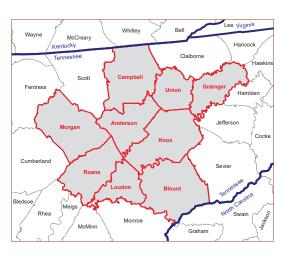


Knoxville, Tennessee

U.S. Department of Housing and Urban Development | Office of Policy Development and Research | As of September 1, 2018







Housing Market Area

The Knoxville Housing Market Area (HMA), coterminous with the Knoxville, TN Metropolitan Statistical Area, is home to the University of Tennessee (UT) and the U.S. Department of Energy (DOE) Oak Ridge National Laboratory and borders the Great Smoky Mountains National Park. The HMA includes Anderson, Blount, Campbell, Grainger, Knox, Loudon, Morgan, Roane, and Union Counties. The principal city of Knoxville is in Knox County.

Summary

Economy

ollowing the local economic downturn in 2009, economic conditions in the Knoxville HMA have been relatively strong, although nonfarm payroll growth slowed during the past year. During the 12 months ending August 2018, nonfarm payrolls increased by 2,700 jobs, or 0.7 percent, to 397,600, compared with a 4,400-job, or 1.1-percent, increase during the previous 12 months. Nonfarm payrolls are expected to grow an average of 0.6 percent a year during the 3-year forecast period. Table DP-1 at

Market Details

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the end of this report provides additional employment data.

Sales Market

The sales housing market in the HMA is currently balanced, with an estimated 2.4-percent vacancy rate, down from 2.8 percent in April 2010. During the 12 months ending August 2018, total home sales—including new and existing single-family homes, condominiums, and townhomes—rose to 22,200, a 4-percent increase

from a year earlier but slowing from a 7-percent increase during the 12 months ending August 2017 (CoreLogic, Inc., with adjustments by the analyst). The average home sales price during the past 12 months rose 5 percent to \$187,600, up from a 4-percent increase during the previous 12 months. During the forecast period, demand is estimated for 9,400 new homes (Table 1). The 910 homes currently under construction will meet a portion of the forecast demand.

Table 1. Housing Demand in the Knoxville HMA During the Forecast Period

	Knoxville HMA				
	Sales Units	Rental Units			
Total Demand	9,400	2,525			
Under Construction	910	1,825			

Notes: Total demand represents estimated production necessary to achieve a balanced market at the end of the forecast period. Units under construction as of September 1, 2018. The forecast period is September 1, 2018, to September 1, 2021.

Source: Estimates by analyst

Rental Market

The rental housing market in the HMA is currently balanced. The current rental vacancy rate is estimated at 7.5 percent, down from 10.5 percent during 2010. The apartment market is also currently balanced, with a 3.7-percent vacancy rate during the third quarter of 2018, down

from 3.8 percent a year earlier (Reis, Inc.). During the forecast period, demand is expected for 2,525 new market-rate rental units. The 1,825 units currently under construction are expected to satisfy most of the demand during the forecast period.

Economic Conditions

he Knoxville HMA economy includes the DOE and the principal UT Campus, which are the largest and third largest employers, respectively (Table 2). DOE employs 13,000 people in the HMA and includes the Y-12 National Security Complex, with 8,225 employees, and the Oak Ridge National Laboratory (ORNL), with 4,300 full-time and 80 part-time employees. In 2014, ORNL added \$422 million to the gross domestic product and created 4,800 jobs in Anderson, Roane, and Knox Counties (USDOE, most recent data available). ORNL is a research institution that was established during World War II as part of the Manhattan Project and later developed nuclear reactor technology. UT, with nearly 29,000 students, employs 6,700 workers, 6,475 of whom are full

time. The Knoxville Campus is the largest of the Tennessee university system, which has a \$1.7 billion economic impact on the state. The prominent government sector coupled with a strong education and health services sector help to support jobs in the professional and business services and the wholesale and retail trade sectors. Additionally, UT's football team and nearby Great Smoky Mountains National Park, which encompasses part of southern Blount County and attracts more than 11 million visitors each year, draw tourism dollars into the HMA and support jobs in the leisure and hospitality sector.

Currently, the professional and business services sector is the largest in the HMA, closely followed by wholesale and retail trade, at 16.3 and 16.2 percent of nonfarm jobs, respectively

Table 2. Major Employers in the Knoxville HMA

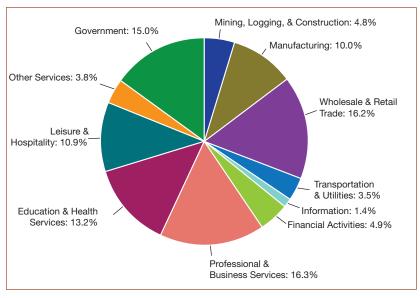
Name of Employer	Nonfarm Payroll Sector	Number of Employees
U.S. Department of Energy	Government	13,000
Covenant Health	Education & Health Services	9,325
University of Tennessee	Government	6,700
Wal-Mart Stores, Inc.	Wholesale & Retail Trade	5,325
Tennova Healthcare	Education & Health Services	4,625
University Health System	Government	4,000
K-VA-T Food Stores	Wholesale & Retail Trade	3,550
DENSO Manufacturing Tennessee, Inc.	Manufacturing	3,000
Clayton Homes, Inc.	Manufacturing	2,825
The Kroger Co.	Wholesale & Retail Trade	2,675

Note: Excludes local school districts.

