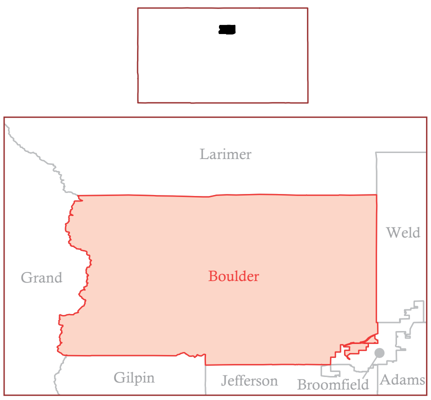
COMPREHENSIVE HOUSING MARKET ANALYSIS

Boulder, Colorado

U.S. Department of Housing and Urban Development | Office of Policy Development and Research | As of January 1, 2017

Housing Market Area



The Boulder Housing Market Area (HMA) is coterminous with the Boulder, CO Metropolitan Statistical Area, comprising Boulder County in the foothills of the Rocky Mountains. National parks and forests cover the western portion of the county. The principal city of Boulder is approximately 30 miles northwest of Denver. The area is known for outdoor recreation opportunities, aerospace research, and high-technology (hereafter, high-tech) startups.

Market Details

Summary

Economy

Economic conditions in the Boulder HMA are strong, with nonfarm payrolls expanding by 5,000 jobs, or 2.8 percent, during 2016. The government and the leisure and hospitality sectors led growth, increasing by 2,000 and 1,800 jobs, respectively, or 5.7 and 9.0 percent. The unemployment rate averaged 2.7 percent in 2016, down from 3.2 percent a year earlier. During the 3-year forecast period, nonfarm payrolls are expected to increase at a slower pace, averaging 2.1 percent annually.

Sales Market

The sales housing market in the HMA is tight, with low levels of for-sale inventory constraining the market and rapid price appreciation outpacing wage growth. Total home sales declined 10 percent during 2016, while the average sale price increased 13 percent. During the forecast period, demand is estimated for 3,075 new homes (Table 1). The 240 homes currently under construction and some of the estimated 4,000 other vacant units that may become available will meet a portion of that demand.

Rental Market

The overall rental housing market in the HMA is balanced with an estimated vacancy rate of 4.2 percent, down from 4.6 percent in April 2010. The apartment market, however, is slightly soft but improving, with about 970 units in lease up. The apartment vacancy rate during the fourth quarter of 2016 was 7.4 percent, down from 8.1 a year earlier. The average rent increased 3 percent during the past year, down from an average of 10 percent annual rent growth from 2011 through 2015. During the next 3 years, demand is estimated for 2,325 new market-rate units (Table 1). The 950 market-rate units currently under construction will meet demand during the first year and most of the second year.

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

	Boulder HMA	
	Sales Units	Rental Units
Total demand	3,075	2,325
Under construction	240	950

Notes: Total demand represents estimated production necessary to achieve a balanced market at the end of the forecast period. Units under construction as of January 1, 2017. A portion of the estimated 4,000 other vacant units in the HMA will likely satisfy some of the forecast demand. The forecast period is January 1, 2017, to January 1, 2020.
Source: Estimates by analyst

Economic Conditions

The Boulder HMA primarily is a service economy with service-providing payrolls comprising nearly 90 percent of nonfarm payrolls in 2016, up from 80 percent in 2000. The high-tech industry contributes to the growing service-based economy with jobs in information, professional and business services, and government payrolls. Manufacturing, however, does have a presence, particularly with aerospace and bioscience-related production. The University of Colorado Boulder (CU Boulder) collaborates with several federal laboratories in the HMA on aerospace, bioscience, high-tech, and renewable energy research, including partnerships with the National Center for Atmospheric Research, National Institute of Standards and Technology, National Oceanic and Atmospheric Administration, United States Geological Survey, and others. More than 50 percent of jobs in the HMA are in the city of Boulder (2017 Boulder Economic Council report).

Total nonfarm payrolls during 2016 averaged 185,300 jobs, an increase of 5,000 jobs, or 2.8 percent, from 2015. The government and leisure and hospitality sectors led growth, increasing by 2,000 and 1,800 jobs, respectively, or 5.7 and 9.0 percent (Table 2). The mining, logging, and construction sector had the largest percentage change, expanding 9.4 percent, or 500 jobs, to average 5,800 jobs for the year; increased residential and commercial construction contributed to the gains. Payroll gains in most sectors more than offset the small losses in the manufacturing, wholesale and retail trade, and transportation and utilities sectors. The unemployment rate in 2016 was 2.7 percent, down from 3.2 percent a year earlier, and is similar to the unemployment rate in 2000, when economic conditions were strong (Figure 1).

