

# 2019

## TENNESSEE HOUSING MARKET



## AT A GLANCE



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# TENNESSEE HOUSING TRENDS<sup>1</sup>

During the second quarter of 2019, Tennessee's annual house price appreciation, at seven percent, surpassed the national house price appreciation rate by more than two percentage points, and Tennessee was ranked third among the states and the District of Columbia. Current annual price appreciation of seven percent was lower than the peak level of 2017 and it was also less than the appreciation in the previous quarter, but since the home price increase slowed down in some of the high-volatility states like Florida or Arizona, Tennessee moved to the top behind Idaho and Utah. The Nashville MSA's house price appreciation cooled down in the second quarter of 2019. Previous year, with its nearly 10 percent increase, the Nashville MSA was ranked as 39th highest among 245 MSAs, compared to the current 6.3 percent increase and a ranking of 62nd highest in the nation.

In 2019, Tennesseans saw continued pressures on housing affordability in both the rental and owner markets. Growing demand for housing pushed the housing prices and rents higher across Tennessee. In some parts of the state, for example around the Nashville MSA, builders and developers responded to the need for more housing, especially rental housing, and started building large multifamily housing with 5 or more units. However, in the state, renter incomes did not keep up with the rent increases, in real terms, worsening the housing affordability situation for them. From 2017 to 2018, the cost of both owning and renting appreciated faster than the median wage of any occupation considered in this report (i.e. wage of teachers, police officers, retail workers, etc.). Therefore, there was no improvement in any occupation for a single wage earner household's possibility of purchasing a median priced home or renting a two-bedroom apartment at fair market rent without being cost burdened.

In June 2019, all counties across Tennessee had delinquency rates lower than June 2010. In the state, the delinquency rate of June 2019 was nearly five percentage points lower than the delinquency rate nine years ago. According to Market Trends data from Corelogic, in June 2010, after the housing market crash, more than six percent of borrowers in Tennessee were 90 days or more behind on their mortgages. In the past eight years, increasing home values across the state and the nation improved homeowners' equity position. An improving economy and declining unemployment rates in Tennessee further strengthened the housing markets.

Privately-owned housing units authorized by building permits in 2018 declined by two percent in the state, compared to 2017. Between 2011 and 2016, building permit issuance increased annually in the state at a consistent pace of more than 10 percent each year. A relatively smaller, five percent, increase in permits issued in 2017, and a two percent decline in 2018<sup>2</sup> could be a sign of slowing construction activity in the future. Especially the year-over-year decline in the permits for large multi-family buildings (five or more units) could be an important barometer to watch for the housing market trends in the coming years. Housing construction has varied considerably by region. In the Nashville MSA, for example, the trend of increases in building permits that started in 2010 reversed in 2018. In contrast, total building permits issued in the Memphis MSA increased by 16 percent from 2017 to 2018, bucking the statewide pattern. Directionally consistent across the state and the Nashville MSA, the number of permits issued for five or more units declined from 2017 to 2018, while the permits for large multifamily building more than doubled in the Memphis MSA.

Both the rental and homeowner vacancy rates increased in Tennessee in 2018. The Memphis MSA experienced increasing rental and homeowner vacancy in 2018, while in the Nashville MSA, rental vacancy slightly declined as homeowner vacancy slightly increased, a directional change from the previous few years. Both MSAs had rental vacancy rates higher than the nationwide average for inside metro areas. While this was a normal situation for the Memphis MSA, it was unusual for the Nashville MSA since 2005.

<sup>1</sup> We used the most recent data available at the end of the second quarter from different data sources. Therefore, for different sections, the year of the data changes. Sometimes, it is 2018 year end, or in other times American Community Survey, 2017 5-year estimates (2013-2017).

<sup>2</sup> 2018 is the most recent year the building permit data is available.

# HOUSING TYPES

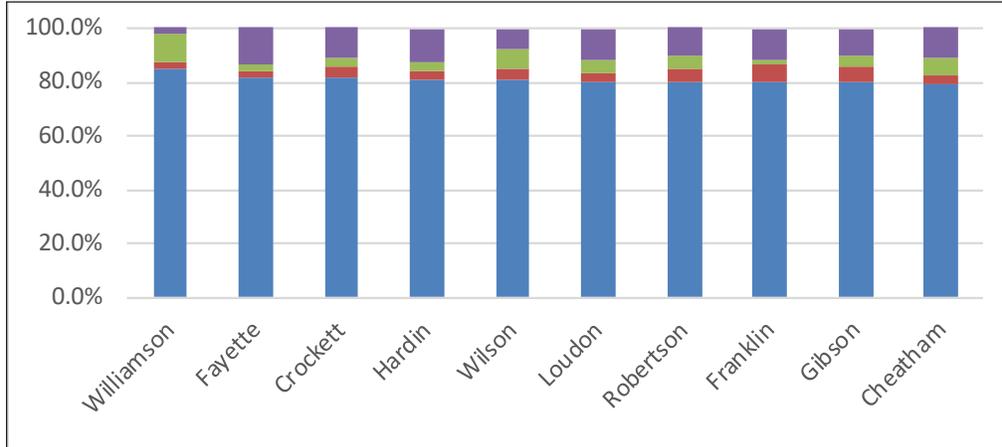
Single family homes are the most common housing units in Tennessee. According to the 2013-2017 American Community Survey (ACS), 69 percent of housing units in Tennessee were 1-unit single family detached homes. When attached dwellings are also added, 1-unit single family housing comprised 72 percent of total housing units in Tennessee. The percentage of single family detached and attached homes in Tennessee was higher than the nation (62 percent 1-unit detached and six percent 1-unit attached) and the Southern region (63 percent 1-unit detached and five percent 1-unit attached). In Tennessee and the South, the percent of mobile homes in the total housing stock (9.3 and 9.5 percent, respectively) was higher than the nation (6.3 percent). In terms of housing with five or more units, Tennessee (12.7 percent) was behind the Southern region (16.8 percent) and the nation (18 percent).

The housing landscape in Tennessee varied considerably by county. The percent of single family homes (both detached and attached) in total housing stock ranged from a low of 60 percent in Davidson County to a high of 84 percent in Williamson County. Union, Cocke and Perry Counties also had low percentages of single family homes, similar to Davidson County, but the housing stock makeup was otherwise completely different in these more rural counties. Davidson County's balance of housing units consists primarily of housing with three or more units (33 percent of total housing stock). In contrast, Union, Cocke and Perry Counties' balance of housing units were predominantly mobile homes: 28 percent of Union and Cocke Counties and 35 percent of Perry County. Among the counties with the lowest ratios of single family homes, Washington County, like Davidson County, also stands out with its relatively high percentage of buildings with five or more units.

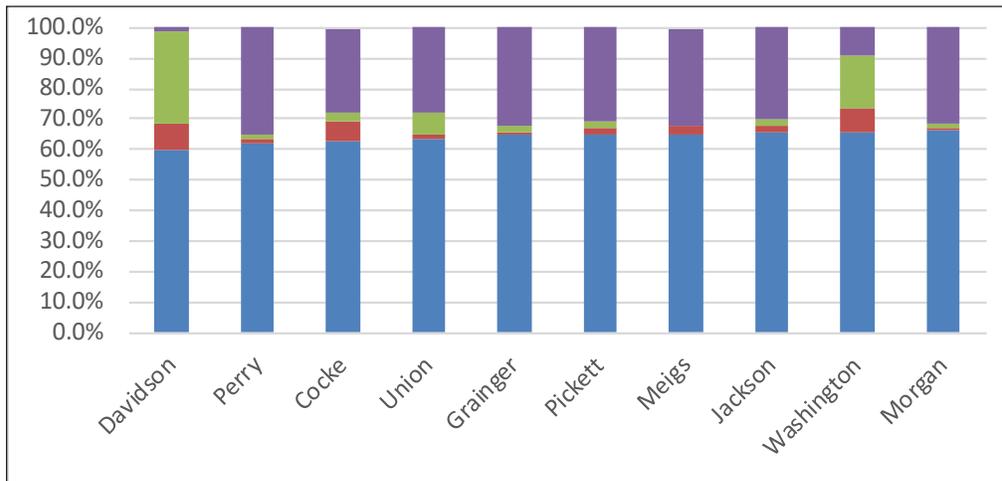
Davidson County ranked number one in the state for the highest percentage of housing units in multifamily buildings with 20 or more units, followed by Knox County. Nearly 13 percent of the total housing units in Davidson County were in large multifamily buildings, well above the state average of four percent. Interestingly, even though Davidson County's percent of single family detached homes was lowest in the state, with seven percent of total housing stock, Davidson County had the highest percent of single family attached homes followed by Knox, Rutherford, Williamson and Shelby Counties.

The following chart shows the ratio of various housing types compared to the total housing units in the 10 counties with the highest ratio of 1-unit single family homes (detached and attached combined) and in the 10 counties with the lowest ratio of 1-unit single family homes. More county level data for different housing types is available in Appendix A.

### Counties with the Highest Percent of 1-Unit Family Homes, 2017



### Counties with the Lowest Percent of 1-Unit Family Homes, 2017



Source: American Community Survey (ACS), 5-Year Estimates, 2013-2017, U.S. Census Bureau

# AGE OF HOUSING

Compared to the nation, in Tennessee, older housing units constituted a relatively smaller percentage of the total housing units. Six percent of housing units were built before 1940 in Tennessee, while nationally, 13 percent of homes were built before 1940. Twenty-one percent of existing housing units in Tennessee and 18 percent nationally have been built since the year 2000. The median year built for Tennessee's occupied housing units was 1983, similar to the Southern region (1984). Nationally, the median year built for occupied housing units was 1977. Rental housing was, on average, older than owner-occupied housing not only in Tennessee but also in the South and nationally.

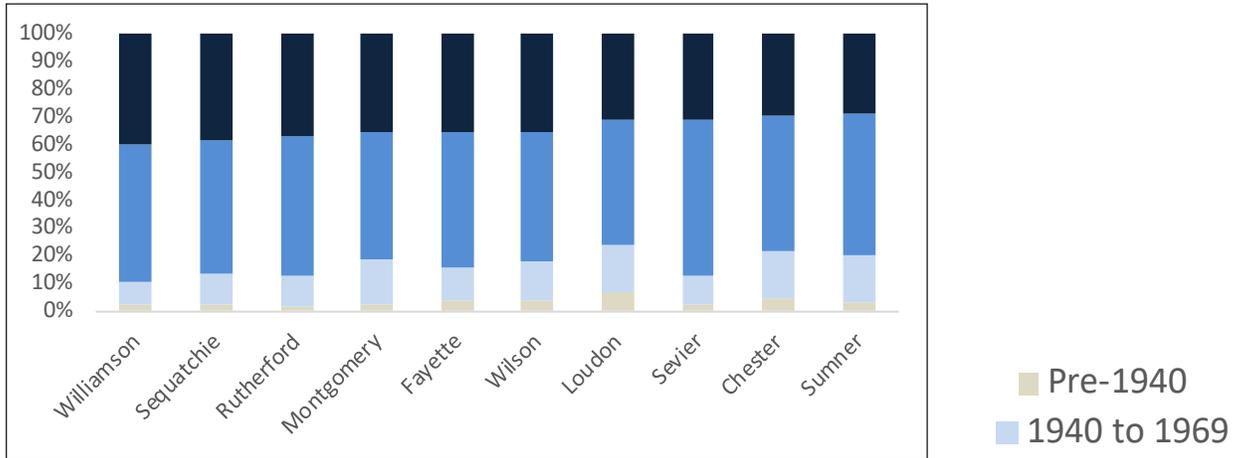
The age of housing units varied by county in the state. Williamson County has the largest percent of young housing stock, with nearly 40 percent of total housing units built after 2000, followed by Sequatchie and Rutherford Counties. Unlike Williamson and Rutherford Counties, in Davidson<sup>3</sup>, Knox and Shelby Counties, the percent of housing unit built after 2000 was either lower than the state average or at the state level (20 percent, 21 percent and 15 percent, respectively).

Unicoi County has both the lowest percent of total housing units built after 2000 (ten percent) and the highest percent built before 1940 (15 percent) in the state. Giles and Hancock Counties followed Unicoi County in the older housing percentage ranking with 12 percent and 11 percent, respectively.

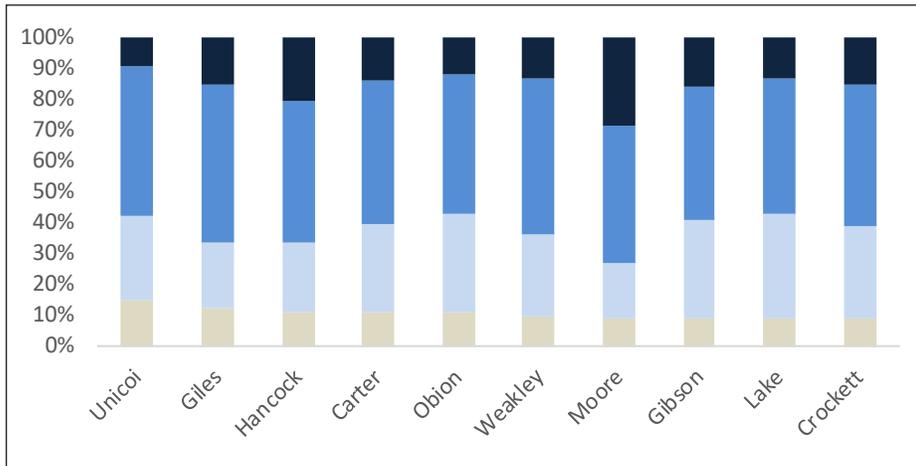
The following charts show the ratio of housing units built by decade compared to the total housing units in the 10 counties with the highest ratio of housing built in the 2000s and in the 10 counties with the lowest ratio of housing built in 2000s. More county level data is available in Appendix B.

<sup>3</sup> This is based on U.S. Census Bureau's American Community Survey (ACS) 5-Year Estimates ending in 2017. It might be influenced by the current building boom in Davidson County, but since it is 5-year average, it will not fully reflect. ACS 1-year estimates capture more recent changes, but they are not available for all counties.

## Counties with the Highest Percent of Housing Built 2000 and Later



## Counties with the Highest Percent of Housing Built Pre 1940

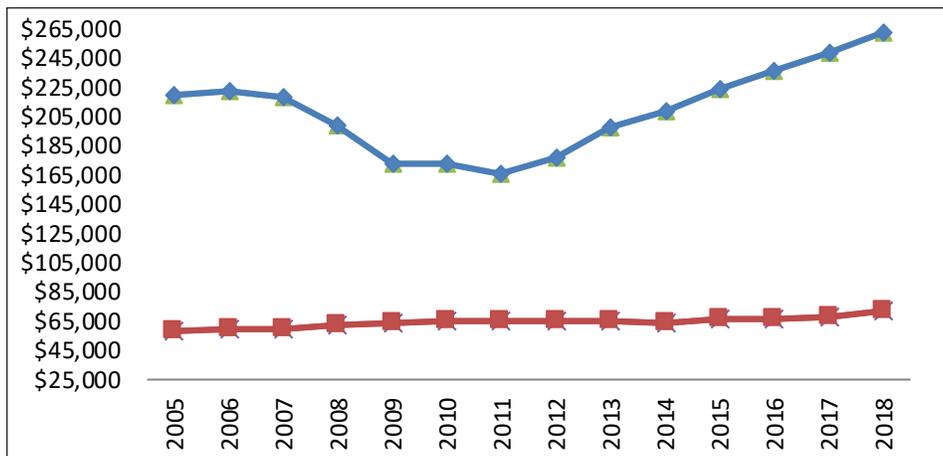


Source: American Community Survey (ACS), 5-Year Estimates, 2013-2017, U.S. Census Bureau

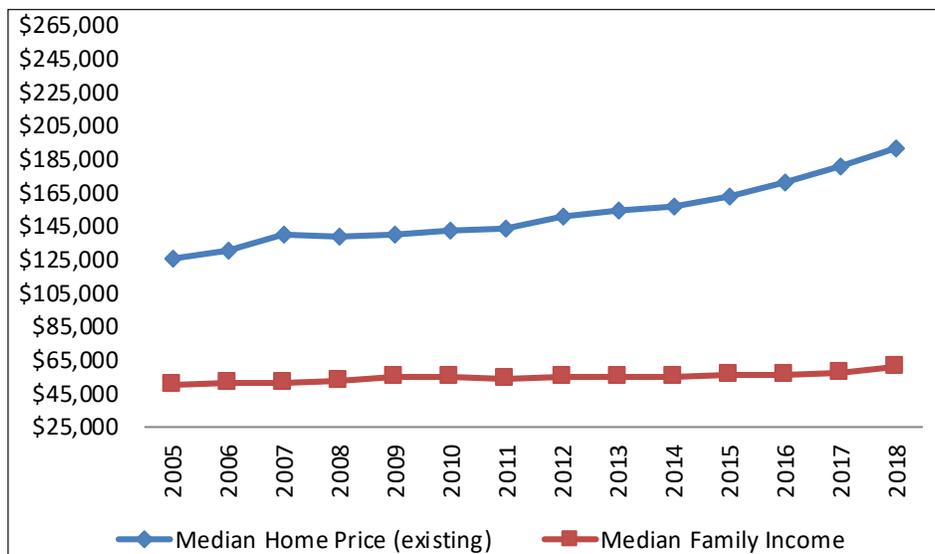
# MEDIAN HOME PRICE (EXISTING) VS. MEDIAN INCOME

Year over year changes in median existing home prices were in step with income changes from 2017 to 2018. Existing home prices in Tennessee, in real terms, increased by 3.6 percent and median family income (\$60,900) increased by 3.7 percent. Nationwide, the median existing home price increased by 2.6 percent compared to 2017, while the median family income increased by 3.2 percent. While both in the nation and in Tennessee, family income kept up with the home price appreciation, the median masks true affordability challenges households face. Although, median home price in the nation was steadily increasing since the dip in 2011, in real terms, it was still lower than peak median price of 2005. However, in Tennessee, the current median existing home price, in 2018, was the highest since 1995 (the earliest we have this data).