Source: Knoxville-Oak Ridge Innovation Valley Economic Development

(Figure 1). The government and the education and health services sectors are the third and fourth largest sectors, accounting for 15.0 and 13.2 percent of nonfarm payrolls, respectively. During the 12 months ending August 2018, nonfarm payrolls in the HMA rose by 2,700 jobs, or 0.7 percent, to 397,600, following a gain of 4,400 jobs, or 1.1 percent, a year earlier (Table 3). The rate of growth was highest in the mining, logging, and construction sector, which

Figure 1. Current Nonfarm Payroll Jobs in the Knoxville HMA, by Sector



Note: Based on 12-month averages through August 2018. Source: U.S. Bureau of Labor Statistics increased by 1,200 jobs, or 6.7 percent, to 19,200. Job gains in the construction subsector were buoyed by more than \$125 million of investment in three hotels currently under way downtown. On completion, this development is expected to increase payrolls in the leisure and hospitality sector, which rose by 1,900 jobs, or 4.6 percent, to 43,300 during the past 12 months. Manufacturing has continued to rebound, having added jobs in all but one year since 2010, and currently constitutes 10 percent of payrolls in the HMA, higher than the national average of 8 percent. DENSO Manufacturing Tennessee, Inc., which makes a variety of automotive products, is in the process of a \$1 billion expansion, which will add 360,000 square feet to one of its four Blount County factories. This expansion is on schedule to add 1,000 jobs by 2020 and has contributed to gains in the manufacturing sector, which increased by 1,300, or 3.4 percent, to 39,800 jobs during the past 12 months. Despite recent increases, nonfarm payrolls in the manufacturing sector remain 21 percent below the level in 2000,

Table 3. 12-Month Average Nonfarm Payroll Jobs in the Knoxville HMA, by Sector

	12 Month	ns Ending	Absolute	Percent
	August 2017	August 2018	Change	Change
Total Nonfarm Payroll Jobs	394,900	397,600	2,700	0.7
Goods-Producing Sectors	56,500	59,000	2,500	4.4
Mining, Logging, & Construction	18,000	19,200	1,200	6.7
Manufacturing	38,500	39,800	1,300	3.4
Service-Providing Sectors	338,400	338,600	200	0.1
Wholesale & Retail Trade	64,900	64,400	- 500	- 0.8
Transportation & Utilities	13,700	13,900	200	1.5
Information	5,800	5,700	- 100	- 1.7
Financial Activities	19,300	19,300	0	0.0
Professional & Business Services	64,500	64,800	300	0.5
Education & Health Services	53,900	52,600	- 1,300	- 2.4
Leisure & Hospitality	41,400	43,300	1,900	4.6
Other Services	14,900	15,000	100	0.7
Government	60,000	59,600	- 400	- 0.7

Notes: Based on 12-month averages through August 2017 and August 2018. Numbers may not add to totals because of rounding.

Source: U.S. Bureau of Labor Statistics

the largest decline of any sector during the period (Figure 2). Several store closures, including Toys "R" Us, Inc. and Sears, Roebuck and Co., affected payrolls in the retail trade subsector, which decreased by 900 jobs, or 1.9 percent, to 47,400, during the past 12 months. Job losses also occurred in the education and health services sector, which was down by 1,300 jobs, or 2.4 percent, to 52,600. Tennova canceled plans for a \$303.5 million flagship hospital and instead announced an as-yet undetermined number of layoffs. During the 12 months ending August 2018, the average unemployment rate was 3.2 percent, down from 4.0 percent a year earlier.

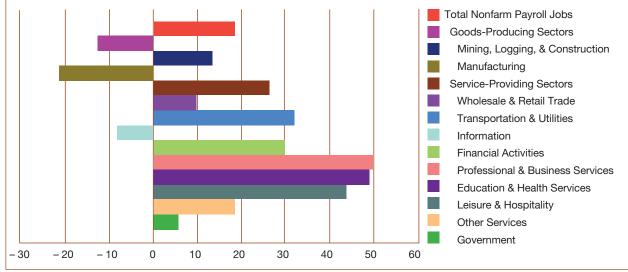
From 2001 through 2007, job growth in the service-providing sectors offset declines in the manufacturing sector, as the HMA added an average of 5,100 jobs, or 1.5 percent, each year. The professional and business services, the education and health services. and the leisure and hospitality sectors had a stabilizing effect on the HMA, while manufacturing payrolls declined nearly every year, losing an average of 1,200

jobs, or 2.7 percent, annually. Levi Strauss & Co. laid off 900 workers in 2002, when the Knoxville plant closed. Plasti-Line, Inc. and Cendant Corporation each eliminated nearly 300 jobs with closures. The education and health services and the leisure and hospitality sectors added 1,500 and 1,200 jobs, or 3.8 and 3.5 percent, respectively, annually from 2001 through 2007, which offset the losses. Contributing to growth during the period, Baptist Health and Blount Memorial Hospital each added 400 jobs. Research expansions created jobs in the professional and business services sector and the government sector, which grew annually by 700 and 400 jobs, or 1.5 and 0.6 percent, respectively. DOE's largest science and energy laboratory, ORNL, expanded in 2006, adding 150 government sector jobs.

