

THDA HOUSING INDICATORS: **COMPARING TN'S CITIES**

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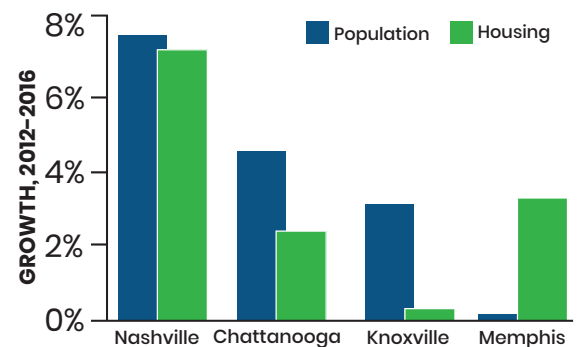


INTRODUCTION

This report explores the housing markets in Tennessee's four largest cities. Nashville appears consistently as a high-growth, high-demand and high-income city, pulling away from the other three cities in these categories. Chattanooga stands out as having the lowest levels of housing cost burden, due to its relative balance of household incomes, property values, and rents. Knoxville and Memphis stand out as having the most affordable housing opportunities, particularly in the homeownership context.

HOUSING & POPULATION

	POPULATION	5 YEAR CHANGE	HOUSING UNITS	5 YEAR CHANGE
NASHVILLE	684,410	+7.7%	306,362	+7.5%
MEMPHIS	652,752	+0.1%	303,888	+3.3%
KNOXVILLE	186,238	+3.0%	90,626	+0.3%
CHATTANOOGA	177,582	+4.4%	83,133	+2.3%



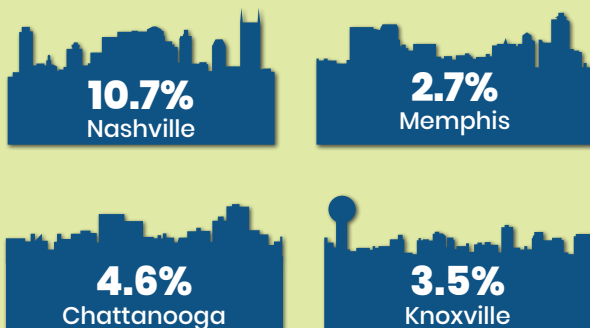
Of the four cities, only Memphis added more housing than population.

27% of the state's total housing units come from the four largest cities.

37% of the state's housing unit growth from 2011-2016 occurred in its four largest cities.

NEW HOUSING CONSTRUCTION

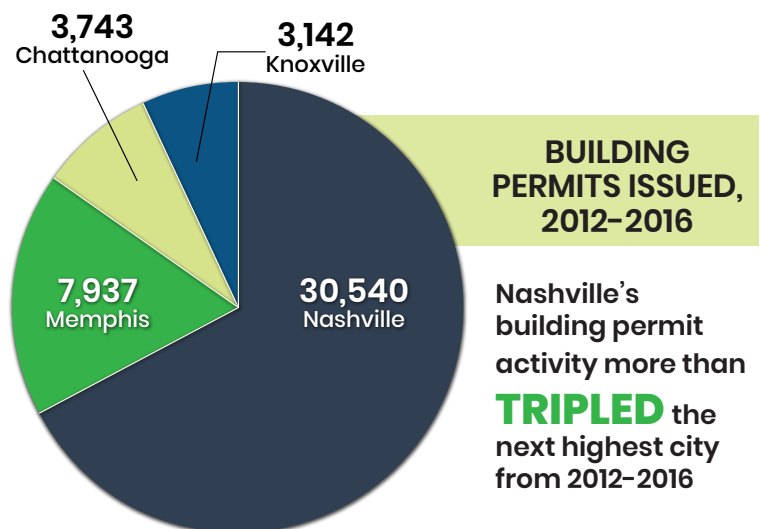
RESIDENTIAL PERMITS ISSUED, 2012-2016, AS A % OF 2011 HOUSING STOCK



When adjusted for its volume of housing units, Memphis built less new housing as a share of its existing housing stock than the other three cities. Memphis may have added housing in other ways, however, namely conversion of non-housing structures to housing uses.

32% of Tennessee's new housing permits issued from 2012 to 2016 were in its four largest cities.