National recessions bookended the 2000-to-2010 decade, with the first recession impacting the HMA more severely. During the 1990s, nonfarm payrolls in the HMA increased an average of 4.2 percent annually, more than double the national rate, as technology and internet-related jobs increased, and the HMA became recognized as an emerging tech center. Nonfarm payrolls peaked in the Boulder HMA with 166,200 jobs in 2001, before decreasing by an average of 5,000 jobs, or 3.1 percent, annually through 2003, as the dot-com bubble burst. By comparison, the nonfarm

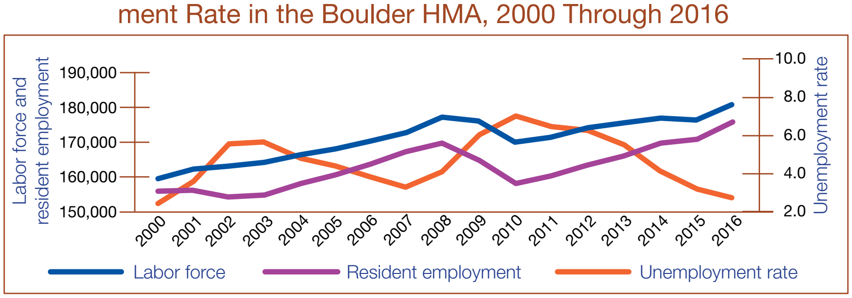
Table 2. 12-Month Average Nonfarm Payroll Jobs in the Boulder HMA, by Sector

	12 Months Ending		Absolute Change	Percent Change
	December 2015	December 2016		
Total nonfarm payroll jobs	180,300	185,300	5,000	2.8
Goods-producing sectors	23,000	23,300	300	1.3
Mining, logging, & construction	5,300	5,800	500	9.4
Manufacturing	17,600	17,400	– 200	– 1.1
Service-providing sectors	157,300	162,100	4,800	3.1
Wholesale & retail trade	22,600	22,500	– 100	– 0.4
Transportation & utilities	1,800	1,700	– 100	– 5.6
Information	7,900	8,000	100	1.3
Financial activities	7,100	7,200	100	1.4
Professional & business services	33,700	33,800	100	0.3
Education & health services	23,600	24,300	700	3.0
Leisure & hospitality	19,900	21,700	1,800	9.0
Other services	5,900	6,000	100	1.7
Government	34,800	36,800	2,000	5.7

Notes: Numbers may not add to totals because of rounding. Based on 12-month averages through December 2015 and December 2016.

Source: U.S. Bureau of Labor Statistics

Figure 1. Trends in Labor Force, Resident Employment, and Unemployment Rate in the Boulder HMA, 2000 Through 2016



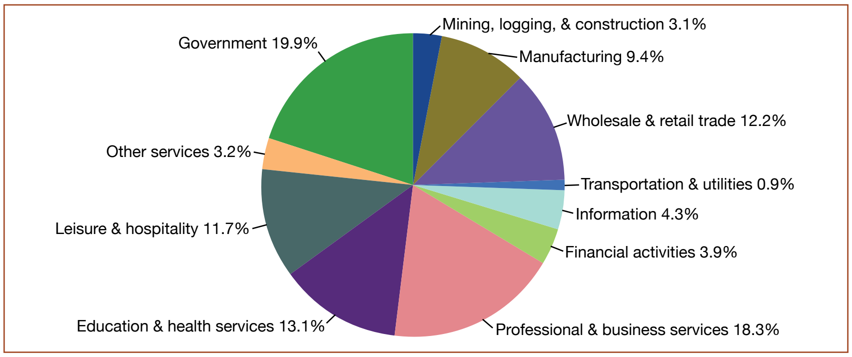
Source: U.S. Bureau of Labor Statistics

payrolls declined nationally by 0.7 percent a year during the period. The HMA added jobs from 2004 through 2008, as nonfarm payrolls increased by an average of 2,200 jobs, or 1.4 percent, annually. Professional and business services payrolls led job growth increasing by an average of 1,000 jobs, or 3.5 percent, annually. By the end of 2008, the HMA had recovered the number of jobs lost during the recession, averaging 167,300 for the year. The HMA lost an average of 4,100 jobs, or 2.5 percent, annually in 2009 and 2010, during the national recession caused by the financial and housing crisis, however. A decrease of 1,300 jobs, or 4.3 percent, annually in the professional and business services sector led losses. Jobs began increasing in 2011, and nonfarm payrolls increased by an average of 4,200 jobs, or 2.5 percent, annually through 2015. Jobs increased in nearly every payroll sector, led by an average of 1,100 jobs, or 3.6 percent, annually in the professional and business services sector. The jobs lost during the most recent recession were recovered by the end of 2012.

