crockett	69	4	0	1	0	2	76
Cumberland	327	1	1	1	6	18	354
Davidson	6,754	743	208	25	124	658	8,512
Decatur	38	2	0	0	0	0	40
DeKalb	126	0	0	1	0	3	130
Dickson	489	7	4	3	2	21	526
Dyer	232	14	2	1	5	5	259
Fayette	376	49	4	2	4	16	451
Fentress	60	0	0	1	0	5	66
Franklin	248	6	0	0	3	6	263
Gibson	312	24	2	3	1	9	351
Giles	148	2	2	0	2	5	159
Grainger	81	0	1	0	0	7	89
Greene	327	4	0	10	2	16	359
Grundy	47	0	1	0	0	2	50
Hamblen	400	7	4	2	4	25	442
Hamilton	3,284	217	60	7	38	167	3,773
Hancock	24	0	0	1	0	1	26
Hardeman	64	12	1	0	0	1	78
Hardin	111	3	1	2	0	9	126
Hawkins	333	1	1	3	4	12	354
Haywood	40	8	0	1	1	2	52

County	White	Black	Asian	Other	Multi-Racial	Missing	TOTAL
Henderson	143	7	1	0	1	3	155
Henry	157	4	0	2	- 0	7	170
Hickman	126	0	0	- 1	2	1	130
Houston	41	0	0	0	- 1	2	44
Humphreys	125	1	0	0	1	4	131
Jackson	26	0	0	0	1	2	29
Jefferson	332	4	1	0	- 4	24	365
Johnson	48	0	0	1	1	4	54
Knox	4,428	142	60	13	59	368	5,070
Lake	.,	1	0	0	0	0	12
Lauderdale	82	16	0	1	1	1	101
Lawrence	221	4	0	- 7	2	- 7	241
Lewis	43	0	0	0	- 0	2	45
Lincoln	190	2	0	1	1	5	199
Loudon	479	1	2	- 1	- 6	25	514
Macon	155	0	0	- 1	0	-3	159
Madison	586	111	3	2	9	24	735
Marion	149	6	0	0	1	3	159
Marshall	252	7	0	2	5	13	279
Maury	1,010	34	4	9	16	82	1,155
McMinn	312	8	1	3	2	7	333
McNairy	130	3	0	0	0	5	138
Meigs	51	1	0	4	0	2	58
Monroe	237	1	0	1	2	16	257
Montgomery	2,418	329	43	24	122	247	3,183
Moore	26	0	0	1	1	4	32
Morgan	62	0	0	1	1	6	70
Obion	122	3	1	0	0	5	131
Overton	65	0	0	3	0	1	69
Perry	16	0	0	1	0	2	19
Pickett	12	0	0	1	0	1	14
Polk	68	0	0	0	0	2	70
Putnam	413	1	4	1	3	14	436
Rhea	166	0	1	2	0	3	172
Roane	324	3	1	1	2	10	341
Robertson	701	12	4	4	12	34	767
Rutherford	3,671	385	99	18	68	192	4,433
Scott	56	0	0	0	1	2	59
Sequatchie	73	0	0	0	0	5	78
Sevier	693	2	6	5	5	26	737
Shelby	4,146	1,417	241	25	123	276	6,228

First-lien, Owner-Occupied, 1-4 Family, Home Purchase Loan Originations by Race, 2014

County	White	Black	Asian	Other	Multi-Racial	Missing	TOTAL
Smith	130	0	0	4	0	3	137
Stewart	71	0	0	0	1	9	81
Sullivan	1,139	5	10	3	15	62	1,234
Sumner	2,302	82	27	8	21	127	2,567
Tipton	390	33	3	1	8	10	445
Trousdale	51	2	0	1	2	1	57
Unicoi	90	0	0	0	0	5	95
Union	111	0	0	1	1	9	122
Van Buren	27	0	0	2	1	0	30
Warren	158	4	0	6	3	5	176
Washington	1,046	16	20	7	15	42	1,146
Wayne	21	0	0	5	0	3	29
Weakley	148	2	0	1	0	5	156
White	134	0	0	2	0	13	149
Williamson	3,641	68	153	12	46	392	4,312
Wilson	1,856	60	44	4	22	110	2,096
NA	46	1	1	16	0	8	72
TENNESSEE	52,403	3,962	1,044	298	827	3,464	61,998

First-lien, Owner-Occupied, 1-4 Family, Home Purchase Loan Originations b	y Race, 2014
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APPENDIX E

First-lien, Owner-Occupied, 1-4 Family, <i>Refinance</i> Loan Originations, 2014												
County	White	Black	Asian	Other	Multi-Racial	Missing	TOTAL					
Anderson	373	11	2	1	4	54	445					
Bedford	196	6	0	2	2	15	221					
Benton	78	2	0	0	0	2	82					
Bledsoe	65	0	0	0	0	6	71					
Blount	800	18	1	4	12	82	917					
Bradley	527	12	3	1	3	37	583					
Campbell	215	0	0	0	0	10	225					
Cannon	65	1	0	2	1	2	71					
Carroll	81	5	0	0	1	2	89					
Carter	235	2	1	1	3	19	261					
Cheatham	282	3	1	1	6	15	308					
Chester	86	1	0	1	4	6	98					
Claiborne	120	0	1	1	1	12	135					
Clay	25	0	0	0	0	0	25					
Cocke	90	0	0	2	1	8	101					
Coffee	238	4	1	4	3	18	268					
Crockett	58	5	0	1	0	5	69					
Cumberland	263	3	1	0	4	27	298					
Davidson	3,060	645	70	20	76	453	4,324					
Decatur	57	2	0	0	0	5	64					
DeKalb	97	0	0	1	0	6	104					
Dickson	277	11	1	1	3	19	312					
Dyer	155	5	1	2	4	7	174					
Fayette	236	35	0	2	4	23	300					
Fentress	84	0	0	0	0	4	88					
Franklin	181	5	0	1	2	21	210					
Gibson	196	13	0	4	2	18	233					
Giles	109	3	1	2	2	8	125					
Grainger	112	0	0	0	2	7	121					
Greene	330	1	1	3	3	20	358					
Grundy	63	0	0	0	0	6	69					
Hamblen	330	7	1	1	6	21	366					
Hamilton	1,708	180	17	3	37	156	2,101					
Hancock	29	0	0	0	0	2	31					
Hardeman	66	18	1	3	0	5	93					
Hardin	114	2	1	0	1	32	150					
Hawkins	233	3	3	2	1	15	257					
Haywood	48	21	0	1	0	5	75					