Source: U.S. Census Bureau, Building Permits Survey

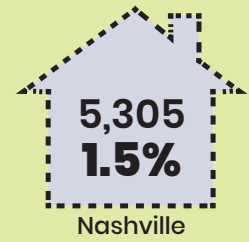
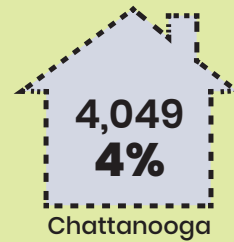
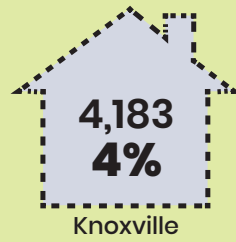
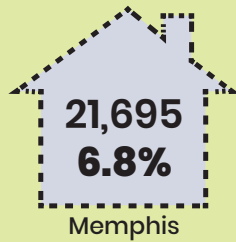


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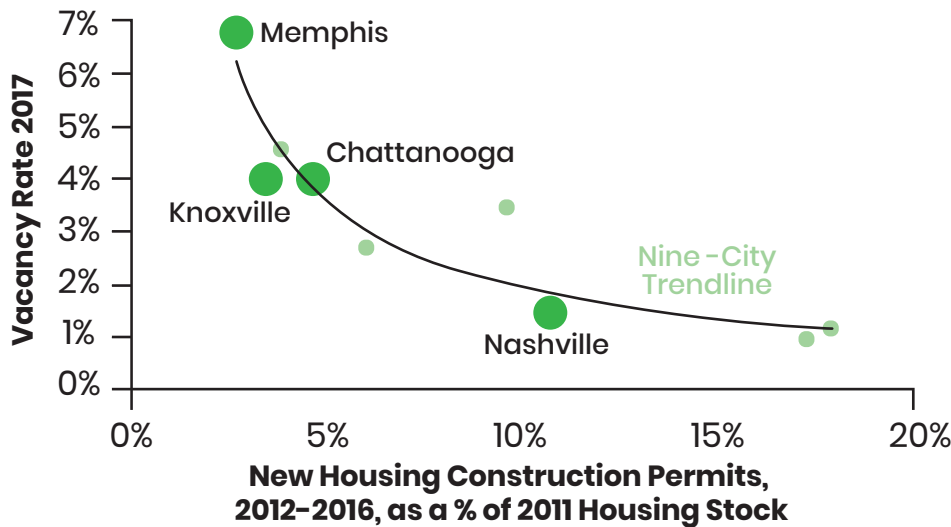
VACANT HOUSING

Memphis Has Highest Rate of Vacant Housing.



Roughly **1 in 15** housing units in Memphis were vacant during 2017. *Source: U.S. Postal Service*

VACANCY VS. NEW CONSTRUCTION PERMITS



A low vacancy rate may signal demand for additional housing units. Nashville and Memphis form the two extremes (very low and very high rates of vacancy, respectively) with Knoxville and Chattanooga falling right in between.

The Tennessee cities with the lowest rates of housing vacancy have seen the highest rates of new housing construction in recent years, and vice versa.

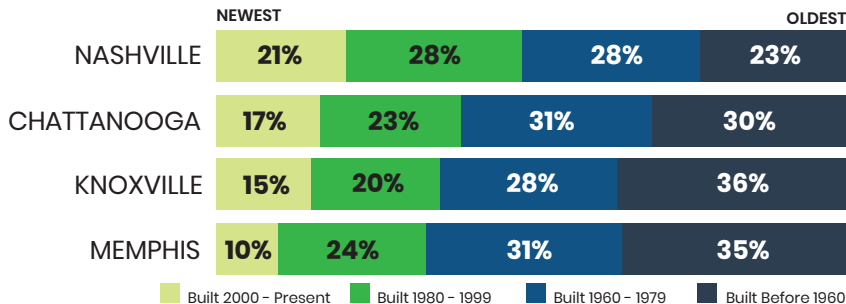
Note: the above nine-city trendline includes data for the four cities of this report, and the 5 next largest cities which are the focus of a companion indicators brief. They are: Murfreesboro, Clarksville, Jackson, Franklin, and Johnson City.

Source: U.S. Postal Service & Census Bureau Building Permits Survey

AGE OF HOUSING STOCK

The age of a city's housing stock can signal future housing needs. Nashville, with its construction boom, has the newest housing stock overall, while Memphis has the oldest.