The high-tech industry includes portions of the information, government, manufacturing, and professional and business services sectors, and has a significant impact in the HMA, particularly in aerospace, biosciences, and startup companies. The HMA has the highest number of high-tech startups per capita, more than double the rate in the Silicon Valley area and six times the national rate (Kauffman Foundation Research Series, 2013 Report). The Zayo Group, LLC, a Boulder-area telecommunications startup that opened in 2007, increased from 100 employees in the city of Boulder in 2013 to more than 500 in 2016 and recently purchased more space for expansion, although the number of jobs and timeline of that expansion are not yet available. At the end of 2015, Amgen shuttered its pharmaceutical production facility in Longmont, eliminating 430 jobs; however, AstraZeneca, another pharmaceutical manufacturer, purchased the property in 2016 and is expected to add 250 employees as it expands operations during the next year.

The government sector is the largest sector in the HMA, comprising 19.9 percent of nonfarm payrolls (Figure 2). Government payrolls averaged 36,800 jobs in 2016, an increase of 2,000 jobs, or 5.7 percent, from 2015, which was the greatest numerical increase among all sectors. Increasing jobs in state and local subsectors have offset gradual declines in federal payrolls since 2000. In the state government subsector, payrolls increased by 200 jobs, or 1.5 percent, annually from 2000 through 2007 and accelerated to 500 jobs, or 3.7 percent, annually from 2008 through 2010, providing some stability during the national recession. In part, the number of state government employees increased, because CU Boulder added faculty and staff to accommodate additional student enrollment. Beginning in 2011, jobs in the state government subsector increased by

Figure 2. Current Nonfarm Payroll Jobs in the Boulder HMA, by Sector

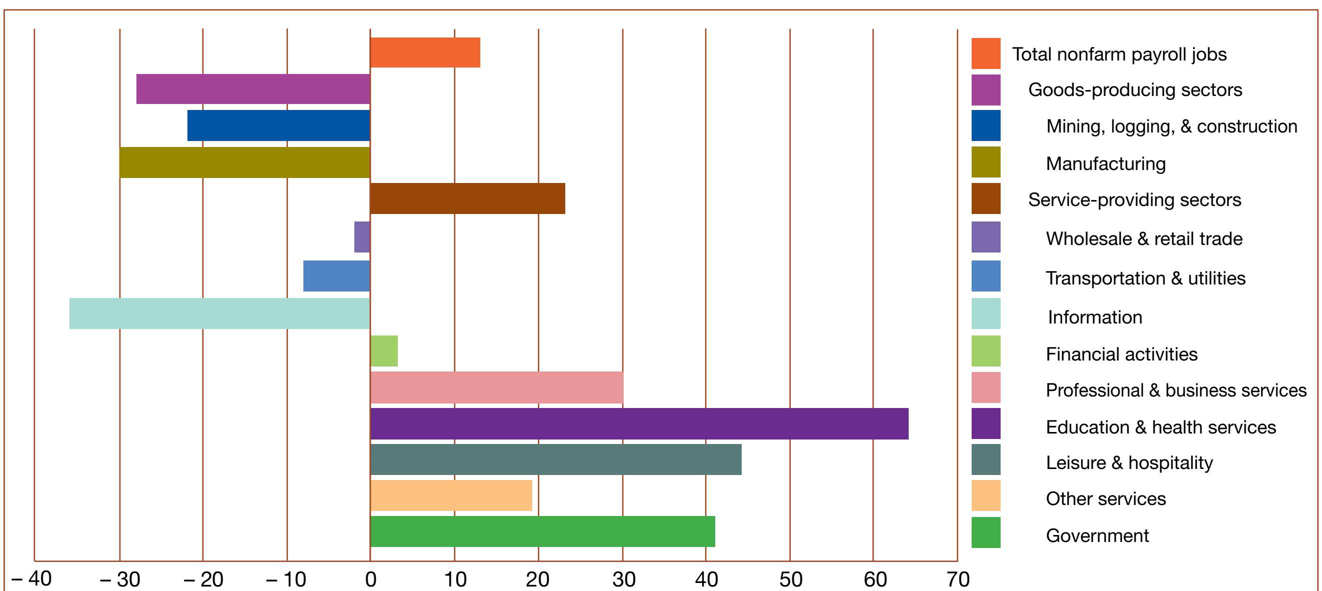


Note: Based on 12-month averages through December 2016.
Source: U.S. Bureau of Labor Statistics