From 2008 through 2010, due to the Great Recession, Knoxville had 1 year of job losses surrounded by 2 years of slow growth. During the period, an average of 4,400 jobs, or 1.2 percent, were lost in the HMA. The unemployment rate remained below 5 percent until 2008, when



Figure 2. Sector Growth in the Knoxville HMA, Percentage Change, 2000 to Current



Note: Current data are based on 12-month averages through August 2018. Source: U.S. Bureau of Labor Statistics

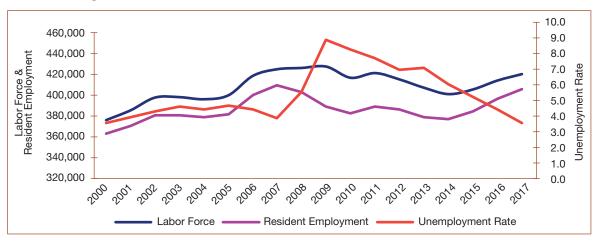
widespread job losses affected the HMA in 2009, and the unemployment rate peaked at 9.1 percent (Figure 3). Nearly 11,000 workers dropped from the labor force the following year. From 2008 through 2010, contraction in the manufacturing sector accelerated to a rate of 7.4 percent, or 2,900 jobs lost, annually. Sea Ray Boats closed two facilities, which cut 540 jobs, and the closure of bankrupted ImagePoint sign manufacturer cut 270. In 2000, the manufacturing sector accounted for 15 percent of nonfarm payrolls in the HMA but fell to 9 percent of jobs by 2010. The mining, logging, and construction sector had 3 years of job losses averaging 1,100 jobs, or 5.6 percent, annually. Alcoa Inc. cut 450 jobs and shut down both of its aluminum smelting production lines in Blount County. East Tennessee Zinc Company idled one mine in Knox County and two outside the HMA in nearby Jefferson County, cutting 300 jobs. The wholesale and retail trade sector lost 2,100 jobs, or 3.2 percent, annually. Goody's Family Clothing closed, eliminating 800 jobs in the HMA. Anderson News, a wholesale magazine distributor, ceased operations, laying off 400 workers. The education and health services

it increased to 5.6 percent, but

sector, however, grew by 900 jobs, or 2.0 percent, annually, partly due to the \$150 million expansion of Fort Sanders Regional Medical Center. A research and technology corridor of innovative companies that has grown up around ORNL added to job growth. The government sector created 500 jobs, or 0.9 percent, annually but also contributed to increased payrolls in the professional and business services sector, which grew by 1,600 jobs, or 3.2 percent, annually through the construction of research facilities, such as the National Institute for Mathematical and Biological Synthesis (NIMBioS) and the UT Research Park at Cherokee Farm science and research facility, an example of several joint ventures between UT and nearby ORNL.

The early 2010s was a period of stabilization and adjustment in the HMA. From 2011 through 2013, nonfarm payrolls grew by an average of 3,700 jobs, or 1.0 percent, annually. The professional and business services sector, which increased by 1,200 jobs, or 2.2 percent, led the growth during this period. For the first time in a decade, manufacturing jobs increased, growing by an average of 600 jobs, or 1.7 percent, annually from 2011 through 2013.

Figure 3. Trends in Labor Force, Resident Employment, and Unemployment Rate in the Knoxville HMA, 2000 Through 2017



Source: U.S. Bureau of Labor Statistics

The unemployment rate dropped from 7.9 percent in 2011 to 7.2 percent in 2013.

From 2014 through 2016, nonfarm payrolls increased by 7,700 jobs, or 2.0 percent, annually, compared with the 1.3-percent rate nationally. The professional and business services sector led growth, adding 2,400 jobs, or 4.1 percent, annually. The manufacturing sector added 1,000 jobs, or 2.9 percent, annually. SL America Corporation; Denso Manufacturing Tennessee, Inc.; and ARC Automotive, Inc. added 1,000; 500; and 115 employees, respectively. Those companies are part of an extensive group of automobile components manufacturers in the HMA, an industry that has grown as Tennessee has emerged as an automobile manufacturing center. The building of \$11.5 million University Commons and \$9 million Papermill Plaza retail center developments contributed to gains in the retail trade subsector, which added 900 jobs, or 1.9 percent, annually. This development also contributed to employment in the mining, logging, and construction sector, which grew by 300 jobs, or 1.6 percent, annually. The leisure and hospitality sector increased by 900 jobs, or 2.3 percent, annually. The

transportation and utilities sector grew by 500 jobs, or 3.7 percent, annually. FedEx Corp. expanded its distribution center, a \$14.7 million investment, adding 190 employees. The Knoxville HMA is an important transportation hub, connecting Interstates 75 and 40 and extending northward to Interstate 81, along the mountains. During this period, the unemployment rate decreased from 6.1 percent in 2014 to 4.4 percent in 2016.