## Median Home Price Vs. Median Family Income, US



## Median Home Price Vs. Median Family Income, TN



Source: U.S. median (existing) home price – National Association of Realtors®. Median Family Income, Tennessee median (existing) home price – THDA tabulations of data obtained from the Property Assessment Division, Comptroller’s Office. Median Family Income (U.S. and Tennessee) – U.S. Department of Housing and Urban Development (HUD).

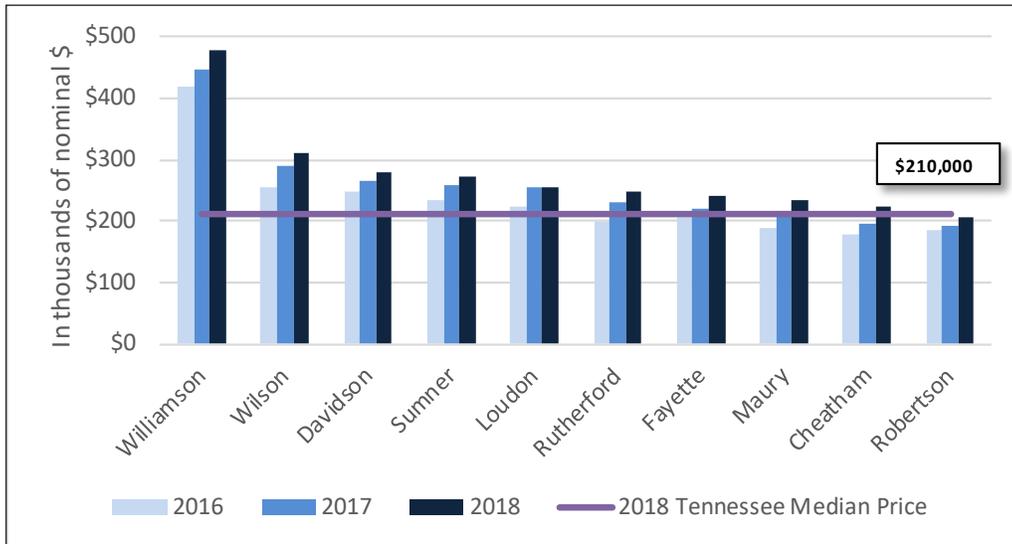
# 2018 SINGLE FAMILY MEDIAN HOME PRICES

The median price of all homes sold (new and existing) in Tennessee was \$210,000 in 2018, which was the highest median price, even after adjusting for inflation, in the history of THDA's tabulations of sales price and volume data (since 1995).

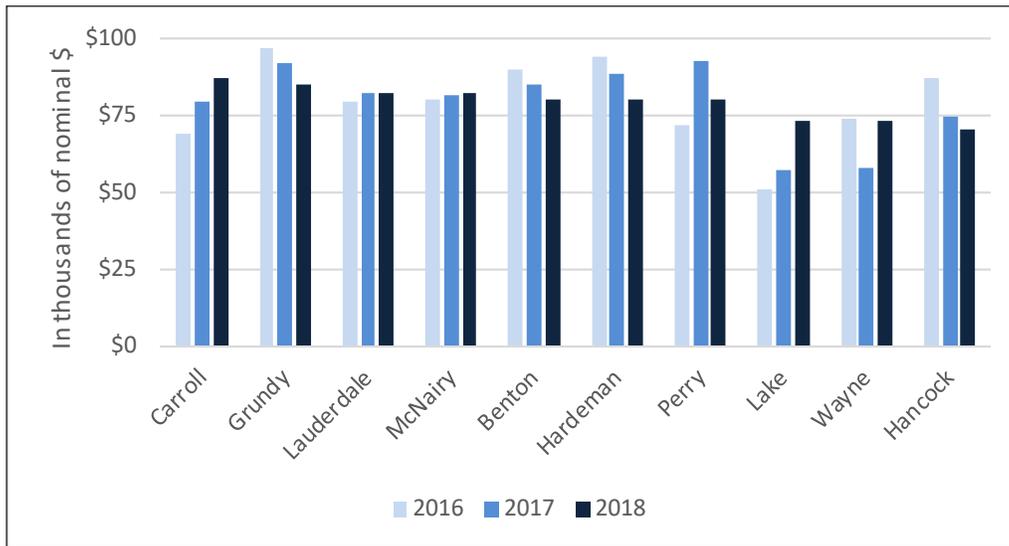
In 18 counties, median home sale prices declined from 2017. In eight of those counties, the decline in the median home prices was less than five percent. Van Buren County experienced the largest annual home price depreciation, with 20 percent, followed by Haywood and Perry Counties, with 15 percent and 14 percent depreciation, respectively.

The largest percentage increases in median price were found in rural counties with small populations, with more volatile price trends due to low sales volume. In 43 counties, the 2018 median sales price was a 10-year peak<sup>4</sup>. At \$477,055, Williamson County had the highest median price in the state, which was seven percent higher compared to 2017.

### Highest Median Home Price Counties, 2018 (2016-2018)



### Lowest Median Home Price Counties, 2018 (2016-2018)

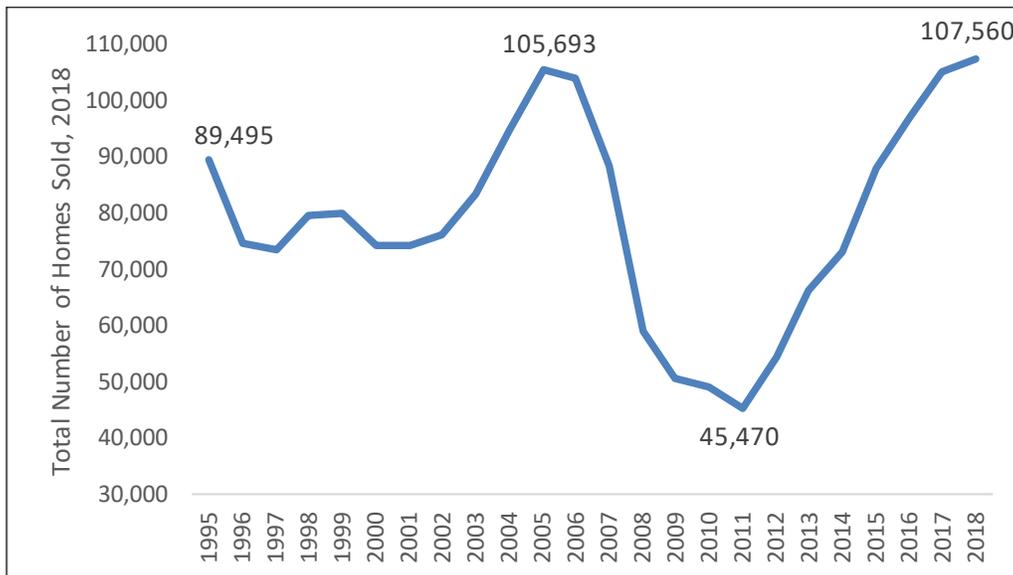


Source: THDA tabulations of home sales based on data obtained from the Property Assessment Division, Comptroller's Office, State of Tennessee. To find median home sales volume and prices for other counties, MSAs and previous years, go to: <https://thda.org/research-planning/home-sales-price-by-county>

# 2018 SINGLE-FAMILY HOME SALE VOLUMES IN TENNESSEE COUNTIES

In 2018, single-family home sales in Tennessee increased by two percent compared to 2017. Including both new and existing homes, 107,560 homes were sold in 2018. This made 2018 the highest sales volume in the history of THDA's tabulations of sales price and volume data (since 1995). Since 2012, following six years of declining sales, Tennessee home sales were increasing steadily. However, the increase in 2018 was milder compared to the previous years. Tennessee home sales volume just surpassed the previous peak in 2005 (2018 volume stands about two percent higher than the 2005 peak).

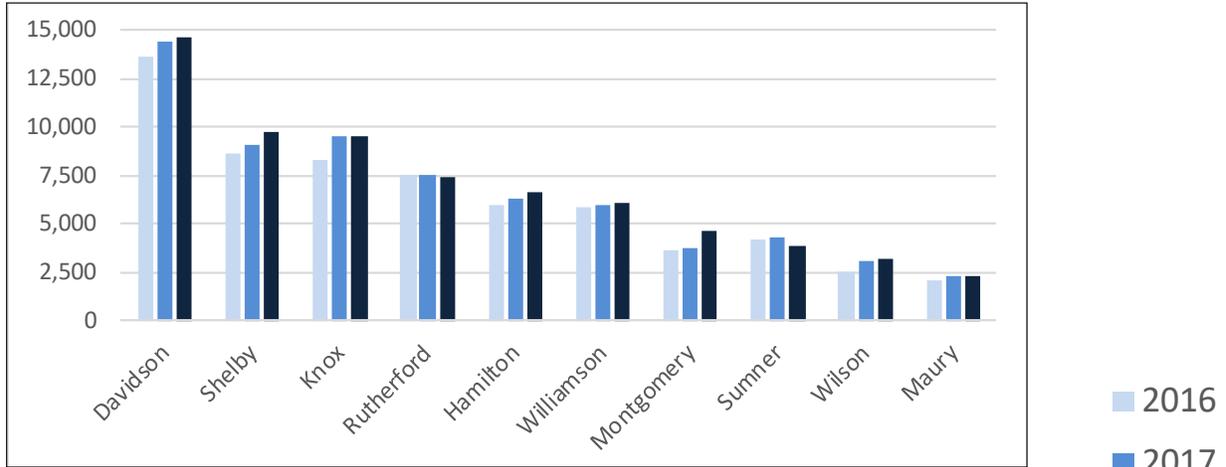
## All Home Sales, Tennessee, 1995-2018



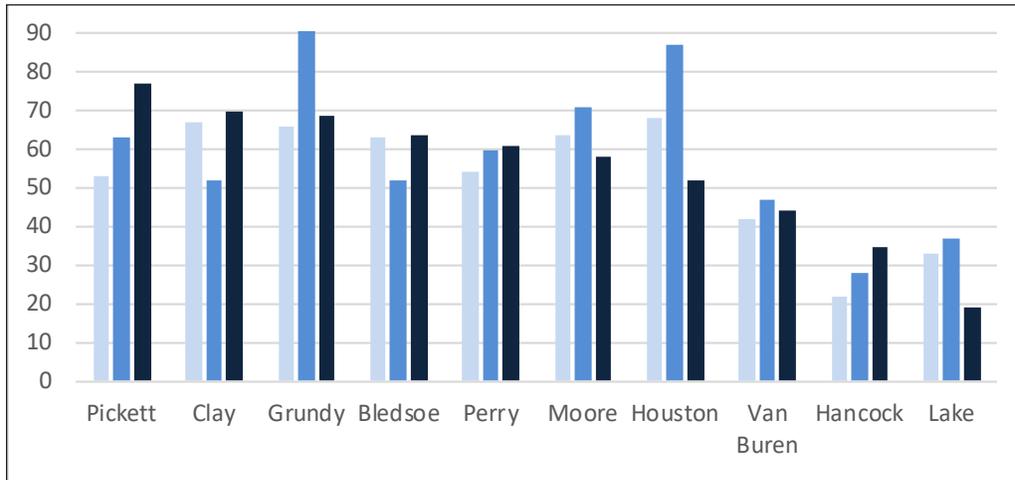
In 36 counties across the state, home sales declined from the previous year. It is true that in some of the counties that experienced declining home sales, the decline was 10 or less homes, but still this was a change from the previous year when only nine counties had declining home sales. Among the counties with 500 or more sales in 2018, Robertson County had the largest percentage year-over-year decline in home sales was Lake County, in which the home sales declined from 1,250 in 2017 to 1,053 in 2018, a 16 percent annual decline. Not in percentage term, but in actual volume, decline in Sumner County home sales was the highest in the state. Among large urban counties, Rutherford County also experienced a decline in home sales. The largest increase in sales volume was in Montgomery County where nearly 900 more homes sold in 2018 compared to the previous year, a 23 percent year-over-year increase. Shelby County followed Montgomery County with annual increase of 650 more homes sold in 2018, a seven percent increase.

Lake County, with 19 sales, had the fewest homes sold in 2018. Davidson County had the most homes sold in the state, with 14,653 homes sold during 2018, a two percent increase from the previous year.

## Counties with the Most Single Family Homes Sold 2018 (2016-2018)



## Counties with the Fewest Single Family Homes Sold 2018 (2016-2018)



Source: THDA tabulations of home sales based on data obtained from the Property Assessment Division, Comptroller's Office, State of Tennessee. To find median home sales volume and prices for other counties, MSAs and previous years, go to: <http://thda.org/research-planning/home-sales-price-by-county>

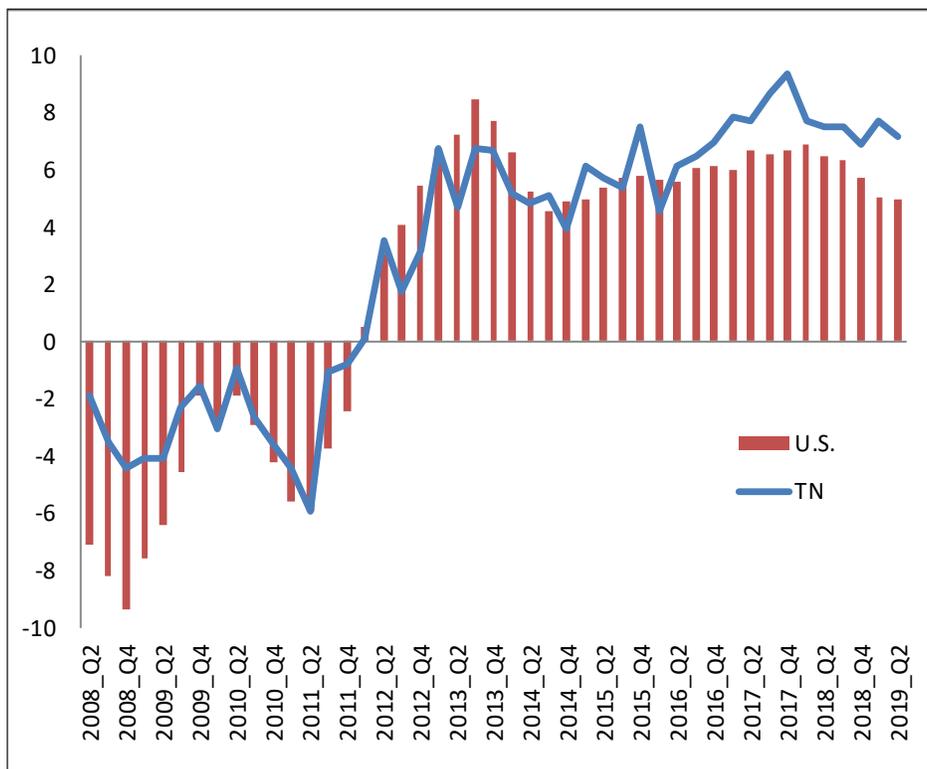
# HOUSE PRICE INDEX (HPI) TENNESSEE VS. UNITED STATES

The House Price Index (HPI) is a measure of single-family home prices. The index shows the average price change in repeat sales on the same properties for various geographic levels and captures roughly 85 percent of all U.S. sales.<sup>5</sup>

Price appreciation in Tennessee is outpacing the nation. Since the second quarter of 2016, Tennessee home price appreciation has always exceeded the nationwide pace. In the second quarter of 2019, Tennessee’s annual price appreciation of 7.18 percent was more than two percentage points higher than the U.S. price increase of 4.99 percent.

Tennessee price appreciation, which peaked during the fourth quarter of 2017 when house prices increased nearly 10 percent annually, has exceeded the nation since the second quarter of 2016. Starting in 2018, appreciation slowed both in the nation and Tennessee.

## Annual Percentage Change in House Price Index, United States vs. Tennessee, 2008-2019



Source: Federal Housing Finance Agency's seasonally adjusted, purchase-only House Price Index (HPI)

# HOUSE PRICE INDEX (HPI)

## Tennessee Compared to the Highest and Lowest Performing States and to Neighbors

Based on second quarter 2019 figures, Tennessee ranked third in the nation among the states in annual price appreciation. Tennessee's annual home price appreciation of 7.18 percent was quite substantial lagging behind only Idaho and Utah. Home prices in Tennessee also appreciated quarter over quarter. Among the neighboring states, Georgia followed Tennessee with an annual price appreciation of 6.89 percent in the second quarter of 2019, as fourth in the nation.

The house prices increased in all 50 states and in the District of Columbia during the second quarter of 2019 compared to the previous year. Fueled by high employment and population increases, Idaho had the highest annual home price appreciation in the nation. While, annually, the prices increased in all states, price appreciation slowed down in a majority of the states. For example, Idaho's annual price appreciation, the highest in the nation, went from 13.05 percent in the second quarter of 2018 to 11.36 percent in the second quarter of 2019. In the second quarter of 2018, Nevada was number one in annual price appreciation with 17.04 percent. Although Nevada still kept its position in top 10, the prices appreciated by only 6.39 in the second quarter of 2019.