County	White	Black	Asian	Other	Multi-Racial	Missing	TOTAL
Henderson	121	4	0	1	1	12	139
Henry	110	6	0	1	1	13	131
Hickman	90	0	0	2	0	6	98
Houston	46	0	0	0	1	8	55
Humphreys	98	1	0	1	3	3	106
Jackson	56	0	0	1	0	4	61
Jefferson	273	0	0	0	2	19	294
Johnson	50	0	0	2	1	3	56
Knox	2,348	110	25	7	37	311	2,838
Lake	22	0	0	0	0	1	23
Lauderdale	61	9	0	0	1	3	74
Lawrence	178	2	0	0	3	9	192
Lewis	52	0	0	0	1	9	62
Lincoln	158	4	1	3	1	22	189
Loudon	290	3	1	0	5	30	329
Macon	128	0	0	1	2	5	136
Madison	369	94	4	1	6	33	507
Marion	188	8	2	0	0	15	213
Marshall	142	7	0	0	3	12	164
Maury	492	38	2	5	10	64	611
McMinn	215	4	0	2	3	22	246
McNairy	126	3	1	4	1	12	147
Meigs	40	0	0	0	0	2	42
Monroe	182	7	2	1	3	18	213
Montgomery	897	229	8	10	81	146	1,371
Moore	18	0	0	0	1	1	20
Morgan	98	0	0	2	0	11	111
Obion	127	6	0	0	1	3	137
Overton	72	0	0	0	1	6	79
Perry	18	0	0	0	0	3	21
Pickett	8	0	0	0	0	0	8
Polk	71	0	1	1	0	7	80
Putnam	316	6	1	4	3	17	347
Rhea	131	1	0	1	1	3	137
Roane	277	8	0	0	2	32	319
Robertson	455	19	0	2	5	43	524
Rutherford	1,605	175	32	4	42	172	2,030
Scott	90	0	0	0	0	5	95
Sequatchie	104	1	0	0	0	6	111
Sevier	430	2	2	1	11	39	485
Shelby	2,562	1,015	74	19	76	397	4,143

First-lien, Owner-Occupied, 1-4 Family, *Refinance* Loan Originations, 2014

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County	White	Black	Asian	Other	Multi-Racial	Missing	TOTAL
Smith	103	1	0	1	1	2	108
Stewart	64	0	0	0	3	12	79
Sullivan	697	11	3	5	16	59	791
Sumner	1,133	56	10	8	14	105	1,326
Tipton	350	52	0	3	7	36	448
Trousdale	40	1	0	0	0	3	44
Unicoi	67	0	0	0	1	2	70
Union	79	1	0	0	2	11	93
Van Buren	27	0	0	0	0	0	27
Warren	125	4	1	0	1	18	149
Washington	518	15	2	2	16	56	609
Wayne	37	0	0	0	1	5	43
Weakley	138	4	0	1	1	3	147
White	99	1	0	2	1	5	108
Williamson	1,653	50	47	9	23	187	1,969
Wilson	848	28	10	4	19	83	992
NA	12	2	0	4	0	6	24
TENNESSEE	30,386	3,012	337	182	603	3,273	37,793