During the 3-year forecast period, nonfarm payrolls in the HMA are anticipated to increase an average of 0.6 percent annually, slightly lower than recent employment growth. Job growth is expected to be strongest in the leisure and hospitality and the manufacturing sectors. The three hotels under way and several restaurants recently added to the downtown area will contribute to jobs in the leisure and hospitality sector. ORNL and UT continue joint research efforts with new companies such as LeMond Composites, which is expected to add 242 new jobs manufacturing carbon fiber composites, and HTS International Corporation, which is investing \$21.4 million in its research and development lab and is expected to add 200 new jobs by 2020.

Population and Households

The population in the Knoxville HMA is currently estimated at 886,800, an average increase of 5,850, or 0.7 percent, annually since 2010. Approximately 53 percent of the HMA population lives in Knox County, which includes Knoxville, the largest city and the economic center of the HMA. Blount County, between Knoxville and the Great Smoky

Mountains National Park, is the second most populous county, accounting for 15 percent of the HMA population.

Migration patterns are closely aligned with employment growth in the HMA. From 2001 to 2008, during the period of economic expansion, the population increased by an average of

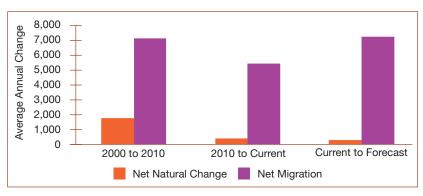
10,100, or 1.3 percent, annually (Census Bureau decennial census and population estimates as of July 1). Net in-migration and net natural change (resident births minus resident deaths) averaged 8,375 and 1,725, respectively. Population growth fell by one-half from 2008 to 2012, slowing to an increase of 5,050, or 0.6 percent, annually, amid weaker economic conditions resulting from the Great Recession. Net in-migration and net natural change slowed to an annual average of 3,700 and 1,350, respectively. From 2012 to 2015, when the economic recovery was under way, the population increased by an average of 4,375, or 0.5 percent, annually. Net natural change slowed significantly, to 120 people a year, more than offsetting an increase in net in-migration to an average of 4,250 people annually. Figure 4 shows components of population change since 2000.

Because of stronger economic growth in recent years, population gains have accelerated. From 2015 to the current date, the population grew by an average of 8,325 people, or 1.0 percent, annually. Since 2015, net natural change increased slightly to an average of 310 annually, and net in-migration increased more substantially, to an average of 8,025 people annually.

The number of people in the HMA aged 20 to 44 has grown more slowly than has the HMA population, remaining flat in the 2000s and growing an average of 0.3 percent annually from 2010 to 2017. That age group has constituted a smaller percentage of the total population over time (Census Bureau decennial census and population estimates as of July 1), which has contributed to the slowing of net natural change in the HMA. In 2000, 36.0 percent of the population was 20 to 44 years of age; by 2010, that figure had dropped to 32.4 percent; and in 2017, the age group constituted 31.7 percent of the total population. In 2000, those aged 65 and older accounted for 13.7 percent of the population, grew 2.0 percent annually during that decade, and by 2010 constituted 15.0 percent of the HMA population. From 2010 to 2017, that growth accelerated to 3.0 percent annually, and those aged 65 and older constituted 17.9 percent of the population in 2017. Some of that increase is likely due to baby boomers aging in place, and some retirees are drawn to the area because of several lakes in the HMA and its proximity to the Great Smoky Mountains National Park.

The current number of households in the HMA is estimated at 362,100, an average growth of 2,575, or 0.7 percent, annually

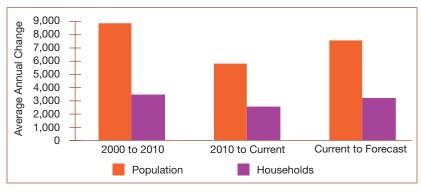
Figure 4. Components of Population Change in the Knoxville HMA, 2000 to Forecast



Note: The current date is September 1, 2018. The forecast date is September 1, 2021.

Sources: 2000 and 2010—2000 Census and 2010 Census; current and forecast—estimates by analyst

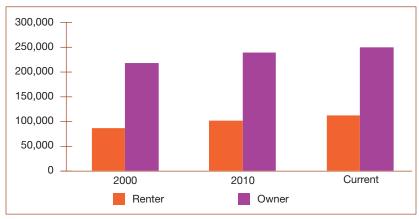
Figure 5. Population and Household Growth in the Knoxville HMA, 2000 to Forecast



Notes: The current date is September 1, 2018. The forecast date is September 1, 2021.