### ANNUAL AND QUARTERLY PERCENTAGE CHANGES IN HOME PRICES

State	National Rank*	Annual Percentage Change (2018 Q2-2019 Q2)	Quarterly Percentage Change (2019 Q1-2019 Q2)
<b>STATES WITH THE HIGHEST ANNUAL PRICE INCREASE</b>			
Idaho	1	11.36%	2.27%
Utah	2	7.73%	1.57%
<b>Tennessee</b>	<b>3</b>	<b>7.18%</b>	<b>1.06%</b>
<b>TENNESSEE AND ITS NEIGHBORS</b>			
Georgia	4	6.89%	1.28%
North Carolina	12	6.10%	1.70%
Missouri	17	5.76%	1.31%
Arkansas	18	5.65%	1.60%
Kentucky	19	5.58%	1.70%
Alabama	27	4.81%	0.01%
Virginia	29	4.75%	1.20%
Mississippi	41	3.34%	2.07%
<b>STATES WITH THE LOWEST ANNUAL PRICE INCREASE</b>			
District of Columbia	49	1.75%	-0.05%
Maryland	50	1.49%	0.20%
Delaware	51	1.21%	0.51%
<b>U.S. Average</b>		<b>4.99%</b>	<b>1.05%</b>

\*Based on annual price change. Including the District of Columbia (DC)

Source: Federal Housing Finance Agency (FHFA)'s seasonally adjusted, purchase only House Price Index (HPI)

# HOUSE PRICE INDEX (HPI)

## Tennessee Metropolitan Statistical Areas (MSAs)

In the second quarter of 2019, home prices appreciated in all Tennessee metro areas<sup>6</sup>. With 6.3 percent annual price appreciation in the second quarter of 2019, the Nashville MSA<sup>7</sup> ranked as the 62nd highest in the nation among 241 MSAs. The MSA with the highest price appreciation in the nation, Chico, CA MSA, had a 14.5 percent home price increase in the same period.

The Nashville MSAs house price appreciation cooled down in the second quarter of 2019. In the same quarter last year, the annual price appreciation in the Nashville MSA was nearly 10 percent and it was ranked as 39th highest among 245 MSAs. <sup>8</sup>Among the Tennessee metro areas, the Kingsport-Bristol MSA led the pack with 9.5 percent. Considering that, in the second quarter of 2018, the Kingsport-Bristol MSA had only one percent annual home price appreciation and that was the lowest in Tennessee among metro areas, the house price appreciation in Kingsport accelerated substantially. The Cleveland and Johnson MSAs followed with 8.7 percent and 7.5 percent, respectively.

## Annual and Quarterly Percentage Changes in Home Prices for Tennessee MSAs

MSAs	National Rank <sup>a</sup>	Annual Percentage Change (2018 Q2–2019 Q2)	Quarterly Percentage Change (2019 Q1–2019 Q2)
Chattanooga	41	7.0%	4.5%
Clarksville*		6.2%	
Cleveland*		8.7%	
Jackson*		7.5%	
Johnson City*		7.4%	
Kingsport-Bristol*		9.5%	
Knoxville	54	6.6%	2.1%
Memphis	110	5.3%	1.9%
Morristown*		5.8%	
Nashville/Davidson-- Murfreesboro--Franklin	62	6.3%	1.1%

\*Federal Housing Finance Agency (FHFA) publishes rankings and quarterly, annual, and five-year rates of changes for the MSAs and Metropolitan Divisions that have at least 15,000 transactions over the prior 10 years. For the remaining areas, MSAs and Divisions, one-year rates of change are provided. Estimates use all-transaction HPI, which includes both purchase and refinance mortgages.

<sup>a</sup>Rankings based on annual percentage change, for all (245) MSAs containing at least 15,000 transactions over the last 10 years.

Source: Federal Housing Finance Agency (FHFA) all-transactions House Price Index (HPI)

<sup>6</sup> For the Tennessee Metropolitan Statistical Areas that include counties from neighboring states (Chattanooga, Clarksville, Kingsport and Memphis), the sales used in the calculation of house price indices include the sales in all counties, not just Tennessee counties.

<sup>7</sup> Throughout this document, Nashville MSA refers to Nashville/Davidson–Murfreesboro–Franklin MSA.

<sup>8</sup> Ranking and quarterly percentage change are only provided for the MSAs with 15,000 or more transactions in the last 10 years.

# HOME MORTGAGE DELINQUENCY

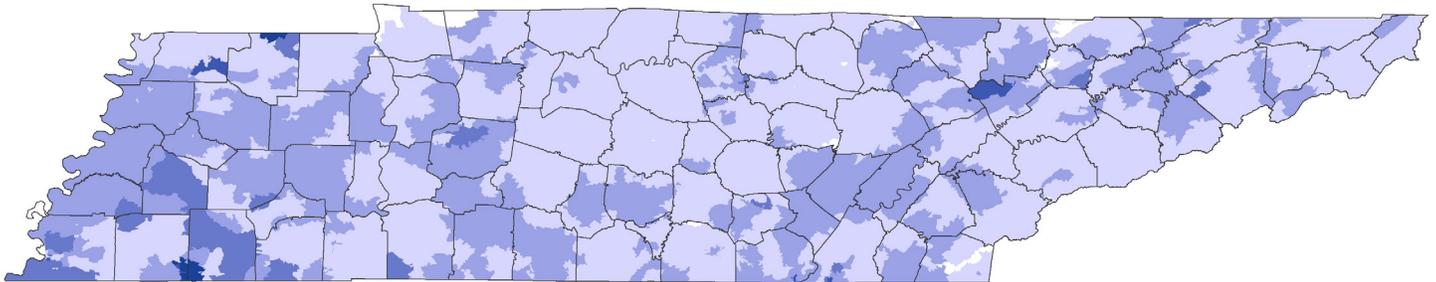
In recent years, increasing home prices across the state and the nation improved homeowners' equity position. An improving economy and declining unemployment rates in Tennessee further strengthened the housing markets. According to Market Trends data from Corelogic, in June 2019, all counties across Tennessee had delinquency rates lower than June 2010<sup>9</sup>. The June 2019 delinquency rate in Tennessee was nearly five percentage points lower than the delinquency rate in June 2010. The number of delinquent borrowers in Shelby County in June 2019 was less than one fourth of the delinquent borrowers in June 2010, and delinquency rate was seven percentage points lower than June 2010. The delinquency rate declined by nearly five percentage points in Davidson County. The largest decline in the delinquency rates, with a drop of over nine percentage points was in Lauderdale County, followed by Morgan and Trousdale Counties. Even the county with the highest delinquency rate in June 2019, Hardeman County, was five percentage points less than its rate in June 2010.

In June 2010, more than six percent of borrowers in Tennessee were 90 days or more behind on their mortgages. A quarter of all seriously delinquent borrowers in the state were residing in Shelby County; and Davidson County, the next in line in terms of seriously delinquent loans, had less than half of Shelby County's seriously delinquent borrowers.

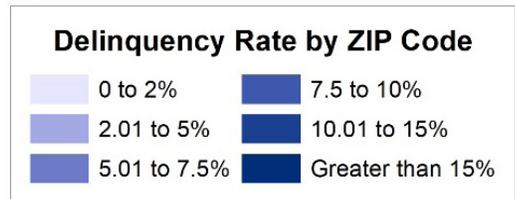
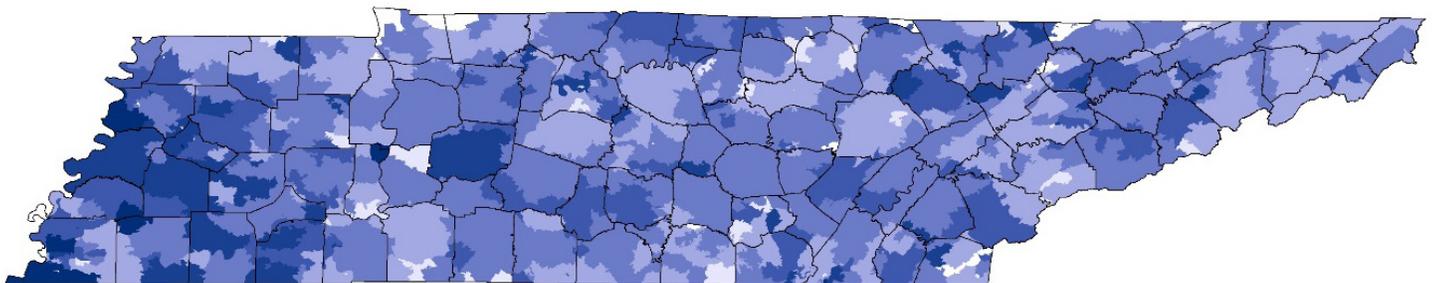
The maps on the following page provides a better visual for the change in 90 or more day delinquency rate between 2010 and 2019 in Tennessee.

# PERCENT OF MORTGAGES 90 OR MORE DAYS DELINQUENT

June 2019



June 2010



Source: Market Trends, Corelogic

# AFFORDABILITY

## Housing Opportunity Index

Housing affordability, as measured by the Housing Opportunity Index, declined in Tennessee. On average, 67 percent of homes sold in Tennessee would have been affordable to a family earning the median income in 2018, decreasing from 71 percent in 2017.

The National Association of Home Builders (NAHB) developed the Housing Opportunity Index (HOI), a measure of the share of homes sold in an area over a certain time that would have been affordable to a family earning the median family income of the area (county), based on standard mortgage underwriting criteria.<sup>10</sup>

We calculated a housing opportunity index for Tennessee counties in 2017 and 2018<sup>11</sup> similar to the NAHB/Wells Fargo HOI. The index ranges from zero to 100. The higher the index is, the more homes sold in the area are affordable to a family earning the median income. In 2017, the index values ranged from 15 percent in Williamson County to 97 percent in Cannon County.

In 2018, the housing affordability deteriorated (opportunity index declined) in 80 counties compared to 2017. The highest deterioration in affordability among the counties with 500 or more home sales was in Maury County where the housing opportunity index declined from 80 percent in 2017 to 57 in 2018, a 23 percentage points decline. Bradley County's less than one percentage point increase in opportunity index value from 2017 was the largest improvement among the counties with over 500 home sales in 2018. In Meigs County, the opportunity increased nearly 10 percentage points, but less than 100 homes were sold in the county during 2018.

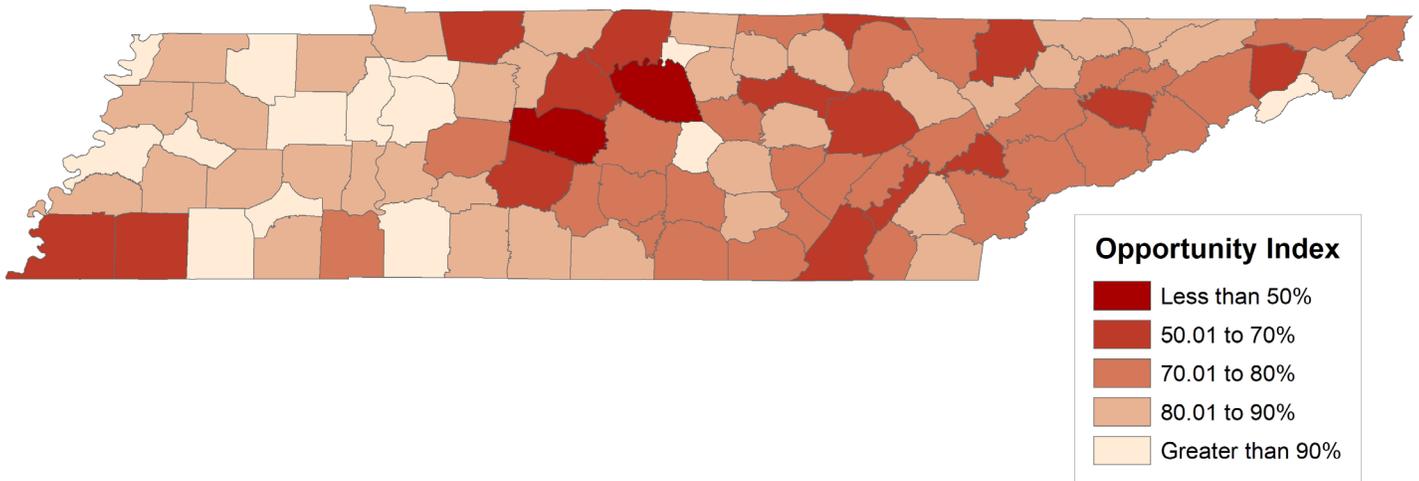
The maps on the following page show the housing opportunity index in Tennessee counties and the change in affordability from 2017 to 2018. The county level housing opportunity index values for 2017 and 2018 can be found in Appendix C.

<sup>10</sup> More information about NAHB/Wells Fargo Housing Opportunity Index (HOI) and historical HOI for metropolitan areas can be found at <http://www.nahb.org/en/research/housing-economics/housing-indices/housing-opportunity-index.aspx>

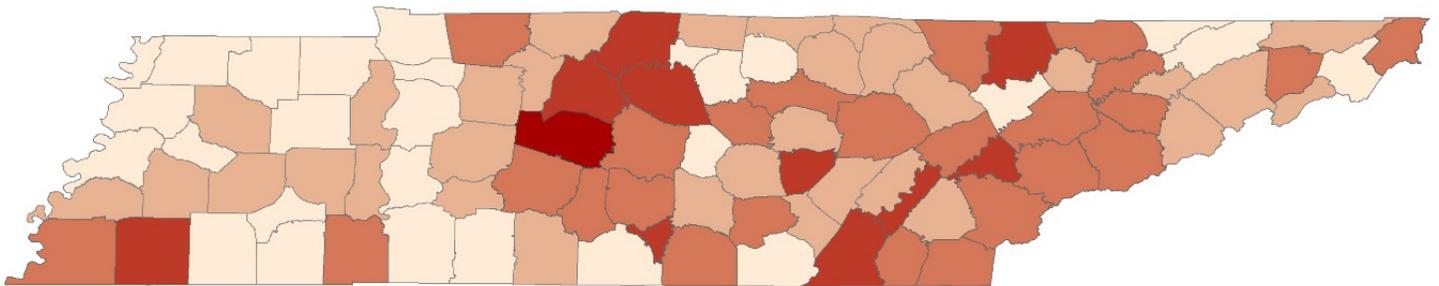
<sup>11</sup> We used the sales price and volume data from the Property Assessment Division, Comptroller's Office for the prices of homes purchased during the year. We assumed 10 percent downpayment and average fixed interest rate for a 30-year mortgage as reported by Freddie Mac Primary Mortgage Market Survey [http://www.freddiemac.com/pmms/pmms\\_archives.html](http://www.freddiemac.com/pmms/pmms_archives.html). We added insurance and property tax payments to find monthly principal, interest, tax and insurance (PITI) payments. We compared the monthly PITI for each homes purchased to the monthly area median family income (following NAHB methodology,

# HOUSING OPPORTUNITY INDEX

2018



2017



Source: Tennessee home prices – THDA tabulations of data obtained from the Property Assessment Division, Comptroller’s Office. Median Family Income – U.S. Department of Housing and Urban Development (HUD)

we assumed that a family paying 28 percent of its income for PITI will not be cost burdened). Median family income is from U.S. Department of Housing and Urban Development (HUD).

# AFFORDABILITY

## Housing Cost Burden

According to the U.S. Department of Housing and Urban Development (HUD), households that spend more than 30 percent of their income on housing are considered cost burdened. In Tennessee, 34 percent of all households (renters and homeowners “with a mortgage”) were cost burdened (2013-2017, ACS). In the nation, 38 percent of all households were cost burdened.<sup>12</sup>

Statewide, more renter households (43 percent) were cost burdened than owner-occupied households (26 percent). In the nation, 47 percent of renter households and 29 percent of homeowners were cost burdened. Similarly, in a majority of Tennessee counties, more renters than homeowners were cost burdened. Contrary to national and state trends, in 11 Tennessee counties, the percent of cost-burdened homeowners was higher than the percent renters cost burdened. Of particular note, in Van Buren, Jackson and Johnson Counties, the percent of cost-burdened homeowners was more than seven percentage points higher than the percent of cost-burdened renters. This is further described when knowing that Jackson is home to the highest homeowner cost burden rate (41 percent) and Van Buren is home to the lowest renter cost burden rate (20 percent).

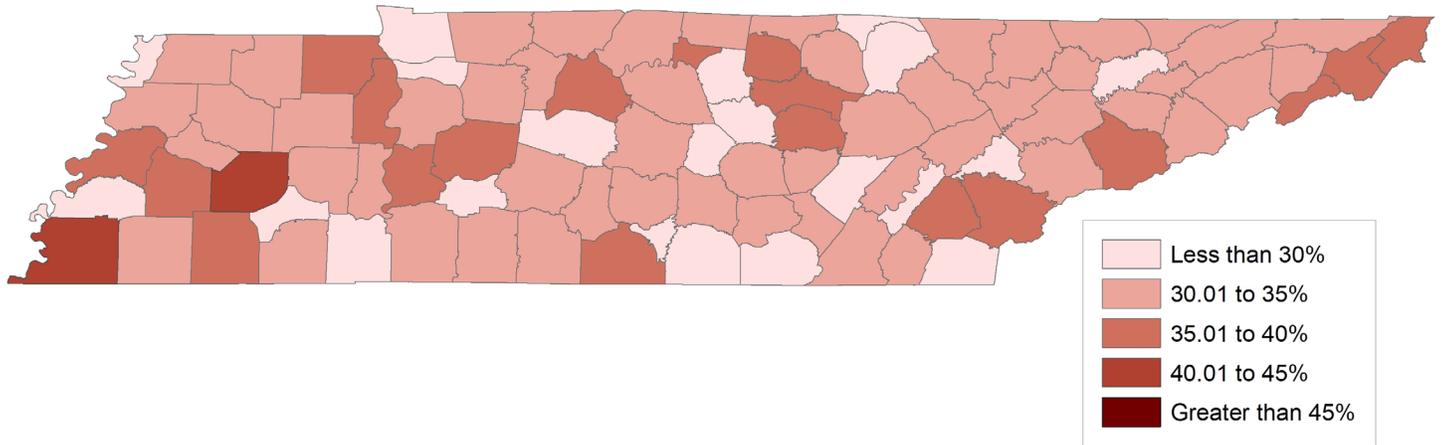
Among the counties, the cost burden for all households (homeowners and renters) varied from a low of 21 percent in Moore County to a high of 40 percent in Shelby County. Shelby County also had the highest number of cost-burdened households (including both renters and homeowners with a mortgage). Eighteen percent of state’s cost-burdened households were residing in Shelby County. Among renters, Madison County had the highest cost burden rate with over 50 percent, followed by Shelby and Lincoln Counties, 50 percent and 47 percent, respectively.