First-lien, Owner-Occupied, 1-4 Family, Refinance Loan Originations, 2014

APPENDIX F

Ratio Of Non-Conventional Loan Borrowers To Total Borrowers, by Race, 2014										
COUNTY	Asian	Black	White	Other Minority	Multi-Racial	Missing	ALL			
Anderson	20.0%	71.4%	44.5%	0.0%	50.0%	46.7%	44.6%			
Bedford	50.0%	71.4%	67.7%	0.0%	71.4%	78.6%	68.0%			
Benton	100.0%	100.0%	46.4%	NA	0.0%	33.3%	46.7%			
Bledsoe	NA	NA	40.0%	NA	NA	0.0%	38.9%			
Blount	50.0%	56.5%	49.4%	0.0%	60.0%	57.3%	50.1%			
Bradley	33.3%	69.2%	52.2%	16.7%	71.4%	41.7%	52.0%			
Campbell	NA	100.0%	49.5%	NA	100.0%	71.4%	50.9%			
Cannon	100.0%	NA	56.3%	0.0%	NA	100.0%	56.4%			
Carroll	NA	66.7%	48.5%	0.0%	100.0%	25.0%	48.6%			
Carter	0.0%	NA	45.1%	0.0%	100.0%	40.0%	44.8%			
Cheatham	100.0%	50.0%	58.1%	NA	50.0%	50.0%	57.6%			
Chester	50.0%	60.0%	59.5%	0.0%	NA	50.0%	58.5%			
Claiborne	NA	100.0%	36.2%	NA	0.0%	0.0%	36.1%			
Clay	NA	NA	29.4%	0.0%	NA	33.3%	28.6%			
Cocke	NA	NA	50.0%	NA	NA	0.0%	49.1%			
Coffee	50.0%	75.0%	55.9%	60.0%	60.0%	61.1%	56.5%			
Crockett	NA	100.0%	62.3%	0.0%	NA	0.0%	61.8%			
Cumberland	0.0%	100.0%	48.9%	0.0%	33.3%	44.4%	48.3%			
Davidson	28.4%	67.7%	26.7%	56.0%	37.9%	22.5%	30.2%			
Decatur	NA	100.0%	47.4%	NA	NA	NA	50.0%			
DeKalb	NA	NA	57.1%	0.0%	NA	66.7%	56.9%			
Dickson	0.0%	42.9%	54.6%	0.0%	50.0%	52.4%	53.6%			
Dyer	0.0%	92.9%	55.6%	0.0%	100.0%	80.0%	58.3%			
Fayette	25.0%	77.6%	40.2%	50.0%	50.0%	43.8%	44.3%			
Fentress	NA	NA	43.3%	0.0%	NA	60.0%	43.9%			
Franklin	NA	83.3%	58.9%	NA	33.3%	50.0%	58.9%			
Gibson	0.0%	79.2%	58.7%	33.3%	0.0%	66.7%	59.5%			
Giles	50.0%	100.0%	58.8%	NA	50.0%	80.0%	59.7%			
Grainger	100.0%	NA	49.4%	NA	NA	42.9%	49.4%			
Greene	NA	100.0%	45.0%	0.0%	50.0%	50.0%	44.6%			
Grundy	0.0%	NA	42.6%	NA	NA	0.0%	40.0%			
Hamblen	25.0%	71.4%	56.8%	100.0%	100.0%	56.0%	57.2%			
Hamilton	16.7%	71.4%	36.5%	14.3%	36.8%	32.9%	38.0%			
Hancock	NA	NA	45.8%	0.0%	NA	100.0%	46.2%			
Hardeman	100.0%	66.7%	43.8%	NA	NA	100.0%	48.7%			
Hardin	0.0%	66.7%	72.1%	0.0%	NA	33.3%	67.5%			
Hawkins	0.0%	100.0%	47.7%	0.0%	100.0%	33.3%	47.5%			
Haywood	NA	100.0%	45.0%	0.0%	100.0%	50.0%	53.8%			
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Ratio Of Non-Conventional Loan Borrowers To Total Borrowers, by Race, 2014

COUNTY	Asian	Black	White	Other Minority	Multi-Racial	Missing	ALL
Henderson	0.0%	85.7%	49.7%	NA	100.0%	66.7%	51.6%
Henry	NA	100.0%	47.1%	50.0%	NA	57.1%	48.8%
Hickman	NA	NA	52.4%	0.0%	100.0%	0.0%	52.3%
Houston	NA	NA	48.8%	NA	100.0%	50.0%	50.0%
Humphreys	NA	100.0%	53.6%	NA	100.0%	50.0%	54.2%
Jackson	NA	NA	42.3%	NA	0.0%	50.0%	41.4%
Jefferson	0.0%	75.0%	52.1%	NA	50.0%	45.8%	51.8%
Johnson	NA	NA	45.8%	0.0%	100.0%	75.0%	48.1%
Knox	16.7%	60.6%	33.0%	30.8%	32.2%	40.2%	34.1%
Lake	NA	100.0%	72.7%	NA	NA	NA	75.0%
Lauderdale	NA	75.0%	67.1%	0.0%	100.0%	100.0%	68.3%
Lawrence	NA	50.0%	48.4%	0.0%	50.0%	42.9%	46.9%
Lewis	NA	NA	46.5%	NA	NA	0.0%	44.4%
Lincoln	NA	100.0%	59.5%	0.0%	100.0%	20.0%	58.8%
Loudon	0.0%	100.0%	39.7%	0.0%	0.0%	28.0%	38.5%
Macon	NA	NA	59.4%	0.0%	NA	33.3%	58.5%
Madison	0.0%	73.9%	41.1%	50.0%	88.9%	41.7%	46.5%
Marion	NA	50.0%	47.0%	NA	100.0%	33.3%	47.2%
Marshall	NA	57.1%	63.9%	0.0%	100.0%	53.8%	63.4%
Maury	25.0%	82.4%	44.6%	22.2%	43.8%	47.6%	45.6%
McMinn	0.0%	100.0%	51.0%	0.0%	50.0%	28.6%	51.1%
McNairy	NA	66.7%	63.1%	NA	NA	20.0%	61.6%
Meigs	NA	100.0%	49.0%	0.0%	NA	50.0%	46.6%
Monroe	NA	100.0%	57.0%	0.0%	0.0%	56.3%	56.4%
Montgomery	55.8%	93.0%	83.3%	91.7%	88.5%	80.6%	84.0%
Moore	NA	NA	57.7%	0.0%	100.0%	25.0%	53.1%
Morgan	NA	NA	58.1%	0.0%	100.0%	33.3%	55.7%
Obion	0.0%	33.3%	48.4%	NA	NA	20.0%	46.6%
Overton	NA	NA	47.7%	33.3%	NA	0.0%	46.4%
Perry	NA	NA	31.3%	0.0%	NA	50.0%	31.6%
Pickett	NA	NA	58.3%	0.0%	NA	0.0%	50.0%
Polk	NA	NA	47.1%	NA	NA	0.0%	45.7%
Putnam	0.0%	100.0%	41.4%	0.0%	66.7%	28.6%	40.8%
Rhea	0.0%	NA	50.0%	100.0%	NA	33.3%	50.0%
Roane	0.0%	66.7%	47.2%	0.0%	0.0%	60.0%	47.2%
Robertson	50.0%	75.0%	61.2%	50.0%	83.3%	58.8%	61.5%
Rutherford	54.5%	76.9%	49.6%	55.6%	57.4%	56.3%	52.5%
Scott	NA	NA	39.3%	NA	0.0%	50.0%	39.0%
Sequatchie	NA	NA	58.9%	NA	NA	60.0%	59.0%
Sevier	50.0%	100.0%	50.6%	60.0%	40.0%	53.8%	50.9%
Shelby	17.8%	74.8%	33.4%	44.0%	57.7%	37.7%	42.9%