Sources: 2000 and 2010—2000 Census and 2010 Census; current and forecast—estimates by analyst since 2010, compared with an

Figure 6. Number of Households by Tenure in the Knoxville HMA, 2000 to Current



Note: The current date is September 1, 2018.

Sources: 2000 and 2010—2000 Census and 2010 Census; current—estimates by analyst

average increase of 3,475, or 1.1 percent, annually during the 2000s (Figure 5). Renter households have accounted for roughly 46 percent of net household formations since 2010 compared with 42 percent during the 2000s. As a result, the homeownership rate fell to an estimated 69.2 percent as of the current date, down from 70.2 percent in 2010 and 71.5 percent in 2000. Figure 6 shows the number of households by tenure in the HMA since 2000.

During the next 3 years, the population of the HMA is expected to increase by an average of 7,600, or 0.8 percent, annually to 909,600, reflecting slowing net in-migration during the second and third years of the forecast period. Net natural change is expected to remain 300 annually, with net in-migration slowing from 7,525 in 2019, to 7,275 in 2020 and 7,100 in 2021. During this period, the number of households is expected to grow by an average of 3,225, or 0.9 percent, annually.

Housing Market Trends

Sales Market

The sales housing market in the Knoxville HMA is currently balanced. The sales vacancy rate as of September 1, 2018 is estimated at 2.4 percent, down from 2.8 percent in April 2010. The inventory of existing homes for sale was 2.4 months in August 2018 compared with a 3.0-month supply the previous year (Knoxville Area Association of Realtors). During the 12 months ending August 2018, total home sales—including new and existing single-family homes, condominiums, and townhomesrose to 22,200, a 4-percent increase from a year earlier but slowing from a 7-percent increase during the 12 months ending August 2017 (CoreLogic, Inc., with adjustments by the analyst). The average new and existing home sales price during the past 12 months rose 5 percent to \$187,600, up from a 4-percent increase during the previous 12 months.

In the 2000s, existing home sales in the HMA slowed, with declines increasing during the Great Recession. As the economy

began to recover, existing home sales increased. From 2001 through 2006, existing home sales decreased slightly, by an average of 190 homes, or barely less than 1 percent, annually to 20,950. From 2007 through 2011, as economic conditions in the HMA generally worsened, foreclosures eventually climbed and existing homes sales fell by an average of 1,900, or 11 percent, annually to a low of 11,450. Beginning in 2012, existing home sales began to rise in response to improving economic conditions and increased population growth. From 2013 through 2016, existing home sales increased by an average of 1,475, or nearly 11 percent, a year to 18,900. The rate of existing home sales has continued to rise, although at a more moderate average annual pace, and 20,650 homes sold during the 12 months ending August 2018, an increase of 5 percent. Real estate owned (REO) home sales constituted nearly 4 percent of existing home sales during the past 12 months, down from almost 6 percent a year ago and from a high of 17 percent during 2013. As of August 2018, 1.5 percent of home loans in the HMA were seriously delinquent (90 or more days delinquent or in foreclosure) or had transitioned into REO status, down from 2.0 percent a year earlier and well below the peak of 5.2 percent during January 2010. The rates were lower than the national rates of 1.8 percent in August 2018, 2.2 percent a year earlier, and 8.6 percent in January 2010.

Since 2000, changes in the average existing home sales price have generally mirrored economic trends in the HMA. From 2001 through 2007, the average existing home sales price grew by \$6,850, or 6 percent, annually to a high of \$145,600. From 2008 through 2010, as economic conditions

worsened and foreclosures climbed in the HMA, the existing average home sales price fell by \$2,300, or 2 percent, annually to a low of \$138,600. During the period of stabilization and growth in the economy from 2011 through 2016, the existing average sales price climbed 3 percent, or \$4,350, a year to \$164,800. The average sales price for existing homes has increased \$9,925, or 5 percent, to \$181,500 during the 12 months ending August 2018. Since 2010, the decline in REO sales contributed to the increase in average existing home sales prices. In 2010, 16 percent of existing home sales were REOs, with an average sales price of \$88,100, which was 64 percent of the average existing home sales price of \$138,600. During the 12 months ending August 2018, less than 5 percent of existing home sales were REOs, with an average sales price of \$103,900, which was 57 percent of the average existing home sales price of \$181,500.

New home sales reflected the housing boom of the 2000s. After declining 20 percent a year from 2001 through 2003, new home sales more than doubled annually from 2003 through 2006 due to looser lending standards and economic expansion in the HMA. From 2007 through 2011, new home sales declined by an average of 27 percent annually. New home sales were slower to rebound during the most recent economic expansion because builders remained cautious in the wake of the Great Recession, and labor and material shortages hindered development. New home sales reached a low of 730 homes sold during 2011; during the period from 2012 through 2013, new sales increased by 160 homes, or 20 percent, annually to 1,050. From 2014 through 2016, new home sales increased by an average of

130, or 11 percent, annually to 1,450. New home sales declined during the 12 months ending August 2018, dropping more than 2 percent from the 12 months ending August 2017, to 1,525.