The maps on the following page show the housing cost burden for renters, homeowners and all households. Appendix D shows the percentages of renter and homeowner households that are cost burdened, by county.

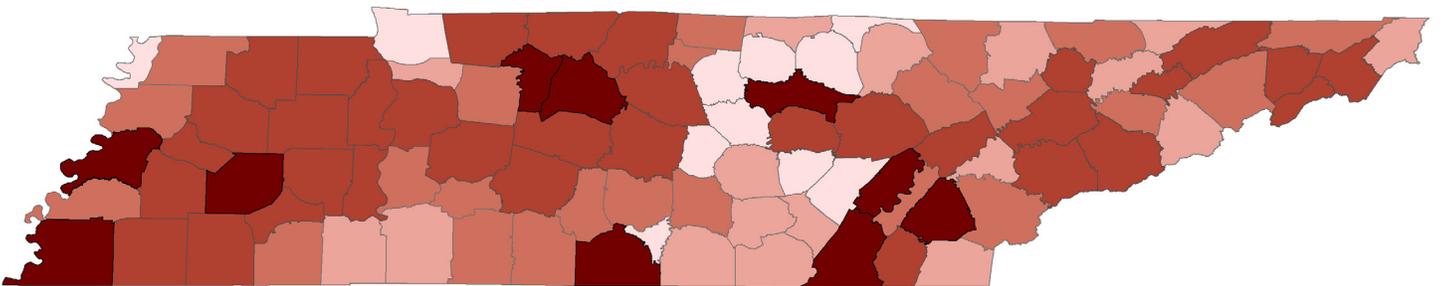
<sup>12</sup> To calculate cost burdened homeowners as well as overall households, we used only homeowners with a mortgage. The inclusion of homeowners without a mortgage may lead to misrepresenting affordability challenges for households looking to become homeowners. Homeowners who have owned their homes for a long time and no longer have a mortgage payment could still be cost burdened due to increases in property taxes and insurance. However, this is a fundamentally different cost equation than that of a household looking to purchase a home with a mortgage. In Tennessee, 10 percent of homeowners without a mortgage were cost burdened, while 26 percent of homeowners with a mortgage are cost burdened. For example, if we include the homeowners who do not have a mortgage payment, the percentage of overall cost burdened households (renter and owner) in the state declines from 34 percent to 28 percent.

# PERCENT OF HOUSEHOLD THAT ARE COST BURDENED

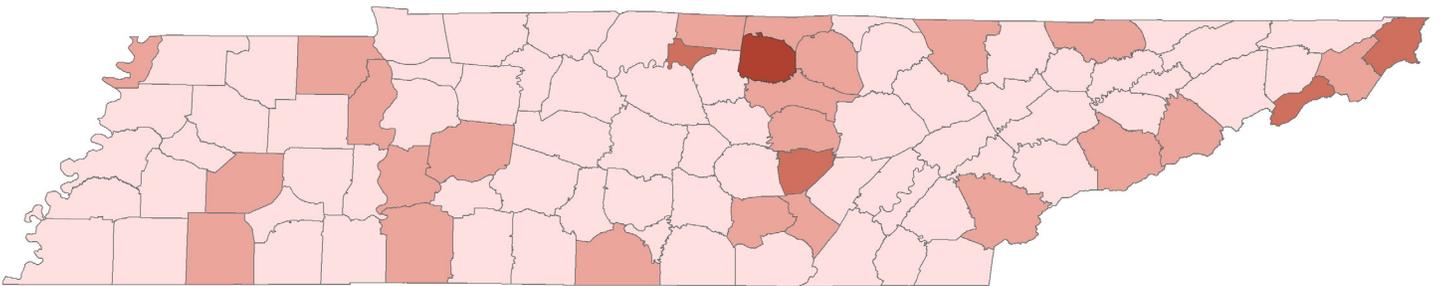
All Household (Homeowners and Renters)



Renter Households



Owner Households



Source: American Community Survey (ACS), 5-Year Estimates, 2013-2017, U.S. Census Bureau

# HOUSING QUALITY

## Housing Units Lacking Complete Kitchen and Plumbing

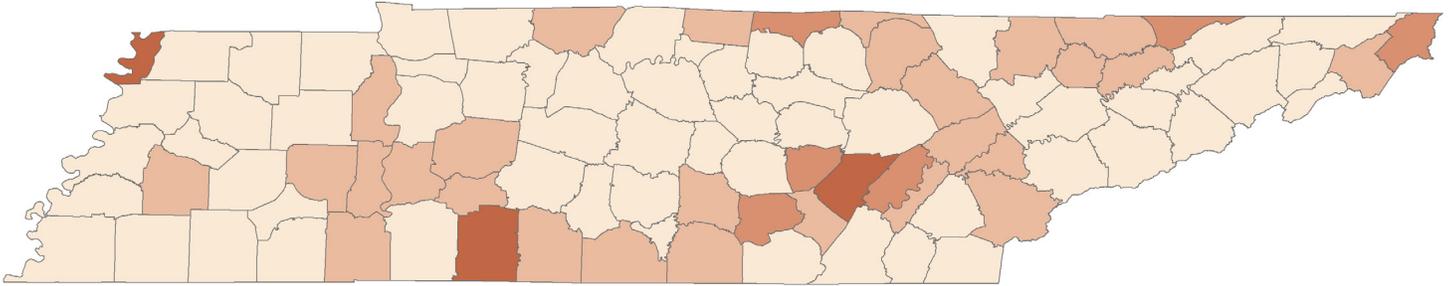
Owner-occupied and renter-occupied housing units varied in terms of the incidence of significant disrepair. In the state, similar to the nation, just over one percent of all occupied homes were without adequate kitchen and/or plumbing facilities.

Nationally, statewide and in a majority of Tennessee counties (69 counties), a relatively higher percentage of renter-occupied housing units were lacking kitchen and/or plumbing than owner-occupied housing units. Two percent of renters and less than one percent of homeowners, in the state, were lacking kitchen and/or plumbing. Of particular note and concern, there were a few counties with a high incidence of incomplete facilities; 10 percent of Hancock County's rental-occupied housing units were lacking complete kitchen and/or plumbing facilities, the highest in the state, followed by Bledsoe and Benton Counties. Lawrence County, with five percent of its owner-occupied housing units lacking complete kitchen and/or plumbing facilities, ranked highest among homeowners, followed by Lake and Bledsoe Counties, both with four percent or higher.

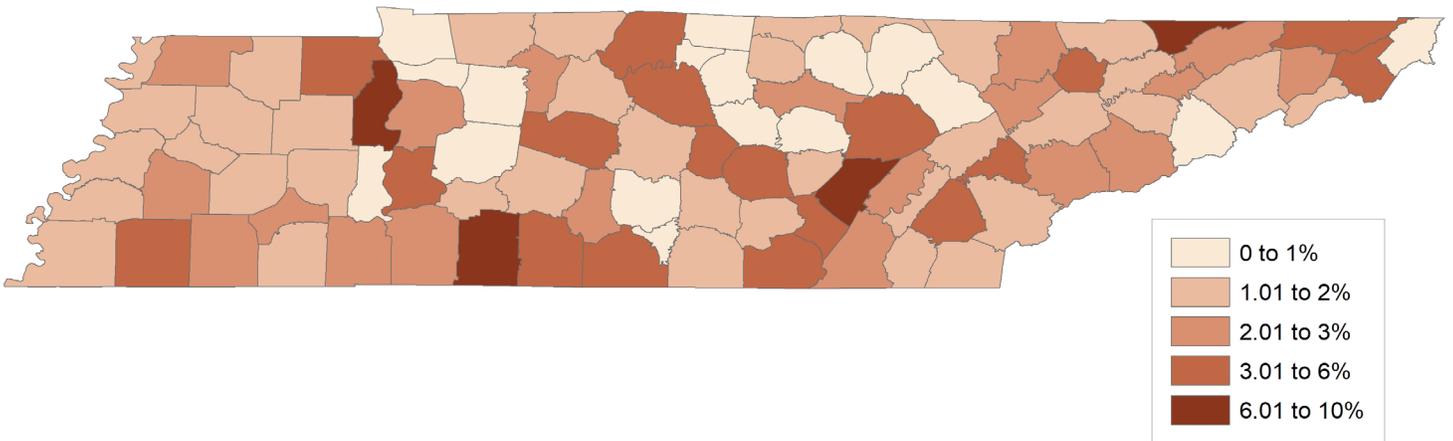
Even though rural counties had higher percentage of homes without kitchen and/or plumbing, more populous counties have housing stock missing complete plumbing and/or kitchens. With 5.2 percent of its renter-occupied housing units lacking complete kitchen and/or plumbing facilities, Williamson County was the only urban county among the highest 10 with housing quality issues. Williamson County's owner-occupied housing, however, did not have a similar incidence of inadequate kitchen and/or plumbing facilities.

Percentages of housing units lacking complete plumbing and kitchen facilities in Tennessee, by county, can be found in Appendix E.

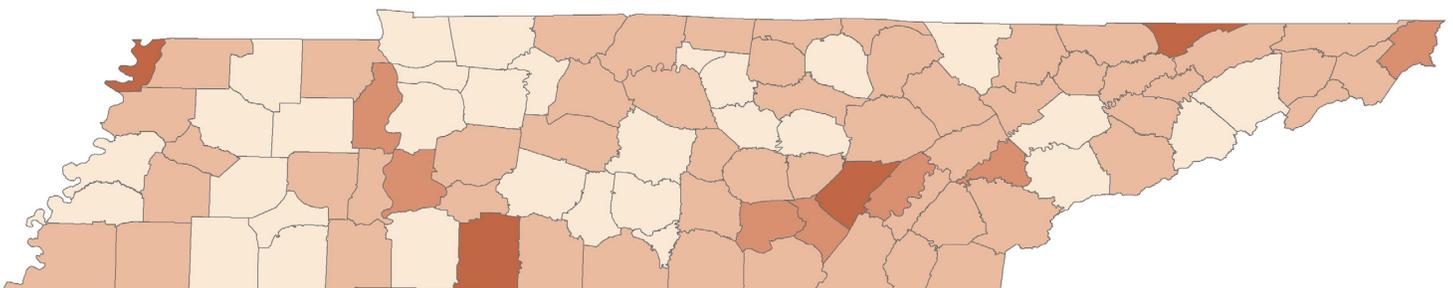
## Owner-Occupied Housing Units Lacking Complete Plumbing and/or Kitchen Facilities



## Renter-Occupied Housing Units Lacking Complete Plumbing and/or Kitchen Facilities



## All Housing Units Lacking Complete Plumbing and/or Kitchen Facilities



Source: American Community Survey (ACS), 5-Year Estimates, 2013-2017, U.S. Census Bureau

# HOUSING QUALITY AND CONDITIONS

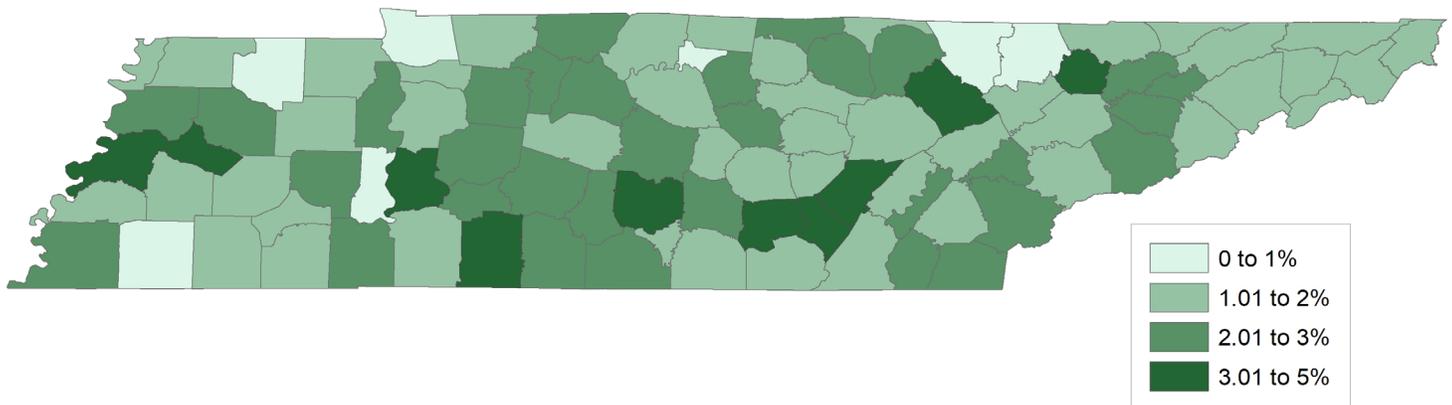
## Overcrowding

Housing units with more than one person per room are considered overcrowded. Overcrowding has important implications for the health and education of residents.<sup>13</sup> In 2017, two percent of occupied housing units in Tennessee had more than one occupant per room. Overcrowding is more prevalent in the Southern region and in the nation than in Tennessee. More than three percent of all occupied housing units in the nation and nearly three percent in the South were overcrowded.

The percent of overcrowded households in Tennessee varied from a low of 0.3 percent in Decatur County to a high of 4.3 percent in Bedford County. Big urban counties like Davidson, Shelby, and Rutherford had higher rates of overcrowding compared to the state average. Of the total occupied housing units in Davidson County, 2.87 percent had more than one person per room.

County percentages of households with more than one occupant per bedroom in Tennessee can be found in Appendix F.

## Housing Units with More than One Occupant per Bedroom



Source: American Community Survey (ACS), 5-Year Estimates, 2013–2017, U.S. Census Bureau

<sup>13</sup> The United Kingdom Office of the Deputy Prime Minister (2004). "The Impact of Overcrowding on Health & Education: A Review of Evidence and Literature." Office of the Deputy Prime Minister Publications. Retrieved from <http://dera.ioe.ac.uk/5073/1/138631.pdf>. In a longitudinal study, Solari and Mare (2012) explore the effects of living in a crowded home on child wellbeing in Los Angeles. Their findings suggest that the negative effects of growing up in crowded homes can persist throughout life and influence children's future socioeconomic status and adult wellbeing. See: Solari, C. D. and Mare, R.D., 2012, Housing Crowding Effects On Children's Wellbeing, Soc Sci Res., 41(2): 464–476. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3805127/>

# WORKFORCE HOUSING AFFORDABILITY 2017 AND 2018

## Housing Affordability for Home Buyers and Renters for Selected Occupations

The supply of affordable housing may be best understood when examined with certain occupations in mind. For example, police officers in all MSAs were able to rent a home without being cost burdened but were not able to buy a median priced home in several areas in the state (Chattanooga, Cleveland, Clarksville, Knoxville, Morristown and Nashville MSAs). Nashville's MSA hosts the most restrictive affordability across all occupation types with no median wage earner able to purchase a median priced home and only the higher income occupations able to afford a median priced apartment. In comparing year over year, the median wage earner police officers in the Clarksville, Cleveland, Knoxville and Morristown MSAs lost their ability in 2018 to purchase a median priced home without being cost burdened even with increased hourly wages.

Single wage earners in service industry occupations (wait staff, cashiers, and retail sales persons) remained unable to afford to buy or rent a median-priced home in any part of the state. Additionally, the Clarksville and Nashville MSA median wage earner across all occupations found median priced rental and homeownership opportunities out of reach.

**2018**

**Median Hourly Wage by Occupation 2018**

Metropolitan Statistical Areas (MSAs)	Median Home Price	Wage Needed to Buy	2-BDRM Aptmnt Monthly Rent	Wage Needed to Rent	Education**	Registered Nurse	Police	Wait Person	Cashier	Retail Salesperson	All Occupations
Chattanooga	\$200,000	\$23.25	\$806	\$15.50	\$25.03	\$27.69	\$19.73	\$8.80	\$9.69	\$11.58	\$16.55
Clarksville^^	\$188,250	\$21.88	\$838	\$16.12	\$26.29	\$29.44	\$20.38	\$9.05	\$9.16	\$10.42	\$15.18
Cleveland	\$169,900	\$19.75	\$760	\$14.62	\$20.18	\$24.75	\$18.28	\$8.74	\$10.14	\$12.25	\$14.96
Jackson	\$128,900	\$14.98	\$734	\$14.12	\$20.05	\$27.35	\$21.10	\$9.70	\$9.11	\$10.86	\$15.79
Johnson City^	\$160,000	\$18.60	\$669	\$12.87	\$23.01	\$26.50	\$21.18	\$8.95	\$8.97	\$10.44	\$15.38
Kingsport-Bristol	\$140,000	\$16.28	\$684	\$13.15	\$21.51	\$24.93	\$20.27	\$8.90	\$9.14	\$10.31	\$16.20
Knoxville	\$186,000	\$21.62	\$846	\$16.27	\$22.31	\$27.48	\$20.06	\$8.76	\$9.44	\$10.94	\$16.65
Memphis	\$200,000	\$23.25	\$833	\$16.02	\$24.76	\$31.43	\$24.76	\$8.81	\$9.40	\$10.86	\$16.61
Morristown	\$152,000	\$17.67	\$677	\$13.02	\$22.90	\$25.70	\$16.95	\$8.96	\$9.24	\$11.32	\$15.19
Nashville	\$280,000	\$32.55	\$1,002	\$19.27	\$22.85	\$30.22	\$23.43	\$8.73	\$10.41	\$11.55	\$18.12
TENNESSEE*	\$210,000	\$24.41	\$819	\$15.75	\$22.62	\$28.91	\$21.28	\$8.80	\$9.63	\$11.09	\$16.78

**2017**

**Median Hourly Wage by Occupation 2017**

Metropolitan Statistical Areas (MSAs)	Median Home Price	Wage Needed to Buy	2-BDRM Aptmnt Monthly Rent	Wage Needed to Rent	Education**	Registered Nurse	Police	Wait Person	Cashier	Retail Salesperson	All Occupations
Chattanooga	\$194,600	\$21.19	\$822	\$15.81	\$24.41	\$27.01	\$19.34	\$8.87	\$9.11	\$11.06	\$16.03
Clarksville^^	\$181,500	\$19.76	\$768	\$14.77	\$25.45	\$28.93	\$20.99	\$8.73	\$8.75	\$10.40	\$14.95
Cleveland-	\$164,000	\$17.86	\$745	\$14.33	\$19.83	\$24.82	\$17.94	\$8.91	\$9.33	\$12.58	\$14.30
Jackson	\$128,900	\$14.04	\$687	\$13.21	\$19.63	\$27.28	\$21.98	\$9.17	\$8.79	\$9.61	\$15.21
Johnson City^	\$152,500	\$16.61	\$668	\$12.85	\$22.23	\$25.62	\$19.91	\$8.67	\$8.84	\$10.09	\$14.79
Kingsport-Bristol	\$131,500	\$14.32	\$636	\$12.23	\$20.92	\$24.35	\$20.31	\$9.06	\$8.84	\$10.32	\$15.67
Knoxville	\$179,838	\$19.58	\$811	\$15.60	\$21.68	\$27.01	\$19.75	\$8.74	\$9.00	\$10.10	\$16.09
Memphis	\$185,000	\$20.15	\$835	\$16.06	\$23.98	\$31.23	\$25.92	\$8.76	\$9.18	\$10.70	\$16.26
Morristown	\$140,000	\$15.25	\$667	\$12.83	\$21.70	\$25.24	\$16.59	\$8.95	\$8.92	\$11.06	\$14.65
Nashville	\$260,000	\$28.31	\$959	\$18.44	\$21.70	\$29.68	\$22.72	\$8.72	\$9.62	\$10.75	\$17.67
TENNESSEE*	\$196,500	\$21.40	\$798	\$15.35	\$21.81	\$28.41	\$20.97	\$8.74	\$9.15	\$10.62	\$16.28

\*Tennessee represents the whole state, not the balance of the state.