Ratio Of Non-Conventional Loan Borrowers To Total Borrowers, by Race, 2014

COUNTY	Asian	Black	White	Other Minority	Multi-Racial	Missing	ALL
Smith	NA	NA	50.0%	0.0%	NA	33.3%	48.2%
Stewart	NA	NA	70.4%	NA	100.0%	44.4%	67.9%
Sullivan	0.0%	80.0%	26.3%	33.3%	46.7%	21.0%	26.3%
Sumner	14.8%	68.3%	45.4%	50.0%	33.3%	38.6%	45.3%
Tipton	66.7%	78.8%	67.9%	0.0%	100.0%	100.0%	69.9%
Trousdale	NA	50.0%	54.9%	100.0%	50.0%	0.0%	54.4%
Unicoi	NA	NA	44.4%	NA	NA	20.0%	43.2%
Union	NA	NA	49.5%	0.0%	100.0%	66.7%	50.8%
Van Buren	NA	NA	33.3%	0.0%	0.0%	NA	30.0%
Warren	NA	75.0%	53.8%	0.0%	33.3%	80.0%	52.8%
Washington	10.0%	68.8%	30.5%	0.0%	33.3%	33.3%	30.6%
Wayne	NA	NA	61.9%	0.0%	NA	33.3%	48.3%
Weakley	NA	50.0%	55.4%	0.0%	NA	80.0%	55.8%
White	NA	NA	49.3%	0.0%	NA	46.2%	48.3%
Williamson	3.3%	36.8%	17.2%	0.0%	23.9%	14.3%	16.8%
Wilson	22.7%	53.3%	39.4%	25.0%	50.0%	30.0%	39.1%
NA	100.0%	100.0%	2.2%	0.0%	NA	0.0%	4.2%
TENNESSEE	23.5%	73.4%	41.6%	29.9%	54.3%	38.4%	43.2%

Ratio Of Non-Conventional Loan Borrowers To Total Borrowers, by Race, 2014

APPENDIX G

				ans Denial Rates" by			
County	White	Black	Asian	Other Minority	Multi-Racial	Missing	TOTAL
Anderson	11.1%	12.5%	0.0%	0.0%	42.9%	16.7%	11.7%
Bedford	11.2%	6.3%	33.3%	50.0%	0.0%	12.5%	11.2%
Benton	11.3%	0.0%	0.0%	0.0%	0.0%	33.3%	12.3%
Bledsoe	29.1%	0.0%	0.0%	100.0%	0.0%	50.0%	31.0%
Blount	11.3%	16.7%	0.0%	33.3%	0.0%	16.7%	11.8%
Bradley	13.5%	12.5%	40.0%	0.0%	11.1%	37.2%	14.5%
Campbell	19.7%	0.0%	0.0%	0.0%	66.7%	61.1%	22.4%
Cannon	14.5%	NA	0.0%	25.0%	NA	57.1%	16.9%
Carroll	13.9%	0.0%	0.0%	50.0%	0.0%	33.3%	14.6%
Carter	12.2%	0.0%	50.0%	25.0%	0.0%	14.3%	12.5%
Cheatham	12.4%	0.0%	0.0%	0.0%	0.0%	25.0%	12.9%
Chester	16.2%	0.0%	20.0%	0.0%	100.0%	50.0%	17.5%
Claiborne	28.5%	0.0%	0.0%	0.0%	0.0%	0.0%	28.0%
Clay	21.7%	0.0%	0.0%	0.0%	0.0%	0.0%	18.5%
Cocke	23.8%	0.0%	0.0%	0.0%	0.0%	50.0%	24.5%
Coffee	12.9%	20.0%	0.0%	0.0%	0.0%	18.2%	12.9%
Crockett	13.4%	42.9%	0.0%	0.0%	0.0%	0.0%	15.2%
Cumberland	9.3%	0.0%	50.0%	0.0%	0.0%	24.0%	10.2%
Davidson	9.9%	22.3%	13.6%	20.0%	7.6%	15.0%	11.6%
Decatur	23.1%	0.0%	0.0%	100.0%	0.0%	NA	23.6%
DeKalb	17.3%	0.0%	0.0%	50.0%	0.0%	40.0%	18.3%
Dickson	12.4%	12.5%	20.0%	40.0%	0.0%	16.0%	12.8%
Dyer	14.0%	30.0%	0.0%	0.0%	0.0%	33.3%	15.2%
Fayette	9.4%	19.7%	0.0%	0.0%	0.0%	22.7%	11.0%
Fentress	20.7%	0.0%	0.0%	0.0%	0.0%	44.4%	22.8%
Franklin	10.6%	0.0%	0.0%	100.0%	0.0%	45.5%	11.8%
Gibson	12.5%	32.4%	0.0%	25.0%	0.0%	40.0%	15.1%
Giles	16.7%	60.0%	0.0%	0.0%	0.0%	37.5%	18.2%
Grainger	21.6%	0.0%	0.0%	0.0%	0.0%	27.3%	21.9%
Greene	15.8%	20.0%	100.0%	9.1%	33.3%	37.0%	17.5%
Grundy	24.3%	0.0%	0.0%	0.0%	0.0%	0.0%	23.4%
Hamblen	16.8%	20.0%	0.0%	33.3%	0.0%	18.2%	16.8%
Hamilton	10.1%	27.2%	13.9%	12.5%	18.8%	16.8%	11.8%
Hancock	10.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.4%
Hardeman	14.7%	22.2%	66.7%	0.0%	0.0%	60.0%	19.6%
Hardin	15.3%	0.0%	0.0%	0.0%	0.0%	9.1%	14.2%
Hawkins	18.9%	0.0%	0.0%	0.0%	20.0%	38.1%	19.5%
Haywood	21.8%	33.3%	0.0%	50.0%	0.0%	0.0%	24.0%