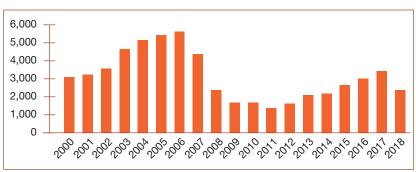
Similar to sales prices for existing homes, new home sales prices also mirrored economic trends, peaking at a high of \$229,900 in 2008. Following sales price declines that reached a low of \$205,600 in 2011, prices did not recover to the previous peak until 2014. From 2014 through 2016, the average new home sales price increased by \$14,750, or 6 percent, annually. During the 12 months ending August 2018, the average new home sales price increased 4 percent to \$271,600.

Single-family homebuilding, as measured by the number of single-family homes permitted, is currently above the 2011 postrecessionary low but is well below levels from the early-to-mid 2000s. From 2001 through 2006, singlefamily home permitting activity in the HMA rose by an average of approximately 420 homes, or 11 percent, a year to a high of 5,575. During the severest part of the housing crisis and economic downturn, from 2007 through 2009, the number of homes permitted fell by an average 1,325, or 34 percent, a year to

1,600 homes permitted. From 2010 through 2011, the number of homes permitted continued to fall, albeit at a reduced average pace of 150 homes, or 10 percent, a year to a low of 1,325 homes permitted in 2011 (Figure 7). Improved economic conditions since 2011 have contributed to increased demand for singlefamily homes, and as a result, permitting rose by an average of 320 homes, or 17 percent, annually from 2012 through 2016, to 2,925 homes. During the 12 months ending August 2018, 3,325 single-family homes were permitted, up from 2,975 homes permitted during the previous 12 months (preliminary data, with estimates by the analyst).

Single-family homebuilding has been concentrated in northwestern Knox County in the Karns, Farragut, and Hardin Valley areas, spilling into Anderson County. Laurel Ridge in Hardin Valley offers homes ranging in price from approximately \$272,900 to \$383,100. Currently, 87 homes have been built, with another 110 homes planned for completion within the next 2 years. The custom homes range from approximately 2,000 to more than 4,000 square feet and have three to five bedrooms. The Hardin Valley area has grown because





Notes: Includes townhomes. Includes data through August 2018.

Sources: U.S. Census Bureau, Building Permits Survey; 2000–2017 final data and analyst estimates; 2018 preliminary data and analyst estimates

of its proximity to the research and technology corridor of Oak Ridge and surrounding areas. The Battery at Berkeley Park offers custom homes with 2,670 to more than 3,600 square feet, with prices starting at approximately \$321,000. This subdivision, 1.5 miles from the popular Turkey Creek commercial center, offers 10 acres of green space set aside for community use; 54 of 85 homes have been completed. Ely Park in East Knoxville has fewer than 30 lots left in its second phase, which will bring the total number of homes in the subdivision up to 187; three-bedroom homes start at \$174,900, with square footage ranging from 1,210 to

Table 4. Estimated Demand for New Market-Rate Sales Housing in the Knoxville HMA During the Forecast Period

Price F	Range (\$)	Units of	Percent	
From	То	Demand	of Total	
150,000	199,999	2,825	30.0	
200,000	249,999	1,875	20.0	
250,000	299,999	1,875	20.0	
300,000	349,999	1,400	15.0	
350,000	and Higher	1,400	15.0	

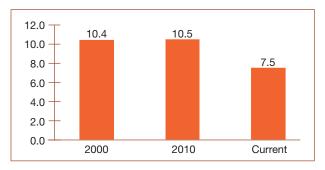
Notes: Numbers may not add to totals because of rounding. The 910 homes currently under construction in the HMA will likely satisfy some of the forecast demand.

Source: Estimates by analyst

Rental Market

The rental housing market—including single-family homes, mobile homes, and apartments—in the Knoxville HMA is currently

Figure 8. Rental Vacancy Rates in the Knoxville HMA, 2000 to Current



Note: The current date is September 1, 2018.

Sources: 2000 and 2010—2000 Census and 2010 Census; current—estimates by analyst

2,100. Blount County, with its proximity to the national park and vital employment centers, attracts retirees and families. Morganton Reserve, west of Maryville in Blount County, is building 98 homes with three to five bedrooms; prices range from \$247,000 to \$297,000. Threequarters of the sites have been sold. Tellico Village is a 5,000acre active adult community offering 1,600 acres of common space along the Tennessee River in Loudon County, which is southwest of Knoxville on the route to Chattanooga. Development has been ongoing for more than a decade, with lots ranging from 0.2 acres to more than an acre. Approximately 4,200 homes have currently been built, and developers plan to expand to 6,200 during the next decade.