HOUSING STOCK, BY YEAR BUILT



Roughly **2/3** of housing units in Memphis and Knoxville were built before 1980.



1 IN 5 housing units in Nashville have been built during the 21st century.

Cities with an aging housing stock can face higher rates of demolition and higher needs of housing repair. Conversely, older, depreciated housing can also be more affordable to rent or own.

THDA HOUSING INDICATORS: **COMPARING TN'S CITIES**



HOMEOWNERSHIP RATES

65% of Tennessee households are homeowners, while rates of homeownership are much lower in its largest four cities.

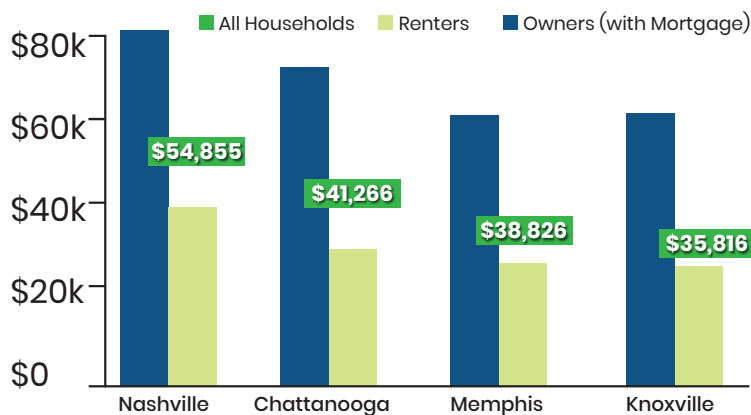
Knoxville and Memphis have experienced falling homeownership rates in recent years, while Chattanooga's homeownership rate has climbed by several points.



55% Chattanooga	53% Nashville
45% Knoxville	44% Memphis

HOUSEHOLD INCOMES

MEDIAN HOUSEHOLD INCOME, BY OCCUPANCY



There are meaningful differences in household incomes between the four cities. Median household income in Nashville was nearly \$20,000 higher than that of the median Knoxville household.

Across all four cities, income for homeowners with a mortgage is at least twice as high as that of renters household.

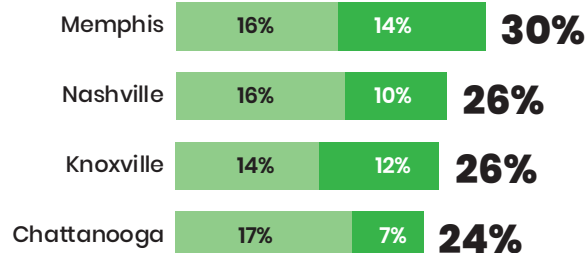
The median mortgage-holding homeowner in Chattanooga earns 2.4 times as much as the median renter, the largest ratio of the four cities.

HOUSING COST & COST BURDEN

HOMEOWNER COST BURDEN

Housing Costs as a % of Household Income

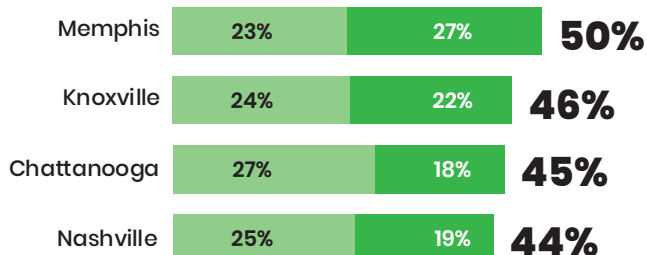
30 to 49% 50% or More



RENTER COST BURDEN

Housing Costs as a % of Household Income

30 to 49% 50% or More



While housing costs are lower among renters, household incomes are substantially lower, and renter households ultimately pay, on average, a higher percentage of their incomes on housing. As a result, levels of cost burden are much higher among renters.

Data on cost burden shows Chattanooga households to have the best match of housing costs to incomes. While Chattanooga has a median renter household income that is ten percent higher than Memphis renters, median gross rent in Memphis was still ten percent higher than in Chattanooga. This may partially explain why levels of housing cost burden are highest in Memphis.