an average of 400 jobs annually, or 2.5 percent, and currently comprise approximately 46 percent of government payrolls. CU Boulder is in the city of Boulder and enrolled approximately 31,850 students and employed 8,950 people during the 2016 fall semester (CU Boulder). CU Boulder had an economic impact of approximately $5.3 billion in the HMA in 2011 (CU Boulder 2012 report). Construction of the UCHealth Longs Peak Hospital in the city of Longmont is under way. The $180 million, 190,000-square-foot project is expected to open in the late spring of 2017 with 250 employees. While under construction, work at the hospital has created 500 temporary construction jobs. Federal payrolls, however, decreased by an average of 100 jobs, or 2.3 percent, annually from 2000 through 2007. Federal payrolls remained steady through 2010, before decreasing by an average of 200 jobs annually in 2011 and 2012. Federal employment has been stable since 2012. In the federal government subsector, 17 federal research laboratories employed approximately 3,875 employees and had an economic impact of $1.1 billion in 2015 (CU Boulder 2016 report).

The education and health services sector had the greatest percentage growth since 2000, increasing 64 percent since 2000 (Figure 3). Four of the largest private employers are in the education and health services sector (Table 3). The education and health services and the government sectors are the only sectors that increased the number of jobs every year since 2000, providing stable employment in the HMA. From 2001 through 2007, sector payrolls added an average of 600 jobs, or 3.6 percent, annually but slowed to an average of 300 jobs, or 1.4 percent, annually through 2010. Education and health payrolls added an average of 800 jobs, or 3.6 percent, annually from 2011 through 2015. During 2016, the education and health services sector added 700 jobs, an increase of 3.0 percent from 2015, to average 24,300 jobs. Ongoing expansions at Boulder Community Health facilities to modernize

Figure 3. Sector Growth in the Boulder HMA, Percentage Change, 2000 to Current



Note: Current is based on 12-month averages through December 2016.
Source: U.S. Bureau of Labor Statistics

Table 3. Major Employers in the Boulder HMA

Name of Employer	Nonfarm Payroll Sector	Number of Employees
Boulder Community Health	Education & health services	2,310
Medtronic	Manufacturing	2,150
Centura Health®	Education & health services	1,910
IBM Common Stock	Professional & business services	1,900
Seagate Technology PLC	Manufacturing	1,600
Good Samaritan Medical Center	Education & health services	1,420
Ball Corporation	Manufacturing	1,280
West Corp.	Professional & business services	860
Kaiser Permanente	Education & health services	580
Emerson	Manufacturing	550

Note: Excludes local school districts.
Source: Metro Denver Economic Development Corporation

and expand patient services began in 2012. The outpatient services expansion at Anderson Medical Center was completed, and Foothills Hospital increased by 110,000 square feet in 2014. Expansions are expected to continue until 2018. Boulder Community Health added approximately 200 employees during the expansion and expects to add more when completed, but an exact number has not been determined.

The rapid growth in the mining, logging, and construction sector since 2012 is primarily a result of increased residential and commercial construction projects throughout the HMA. Construction is under way on an office complex for Google in the city of Boulder. The first phase of the $150 million, 330,000-square-foot project is expected to be completed in mid-2017 and will add up to 700 employees, mostly in the professional and business services sector. Despite the rapid gains in the past year, the mining, logging, and construction sector has been generally declining. From 2001 through 2011, sector payrolls decreased by an average of 300 jobs, or 5.6 percent, annually. From 2012 through 2015, the sector added jobs because of increasing demand for residential and commercial projects in the HMA. Payrolls increased by an average of 300 jobs, or 7.3 percent, annually. The 5,800 jobs in 2016 are similar to the number of jobs in the sector in 2008 but remain well below the 7,500 jobs recorded in 2000 and 2001.