\*\*"Education" represents education, training and library occupations.

^ For education in Johnson City MSA, in 2017, "Librarians" is used instead of major "education" category.

^^For police in Clarksville MSA, both in 2017 and 2018, "First-Line Supervisors of Police and Detectives" is used

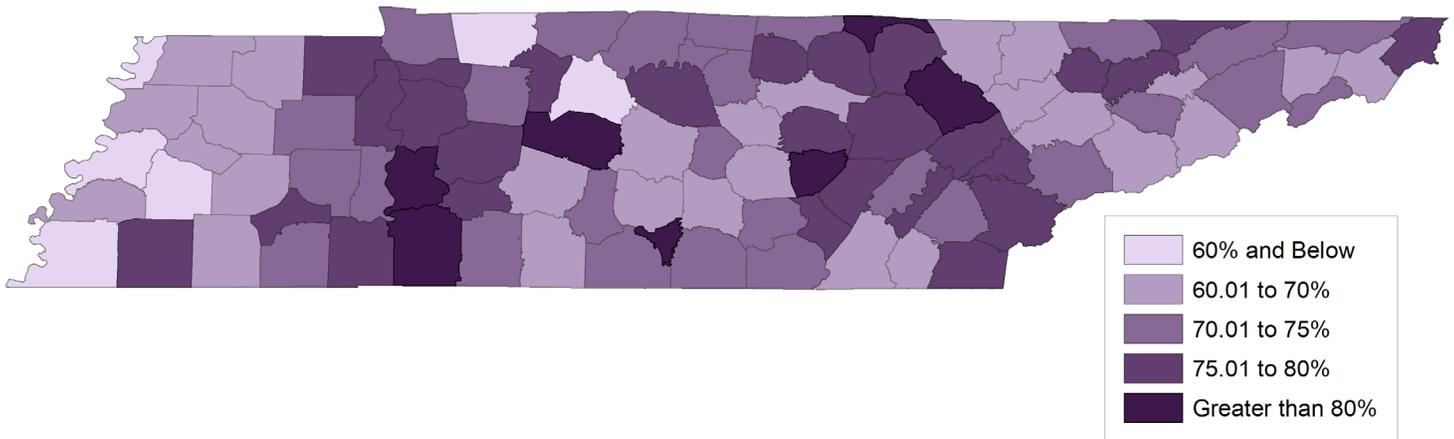
~ For "Registered Nurse" occupation in Cleveland MSA, both in 2017 and 2018, "Healthcare Practitioners and Technical Occupations" major category is used.



Source: "Median Home Price" is THDA calculations based on data from the Property Assessment Division, Comptroller's Office, State of Tennessee, "2-bedroom Apartment Rent" is Fair Market Rent (FMR) by room size from US Department of Housing and Urban Development (HUD). "Median Hourly Wages" are from Bureau of Labor Statistics (BLS) Occupational Employment Statistics.

# HOUSING TENURE

## Tennessee Homeownership Rates



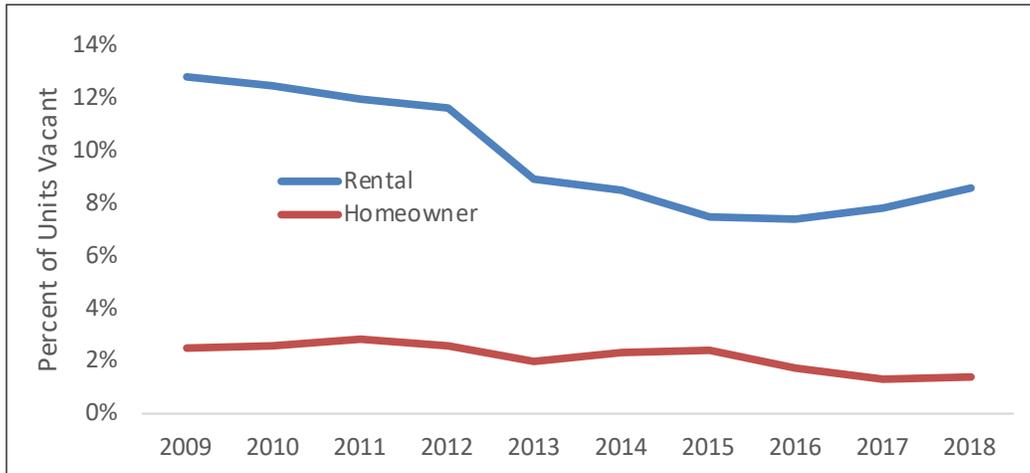
Source: American Community Survey (ACS), 5-Year Estimates, 2013-2017, U.S. Census Bureau

In 2017, Tennessee's homeownership rate of 66.3 percent was higher than the homeownership rate in the nation and in the south, 63.8 percent and 65 percent, respectively, while still lower than its near-term peak of 69.7 percent in 2009. Tennessee's homeownership rate did not change from previous year. In 2017, homeownership rates in Tennessee ranged from 54 percent in Davidson County to 88 percent in Van Buren County. Eight counties in the state had homeownership rates of 80 percent or higher. Consistent with the national trend, the four largest urban counties (Davidson, Hamilton, Knox, and Shelby) had relatively lower homeownership rates compared to smaller counties and the state average. In 78 counties, the homeownership rate of 2017 was lower than the rate in 2009. In 52 counties, 2017 homeownership rate was lower than previous year. With more than five percentage points, Trousdale county experienced the largest decline in homeownership rate from 2016.

Homeownership rates by county can be found in Appendix G.

# VACANCY RATES

## Vacancy Rates, Tennessee, 2009–2018



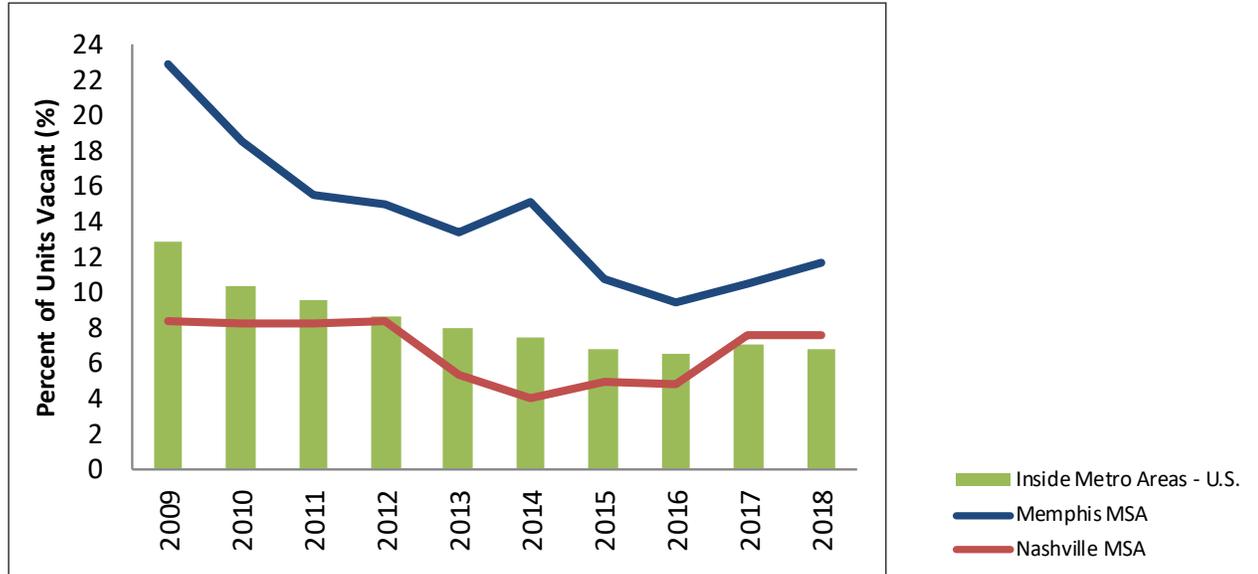
Source: Census Bureau, *Housing Vacancies and Homeownership (CPS/HVS)* <http://www.census.gov/housing/hvs/data/rates.html>

## Homeowner and Rental Vacancy Rates

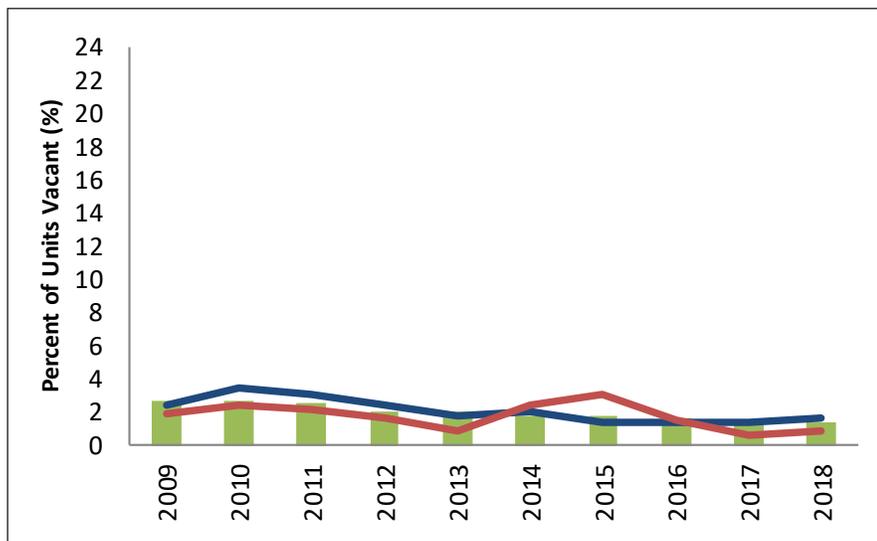
In 2018, statewide vacancy rates<sup>14</sup> were 8.6 percent for rental housing and 1.4 percent for homeowner housing according to the Census Bureau. Tennessee's rental vacancy rate was higher than nation's 6.9 percent, while owner vacancy rate was slightly lower than the US rate of 1.5 percent. In Tennessee, both rental and homeowner vacancy rates for 2018 were higher than they were the prior year, while in the nation vacancy rates declined from the previous year.

Tennessee's two largest MSAs have quite different patterns with regard to rental and homeowner vacancy. Memphis consistently experiences higher rental vacancy rates. While vacancy rates in both MSAs were trending downward in previous years, both rental and homeowner vacancy rates in the Memphis MSA increased in 2018. The current trend in the rental vacancy rate in the Nashville MSA was noteworthy. From 2017, the rental vacancy rate in the Nashville MSA declined just a notch, but it was still well above the vacancy rates between 2013 and 2016. Both rental vacancy rates were higher than the nationwide average for inside metro areas, a departure from a long-term trend for the Nashville MSA. Both metro areas had owner vacancy rates lower than rental rates and, but in both MSAs rate increased from the previous year.

## Rental Vacancy Rates: Memphis & Nashville MSAs 2009-2018



## Homeowner Vacancy Rates: Memphis & Nashville MSAs 2009-2018



Source: Census Bureau, Housing Vacancies and Homeownership (CPS/HVS), Not Seasonally Adjusted (NSA), <https://www.census.gov/housing/hvs/data/ann16ind.html>

# HOUSING CONSTRUCTION

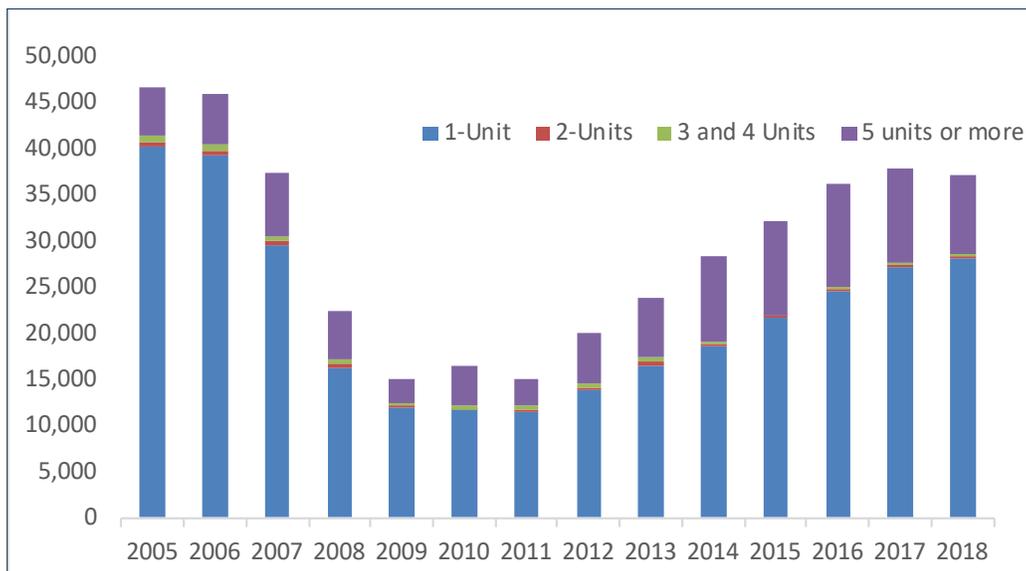
## Building Permits, Tennessee

Privately-owned housing units authorized by building permits in 2018<sup>15</sup> declined by two percent in the state, compared to 2017. Since the low construction activity years of 2009-2011, builders were bringing more inventory to the market to meet the greater demand for both single family and multifamily, however; in recent years this building pace was slowing down compared to the years right after the housing market crash. Building permits were still increasing but at a slower rate. With 2018, it experienced the first decline since the start of housing market recovery. This decline in total number of building permits in 2018 could be a sign of slowing construction activity in the state.

Another important difference from the previous years is the change in the type of building for permits issued. Especially after the housing market crash, builders in Tennessee increased their multifamily construction while reducing the one- and two-unit single-family construction. In 2018, even though the total number of building permits in the state declined just two percent, the permits for buildings with five or more units (large multifamily) declined by 15 percent from the previous year. In 2018, multifamily building permits made up 23 percent of total permits issued compared to 33 percent in 2014 (the highest between 2004 and 2018).

The following chart shows the building permits issued by the number of units between 2005 and 2018. The data are from the Census Bureau, and are not seasonally adjusted.

## Building Permits, Tennessee, 2005-2018



Source: Census Bureau, Building Permits Survey, New Privately Owned Housing Units Authorized, Not Seasonally Adjusted, <https://www.census.gov/construction/bps/>

# HOUSING CONSTRUCTION

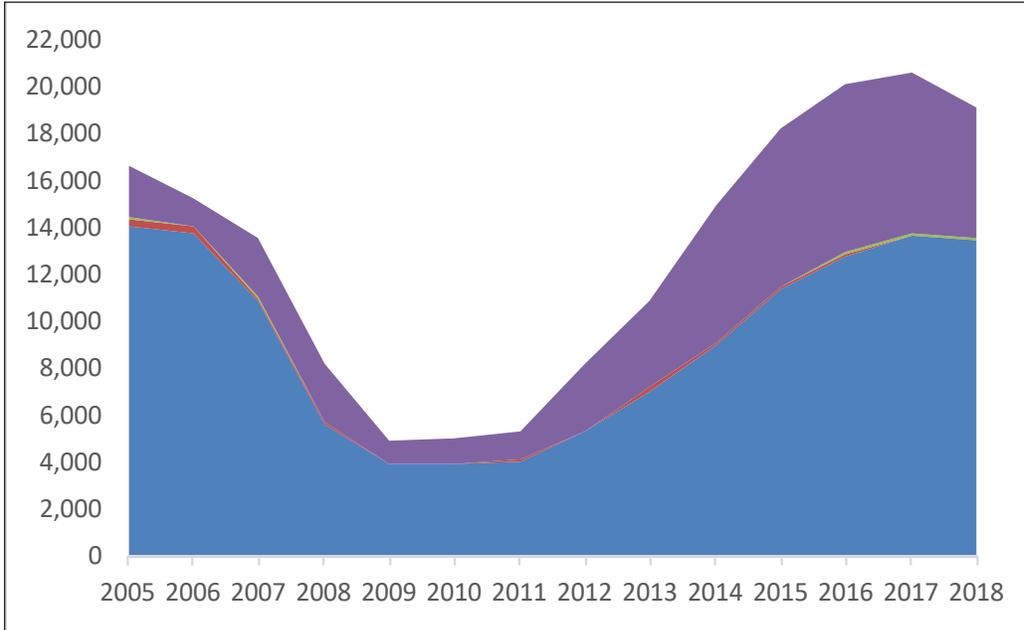
## Building Permits, Nashville and Memphis MSAs

The number of building permits issued over the years and the nature of housing built varied by region. In every MSA, with the exception of the Cleveland, Memphis and Morristown MSAs, there was an annual decline in the total number of building permits in 2018. The largest decline was in the Jackson MSA, where the total number of permits issued declined by 36 percent, from 440 to 280.