MEDIAN MONTHLY HOUSING COSTS

Homeowners (with a Mortgage)

\$1,304 Nashville	\$1,192 Chattanooga	\$1,148 Memphis	\$1,049 Knoxville
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Renters

\$982 Nashville	\$857 Memphis	\$781 Chattanooga	\$763 Knoxville
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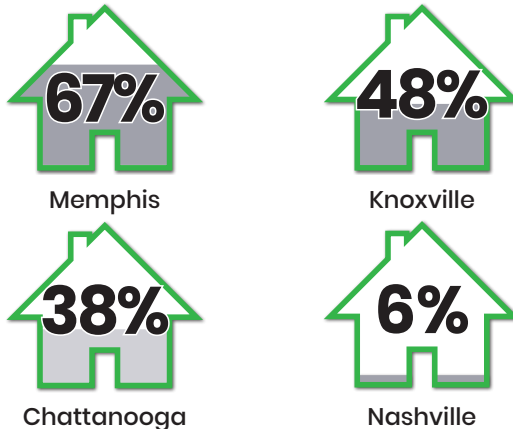


PROPERTY VALUES

In one year, Nashville's median single family home value increased by **43%**

Home value appreciation in Nashville has far outpaced the other three cities, in part owing to the property reappraisal during 2017.

SHARE OF SINGLE FAMILY HOMES VALUED AT LESS THAN \$100,000



MEDIAN VALUE OF SINGLE FAMILY HOME, 2017

\$208,900 Nashville	\$123,700 Chattanooga
\$102,300 Knoxville	\$70,100 Memphis

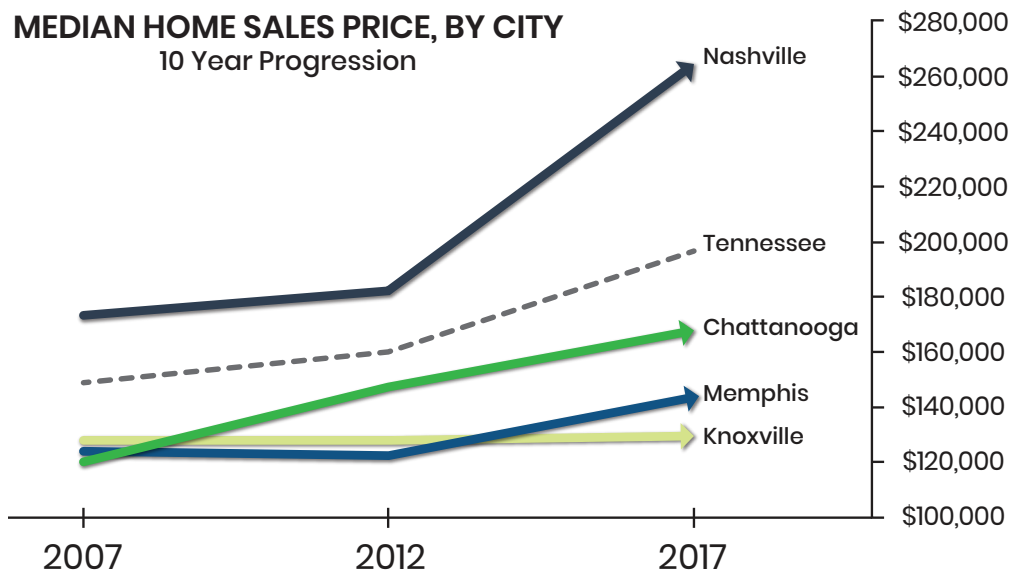
Source: Tennessee Comptroller's Office, Office of Local Government

Roughly **2/3** of Memphis single family homes are valued at less than \$100,000. (This includes vacant homes.)

HOME PURCHASES

Nashville's home sale prices and volume have outpaced the other three cities in recent years. Nashville's home sales price and volume increases have exceeded the other three cities. However, the volume of homes sold roughly doubled in each of the four cities from 2012 to 2017.