During the 3-year forecast period, demand for 9,400 new homes is expected. The 910 homes currently under construction are expected to meet a portion of demand (Table 1). Demand is anticipated to be strongest for homes priced between \$150,000 and \$199,999 (Table 4).

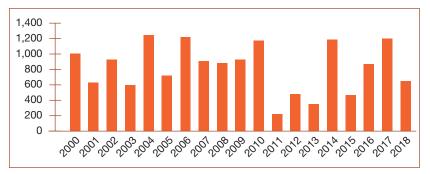
balanced, with an overall estimated rental vacancy rate of 7.5 percent, down from 10.5 percent in April 2010 (Figure 8). Limited multifamily construction activity and an increase in net in-migration to the HMA since 2013 have contributed to a decline in rental vacancies. In 2017, an estimated 36 percent of renter households lived in single-family homes, up from 35 percent in 2010 (2017 and 2010 American Community Survey 1-year data).

The apartment housing market in the HMA is balanced, with a 3.7-percent vacancy rate during the third quarter of 2018, down

from 3.8 percent a year earlier (Reis, Inc.). The average rent for an apartment is currently \$759, a gain of \$36, or 5 percent, from a year earlier. During the economic downturn in the HMA in 2009, the apartment vacancy rate peaked at 7.9 percent, and the average rent declined less than 1 percent to \$587. When multifamily construction fell to historically low levels and the absorption of previously vacant units increased, the apartment vacancy rate started to fall; it reached 3.9 percent in 2014. From 2010 through 2014, rent growth averaged nearly 2 percent annually. Since 2014, the apartment vacancy rate has fluctuated between 3.6 percent and 5.1 percent, as new developments have been completed and subsequently absorbed.

The University of Tennessee has demolished and replaced several of its dormitories in a project spanning more than 5 years. The final 870 beds of this undertaking are expected to be complete in the fall of 2019. The university provides on-campus housing for 7,400 students, or 26 percent, of the 29,000 students enrolled as of the fall 2018 semester. The remaining students, an estimated 7,425 households, reside in the local housing market, and that has a significant effect on the rental housing market; student

Figure 9. Multifamily Homes Permitted in the Knoxville HMA, 2000 to Current



Notes: Excludes townhomes. Includes data through August 2018. Sources: U.S. Census Bureau, Building Permits Survey; 2000–2017 final data and analyst estimates; 2018 preliminary data and analyst estimates households currently account for almost 7 percent of all renter households in the HMA. During the third quarter of 2018, the apartment vacancy rate in the Reis-defined Central/Southeast Knoxville market area, near the university, was 2.3 percent. The average rent is \$740, \$19 lower than the average rent in the overall HMA because more than threequarters of the apartments in this market area are Class B and C, which have an average rent of \$697, about 20 percent less than the average Class A rent of \$878. Private apartments near the university cater to students, with amenities geared to the college student and roommate pairing. TENN, a 140-unit student apartment community near campus, is expected to be complete in early 2019, with rents per bed ranging from \$789 to \$815 for fivebedroom units, \$745 to \$830 for four-bedroom units, and \$780 to \$955 for three-bedroom units.

From 2000 through 2010, multifamily construction, as measured by the number of multifamily units permitted, fluctuated and averaged 930 units a year. In the wake of the recession, from 2011 through 2013, net in-migration into the HMA slowed and multifamily units permitted declined to an average of 340 units annually (Figure 9). Multifamily production accelerated from 2014 through 2017. Improved economic conditions and strong demand for new apartment units, fueled by increasing net in-migration, resulted in increased levels of multifamily construction in the HMA. Because of the aging population, 10 percent of the units permitted were facilities for senior citizens. Five assisted-living facilities and four senior apartment developments were added in Knox County. From 2014 through

2017, the number of multifamily units permitted increased to an average of 810 units permitted annually. During the 12 months ending August 2018, the number of multifamily units permitted increased to 1,100 units, up by 190 units, or 21 percent, from 920 units a year earlier (preliminary data).

Most of the multifamily construction in the past 5 years has been concentrated in the northwest part of Knox County and the center of the HMA along the Interstate 40 corridor. Tapestry at Turkey Creek, in western Knox County, was completed and is currently in lease up. This 220-unit development is near the Turkey Creek commercial center and offers one-bedroom units from \$1,085 to \$1,345, two-bedroom

units from \$1,270 to \$1,525, and three-bedroom units from \$1,495 to \$1,695. Construction is under way at the Waterstone Apartments in Hardin Valley. The 252-unit development is expected to be complete by early 2019 and offers one-bedroom units from \$982 to \$1,084, two-bedroom units from \$1,219 to \$1,319 and three-bedroom units for \$1,539.

During the 3-year forecast period, demand is estimated for 2,525 new market-rate rental units (Table 1). The 1,825 units currently under construction are likely to satisfy demand during the first 2 years of the forecast period. Rental housing demand is expected to be greatest for one-bedroom units at rents ranging from \$1,150 to \$1,349 (Table 5).