In 2018, total number of building permits issued increased by 16 percent from 2017 in the Memphis MSA and decreased by seven percent in the Nashville MSA. Until 2018, in both of these MSAs, single family construction activity (1 to 2-unit) was increasing compared to the years right after the housing market crash. 2018 was the first year, in both the Nashville and Memphis MSAs, that single family building permits declined from the prior year. In 2018, in the Memphis MSA, the building permits issued for five or more units increased more than twice, while, in the Nashville MSA, they declined second year in a row.

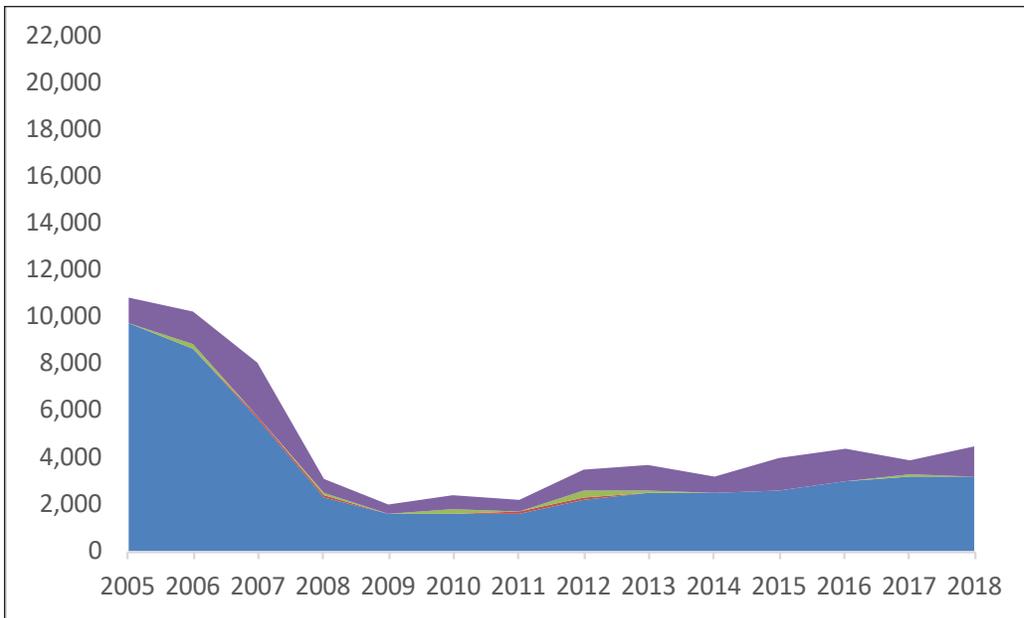
The following chart provides the total number of building permits issued by different building types in the Nashville and Memphis MSAs.

### Building Permits, Nashville MSAs, 2005-2018



- 1-Unit
- 2-Units
- 3 to 4 Units
- 5 or more

### Building Permits, Memphis MSAs, 2005-2018



Source: Census Bureau, Building Permits Survey, New Privately Owned Housing Units Authorized, Not Seasonally Adjusted. <https://www.census.gov/construction/bps/>

# APPENDIX A

## Housing Types

GEOGRAPHY	TOTAL HOUSING UNITS	1-UNIT, DETACHED	1-UNIT, ATTACHED	2 UNITS	3 OR 4 UNITS	5 TO 9 UNITS	10 TO 19 UNITS	20 OR MORE UNITS	MOBILE HOME	BOAT, RV, VAN, ETC.
Anderson	34,864	24,537	673	784	1,283	1,118	1,037	1,210	4,222	0
Bedford	18,784	13,529	226	626	355	643	345	215	2,813	32
Benton	9,078	6,157	80	99	54	160	46	73	2,374	35
Bledsoe	5,760	3,958	5	20	81	129	6	43	1,467	51
Blount	56,732	41,280	1,345	873	1,286	1,828	1,466	1,246	7,373	35
Bradley	42,983	30,303	741	2,074	2,184	1,920	583	785	4,393	0
Campbell	20,639	14,674	41	390	558	544	497	350	3,563	22
Cannon	6,107	4,531	15	87	71	61	80	64	1,176	22
Carroll	13,232	9,789	123	387	84	205	25	152	2,467	0
Carter	28,023	19,603	220	484	1,064	1,243	367	279	4,724	39
Cheatham	15,997	12,502	231	298	207	347	296	338	1,778	0
Chester	7,086	5,296	26	212	103	121	7	59	1,231	31
Claiborne	15,261	10,476	135	434	245	245	146	67	3,445	68
Clay	4,324	2,904	16	92	53	28	108	20	1,103	0
Cocke	17,540	10,933	97	707	415	302	100	93	4,852	41
Coffee	23,764	17,461	374	1,033	418	557	393	333	3,183	12
Crockett	6,412	5,191	41	225	48	106	86	18	697	0
Cumberland	29,072	20,969	573	564	1,376	410	200	195	4,698	87
Davidson	299,704	158,096	20,972	16,228	10,706	21,439	30,080	37,740	4,302	141
Decatur	6,891	5,224	28	48	40	22	7	129	1,384	9
DeKalb	9,513	7,186	57	485	121	176	21	128	1,339	0
Dickson	21,411	15,626	318	486	400	922	578	182	2,864	35
Dyer	16,825	12,781	118	631	718	472	206	380	1,510	9
Fayette	16,576	13,466	127	151	245	221	69	117	2,180	0
Fentress	9,016	6,708	99	107	140	156	54	25	1,681	46
Franklin	19,145	15,028	262	908	356	179	75	72	2,226	39
Gibson	22,468	17,607	307	906	477	568	131	266	2,170	36
Giles	13,942	10,105	72	384	328	257	336	88	2,372	0
Grainger	11,015	7,085	52	71	57	134	12	39	3,559	6
Greene	32,419	22,513	234	551	695	910	289	152	7,061	14
Grundy	6,434	4,265	16	40	98	203	23	32	1,757	0
Hamblen	27,095	19,723	586	1,472	636	1,019	530	438	2,674	17
Hamilton	156,016	107,817	5,148	8,739	4,919	7,615	6,872	9,044	5,816	46
Hancock	3,618	2,546	7	34	80	61	11	0	879	0

# APPENDIX A

## Housing Types

GEOGRAPHY	TOTAL HOUSING UNITS	1-UNIT, DETACHED	1-UNIT, ATTACHED	2 UNITS	3 OR 4 UNITS	5 TO 9 UNITS	10 TO 19 UNITS	20 OR MORE UNITS	MOBILE HOME	BOAT, RV, VAN, ETC.
Hardeman	10,945	7,662	11	279	299	151	60	75	2,380	28
Hardin	14,095	11,241	159	176	330	218	98	104	1,732	37
Hawkins	27,060	17,982	142	348	434	904	688	264	6,251	47
Haywood	8,420	6,408	179	391	264	175	227	100	671	5
Henderson	12,944	8,570	196	351	401	67	106	65	3,171	17
Henry	17,157	11,743	40	450	246	456	62	128	3,945	87
Hickman	10,410	7,213	53	177	28	127	10	110	2,680	12
Houston	4,222	3,034	3	70	29	11	46	5	1,018	6
Humphreys	8,952	6,623	104	90	102	295	28	43	1,662	5
Jackson	5,871	3,828	16	62	76	53	36	29	1,764	7
Jefferson	23,968	16,292	166	341	698	441	358	194	5,468	10
Johnson	9,000	6,498	58	152	161	200	130	44	1,757	0
Knox	200,608	132,410	11,815	3,545	6,457	10,318	12,949	13,875	9,125	114
Lake	2,606	1,903	9	144	122	89	23	72	244	0
Lauderdale	11,315	8,387	68	638	291	352	37	74	1,462	6
Lawrence	18,206	13,908	221	522	242	363	294	144	2,505	7
Lewis	5,512	3,985	77	81	131	57	0	0	1,160	21
Lincoln	15,428	11,276	98	416	346	463	80	99	2,619	31
Loudon	22,571	17,413	672	205	426	415	356	483	2,567	34
Macon	10,133	6,769	97	279	102	128	34	142	2,582	0
Madison	42,811	32,290	619	1,695	2,054	2,281	765	933	2,167	7
Marion	13,188	9,689	69	508	81	206	36	111	2,485	3
Marshall	13,436	9,851	116	240	277	575	27	217	2,114	19
Maury	36,486	26,324	883	1,486	1,037	943	853	738	4,222	0
McMinn	23,388	16,835	165	664	523	658	158	209	4,124	52
McNairy	12,044	9,303	50	102	116	83	0	147	2,165	78
Meigs	5,794	3,758	15	29	117	19	2	4	1,829	21
Monroe	21,106	14,484	48	288	395	523	117	59	5,123	69
Montgomery	78,320	55,925	1,667	2,874	4,294	4,634	2,527	2,331	3,962	106
Moore	2,999	2,372	0	26	54	9	11	20	496	11
Morgan	8,975	5,896	50	66	27	42	23	15	2,856	0
Obion	14,638	10,874	226	418	692	553	170	199	1,491	15
Overton	10,348	7,672	98	122	93	178	70	17	2,098	0
Perry	4,645	2,836	43	22	34	62	7	0	1,641	0

# APPENDIX A

## Housing Types

GEOGRAPHY	TOTAL HOUSING UNITS	1-UNIT, DETACHED	1-UNIT, ATTACHED	2 UNITS	3 OR 4 UNITS	5 TO 9 UNITS	10 TO 19 UNITS	20 OR MORE UNITS	MOBILE HOME	BOAT, RV, VAN, ETC.
Pickett	3,481	2,256	2	49	16	43	24	22	1,069	0
Polk	8,591	6,212	8	47	180	80	10	3	2,051	0
Putnam	33,444	22,269	506	1,257	2,298	2,779	1,146	687	2,459	43
Rhea	14,585	9,962	124	479	543	242	83	0	3,145	7
Roane	25,665	18,084	469	662	668	524	294	497	4,467	0
Robertson	26,808	21,122	324	870	471	546	594	157	2,724	0
Rutherford	112,641	78,270	5,535	2,069	3,198	8,141	6,267	4,425	4,692	44
Scott	9,980	6,856	77	198	359	101	112	71	2,203	3
Sequatchie	6,461	4,469	86	205	133	31	0	44	1,472	21
Sevier	56,894	38,326	1,166	1,484	1,474	1,963	1,790	3,570	7,053	68
Shelby	403,206	269,932	15,928	9,671	22,568	36,101	21,951	23,161	3,762	132
Smith	8,653	6,064	42	107	200	283	60	10	1,882	5
Stewart	6,841	4,850	78	112	37	47	64	15	1,632	6
Sullivan	74,580	52,556	1,867	1,786	2,027	3,028	2,397	1,846	9,016	57
Sumner	69,146	51,747	2,022	1,437	1,282	2,194	2,898	2,951	4,595	20
Tipton	23,612	18,443	144	716	700	489	107	306	2,707	0
Trousdale	3,483	2,609	2	47	66	50	10	95	604	0
Unicoi	8,895	6,581	37	60	217	195	117	108	1,580	0
Union	9,250	5,850	44	54	81	278	215	133	2,595	0
Van Buren	2,681	2,013	2	17	6	46	9	3	576	9
Warren	17,907	13,083	142	874	224	1,011	57	155	2,361	0
Washington	59,548	37,632	1,501	2,150	2,639	4,565	2,507	2,904	5,616	34
Wayne	7,318	5,221	64	45	74	127	76	38	1,673	0
Weakley	15,591	10,965	106	808	759	609	307	134	1,896	7
White	11,725	9,160	104	96	121	105	34	116	1,989	0
Williamson	76,485	61,213	3,426	847	1,312	2,464	2,917	2,748	1,558	0
Wilson	50,381	39,386	1,152	1,193	974	1,137	1,235	1,315	3,918	71
Tennessee	2,903,199	1,996,254	86,556	85,227	93,507	137,549	110,751	120,936	270,164	2,255
South Region*	51,845,677	32,659,165	2,622,050	1,148,808	1,685,063	2,383,745	2,594,170	3,751,410	4,948,876	52,390
United States	135,393,564	83,547,309	7,903,046	4,948,642	5,950,261	6,440,975	6,053,982	11,924,671	8,509,712	114,966

\*South Region represents counties in South Atlantic (Division 5), East South Central (Division 6) and West South Central (Division 7). A list of counties in each of these divisions and others can be found at [https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us\\_regdiv.pdf](https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf)

# APPENDIX B

## Year Structure Built

GEOGRAPHY	TOTAL HOUSING UNITS	BUILT 2000 OR LATER	BUILT 1990 TO 1999	BUILT 1980 TO 1989	BUILT 1970 TO 1979	BUILT 1960 TO 1969	BUILT 1950 TO 1959	BUILT 1940 TO 1949	BUILT BEFORE 1940
Anderson	34,864	4,377	4,694	4,658	5,354	3,818	3,866	6,237	1,860
Bedford	18,784	4,564	3,290	2,849	2,297	2,119	1,781	741	1,143
Benton	9,078	1,384	2,086	1,405	1,521	1,119	856	313	394
Bledsoe	5,760	1,356	1,648	871	731	428	254	131	341
Blount	56,732	13,134	11,622	8,107	8,207	4,761	4,221	3,001	3,679
Bradley	42,983	9,095	7,917	6,888	8,074	4,896	2,709	1,248	2,156
Campbell	20,639	4,118	4,222	2,919	3,576	1,679	1,634	912	1,579
Cannon	6,107	1,400	1,120	722	962	794	557	179	373
Carroll	13,232	1,569	2,376	1,509	2,365	2,224	1,391	905	893
Carter	28,023	3,927	4,647	3,833	4,465	3,293	2,537	2,177	3,144
Cheatham	15,997	3,516	3,967	2,718	2,828	1,374	888	252	454
Chester	7,086	2,078	1,349	1,028	1,111	533	506	162	319
Claiborne	15,261	3,318	2,830	2,175	2,750	1,192	973	706	1,317
Clay	4,324	925	1,175	504	676	307	229	124	384
Cocke	17,540	2,999	3,678	3,067	2,880	1,955	1,112	752	1,097
Coffee	23,764	4,291	4,731	3,234	3,632	3,258	2,847	988	783
Crockett	6,412	958	1,304	602	1,046	1,026	623	280	573
Cumberland	29,072	8,266	6,969	4,972	4,238	2,271	1,171	377	808
Davidson	299,704	59,335	36,514	47,931	45,865	40,550	35,317	15,190	19,002
Decatur	6,891	1,079	1,188	1,097	1,209	1,208	436	337	337
DeKalb	9,513	1,563	2,119	1,265	1,923	653	956	373	661
Dickson	21,411	4,408	4,715	3,181	3,757	1,700	1,629	841	1,180
Dyer	16,825	2,221	2,791	1,993	3,318	2,466	1,611	1,312	1,113
Fayette	16,576	5,875	3,696	2,137	2,302	985	654	296	631
Fentress	9,016	2,381	1,353	1,337	1,581	1,026	502	462	374
Franklin	19,145	3,116	3,748	3,210	3,230	2,131	1,451	887	1,372
Gibson	22,468	3,552	3,089	2,586	4,040	3,004	2,698	1,411	2,088
Giles	13,942	2,127	2,931	2,039	2,180	1,452	882	604	1,727
Grainger	11,015	2,676	2,147	1,764	1,805	831	473	582	737
Greene	32,419	5,943	6,164	4,109	5,010	4,208	3,338	1,158	2,489
Grundy	6,434	1,090	1,532	811	1,289	587	360	213	552
Hamblen	27,095	3,284	4,681	3,733	5,762	4,097	2,635	1,181	1,722
Hamilton	156,016	28,233	20,059	21,161	26,285	19,196	18,199	9,738	13,145
Hancock	3,618	742	591	513	545	338	244	232	413
Hardeman	10,945	1,709	2,175	1,814	2,033	1,130	1,034	488	562