MEDIAN HOME SALES PRICE, BY CITY 10 Year Progression



Over a five year period (2013-2017) Nashville's median home sales price grew by nearly **46%**

2017 HOME SALES VOLUME

8% Nashville	7% Chattanooga
6% Knoxville	3% Memphis

LOWER HOME PRICES IMPROVE ACCESS TO HOMEOWNERSHIP

AFFORDABLE TO A WAITER/SALES CLERK



23% Knoxville	23% Memphis
14% Chattanooga	1% Nashville

AFFORDABLE TO EMT/OFFICE WORKER*



65% Knoxville	55% Memphis
44% Chattanooga	17% Nashville

Source: Bureau of Labor Statistics; Tennessee Comptroller's Office

* Occupations earning the median area wage

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MEMPHIS

NASHVILLE

KNOXVILLE

CHATTANOOGA

HOUSING + TRANSPORTATION

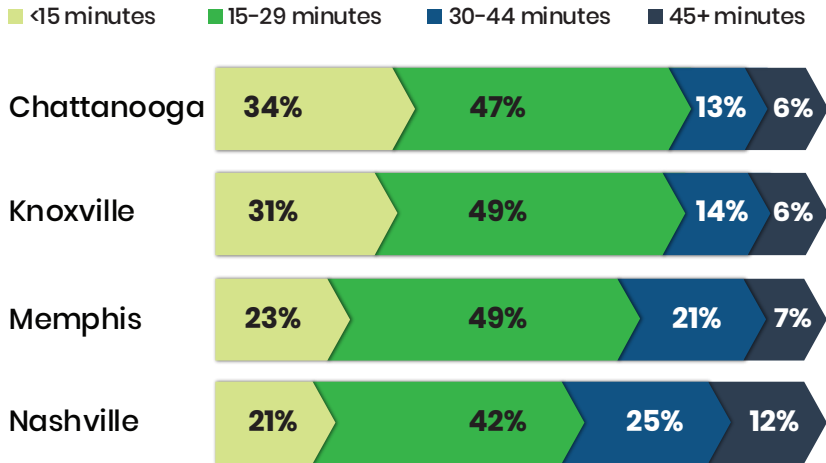
AVERAGE TRAVEL TIME TO WORK, BY CITY



Nashville workers have the longest commutes, on average, of the four major cities, and its commutes are getting longer. One in every eight workers residing in Nashville commutes 45 minutes or longer to work. This is roughly double the proportion for each of the other three major cities.

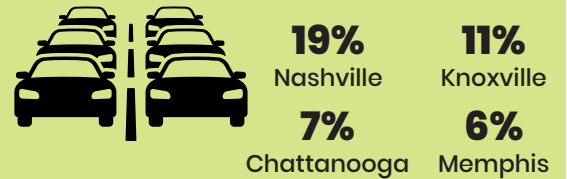
Commute times can be attributable to traffic, geographic dispersion of employment, geographic dispersion of housing, and the capacity and reach of transit systems. Transportation data has broad implications for a city's housing market. Increased commute times will typically translate to higher costs for households.

COMMUTE TIMES

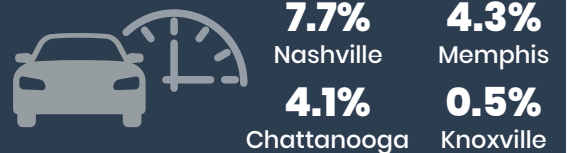


Nashville has the highest share of employed residents who commute out of county, but is still lower than the Tennessee rate of **28%**.