Table 5. Estimated Demand for New Market-Rate Rental Housing in the Knoxville HMA During the Forecast Period

Zero Bed	Zero Bedrooms		droom Two Bedrooms Three or More Bedroo		One Bedroom		Two Bedrooms Three		e Bedrooms
Monthly Rent (\$)	Units of Demand	Monthly Rent (\$)	Units of Demand	Monthly Rent (\$)	Units of Demand	Monthly Rent (\$)	Units of Demand		
750 to 949	90	950 to 1,149	100	1,100 to 1,299	180	1,250 to 1,449	100		
950 to 1,149	25	1,150 to 1,349	510	1,300 to 1,499	350	1,450 to 1,649	180		
1,150 or More	15	1,350 to 1,549	300	1,500 to 1,699	270	1,650 to 1,849	150		
		1,550 to 1,749	50	1,700 to 1,899	45	1,850 to 2,049	50		
		1,750 or More	50	1,900 or More	45	2,050 or More	25		
Total	130	Total	1,000	Total	880	Total	510		

Notes: Monthly rent does not include utilities or concessions. Numbers may not add to totals because of rounding. The 1,825 units currently under construction will likely satisfy some of the estimated demand.

Source: Estimates by analyst

Data Profile

Table DP-1. Knoxville HMA Data Profile, 2000 to Current

				Average Annual Change (%)	
	2000	2010	Current	2000 to 2010	2010 to Current
Total Resident Employment	360,638	379,877	407,900	0.5	0.9
Unemployment Rate (%)	3.5	8.5	3.2		
Total Nonfarm Payroll Jobs	335,600	358,200	397,600	0.7	1.4
Total Population	748,259	837,571	886,800	1.1	0.7
Total Households	305,590	340,435	362,100	1.1	0.7
Owner Households	218,613	238,882	250,500	0.9	0.6
Percent Owner (%)	71.5	70.2	69.2		
Renter Households	86,977	101,553	111,600	1.6	1.1
Percent Renter (%)	28.5	29.8	30.8		
Total Housing Units	335,484	381,111	400,400	1.3	0.6
Sales Vacancy Rate (%)	2.2	2.8	2.4		
Rental Vacancy Rate (%)	10.4	10.5	7.5		
Median Family Income	\$0	\$0	\$63,879	NA	NA

NA = data not available.

 $Notes: Median \ Family \ Incomes \ are \ for \ 1999, 2009, and \ 2017. \ Employment \ data \ represent \ annual \ averages \ for \ 2000, 2010, \ and \ the \ 12 \ months \ through \ August \ 2018.$

Sources: Estimates by analyst; U.S. Census Bureau; U.S. Department of Housing and Urban Development

Terminology Definitions and Notes

22000: 4/1/2000—U.S. Decennial Census 2010: 4/1/2010—U.S. Decennial Census

Current date: 9/1/2018—Estimates by the analyst Forecast period: 9/1/2018–9/1/2021—Estimates by the analyst

The (metropolitan statistical area) definition noted in this report is based on the delineations established by the Office of Management and Budget (OMB) in the OMB Bulletin dated February 28, 2013.

Demand: The demand estimates in the analysis are not a forecast of building activity. They are the estimates of the total housing production needed to achieve a balanced market at the end of the 3-year forecast period given conditions on the as-of date of the analysis, growth, losses, and excess vacancies. The estimates do not account for units currently under construction or units in the development pipeline.

Other Vacant Units: In this analysis conducted by the U.S. Department of Housing and Urban Development (HUD), other vacant units include all vacant units that are not available for sale or for rent. The term therefore includes units rented or sold but not occupied; held for seasonal, recreational, or occasional use; used by migrant workers; and the category specified as "other" vacant by the Census Bureau.

Building Permits: Building permits do not necessarily reflect all residential building activity that occurs in an HMA. Some units are constructed or created without a building permit or are issued a different type of building permit. For example, some units classified as commercial structures are not reflected in the residential building permits. As

a result, the analyst, through diligent fieldwork, makes an estimate of this additional construction activity. Some of these estimates are included in the discussions of single-family and multifamily building permits.

For additional data pertaining to the housing market for this HMA, go to www.huduser.org/publications/pdf/CMARtables KnoxvilleTN 18.pdf.

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This analysis has been prepared for the assistance and guidance of HUD in its operations. The factual information, findings, and conclusions may also be useful to builders, mortgagees, and others concerned with local housing market conditions and trends. The analysis does not purport to make determinations regarding the acceptability of any mortgage insurance proposals that may be under consideration by the Department.

The factual framework for this analysis follows the guidelines and methods developed by the Economic and Market Analysis Division within HUD. The analysis and findings are as thorough and current as possible based on information available on the as-of date from local and national sources. As such, findings or conclusions may be modified by subsequent developments. HUD expresses its appreciation to those industry sources and state and local government officials who provided data and information on local economic and housing market conditions.