# APPENDIX B

## Year Structure Built

GEOGRAPHY	TOTAL HOUSING UNITS	BUILT 2000 OR LATER	BUILT 1990 TO 1999	BUILT 1980 TO 1989	BUILT 1970 TO 1979	BUILT 1960 TO 1969	BUILT 1950 TO 1959	BUILT 1940 TO 1949	BUILT BEFORE 1940
Hardin	14,095	2,727	2,994	1,880	2,620	1,936	1,083	271	584
Hawkins	27,060	4,610	5,580	4,747	4,805	2,122	1,796	1,248	2,152
Haywood	8,420	1,037	1,445	1,050	1,867	1,195	840	382	604
Henderson	12,944	1,822	3,554	1,987	2,133	1,725	934	334	455
Henry	17,157	2,535	3,843	2,430	3,064	1,809	1,442	754	1,280
Hickman	10,410	1,906	2,469	1,327	1,756	853	845	608	646
Houston	4,222	804	757	500	726	580	313	213	329
Humphreys	8,952	1,494	1,602	1,182	1,615	1,141	1,104	427	387
Jackson	5,871	1,278	1,431	801	904	508	317	199	433
Jefferson	23,968	5,667	5,530	3,836	3,063	1,958	1,705	695	1,514
Johnson	9,000	1,696	1,845	1,167	1,825	712	721	364	670
Knox	200,608	41,700	34,536	28,254	33,151	20,660	18,103	10,276	13,928
Lake	2,606	337	409	315	428	327	279	277	234
Lauderdale	11,315	1,530	2,016	1,803	1,897	1,877	848	452	892
Lawrence	18,206	3,321	3,668	2,265	2,818	2,321	1,480	961	1,372
Lewis	5,512	900	1,380	764	859	447	621	226	315
Lincoln	15,428	3,238	2,582	2,060	2,488	1,989	1,254	474	1,343
Loudon	22,571	7,046	4,417	2,954	2,791	1,486	1,529	870	1,478
Macon	10,133	2,346	2,671	1,041	1,505	881	575	377	737
Madison	42,811	7,172	9,006	6,738	6,691	4,614	3,822	2,065	2,703
Marion	13,188	2,456	2,919	1,812	2,335	1,296	977	491	902
Marshall	13,436	2,964	2,819	1,817	1,816	1,080	1,055	718	1,167
Mauzy	36,486	8,864	8,590	4,403	4,111	3,545	2,839	1,477	2,657
McMinn	23,388	3,087	4,952	3,318	4,913	2,238	1,802	1,500	1,578
McNairy	12,044	1,942	2,062	1,935	2,766	1,492	863	490	494
Meigs	5,794	1,508	1,450	1,037	994	351	229	130	95
Monroe	21,106	4,814	4,677	3,020	3,770	1,488	1,335	987	1,015
Montgomery	78,320	27,765	16,965	9,257	10,027	6,927	3,642	1,627	2,110
Moore	2,999	851	523	445	365	220	223	93	279
Morgan	8,975	2,196	1,595	1,498	1,468	638	767	359	454
Obion	14,638	1,699	2,063	1,701	2,852	1,960	1,792	956	1,615
Overton	10,348	2,001	2,056	1,392	2,028	1,032	599	433	807
Perry	4,645	1,124	1,089	706	638	396	326	49	317
Pickett	3,481	602	776	575	660	272	238	117	241
Polk	8,591	1,542	1,724	1,354	1,625	668	609	520	549

# APPENDIX B

## Year Structure Built

GEOGRAPHY	TOTAL HOUSING UNITS	BUILT 2000 OR LATER	BUILT 1990 TO 1999	BUILT 1980 TO 1989	BUILT 1970 TO 1979	BUILT 1960 TO 1969	BUILT 1950 TO 1959	BUILT 1940 TO 1949	BUILT BEFORE 1940
Putnam	33,444	7,390	6,814	5,178	6,054	3,445	2,165	718	1,680
Rhea	14,585	2,763	2,649	2,828	3,126	1,029	1,026	591	573
Roane	25,665	3,939	4,642	3,662	4,531	2,765	3,239	1,081	1,806
Robertson	26,808	6,545	6,094	3,900	3,838	2,563	1,320	714	1,834
Rutherford	112,641	41,474	28,887	16,493	11,665	6,045	4,348	1,595	2,134
Scott	9,980	2,235	2,016	1,860	1,764	788	539	377	401
Sequatchie	6,461	2,461	1,495	671		318	216	158	160
Sevier	56,894	17,550	15,773	9,924	6,484	3,299	1,593	1,116	1,155
Shelby	403,206	58,992	58,717	53,032	68,192	48,443	60,895	29,517	25,418
Smith	8,653	1,742	2,130	947	1,174	856	690	364	750
Stewart	6,841	1,344	1,917	1,063	1,090	491	363	156	417
Sullivan	74,580	9,034	10,248	10,235	12,896	10,187	9,866	6,137	5,977
Sumner	69,146	20,017	13,826	10,368	11,157	7,339	3,117	1,245	2,077
Tipton	23,612	6,227	5,628	3,537	3,180	2,197	1,187	633	1,023
Trousdale	3,483	787	475	507	515	399	256	275	269
Unicoi	8,895	850	1,803	1,156	1,317	777	954	678	1,360
Union	9,250	2,200	2,490	1,407	1,173	781	477	285	437
Van Buren	2,681	736	520	296	560	202	193	30	144
Warren	17,907	2,709	3,245	1,991	3,396	2,664	2,048	706	1,148
Washington	59,548	13,951	11,048	7,333	8,588	6,829	4,678	2,437	4,684
Wayne	7,318	1,444	1,147	1,343	1,058	938	492	458	438
Weakley	15,591	2,059	3,033	1,748	3,071	1,990	1,392	822	1,476
White	11,725	2,264	2,292	1,593	1,786	1,312	719	852	907
Williamson	76,485	30,258	18,757	10,731	8,832	3,759	1,635	626	1,887
Wilson	50,381	17,764	9,884	7,097	6,566	3,553	2,416	1,311	1,790
Tennessee	2,903,199	613,925	530,643	413,013	459,216	308,322	263,305	139,092	175,683
South Region	51,845,677	11,860,049	8,812,326	8,555,325	8,399,771	5,197,582	4,236,708	1,935,480	2,848,436
United States	135,393,564	23,966,314	18,945,953	18,399,296	20,920,173	14,577,264	14,229,384	6,903,420	17,451,760

# APPENDIX C

## Total Home Sales Affordable to a Median Income Earning Family by County

GEOGRAPHY	2017		2018	
	TOTAL NUMBER OF HOMES SOLD	HOUSING OPPORTUNITY INDEX	TOTAL NUMBER OF HOMES SOLD	HOUSING OPPORTUNITY INDEX
Anderson	977	90.17%	1,064	87.69%
Bedford	769	79.32%	818	74.94%
Benton	160	86.88%	180	90.56%
Bledsoe	52	84.62%	64	75.00%
Blount	2,278	79.81%	2,279	74.37%
Bradley	1,407	75.34%	1,537	75.99%
Campbell	409	68.70%	404	63.61%
Cannon	178	97.75%	152	97.37%
Carroll	257	93.39%	254	92.91%
Carter	610	91.31%	611	88.22%
Cheatham	637	89.01%	624	86.38%
Chester	188	95.21%	164	91.46%
Claiborne	264	79.92%	290	86.55%
Clay	52	88.46%	70	80.00%
Cocke	252	81.35%	275	77.09%
Coffee	872	83.94%	954	75.58%
Crockett	125	94.40%	149	93.29%
Cumberland	1,127	71.16%	1,195	62.43%
Davidson	14,404	59.28%	14,653	57.46%
Decatur	117	85.47%	121	85.12%
DeKalb	296	77.36%	340	77.35%
Dickson	803	88.92%	784	87.63%
Dyer	448	91.74%	398	88.94%
Fayette	743	67.16%	719	57.16%
Fentress	182	80.77%	156	75.64%
Franklin	553	76.31%	645	70.85%
Gibson	652	88.65%	643	82.89%
Giles	282	89.72%	286	89.16%
Grainger	145	76.55%	129	75.19%
Greene	651	85.71%	653	79.79%
Grundy	91	79.12%	69	86.96%
Hamblen	731	85.23%	861	78.75%
Hamilton	6,355	68.31%	6,605	64.25%
Hancock	28	96.43%	35	88.57%

# APPENDIX C

## Total Home Sales Affordable to a Median Income Earning Family by County

GEOGRAPHY	2017		2018	
	TOTAL NUMBER OF HOMES SOLD	HOUSING OPPORTUNITY INDEX	TOTAL NUMBER OF HOMES SOLD	HOUSING OPPORTUNITY INDEX
Hardeman	146	96.58%	119	93.28%
Hardin	390	75.38%	348	77.01%
Hawkins	550	91.64%	544	84.56%
Haywood	95	86.32%	125	85.60%
Henderson	249	85.94%	255	82.75%
Henry	365	90.68%	361	84.21%
Hickman	153	88.89%	198	79.80%
Houston	87	91.95%	52	90.38%
Humphreys	191	91.10%	220	92.27%
Jackson	117	92.31%	96	82.29%
Jefferson	686	73.47%	673	59.73%
Johnson	117	76.92%	85	77.65%
Knox	9,512	76.70%	9,590	74.39%
Lake	37	100.00%	19	94.74%
Lauderdale	159	91.82%	150	91.33%
Lawrence	489	92.02%	410	86.59%
Lewis	100	88.00%	101	87.13%
Lincoln	438	92.24%	455	86.37%
Loudon	971	55.30%	1,024	54.20%
Macon	321	85.98%	346	86.99%
Madison	1,450	83.66%	1,567	82.07%
Marion	243	90.12%	265	80.00%
Marshall	659	79.82%	451	75.61%
Maury	2,361	79.50%	2,363	56.58%
McMinn	539	86.27%	602	86.05%
McNairy	211	94.79%	229	88.65%
Meigs	102	51.96%	81	61.73%
Monroe	517	78.34%	547	71.66%
Montgomery	3,793	79.78%	4,676	68.80%
Moore	71	69.01%	58	72.41%
Morgan	103	87.38%	131	84.73%
Obion	267	90.64%	311	87.78%
Overton	227	82.38%	235	83.40%
Perry	60	93.33%	61	81.97%

# APPENDIX C

## Total Home Sales Affordable to a Median Income Earning Family by County

GEOGRAPHY	2017		2018	
	TOTAL NUMBER OF HOMES SOLD	HOUSING OPPORTUNITY INDEX	TOTAL NUMBER OF HOMES SOLD	HOUSING OPPORTUNITY INDEX
Pickett	63	82.54%	77	68.83%
Polk	128	79.69%	131	89.31%
Putnam	1,056	72.25%	1,030	62.82%
Rhea	288	84.72%	297	73.06%
Roane	561	78.07%	644	70.65%
Robertson	1,250	86.80%	1,053	83.95%
Rutherford	7,579	77.58%	7,415	72.66%
Scott	87	78.16%	90	74.44%
Sequatchie	123	85.37%	150	80.00%
Sevier	1,508	72.61%	1,327	71.89%
Shelby	9,125	70.96%	9,775	66.21%
Smith	281	93.24%	271	84.13%
Stewart	144	91.67%	164	84.15%
Sullivan	2,254	83.54%	2,287	78.01%
Sumner	4,353	63.89%	3,833	63.14%
Tipton	807	85.38%	859	82.42%
Trousdale	149	96.64%	116	96.55%
Unicoi	175	89.14%	174	90.80%
Union	204	85.29%	191	82.72%
Van Buren	47	65.96%	44	75.00%
Warren	443	87.13%	510	86.47%
Washington	2,051	71.09%	2,107	64.74%
Wayne	91	94.51%	100	91.00%
Weakley	292	93.15%	316	93.67%
White	295	86.44%	330	84.55%
Williamson	5,997	18.03%	6,110	15.20%
Wilson	3,113	52.81%	3,230	48.64%
TENNESSEE	105,335	70.75%	107,560	66.52%

# APPENDIX D

## Percentage of Tennessee Households that are Cost-Burdened by County

GEOGRAPHY	HOMEOWNERS SEVERELY COST BURDENED	HOMEOWNERS COST BURDENED	RENTERS SEVERELY COST BURDENED	RENTERS COST BURDENED	ALL COST-BURDENED HOUSEHOLDS
Anderson	10.6%	24.1%	21.5%	39.4%	31.5%
Bedford	14.3%	29.6%	20.7%	39.5%	33.8%
Benton	15.4%	33.4%	16.5%	43.8%	38.0%
Bledsoe	11.1%	23.4%	12.2%	26.4%	24.8%
Blount	10.4%	26.4%	20.7%	40.9%	31.7%
Bradley	10.4%	25.2%	19.2%	41.5%	32.7%
Campbell	12.8%	27.4%	14.6%	34.3%	30.8%
Cannon	5.9%	28.3%	14.4%	26.9%	27.8%
Carroll	13.0%	23.4%	23.7%	40.6%	31.1%
Carter	15.1%	32.5%	20.1%	44.6%	38.3%
Cheatham	9.3%	27.6%	22.5%	45.8%	32.8%
Chester	7.8%	21.3%	27.7%	42.0%	29.3%
Claiborne	15.3%	30.0%	20.3%	36.2%	32.9%
Clay	14.4%	34.7%	14.5%	33.6%	34.2%
Cocke	15.9%	33.4%	17.3%	34.7%	34.1%
Coffee	10.4%	24.4%	18.5%	36.5%	30.1%
Crockett	10.8%	26.8%	18.7%	43.0%	34.2%
Cumberland	12.0%	28.1%	17.8%	42.9%	33.3%
Davidson	10.1%	28.0%	20.8%	45.4%	37.4%
Decatur	7.7%	23.8%	23.0%	40.7%	31.6%
DeKalb	12.1%	25.9%	10.6%	24.3%	25.1%
Dickson	9.3%	23.6%	17.9%	39.5%	30.0%
Dyer	8.8%	23.0%	15.6%	37.2%	30.5%
Fayette	11.3%	27.2%	16.3%	40.5%	31.0%
Fentress	10.5%	26.9%	18.5%	33.5%	29.9%
Franklin	11.4%	26.2%	15.6%	32.5%	28.8%
Gibson	10.1%	26.5%	20.0%	42.9%	33.8%
Giles	7.5%	25.3%	14.1%	37.7%	31.1%
Grainger	10.6%	26.6%	13.1%	30.7%	28.1%
Greene	11.2%	27.0%	16.9%	36.9%	31.4%
Grundy	14.2%	32.9%	16.2%	30.7%	32.0%
Hamblen	9.4%	24.5%	21.9%	43.5%	33.6%
Hamilton	9.0%	24.2%	21.2%	45.7%	34.4%
Hancock	12.0%	28.0%	7.9%	33.6%	30.5%

# APPENDIX D

## Percentage of Tennessee Households that are Cost-Burdened by County

GEOGRAPHY	HOMEOWNERS SEVERELY COST BURDENED	HOMEOWNERS COST BURDENED	RENTERS SEVERELY COST BURDENED	RENTERS COST BURDENED	ALL COST-BURDENED HOUSEHOLDS
Hardeman	9.8%	33.1%	21.5%	41.3%	37.1%
Hardin	10.6%	23.6%	16.2%	33.5%	27.7%
Hawkins	13.2%	27.8%	20.8%	42.3%	34.1%
Haywood	8.2%	26.7%	24.0%	41.7%	35.1%
Henderson	8.3%	20.4%	22.4%	42.6%	30.6%
Henry	10.5%	31.1%	17.4%	43.0%	35.7%
Hickman	11.3%	33.3%	25.3%	44.6%	37.3%
Houston	11.0%	27.8%	16.7%	31.4%	29.1%
Humphreys	9.1%	28.5%	23.7%	43.8%	33.9%
Jackson	18.8%	40.9%	13.4%	28.4%	35.8%
Jefferson	9.8%	27.5%	16.0%	36.2%	31.0%
Johnson	10.8%	39.4%	18.5%	32.3%	36.3%
Knox	8.5%	22.4%	21.2%	43.1%	32.2%
Lake	14.0%	31.4%	13.0%	28.9%	29.9%
Lauderdale	12.6%	29.6%	26.6%	45.7%	38.9%
Lawrence	11.4%	24.4%	20.3%	39.1%	30.4%
Lewis	6.2%	23.8%	7.8%	38.1%	29.3%
Lincoln	10.6%	31.7%	20.2%	47.3%	38.3%
Loudon	8.6%	23.4%	15.9%	34.9%	27.5%
Macon	14.1%	34.1%	11.6%	35.2%	34.5%
Madison	11.2%	30.0%	28.9%	50.2%	40.1%
Marion	11.9%	26.1%	15.9%	34.9%	29.6%
Marshall	13.3%	26.6%	14.4%	36.6%	30.7%
Maury	10.2%	26.2%	18.8%	42.4%	33.0%
McMinn	13.3%	27.6%	26.6%	46.4%	35.1%
McNairy	11.6%	27.8%	15.9%	35.7%	31.4%
Meigs	14.3%	26.9%	21.2%	35.4%	30.0%
Monroe	16.1%	32.4%	19.4%	39.7%	35.3%
Montgomery	9.4%	25.8%	17.0%	41.5%	33.5%
Moore	14.5%	20.1%	12.9%	23.0%	20.9%
Morgan	12.9%	26.5%	19.1%	38.3%	30.4%
Obion	9.4%	23.7%	18.2%	37.1%	30.2%
Overton	11.8%	31.4%	13.5%	29.6%	30.7%
Perry	20.8%	34.6%	17.6%	36.1%	35.2%

# APPENDIX D

## Percentage of Tennessee Households that are Cost-Burdened by County

GEOGRAPHY	HOMEOWNERS SEVERELY COST BURDENED	HOMEOWNERS COST BURDENED	RENTERS SEVERELY COST BURDENED	RENTERS COST BURDENED	ALL COST-BURDENED HOUSEHOLDS
Pickett	4.8%	21.2%	12.0%	21.8%	21.4%
Polk	12.0%	26.5%	19.6%	34.7%	29.8%
Putnam	14.7%	31.0%	23.2%	46.6%	39.4%
Rhea	6.2%	19.8%	17.8%	45.9%	32.0%
Roane	9.9%	28.8%	19.4%	41.8%	34.1%
Robertson	9.1%	25.5%	19.4%	42.5%	31.3%
Rutherford	7.3%	21.4%	20.4%	42.8%	30.4%
Scott	12.9%	30.7%	19.4%	36.6%	33.4%
Sequatchie	13.0%	30.1%	9.8%	30.4%	30.2%
Sevier	11.1%	31.9%	17.6%	42.8%	36.8%
Shelby	12.5%	29.6%	26.4%	49.7%	40.4%
Smith	12.4%	30.0%	11.9%	29.9%	29.9%
Stewart	13.0%	27.0%	11.0%	27.4%	27.1%
Sullivan	9.6%	25.0%	17.7%	38.6%	30.8%
Sumner	8.4%	26.0%	20.2%	43.5%	32.0%
Tipton	7.0%	20.7%	19.0%	38.7%	27.9%
Trousdale	16.4%	36.2%	21.5%	39.4%	37.6%
Unicoi	12.2%	35.8%	22.5%	44.0%	39.9%
Union	9.4%	23.4%	16.1%	43.3%	31.8%
Van Buren	16.6%	35.8%	10.4%	19.8%	31.8%
Warren	11.3%	26.6%	17.2%	33.5%	30.1%
Washington	8.6%	24.4%	21.1%	42.9%	33.4%
Wayne	17.6%	30.6%	11.9%	30.1%	30.4%
Weakley	6.2%	20.9%	20.7%	43.6%	32.3%
White	11.4%	30.2%	15.8%	44.0%	35.1%
Williamson	7.1%	20.5%	18.0%	40.5%	25.5%
Wilson	10.5%	26.2%	18.0%	40.8%	30.7%
Tennessee	10.3%	26.4%	21.0%	43.4%	34.2%
South Region	11.2%	28.0%	22.6%	45.6%	36.3%
United States	11.6%	29.3%	23.7%	46.8%	37.6%