SHARE OF RESIDENTS WHO COMMUTE OUT OF COUNTY



% CHANGE IN AVERAGE TRAVEL TIME TO WORK OVER FIVE YEARS



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Appendix Legend

▲ increased from year prior

▼ decreased from year prior

— no change from prior year

HOUSING STOCK	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
Total Housing Units	▲ 83,133	▲ 90,626	▲ 303,888	▲ 306,362	▲ 2,919,698	2016
Single Family Units	▼ 54,101	▼ 53,855	▼ 195,364	▲ 188,272	▲ 2,351,195	2016
Multifamily Units	▲ 29,032	▲ 36,771	▲ 108,524	▼ 118,090	▲ 568,503	2016
Total Population	▲ 177,582	▲ 186,238	▼ 652,752	▲ 684,410	▲ 6,651,194	2016
Change in Housing Stock from 2012-2016	1,854	295	9,743	21,335	90,573	2016
	2.3%	0.3%	3.3%	7.5%	3.2%	2016
Change in Single Family Units, 2012-2016	2,751	-2,760	2,070	10,240	42,248	2016
	5.4%	-4.9%	1.1%	5.8%	1.8%	2016
Change in Multifamily Units, 2012-2016	-897	3,055	7,673	11,095	48,325	2016
	-3.0%	9.1%	7.6%	10.4%	9.3%	2016
Change in Population, 2012-2016	7,446	5,485	674	48,935	247,841	2016
% Change in Population, 2012-2016	4.4%	3.0%	0.1%	7.7%	3.9%	2016
New Construction Housing Units Permitted, 2016	▲ 1,143	▲ 849	▼ 1,749	▲ 8,788	▲ 36,864	2016
Single Family Permits, 2016	▲ 568	▲ 321	▲ 681	▼ 3,839	▲ 25,480	2016
Multifamily Units Permitted, 2016	▲ 537	▲ 528	▼ 1,032	▲ 4,900	▲ 10,282	2016
New Construction Housing Units Permitted, 2012-2016	3,743	3,142	7,937	30,540	140,605	2016
New Construction Housing Units Permitted, 2012-2016, as a % of 2011 Housing Stock	4.6%	3.5%	2.7%	10.7%	5.0%	2016
HOUSING VACANCY	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
Vacant Residential Addresses	▼ 4,049	▲ 4,183	— 21,695	▲ 5,305	▲ 165,266	2017
Share of Residential Addresses that are Vacant	▼ 4.0%	▼ 4.0%	— 6.8%	— 1.5%	— 5.0%	2017
Share of Vacancies that have been Vacant Longer than 2 Years	▲ 77%	▼ 67%	— 88%	▼ 59%	— 71%	2017
AGE OF HOUSING STOCK	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
% of Housing Built before 1960	▼ 30.4%	▼ 36.1%	▼ 35.4%	▼ 23.0%	▼ 19.6%	2016
% of Housing Built from 1960 to 1979	▲ 30.5%	▲ 28.3%	▼ 31.2%	▼ 28.3%	▼ 25.8%	2016
% of Housing Built from 1980 to 1999	▼ 22.5%	▼ 20.3%	▲ 23.6%	▲ 27.9%	▲ 32.6%	2016
% of Housing Built 2000 or Later	— 16.5%	▲ 15.3%	▲ 9.8%	▲ 20.8%	▲ 21.9%	2016
HOUSING TENURE	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
Homeownership Rate	▲ 54.9%	▼ 44.8%	▼ 43.9%	▼ 53.5%	▼ 65.1%	2016
Rate of Renters	▼ 45.1%	▲ 55.2%	▲ 56.1%	▲ 46.5%	▲ 34.9%	2016

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HOUSEHOLD INCOME	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
Median Household Income	▲ \$41,226	▼ \$35,816	▲ \$38,826	▲ \$54,855	▲ \$48,547	2016
Median Renter Household Income	▲ \$30,509	▼ \$26,848	▲ \$27,620	▲ \$40,331	▲ \$31,613	2016
Median Household Income, Homeowners with a Mortgage	▲ \$71,934	▼ \$61,525	▲ \$61,273	▲ \$80,223	▲ \$72,255	2016
MONTHLY HOUSING COST	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
Median Gross Rent	▲ \$781	▼ \$763	▲ \$857	▲ \$982	▲ \$806	2016
Median Monthly Housing Costs, Homeowners with a Mortgage	▲ \$1,192	▼ \$1,049	▲ \$1,148	▲ \$1,304	▲ \$1,172	2016
Median Rental Costs as a % of Median Homeownership Costs (with a mortgage)	▼ 66%	— 73%	▲ 75%	▲ 75%	▲ 69%	2016
PROPERTY VALUE	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
Median Home Value	▲ \$123,700	▲ \$102,300	▲ \$70,100	▲ \$208,900	--	2017
% Change in Median Home Value from One Year Prior	12.7%	8.5%	5.9%	43.2%		2017
Share of Single Family Homes Valued at Less than \$100,000	▼ 38%	▼ 48%	▼ 67%	▼ 6%	--	2017
Median Ratio of Land Appraisal to Overall Property Appraisal	▲ 20.0%	▼ 16.8%	▼ 19.7%	▲ 22.3%	--	2017
PURCHASING A HOME	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
2017 Median Home Sales Price	▲ \$168,000	▲ \$130,000	▲ \$143,000	▲ \$265,000	▲ \$196,500	2017
2012 Median Home Sales Price	\$147,700	\$127,000	\$123,000	\$182,000	\$160,000	2012
2007 Median Home Sales Price	▲ \$120,000	▲ \$127,250	▲ \$124,900	▲ \$172,500	▲ \$149,000	2007
Total Home Sales, 2017	3,484	3,370	4,965	14,404	105,335	2017
2017 Home Sales as a % of Single Family Homes	6.6%	6.4%	2.6%	7.8%	5.1%	2017
Share of 2017 Home Sales Affordable to a Median Wage Earner	44.1%	65.5%	55.4%	17.1%	--	2017
Share of 2017 Home Sales Affordable to a Restaurant Server	14.2%	22.7%	23.4%	0.8%	--	2017
Mortgage Application Denial Rate	▲ 10.9%	▲ 11.0%	— 13.4%	▼ 9.0%	▼ 10.5%	2016
Share of High-Cost Mortgages	6.2%	6.7%	6.7%	4.3%	6.7%	2016
HOUSING AFFORDABILITY	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
Share of Renters that are Cost Burdened	▼ 45.2%	▲ 46.2%	▼ 50.2%	▼ 43.7%	▼ 42.2%	2016
Share of Renters that are Severely Cost Burdened	▼ 18.0%	▲ 22.3%	▲ 26.9%	▼ 19.2%	▼ 19.8%	2016
Share of Homeowners that are Cost Burdened (with a Mortgage)	▼ 24.0%	▲ 25.5%	▼ 30.0%	▼ 26.2%	▼ 24.9%	2016
Share of Homeowners that are Severely Cost Burdened (with a Mortgage)	▼ 7.0%	▲ 11.7%	▼ 14.4%	▲ 9.8%	▼ 9.5%	2016