The leisure and hospitality sector had the second fastest growth during the past year, both in number of jobs gained and rate. In 2016, sector employment averaged 21,700 jobs, an increase of 1,800 jobs, or 9.0 percent from 2015. During the first recession from 2002 through 2003, sector payrolls decreased by an average of 300 jobs, or 1.6 percent, annually. Payrolls increased an average of 400 jobs annually, from 2004 through 2008, before decreasing by an average of 200 jobs in 2009 and 2010. Leisure and hospitality payrolls recovered following the second recession, adding an average of 600 jobs, or 3.2 percent, annually from 2011 through 2015. The tourism industry, which includes some leisure and hospitality payrolls, has increased in the HMA, with overnight visitors spending $486.3 million in 2015, up 4 percent annually since 2010 (Colorado Tourism Office 2016 report). Visitors are attracted to outdoor pursuits in the mountains and events at CU Boulder.

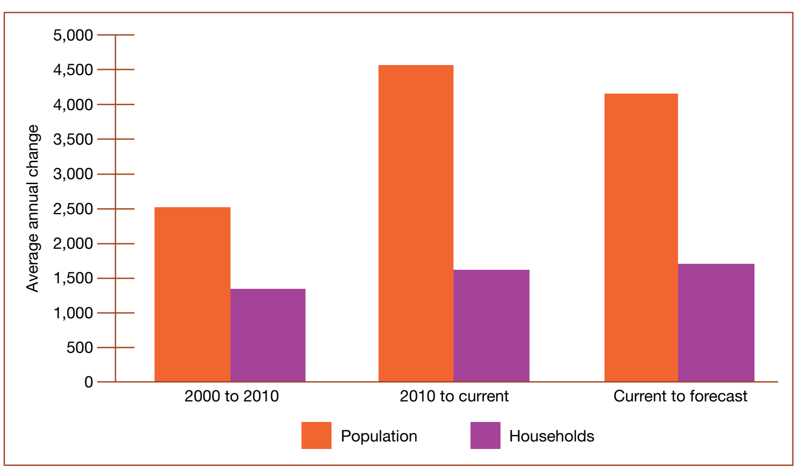
During the 3-year forecast period, nonfarm payrolls in the HMA are expected to increase an average of 2.1 percent annually, which is slightly slower than the 2.2-percent average annual increase since 2010. Growth is anticipated across several sectors. In addition to the announcements noted above, a future phase at the Google complex is expected to accommodate an additional 500 employees, although exact timing is not yet determined. Sierra Nevada Corporation's Space Systems in the city of Louisville announced plans to add 400 jobs to produce the Dream Chaser spacecraft, which is intended to resupply the International Space Station starting in 2021. The company was also among six selected by the National Aeronautics and Space Administration, or NASA, to develop deep space habitat concepts during the next 18 months.

Population and Households

The population of the Boulder HMA currently is estimated to be 325,200. Population growth since 2010 has been stronger than the growth during the previous decade, because the recessions slowed in-migration to the HMA during two separate periods from 2000 to 2010 (Figure 4). Approximately 34 percent of the HMA population lives in the city of Boulder (2015 Census Population Estimates as of July 1).

From 2000 to 2001, prior to the recession that resulted from the bursting of the dot-com bubble, jobs were increasing, attracting people to the HMA, and the population increased by an average of 6,225 annually, or 2.3 percent (Census Bureau Decennial Census as of April 1 and Intercensal population estimates as of July 1). During the subsequent recession and initial recovery, however, the population growth slowed significantly. From 2001 to 2005, the population increased by an average of only 660 annually, or 0.2 percent. Included during this period was a single year of population decline: from 2002 to 2003, when the population decreased by 700, a drop of 0.3 percent. All the population growth from 2001 to 2005 resulted from net natural change (resident births minus resident deaths), which averaged 2,150 people annually, because net out-migration averaged 1,500 people annually. As the HMA recovered from the recession, the population grew at a faster rate. From 2005 to 2008, the population increased by an average of 3,550, or 1.2 percent, annually. Net migration reversed and averaged in-migration of 1,600 people annually, or 45 percent of population growth. Net natural change decreased to an average of 1,950 people annually. Growth in the population slowed again

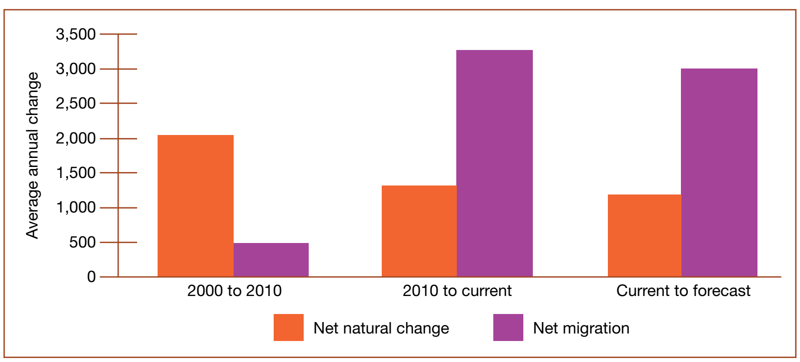
Figure 4. Population and Household Growth in the Boulder HMA, 2000 to Forecast