Home Purchase Loans Denial Rates* by Race, 2014

County	White	Black	Asian	Other Minority	Multi-Racial	Missing	TOTAL
Henderson	11.7%	12.5%	0.0%	0.0%	0.0%	40.0%	12.4%
Henry	16.0%	33.3%	0.0%	0.0%	100.0%	11.1%	16.5%
Hickman	20.5%	100.0%	0.0%	0.0%	0.0%	80.0%	22.3%
Houston	20.5%	0.0%	0.0%	0.0%	0.0%	33.3%	22.5%
Humphreys	11.1%	0.0%	0.078 NA	0.0%	0.0%	0.0%	10.7%
Jackson	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	23.1%
Jefferson	18.0%	0.0%	0.0%	NA	0.0%	34.1%	19.0%
Johnson	15.9%	0.0%	0.0%	0.0%	0.0%	20.0%	15.7%
Knox	9.2%	17.9%	20.7%	0.0%	3.2%	20.0 <i>%</i> 19.3%	10.4%
Lake	13.3%	0.0%	0.0%	0.0%	0.0%		12.5%
Lauderdale	15.0%	15.8%	0.0%	50.0%	50.0%	50.0%	16.8%
Lawrence	14.5%	0.0%	0.0%	0.0%	0.0%	41.7%	15.0%
Lewis	22.8%	0.0%	100.0%	0.0%	0.0%	0.0%	23.3%
Lincoln	11.9%	25.0%	0.0%	0.0%	66.7%	16.7%	12.9%
Loudon	12.4%	0.0%	0.0%	0.0%	0.0%	31.0%	13.4%
Macon	12.9%	0.0%	100.0%	0.0%	0.0%	40.0%	13.9%
Madison	8.5%	20.7%	20.0%	50.0%	0.0%	29.7%	11.6%
Marion	16.9%	14.3%	NA	0.0%	50.0%	40.0%	17.7%
Marshall	14.8%	22.2%	0.0%	0.0%	16.7%	0.0%	14.3%
Maury	11.3%	10.3%	0.0%	0.0%	22.7%	12.6%	11.4%
McMinn	17.3%	18.2%	0.0%	25.0%	0.0%	23.1%	17.5%
McNairy	17.9%	50.0%	0.0%	0.0%	0.0%	45.5%	20.5%
Meigs	17.2%	0.0%	0.0%	0.0%	0.0%	0.0%	15.5%
Monroe	19.0%	50.0%	0.0%	0.0%	50.0%	33.3%	20.5%
Montgomery	8.6%	12.3%	18.5%	17.2%	5.4%	14.0%	9.5%
Moore	13.3%	0.0%	0.0%	0.0%	0.0%	20.0%	13.5%
Morgan	22.7%	0.0%	0.0%	0.0%	0.0%	14.3%	21.6%
Obion	21.6%	0.0%	66.7%	NA	100.0%	54.5%	24.3%
Overton	11.8%	0.0%	0.0%	0.0%	0.0%	75.0%	14.5%
Perry	22.7%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%
Pickett	7.7%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%
Polk	30.6%	0.0%	0.0%	0.0%	0.0%	0.0%	30.0%
Putnam	15.0%	50.0%	20.0%	0.0%	25.0%	17.6%	15.3%
Rhea	19.2%	0.0%	0.0%	0.0%	0.0%	25.0%	19.0%
Roane	14.0%	0.0%	50.0%	0.0%	60.0%	25.0%	15.1%
Robertson	10.9%	31.6%	20.0%	20.0%	0.0%	22.2%	11.8%
Rutherford	9.0%	15.8%	11.4%	9.5%	13.8%	22.5%	10.4%
Scott	37.4%	0.0%	0.0%	0.0%	0.0%	50.0%	37.5%
Sequatchie	20.6%	0.0%	NA	NA	0.0%	16.7%	20.4%
Sevier	16.5%	0.0%	14.3%	16.7%	16.7%	35.7%	17.3%
Shelby	6.6%	21.2%	9.2%	15.6%	10.8%	22.8%	11.5%

Home Purchase Loans Denial Rates* by Race, 2014

County	White	Black	Asian	Other Minority	Multi-Racial	Missing	TOTAL
Smith	14.8%	0.0%	0.0%	0.0%	0.0%	50.0%	15.7%
Stewart	16.9%	50.0%	0.0%	0.0%	0.0%	21.4%	17.9%
Sullivan	13.3%	54.5%	8.3%	33.3%	16.7%	16.0%	13.8%
Sumner	10.5%	23.7%	12.9%	11.1%	21.4%	11.5%	11.2%
Tipton	10.2%	16.7%	0.0%	0.0%	0.0%	42.9%	11.8%
Trousdale	11.1%	33.3%	0.0%	0.0%	50.0%	66.7%	16.2%
Unicoi	13.9%	0.0%	0.0%	0.0%	0.0%	16.7%	14.0%
Union	21.9%	0.0%	0.0%	0.0%	0.0%	21.4%	21.6%
Van Buren	22.2%	0.0%	0.0%	0.0%	0.0%	NA	20.5%
Warren	19.7%	42.9%	0.0%	0.0%	25.0%	25.0%	20.2%
Washington	10.5%	5.9%	20.0%	0.0%	28.6%	18.9%	11.2%
Wayne	30.3%	0.0%	0.0%	0.0%	100.0%	25.0%	27.9%
Weakley	17.7%	33.3%	0.0%	0.0%	0.0%	0.0%	17.4%
White	20.3%	0.0%	0.0%	0.0%	100.0%	12.5%	19.9%
Williamson	7.8%	20.0%	10.1%	14.3%	5.9%	9.8%	8.3%
Wilson	8.9%	23.5%	12.3%	0.0%	25.0%	12.5%	9.9%
NA	67.3%	86.7%	66.7%	20.0%	100.0%	58.3%	63.7%
TOTAL	11.2%	20.6%	13.3%	14.0%	12.1%	19.1%	12.4%