# APPENDIX E

## Occupied Housing Units Lacking Plumbing and/or Kitchen Facilities

GEOGRAPHY	OWNER OCCUPIED	RENTER OCCUPIED	ALL OCCUPIED HOUSING UNITS
Anderson	0.77%	2.74%	1.41%
Bedford	0.87%	0.46%	0.74%
Benton	1.56%	6.27%	2.70%
Bledsoe	3.93%	6.45%	4.55%
Blount	0.37%	2.58%	0.93%
Bradley	0.92%	1.82%	1.23%
Campbell	1.03%	2.39%	1.45%
Cannon	0.55%	3.75%	1.39%
Carroll	0.91%	1.19%	0.99%
Carter	1.04%	3.95%	1.91%
Cheatham	0.06%	2.38%	0.55%
Chester	0.33%	2.60%	0.90%
Claiborne	1.62%	1.73%	1.65%
Clay	2.54%	0.00%	1.89%
Cocke	0.89%	0.37%	0.73%
Coffee	1.24%	1.93%	1.46%
Crockett	0.85%	1.47%	1.04%
Cumberland	0.88%	3.26%	1.40%
Davidson	0.56%	1.62%	1.04%
Decatur	1.09%	0.88%	1.04%
DeKalb	0.18%	0.00%	0.12%
Dickson	0.48%	0.68%	0.54%
Dyer	0.87%	1.92%	1.27%
Fayette	0.12%	4.61%	1.03%
Fentress	1.34%	0.78%	1.21%
Franklin	1.01%	1.37%	1.10%
Gibson	0.50%	1.59%	0.83%
Giles	1.04%	3.93%	1.91%
Grainger	1.37%	0.00%	1.06%
Greene	0.79%	1.57%	1.00%
Grundy	2.45%	1.06%	2.10%
Hamblen	0.13%	2.83%	1.05%
Hamilton	0.38%	2.19%	1.02%
Hancock	2.87%	9.51%	4.36%
Hardeman	0.22%	2.46%	0.90%
Hardin	1.17%	2.42%	1.48%

# APPENDIX E

## Occupied Housing Units Lacking Plumbing and/or Kitchen Facilities

GEOGRAPHY	OWNER OCCUPIED	RENTER OCCUPIED	ALL OCCUPIED HOUSING UNITS
Hawkins	0.86%	2.77%	1.36%
Haywood	1.34%	2.00%	1.60%
Henderson	1.43%	0.00%	1.03%
Henry	0.76%	4.62%	1.71%
Hickman	1.30%	0.72%	1.18%
Houston	0.60%	0.00%	0.47%
Humphreys	0.22%	2.76%	0.81%
Jackson	0.95%	1.64%	1.12%
Jefferson	0.86%	1.63%	1.07%
Johnson	2.98%	0.80%	2.47%
Knox	0.40%	1.78%	0.90%
Lake	4.05%	1.59%	3.05%
Lauderdale	0.18%	1.21%	0.62%
Lawrence	5.05%	6.03%	5.30%
Lewis	1.58%	1.42%	1.54%
Lincoln	1.15%	4.03%	1.94%
Loudon	1.00%	5.66%	2.12%
Macon	1.50%	0.33%	1.19%
Madison	0.44%	1.68%	0.89%
Marion	0.15%	3.92%	1.11%
Marshall	0.28%	2.50%	0.91%
Maury	0.31%	1.74%	0.76%
McMinn	0.47%	3.19%	1.17%
McNairy	0.96%	1.09%	0.99%
Meigs	1.34%	0.00%	1.06%
Monroe	1.81%	1.73%	1.79%
Montgomery	0.45%	1.16%	0.74%
Moore	0.87%	0.00%	0.73%
Morgan	1.40%	0.43%	1.22%
Obion	0.30%	2.45%	1.00%
Overton	0.34%	0.63%	0.40%
Perry	1.59%	4.03%	2.03%
Pickett	1.81%	0.00%	1.47%
Polk	0.92%	1.56%	1.07%
Putnam	0.69%	2.34%	1.34%
Rhea	2.29%	2.15%	2.24%

# APPENDIX E

## Occupied Housing Units Lacking Plumbing and/or Kitchen Facilities

GEOGRAPHY	OWNER OCCUPIED	RENTER OCCUPIED	ALL OCCUPIED HOUSING UNITS
Roane	1.00%	1.96%	1.24%
Robertson	1.61%	1.57%	1.60%
Rutherford	0.62%	1.52%	0.93%
Scott	0.44%	1.12%	0.65%
Sequatchie	1.97%	3.33%	2.31%
Sevier	0.95%	2.28%	1.38%
Shelby	0.50%	1.99%	1.16%
Smith	0.78%	0.00%	0.58%
Stewart	0.88%	0.00%	0.62%
Sullivan	0.56%	3.23%	1.29%
Sumner	0.74%	3.73%	1.53%
Tipton	0.17%	1.54%	0.59%
Trousdale	0.14%	0.00%	0.10%
Unicoi	0.80%	1.57%	1.01%
Union	1.11%	3.15%	1.61%
Van Buren	2.17%	0.00%	1.90%
Warren	0.80%	3.63%	1.69%
Washington	0.69%	2.66%	1.39%
Wayne	0.21%	2.01%	0.56%
Weakley	0.71%	1.12%	0.85%
White	0.66%	0.94%	0.73%
Williamson	0.23%	5.20%	1.20%
Wilson	0.53%	3.83%	1.29%
Tennessee	0.70%	2.10%	1.18%
South Region	0.66%	1.81%	1.07%
United States	0.67%	2.19%	1.22%

# APPENDIX F

## Occupied Housing Units with More than One Person Per Room

GEOGRAPHY	OCCUPIED HOUSING UNITS	1.00 OR LESS	1.01 TO 1.50	1.51 OR MORE	PERCENT MORE THAN 1 PERSON PER ROOM
Anderson	30,518	29,947	416	155	1.87%
Bedford	17,058	16,323	573	162	4.31%
Benton	6,693	6,512	100	81	2.70%
Bledsoe	4,664	4,507	92	65	3.37%
Blount	49,939	49,333	445	161	1.21%
Bradley	39,615	38,557	711	347	2.67%
Campbell	15,843	15,730	55	58	0.71%
Cannon	5,456	5,348	98	10	1.98%
Carroll	11,321	11,121	121	79	1.77%
Carter	23,798	23,517	172	109	1.18%
Cheatham	14,671	14,357	269	45	2.14%
Chester	5,998	5,879	119	0	1.98%
Claiborne	12,996	12,827	138	31	1.30%
Clay	3,171	3,089	43	39	2.59%
Cocke	14,592	14,371	157	64	1.51%
Coffee	21,576	20,964	529	83	2.84%
Crockett	5,400	5,199	200	1	3.72%
Cumberland	25,114	24,741	258	115	1.49%
Davidson	273,497	265,652	6,014	1,831	2.87%
Decatur	4,721	4,706	13	2	0.32%
DeKalb	7,362	7,159	104	99	2.76%
Dickson	19,032	18,557	408	67	2.50%
Dyer	15,327	14,888	339	100	2.86%
Fayette	15,084	14,936	132	16	0.98%
Fentress	7,385	7,219	150	16	2.25%
Franklin	16,325	16,085	144	96	1.47%
Gibson	19,280	18,887	349	44	2.04%
Giles	11,599	11,337	157	105	2.26%
Grainger	9,112	8,878	218	16	2.57%
Greene	27,319	26,836	387	96	1.77%
Grundy	4,894	4,739	143	12	3.17%
Hamblen	24,343	23,706	493	144	2.62%
Hamilton	139,037	137,263	1,369	405	1.28%
Hancock	2,704	2,657	17	30	1.74%
Hardeman	8,680	8,589	55	36	1.05%

# APPENDIX F

## Occupied Housing Units with More than One Person Per Room

GEOGRAPHY	OCCUPIED HOUSING UNITS	1.00 OR LESS	1.01 TO 1.50	1.51 OR MORE	PERCENT MORE THAN 1 PERSON PER ROOM
Hardin	10,118	9,842	193	83	2.73%
Hawkins	23,375	22,928	243	204	1.91%
Haywood	7,104	6,972	72	60	1.86%
Henderson	10,827	10,549	241	37	2.57%
Henry	13,483	13,326	145	12	1.16%
Hickman	8,930	8,713	201	16	2.43%
Houston	2,999	2,967	29	3	1.07%
Humphreys	7,064	6,942	95	27	1.73%
Jackson	4,566	4,486	80	0	1.75%
Jefferson	20,088	19,532	459	97	2.77%
Johnson	6,936	6,804	51	81	1.90%
Knox	182,315	179,738	1,983	594	1.41%
Lake	2,164	2,126	38	0	1.76%
Lauderdale	9,725	9,391	235	99	3.43%
Lawrence	16,101	15,595	314	192	3.14%
Lewis	4,663	4,548	102	13	2.47%
Lincoln	13,653	13,313	277	63	2.49%
Loudon	20,090	19,535	399	156	2.76%
Macon	9,158	9,013	79	66	1.58%
Madison	37,110	36,655	378	77	1.23%
Marion	11,393	11,166	167	60	1.99%
Marshall	12,008	11,736	242	30	2.27%
Maury	33,332	32,594	612	126	2.21%
McMinn	20,352	20,044	271	37	1.51%
McNairy	10,095	9,903	153	39	1.90%
Meigs	4,818	4,696	109	13	2.53%
Monroe	17,416	16,942	311	163	2.72%
Montgomery	68,904	67,624	964	316	1.86%
Moore	2,613	2,582	15	16	1.19%
Morgan	7,384	7,123	219	42	3.53%
Obion	12,795	12,555	168	72	1.88%
Overton	8,937	8,756	164	17	2.03%
Perry	3,295	3,156	75	64	4.22%
Pickett	2,180	2,158	17	5	1.01%
Polk	7,023	6,837	116	70	2.65%

# APPENDIX F

## Occupied Housing Units with More than One Person Per Room

GEOGRAPHY	OCCUPIED HOUSING UNITS	1.00 OR LESS	1.01 TO 1.50	1.51 OR MORE	PERCENT MORE THAN 1 PERSON PER ROOM
Putnam	30,624	30,107	437	80	1.69%
Rhea	12,607	12,435	99	73	1.36%
Roane	21,619	21,281	250	88	1.56%
Robertson	25,065	24,412	453	200	2.61%
Rutherford	106,673	104,323	1,586	764	2.20%
Scott	8,519	8,446	55	18	0.86%
Sequatchie	5,505	5,316	147	42	3.43%
Sevier	36,901	35,895	613	393	2.73%
Shelby	349,207	340,689	6,633	1,885	2.44%
Smith	7,535	7,370	120	45	2.19%
Stewart	5,315	5,270	39	6	0.85%
Sullivan	66,388	65,279	793	316	1.67%
Sumner	64,600	63,670	667	263	1.44%
Tipton	21,445	21,045	330	70	1.87%
Trousdale	2,944	2,918	26	0	0.88%
Unicoi	7,613	7,503	82	28	1.44%
Union	7,268	7,044	151	73	3.08%
Van Buren	2,156	2,134	0	22	1.02%
Warren	15,755	15,548	125	82	1.31%
Washington	52,684	51,996	602	86	1.31%
Wayne	5,860	5,772	88	0	1.50%
Weakley	13,607	13,508	15	84	0.73%
White	9,793	9,634	129	30	1.62%
Williamson	73,160	72,272	695	193	1.21%
Wilson	47,213	46,626	447	140	1.24%
Tennessee	2,547,194	2,495,756	38,787	12,651	2.02%
South Region	44,590,624	43,304,317	927,920	358,387	2.88%
United States	118,825,921	114,850,639	2,744,122	1,231,160	3.35%

# APPENDIX G

## Percentage of Tennessee Households that are Owner-Occupied, by County

COUNTY	HOMEOWNERSHIP RATE (ACS, 2005-2009)	HOMEOWNERSHIP RATE (ACS, 2012-2016)	HOMEOWNERSHIP RATE (ACS, 2013-2017)
Anderson	71.60%	67.04%	67.45%
Bedford	67.36%	67.23%	68.19%
Benton	81.24%	76.81%	75.69%
Bledsoe	77.38%	75.08%	75.75%
Blount	76.76%	74.72%	74.84%
Bradley	67.61%	65.32%	65.93%
Campbell	72.89%	69.16%	69.31%
Cannon	75.77%	72.51%	73.59%
Carroll	77.17%	72.62%	72.47%
Carter	72.65%	71.05%	69.99%
Cheatham	79.73%	79.10%	79.06%
Chester	74.72%	72.79%	75.03%
Claiborne	78.41%	70.88%	71.05%
Clay	77.56%	75.79%	74.39%
Cocke	73.95%	68.55%	68.28%
Coffee	72.13%	67.90%	67.78%
Crockett	70.74%	69.87%	69.81%
Cumberland	79.77%	78.29%	78.15%
Davidson	59.03%	53.96%	54.38%
Decatur	73.35%	75.67%	73.56%
DeKalb	75.40%	67.54%	66.50%
Dickson	74.90%	72.75%	71.31%
Dyer	64.75%	63.53%	61.51%
Fayette	81.00%	79.31%	79.74%
Fentress	76.59%	75.55%	75.56%
Franklin	77.00%	73.70%	73.60%
Gibson	70.38%	71.09%	69.70%
Giles	75.58%	69.71%	69.71%
Grainger	83.06%	78.77%	77.49%
Greene	73.87%	71.78%	72.71%
Grundy	80.20%	76.50%	74.99%
Hamblen	70.56%	66.25%	66.06%
Hamilton	66.96%	64.58%	64.47%
Hancock	70.04%	77.10%	77.44%
Hardeman	74.09%	71.31%	69.57%

# APPENDIX G

## Percentage of Tennessee Households that are Owner-Occupied, by County

COUNTY	HOMEOWNERSHIP RATE (ACS, 2005-2009)	HOMEOWNERSHIP RATE (ACS, 2012-2016)	HOMEOWNERSHIP RATE (ACS, 2013-2017)
Hardin	76.50%	77.40%	75.07%
Hawkins	76.34%	74.50%	74.02%
Haywood	64.91%	60.98%	59.94%
Henderson	76.20%	71.45%	72.33%
Henry	77.20%	73.36%	75.45%
Hickman	77.39%	76.27%	78.37%
Houston	74.91%	76.53%	77.19%
Humphreys	77.00%	76.80%	76.90%
Jackson	75.33%	76.34%	76.00%
Jefferson	76.45%	73.45%	73.43%
Johnson	77.16%	75.13%	76.49%
Knox	67.21%	64.00%	64.12%
Lake	58.54%	59.91%	59.33%
Lauderdale	66.42%	58.47%	57.48%
Lawrence	77.85%	74.94%	73.83%
Lewis	75.38%	76.91%	78.79%
Lincoln	77.50%	72.33%	72.54%
Loudon	79.06%	77.02%	76.07%
Macon	75.28%	73.50%	73.41%
Madison	66.81%	63.54%	63.35%
Marion	75.46%	72.05%	74.70%
Marshall	74.16%	71.16%	71.69%
Mauzy	72.80%	67.67%	68.68%
McMinn	73.96%	73.04%	74.27%
McNairy	80.79%	73.87%	73.58%
Meigs	76.80%	78.35%	79.20%
Monroe	76.30%	75.78%	75.78%
Montgomery	64.93%	59.07%	58.97%
Moore	84.56%	80.00%	84.00%
Morgan	82.81%	81.14%	81.18%
Obion	69.07%	66.71%	67.46%
Overton	79.56%	78.22%	78.64%
Perry	78.84%	82.02%	81.94%
Pickett	72.09%	84.92%	81.24%
Polk	75.82%	76.10%	76.25%

# APPENDIX G

## Percentage of Tennessee Households that are Owner-Occupied, by County

COUNTY	HOMEOWNERSHIP RATE (ACS, 2005-2009)	HOMEOWNERSHIP RATE (ACS, 2012-2016)	HOMEOWNERSHIP RATE (ACS, 2013-2017)
Putnam	64.50%	61.77%	60.50%
Rhea	74.17%	70.16%	70.45%
Roane	77.43%	74.59%	75.28%
Robertson	76.11%	75.16%	74.80%
Rutherford	69.15%	65.36%	65.56%
Scott	69.62%	70.46%	69.74%
Sequatchie	80.08%	75.27%	75.44%
Sevier	70.48%	67.70%	67.37%
Shelby	61.72%	56.19%	55.90%
Smith	79.34%	73.61%	74.76%
Stewart	80.08%	76.00%	70.91%
Sullivan	74.96%	72.93%	72.57%
Sumner	74.79%	72.96%	73.51%
Tipton	75.11%	70.41%	69.16%
Trousdale	80.97%	76.57%	71.37%
Unicoi	74.15%	72.98%	72.42%
Union	79.53%	75.67%	75.56%
Van Buren	80.13%	88.28%	87.57%
Warren	72.29%	69.22%	68.51%
Washington	68.64%	65.67%	64.66%
Wayne	81.59%	83.04%	80.46%
Weakley	67.72%	68.02%	66.58%
White	77.18%	77.65%	78.35%
Williamson	83.25%	80.54%	80.55%
Wilson	81.72%	77.00%	76.97%
Tennessee	69.72%	66.33%	66.29%
South Region	68.24%	64.81%	64.96%
United States	66.89%	63.61%	63.82%