Notes: The current date is January 1, 2017. The forecast date is January 1, 2020.
Sources: 2000 and 2010—2000 Census and 2010 Census; current and forecast—estimates by analyst

during the most recent recession but not as severely as earlier in the decade. From 2008 to 2010, the population increased by 2,125, or 0.7 percent, annually. Net natural change slowed to 1,725 people, and net in-migration slowed to 400 people annually. Since 2010, the population growth has been strong, reflecting the employment growth in the HMA. From 2010 to January 1, 2017, the population is estimated to have increased by an average of 4,550, or 1.5 percent, annually. Net in-migration has surged to average 3,250 people annually, comprising 71 percent of population growth. Net natural change further slowed, following natural trends of lower birth rates, to average 1,300 people annually. Figure 5 shows components of population change in the Boulder HMA from 2000 to the forecast date. The recent rate of population growth, however, lags the 1990-to-2000 decade, when the population increased at an average rate of 1.8 percent annually, because the economy was expanding more rapidly.

Figure 5. Components of Population Change in the Boulder HMA, 2000 to Forecast



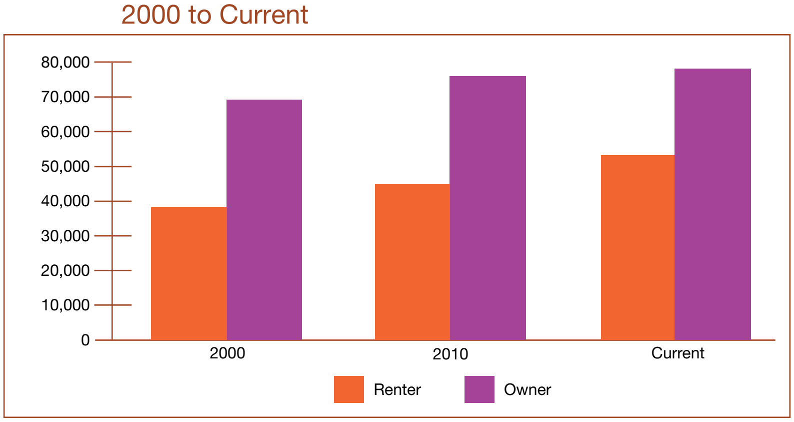
Notes: The current date is January 1, 2017. The forecast date is January 1, 2020.
Sources: 2000 and 2010—2000 Census and 2010 Census; current and forecast—estimates by analyst

Students at CU Boulder comprise nearly 9 percent of the HMA population. Enrollment increased an average of 1 percent annually since 2010 (CU institutional research). Out-of-state students comprised 40 percent of the student population in 2016, up from less than 33 percent in 2001, contributing to net in-migration to the HMA.

Approximately 129,850 households reside in the HMA. Households increased by an average of 1,275, or 1.1 percent from 2000 to 2010. The number of households increased by an average of 1,575, or 1.3 percent, since 2010. Household growth has not increased as much as population growth since 2010, in part because rising housing costs have encouraged more households to double-up and caused a slowdown in new household formation. Table DP-1 at the end of the report includes additional information about the Boulder HMA.

Similar to national trends, the homeownership rate in the Boulder HMA is declining. Approximately 59.5 percent of households own their home, down from 62.9 percent in 2010. A growing student population, stringent lending requirements, difficulty saving for a down payment (local sources), and rapid appreciation in home prices outpacing wage growth since 2010 contribute to increasing preferences to rent. Figure 6 shows the number of households by tenure in the HMA from 2000 to the current date.

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



Note: The current date is January 1, 2017.
Sources: 2000 and 2010—2000 Census and 2010 Census; current—estimates by analyst

During the next 3 years, the population and the number of households are expected to increase by averages of 4,125 and 1,650, respectively, or 1.3 percent each, annually. Net in-migration is expected to slow, reflecting the forecast in job growth. Despite the concentration of jobs in the city of Boulder, during the 3-year forecast period, population and household growth will be primarily in suburban areas, such as the city of Longmont and the town of Erie. The city of Boulder imposed a 35-foot height restriction on new construction in April 2015, which will remain in effect until mid-2018. The ordinance is curbing high-density and multifamily development in most neighborhoods. A green belt of designated rural land and open space surrounds the city of Boulder, further limiting single-family and multifamily home construction in the city. As a result, recent development in the city has primarily consisted of infill and redevelopment of existing areas, which is expected to continue during the forecast period.