Home Purchase Loans Denial Rates* by Race, 2014

*First-lien, Owner-Occupied, 1-4 Family Home Purchase Loans

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Refinance Loans Denial Rates, by Race, 2014

County	White	Black	Asian	Other Minority	Multi-Racial	Missing	ΤΟΤΑΙ
Anderson	31.5%	25.0%	33.3%	50.0%	42.9%	42.2%	33.1%
Bedford	35.4%	57.9%	0.0%	33.3%	60.0%	55.3%	38.7%
Benton	33.3%	50.0%	0.0%	0.0%	0.0%	77.8%	36.7%
Bledsoe	35.7%	0.0%	0.0%	0.0%	0.0%	0.0%	33.6%
Blount	30.4%	35.5%	50.0%	37.5%	22.2%	43.9%	31.9%
Bradley	31.2%	41.7%	40.0%	75.0%	75.0%	47.1%	33.4%
Campbell	32.5%	100.0%	100.0%	100.0%	100.0%	65.6%	36.3%
Cannon	30.8%	50.0%	0.0%	0.0%	0.0%	75.0%	33.1%
Carroll	32.6%	70.6%	0.0%	0.0%	0.0%	83.3%	40.0%
Carter	26.8%	50.0%	0.0%	0.0%	57.1%	45.7%	29.1%
Cheatham	29.8%	40.0%	0.0%	0.0%	14.3%	51.3%	31.3%
Chester	33.1%	0.0%	0.0%	0.0%	33.3%	47.4%	34.1%
Claiborne	34.2%	100.0%	50.0%	0.0%	50.0%	44.4%	36.6%
Clay	23.1%	0.0%	0.0%	0.0%	50.0%	75.0%	28.9%
Cocke	42.6%	NA	0.0%	33.3%	75.0%	60.9%	45.1%
Coffee	32.9%	55.6%	66.7%	0.0%	50.0%	45.7%	34.6%
Crockett	33.7%	30.0%	0.0%	0.0%	0.0%	44.4%	33.9%
Cumberland	31.2%	50.0%	0.0%	100.0%	42.9%	38.8%	32.4%
Davidson	28.6%	43.5%	44.2%	51.1%	35.7%	42.3%	33.6%
Decatur	20.5%	33.3%	0.0%	100.0%	0.0%	16.7%	21.6%
DeKalb	36.6%	NA	0.0%	0.0%	100.0%	61.1%	39.1%
Dickson	27.3%	7.7%	0.0%	0.0%	40.0%	44.4%	28.1%
Dyer	30.9%	61.1%	0.0%	0.0%	20.0%	69.6%	35.4%
Fayette	27.5%	56.2%	100.0%	33.3%	20.0%	54.2%	35.7%
Fentress	33.6%	0.0%	0.0%	100.0%	100.0%	71.4%	37.7%
Franklin	36.5%	37.5%	0.0%	0.0%	25.0%	29.0%	35.7%
Gibson	32.5%	55.3%	NA	33.3%	0.0%	55.0%	36.6%
Giles	38.5%	62.5%	50.0%	33.3%	0.0%	57.1%	40.7%
Grainger	28.5%	0.0%	100.0%	0.0%	0.0%	56.3%	31.0%
Greene	36.3%	71.4%	0.0%	20.0%	40.0%	60.4%	38.6%
Grundy	30.2%	NA	0.0%	0.0%	NA	33.3%	30.2%
Hamblen	32.0%	58.8%	75.0%	75.0%	22.2%	52.2%	34.7%
Hamilton	29.1%	50.5%	50.0%	60.0%	22.4%	46.4%	33.6%
Hancock	28.3%	0.0%	0.0%	0.0%	0.0%	0.0%	27.1%
Hardeman	34.0%	53.8%	0.0%	25.0%	100.0%	44.4%	40.5%
Hardin	34.6%	0.0%	0.0%	0.0%	0.0%	26.1%	32.3%
Hawkins	42.2%	20.0%	0.0%	33.3%	33.3%	50.0%	42.1%
Haywood	43.1%	38.6%	100.0%	0.0%	0.0%	53.8%	42.6%