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COMMUTING TO EMPLOYMENT	CHATTANOOGA	KNOXVILLE	MEMPHIS	NASHVILLE	TN	CURRENT AS OF:
Average Commute Time to Work (in minutes)	▲ 20.3	▲ 20.0	▲ 21.8	▲ 25.2	▲ 25.1	2016
Percent Change in Mean Travel Time to Work over 5 Years	4.10%	0.50%	4.31%	7.69%	3.72%	2016
Share of Workers commuting 15 Minutes or Less	▼ 33.9%	▼ 30.7%	▼ 22.9%	▼ 20.5%	▼ 25.2%	2016
Share of Workers commuting between 15 and 30 Minutes	▼ 46.7%	▼ 48.7%	▲ 49.2%	▼ 42.4%	▼ 39.2%	2016
Share of Workers commuting between 30 and 45 Minutes	▼ 13.2%	▼ 14.4%	▲ 21.2%	▼ 24.6%	▼ 21.0%	2016
Share of Workers commuting 45 Minutes or More	▲ 6.3%	▲ 6.1%	— 6.6%	▲ 12.6%	▲ 14.4%	2016
Percent of Resident Workers who Commute out of County	7.0%	11.3%	6.2%	18.6%	28.3%	2016
Percent of Resident Workers who Worked from Home Full-Time	4.8%	5.4%	3.6%	6.7%	4.7%	2016

SOURCES

HOUSING STOCK

American Community Survey, 1-Year Estimates

Total Housing Units (Single and Multifamily)

Total Population

Change in Housing Stock from 2012–2016 (Single and Multifamily)

Change in Population, 2012–2016

Census Bureau Building Permits Survey

New Construction Units Permitted, 2012–2016 (Single and Multifamily)

HOUSING VACANCY

U.S. Postal Service. Accessed through HUD.

AGE OF HOUSING STOCK, HOUSING TENURE, HOUSEHOLD INCOME, AND MONTHLY HOUSING COST

American Community Survey, 1-Year Estimates

PROPERTY VALUE

THDA Tabulations of Data from Tennessee Comptroller's Office, Division of Property Assessments

PURCHASING A HOME

THDA Tabulations of Data from Tennessee Comptroller's Office, Division of Property Assessments

2017, 2012, and 2007 Median Home Sales Price

Total Home Sales, 2017

Bureau of Labor Statistics, Occupational Employment Statistics

Share of 2017 Home Sales Affordable to a Median Wage Earner/Restaurant Server

Home Mortgage Disclosure Act (HMDA)

Mortgage Application Denial Rate

Share of High-Cost Mortgages

HOUSING AFFORDABILITY

American Community Survey, 1-Year Estimates

COMMUTING TO EMPLOYMENT

American Community Survey, 1-Year Estimates