Housing Market Trends

Sales Market

The sales housing market in the Boulder HMA is tight, with an estimated vacancy rate of 0.7 percent, down from 1.8 percent in April 2010, when the market was more balanced. The current rate is similar to the 0.8-percent vacancy rate in April 2000, when the market was also tight prior to the recession that resulted from the bursting of the dot-com bubble. Limited available for-sale inventory contributes to the current tight market conditions. The HMA had a 1.9-month supply of for-sale inventory as of December 2016, down slightly from the 2.0-month supply a year earlier (Denver Metro Association of Realtors®). The market has a low level of mortgages that are in the foreclosure process or have transitioned into real estate owned (REO) status. In December 2016, the rate of seriously delinquent mortgages (90 or more days delinquent or in foreclosure) and REO properties was less than 0.5 percent, down slightly from a year earlier and below the peak of 2.7 percent in March 2010 (CoreLogic, Inc., with adjustments by the analyst). The levels are slightly above the 0.2-percent rate recorded throughout most of 2000 and 2001. By comparison, the national level was 2.6 percent in December 2016.

Total home sales, including new and existing single-family homes, townhomes, and condominiums, decreased during the past year, because the low levels of inventory discouraged buyers and sellers. Buyers have few options and homes sell quickly; potential sellers, who otherwise could add to the inventory, are reluctant to list homes under concerns that they will not be able to purchase another home because of the low inventory. The average number of days on the market decreased 11 percent during the past year to 39 days in December 2016 (Denver Metro Association of Realtors®). Total home sales declined 10 percent during the past year to 6,300 homes sold in 2016

(Core Logic, Inc., with adjustments by the analyst). The average sales price increased 13 percent to $530,200. Approximately 87 percent of all sales were existing homes, and the remaining 13 percent of homes sold were new construction.

The average price of an existing home in the HMA has increased rapidly during the past year, accelerating already strong price appreciation since 2012. In 2016, the average price of an existing home increased 13 percent from 2015 to $527,800. The average home price increased rapidly following the national recession as jobs were recovered and net in-migration increased. From 2012 through 2015, home sales increased 9 percent annually to 6,275 homes sold, and the average sale price increased 7 percent annually to $465,300. During the previous decade, because of the impact and recovery of the first recession, the HMA did not have the big increase in housing prices that most markets experienced. Existing sales increased 3 percent annually from 2002 through 2004, during the first recession and the start of recovery. The average sale price increased 6 percent annually to $339,600. The economic recovery was generally weak, and net out-migration reversed in 2006. Existing homes sales began to decline in 2005 and continued through the national housing crisis and national recession. From 2005 through 2011, home sales decreased by an average of 400 homes, nearly 7 percent, annually. From 2004 through 2007, home prices increased 4 percent annually, but during the national recession, the average sale price decreased 8 percent annually in 2008 and 2009 to $325,600. The average home price began to recover in 2010 and 2011, increasing nearly 5 percent annually.

The sale of new homes in the HMA decreased from 2002 through 2010 because of the weak economic and population growth. From 2002 through 2010, new home sales decreased 19 percent annually from 1,400 homes to 360. The out-migration and declining sales combined with overbuilding from elevated single-family homebuilding contributed to soft housing market conditions. As the market recovered and the population and number of jobs increased, sales of new homes also increased. From 2011 through 2015, new home sales increased by an average of 70 sales annually, or 14 percent, to 700 homes. During 2016, new home sales increased 15 percent from a year earlier to 810 homes but still below the levels of homes sold prior to the first recession in the previous decade. The average price of a new home was $551,200 in 2016, up 6 percent from the previous year. Home prices increased nearly 9 percent annually from 2011 through 2015, in part because builders focused on homes targeting move-up buyers and built fewer entry-level homes for first-time homebuyers, following national trends.