				Venial Nales, by Nac			
County	White	Black	Asian	Other Minority	Multi-Racial	Missing	TOTAL
Henderson	27.7%	42.9%	0.0%	50.0%	0.0%	38.1%	29.3%
Henry	38.2%	45.5%	0.0%	0.0%	66.7%	48.1%	39.7%
Hickman	28.9%	100.0%	0.0%	33.3%	0.0%	38.5%	31.4%
Houston	33.3%	0.0%	0.0%	0.0%	0.0%	33.3%	33.0%
Humphreys	35.3%	50.0%	0.0%	0.0%	25.0%	69.2%	37.2%
Jackson	32.0%	0.0%	0.0%	0.0%	0.0%	33.3%	31.7%
Jefferson	32.8%	100.0%	0.0%	100.0%	0.0%	58.8%	35.8%
Johnson	41.3%	0.0%	0.0%	33.3%	66.7%	71.4%	45.5%
Knox	28.7%	44.6%	39.6%	46.7%	18.0%	37.6%	30.7%
Lake	35.0%	0.0%	0.0%	0.0%	0.0%	50.0%	35.7%
Lauderdale	34.0%	54.5%	0.0%	0.0%	50.0%	54.5%	39.1%
Lawrence	31.8%	0.0%	0.0%	0.0%	0.0%	47.1%	32.2%
Lewis	35.9%	0.0%	0.0%	0.0%	0.0%	40.0%	36.1%
Lincoln	30.7%	50.0%	66.7%	0.0%	75.0%	43.9%	33.8%
Loudon	31.4%	57.1%	0.0%	100.0%	37.5%	39.0%	33.2%
Macon	25.3%	100.0%	0.0%	50.0%	33.3%	53.8%	27.9%
Madison	30.2%	53.4%	33.3%	71.4%	46.2%	55.1%	39.2%
Marion	30.1%	25.0%	50.0%	0.0%	100.0%	44.8%	31.5%
Marshall	33.6%	50.0%	0.0%	0.0%	20.0%	50.0%	35.8%
Maury	29.7%	52.7%	25.0%	16.7%	14.3%	41.1%	32.8%
McMinn	35.5%	60.0%	NA	50.0%	25.0%	56.9%	38.6%
McNairy	36.7%	72.7%	66.7%	20.0%	0.0%	48.0%	39.1%
Meigs	41.8%	100.0%	0.0%	0.0%	0.0%	50.0%	42.9%
Monroe	37.8%	30.0%	0.0%	0.0%	50.0%	44.7%	38.2%
Montgomery	31.7%	41.3%	46.7%	53.8%	22.5%	45.6%	35.1%
Moore	50.0%	0.0%	0.0%	0.0%	50.0%	50.0%	50.0%
Morgan	36.7%	0.0%	0.0%	0.0%	0.0%	14.3%	34.6%
Obion	36.1%	35.7%	0.0%	100.0%	50.0%	77.8%	39.4%
Overton	31.5%	0.0%	0.0%	NA	66.7%	25.0%	32.0%
Perry	35.5%	100.0%	0.0%	0.0%	0.0%	66.7%	43.9%
Pickett	52.9%	0.0%	0.0%	0.0%	0.0%	100.0%	55.6%
Polk	35.9%	NA	0.0%	0.0%	NA	52.9%	37.5%
Putnam	32.2%	14.3%	33.3%	50.0%	42.9%	44.7%	33.2%
Rhea	34.9%	66.7%	0.0%	0.0%	66.7%	80.0%	38.3%
Roane	30.8%	57.9%	75.0%	100.0%	50.0%	44.6%	34.1%
Robertson	27.5%	61.2%	66.7%	33.3%	50.0%	42.9%	31.6%
Rutherford	27.6%	40.2%	36.5%	69.2%	22.6%	43.3%	30.8%
Scott	30.2%	0.0%	0.0%	0.0%	0.0%	37.5%	30.6%
Sequatchie	32.1%	0.0%	0.0%	0.0%	100.0%	60.0%	34.7%
Sevier	37.2%	33.3%	33.3%	0.0%	14.3%	48.8%	37.9%
Shelby	27.7%	54.0%	44.7%	46.5%	31.9%	51.5%	39.9%
/							

Refinance Loans Denial Rates, by Race, 2014

County	White	Black	Asian	Other Minority	Multi-Racial	Missing	TOTAL
Smith	27.7%	85.7%	0.0%	0.0%	50.0%	83.3%	33.7%
Stewart	42.9%	100.0%	0.0%	100.0%	40.0%	29.4%	42.4%
Sullivan	35.1%	31.8%	20.0%	0.0%	29.2%	44.0%	35.5%
Sumner	29.4%	36.9%	42.1%	40.0%	28.0%	47.0%	31.7%
Tipton	29.6%	39.8%	66.7%	0.0%	53.3%	42.9%	32.6%
Trousdale	36.4%	50.0%	0.0%	0.0%	0.0%	62.5%	39.0%
Unicoi	33.0%	0.0%	0.0%	100.0%	66.7%	71.4%	36.6%
Union	32.8%	0.0%	0.0%	0.0%	33.3%	63.6%	38.7%
Van Buren	36.2%	0.0%	0.0%	0.0%	0.0%	100.0%	40.0%
Warren	35.7%	50.0%	50.0%	50.0%	50.0%	48.6%	38.4%
Washington	35.4%	36.0%	60.0%	50.0%	10.5%	45.9%	36.2%
Wayne	36.5%	0.0%	0.0%	0.0%	0.0%	61.5%	40.3%
Weakley	36.4%	60.0%	NA	0.0%	50.0%	72.7%	38.9%
White	42.6%	50.0%	0.0%	60.0%	50.0%	72.2%	45.5%
Williamson	21.3%	39.1%	30.7%	16.7%	27.5%	25.2%	22.6%
Wilson	27.3%	53.0%	35.3%	25.0%	24.0%	46.2%	30.7%
NA	55.9%	40.0%	0.0%	20.0%	0.0%	22.2%	45.3%
TOTAL	30.4%	48.7%	41.6%	42.2%	30.7%	45.6%	34.2%

Refinance Loans Denial Rates, by Race, 2014

First-lien, Owner-Occupied, 1-4 Family, Refinance Loans

APPENDIX I

Methodology for Estimating Purchase Price Using Loan Amount

In the HMDA data, institutions report the loan amounts rather than the purchase prices. This complicates determining the mortgage borrowers who could be eligible for THDA loans. Therefore, in this version, the purchase price of the homes was estimated by assuming that borrowers paid four percent of the reported loan amount as downpayment. A four percent downpayment may be considered low, especially for conventional loans, but considering there are zero or low downpayment loan products such as FSA/RHS and FHA insured loans and borrowers may use private mortgage insurance (PMI) and pay less than 20 percent downpayment, four percent is a good average for an estimated downpayment. To determine the eligibility based on the income limits, THDA's income limits for a large family (households with three or more people) were used.

APPENDIX J

	ALL FHA-Insured Loans		FHA-Insured THDA Funded Loans		THDA FHA Market Share	
-	2014	2013	2014	2013	2014	2013
Anderson	88	91	13	16	14.8%	17.6%
Bedford	39	28	2	2	5.1%	7.1%
Benton	7	10	0	0	0.0%	0.0%
Bledsoe	3	6	0	0	0.0%	0.0%
Blount	141	180	19	32	13.5%	17.8%
Bradley	182	211	43	42	23.6%	19.9%
Campbell	22	21	2	0	9.1%	0.0%
Cannon	23	9	3	0	13.0%	0.0%
Carroll	8	14	0	0	0.0%	0.0%
Carter	22	36	1	4	4.5%	11.1%
Cheatham	71	63	5	9	7.0%	14.3%
Chester	13	16	1	1	7.7%	6.3%
Claiborne	6	5	2	1	33.3%	20.0%
Clay	3	2	0	0	0.0%	0.0%
Cocke	13	8	6	3	46.2%	37.5%
Coffee	31	26	2	0	6.5%	0.0%
Crockett	12	8	0	3	0.0%	37.5%
Cumberland	31	31	1	1	3.2%	3.2%
Davidson	1,789	2065	407	448	22.8%	21.7%
Decatur	5	4	0	1	0.0%	25.0%
DeKalb	14	14	2	2	14.3%	14.3%
Dickson	72	64	5	6	6.9%	9.4%
Dyer	35	21	2	1	5.7%	4.8%
Fayette	52	64	2	3	3.8%	4.7%
Fentress	9	7	0	0	0.0%	0.0%
Franklin	39	14	1	1	2.6%	7.1%
Gibson	48	30	2	4	4.2%	13.3%
Giles	12	19	0	1	0.0%	5.3%
Grainger	9	11	2	2	22.2%	18.2%
Greene	30	29	7	4	23.3%	13.8%
Grundy	5	6	0	0	0.0%	0.0%
Hamblen	57	79	10	15	17.5%	19.0%
Hamilton	693	795	113	125	16.3%	15.7%
Hancock	2	2	0	0	0.0%	0.0%
Hardeman	3	5	1	0	33.3%	0.0%
Hardin	13	15	0	1	0.0%	6.7%
Hawkins	38	44	3	1	7.9%	2.3%
Haywood	14	11	3	1	21.4%	9.1%

	ALL FHA-Insured Loans		FHA-Insured THDA Funded Loans		THDA FHA Market Share	
	2014	2013	2014	2013	2014	2013
Henderson	38	26	1	3	2.6%	11.5%
Henry	21	23	0	0	0.0%	0.0%
Hickman	18	11	3	3	16.7%	27.3%
Houston	8	7	0	0	0.0%	0.0%
Humphreys	17	18	1	1	5.9%	5.6%
Jackson	2	3	0	0	0.0%	0.0%
Jefferson	45	35	4	3	8.9%	8.6%
Johnson	4	4	0	0	0.0%	0.0%
Knox	733	858	113	113	15.4%	13.2%
Lake	1	2	0	0	0.0%	0.0%
Lauderdale	18	13	4	3	22.2%	23.1%
Lawrence	34	16	1	1	2.9%	6.3%
Lewis	2	2	0	0	0.0%	0.0%
Lincoln	15	20	0	0	0.0%	0.0%
Loudon	44	48	7	10	15.9%	20.8%
Macon	14	8	1	0	7.1%	0.0%
Madison	159	193	18	9	11.3%	4.7%
Marion	37	26	2	1	5.4%	3.8%
Marshall	44	36	3	2	6.8%	5.6%
Maury	239	293	31	42	13.0%	14.3%
McMinn	31	28	5	1	16.1%	3.6%
McNairy	10	12	0	0	0.0%	0.0%
Meigs	4	10	4	2	100.0%	20.0%
Monroe	20	23	3	5	15.0%	21.7%
Montgomery	300	315	61	61	20.3%	19.4%
Moore	2	3	0	0	0.0%	0.0%
Morgan	6	10	0	1	0.0%	10.0%
Obion	6	15	1	0	16.7%	0.0%
Overton	6	4	1	0	16.7%	0.0%
Perry	3	1	0	0	0.0%	0.0%
Pickett	2	1	0	0	0.0%	0.0%
Polk	7	11	5	1	71.4%	9.1%
Putnam	37	63	1	9	2.7%	14.3%
Rhea	19	28	2	1	10.5%	3.6%
Roane	39	30	6	4	15.4%	13.3%
Robertson	124	133	20	20	16.1%	15.0%
Rutherford	1,235	1419	232	317	18.8%	22.3%
Scott	1	6	1	1	100.0%	16.7%
Sequatchie	11	8	0	2	0.0%	25.0%
Sevier	77	84	6	5	7.8%	6.0%

	ALL FHA-Insured Loans		FHA-Insured THDA Funded Loans		THDA FHA Market Share	
	2014	2013	2014	2013	2014	2013
Shelby	1,525	1794	180	276	11.8%	15.4%
Smith	22	18	1	0	4.5%	0.0%
Stewart	5	5	2	1	40.0%	20.0%
Sullivan	143	170	13	12	9.1%	7.1%
Sumner	471	563	63	96	13.4%	17.1%
Tipton	45	67	8	6	17.8%	9.0%
Trousdale	13	6	2	0	15.4%	0.0%
Unicoi	7	6	1	0	14.3%	0.0%
Union	12	15	0	2	0.0%	13.3%
Van Buren	1	1	0	0	0.0%	0.0%
Warren	13	15	2	0	15.4%	0.0%
Washington	90	123	9	15	10.0%	12.2%
Wayne	5	6	0	0	0.0%	0.0%
Weakley	12	6	0	1	0.0%	16.7%
White	9	12	0	0	0.0%	0.0%
Williamson	181	252	28	51	15.5%	20.2%
Wilson	280	377	29	46	10.4%	12.2%
TENNESSEE	9,921	11346	1,535	1,857	15.5%	16.4%