Home ownership is increasingly more difficult to attain for households in the HMA. The homeownership rate in the HMA declined more rapidly than the national rate, which decreased from 63 to 60 percent during the past year. Although housing affordability is decreasing throughout the entire HMA, the effect is more pronounced in the city of Boulder. From 2010 to 2015, the average home price increased 4.0 times faster than the increase in average household income in the city of Boulder (2010 and 2015 1-year American Community Survey [ACS] estimates; Metrostudy, A Hanley Wood

Company). By comparison, in the rest of the HMA, the average home price increased 2.5 times faster than income. Nationally, that rate was 1.3 times faster from 2010 to 2015.

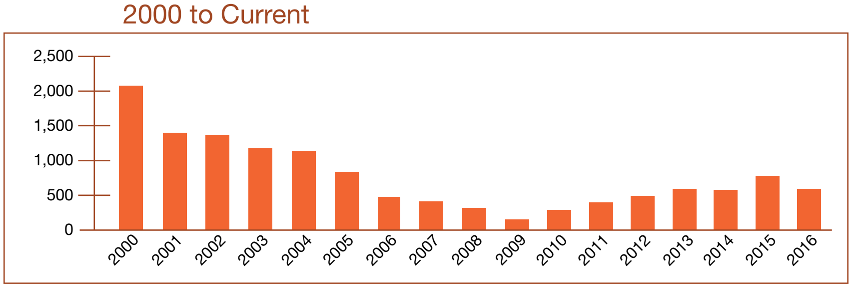
The height restriction and resulting moratorium on some new development since mid-2015 have contributed to rapid price appreciation in the city of Boulder. The average price of a home sold in the city has increased 30 percent during the 20 months since the height restriction was implemented, faster than the 20-percent increase in the rest of the HMA (Metrostudy, A Hanley Wood Company, with adjustments by the analyst). By comparison, during the previous 20-month period, the average price of a home sold increased 10 percent in the city of Boulder, similar to the 9-percent increase in the rest of the HMA.

Homebuilding activity remains subdued compared with the previous decade, in part because the HMA was somewhat overbuilt during the first recession. In 2000, 2,050 single-family homes were permitted when job and population growth were both strong; single-family permitting decreased by 250, or 17 percent, annually from 2001 through 2005. Despite the population increase of 660 a year, an average of 1,175 new single-family homes were permitted annually from 2001 through 2005, resulting in the HMA becoming overbuilt. From 2006 through 2009, the number of homes permitted decreased by 170, or 36 percent, annually. Homebuilding activity has gradually recovered as the excess housing inventory has been absorbed and stronger population growth has increased the demand for new homes. From 2010 through 2013, the number of homes permitted increased by an average of 110, or 44 percent, annually. From 2013 through 2016, an average of 620 homes were permitted annually, higher than any single year since 2006. Figure 7 shows the number of single-family homes permitted in the HMA annually since 2000.

Home builders, with limited opportunities in the city of Boulder, are concentrating construction in the outlying areas, which have fewer restrictions and more land available for development. During 2016, based on the number of single-family homes permitted, 670 homes were built in the Boulder HMA, down 2 percent from 2015 because of a decrease in the number of homes permitted in the city of Boulder (preliminary data). A 29-percent decline in single-family permitting in the city more than offset the 4-percent increase in the rest of the HMA during the past year. Nearly 90 percent of single-family homes permitted in 2016 were outside the city of Boulder, up from approximately 80 percent in 2014. In the city of Longmont, the 36-lot Quail Ridge subdivision began construction in fall of 2016. Two homes are completed, with two more under construction. The price for a three-bedroom home starts at $420,000.

During the next 3 years, demand is expected for 3,075 new single-family homes (Table 1). The 240 homes currently under way and a portion of the 4,000 other vacant units that may

Figure 7. Single-Family Homes Permitted in the Boulder HMA, 2000 to Current



Notes: Includes townhomes. Current includes data through December 2016.
Sources: U.S. Census Bureau, Building Permits Survey; estimates by analyst

reenter the market will satisfy some of the demand. Demand will increase during each year of the 3-year forecast period as the population increases. Approximately one-third of demand will be for homes priced between $350,000 and $450,000 (Table 4). Because of the limited land available in the city of Boulder, much of demand will be met in the suburban areas of the HMA.

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

Price Range ($)		Units of Demand	Percent of Total
From	To		
250,000	349,999	340	11.0
350,000	449,999	1,025	33.0
450,000	549,999	770	25.0
550,000	649,999	400	13.0
650,000	749,999	250	8.0
750,000	849,999	150	5.0
850,000	and higher	150	5.0

Notes: The 240 homes currently under construction and a portion of the estimated 4,000 other vacant units in the HMA will likely satisfy some of the forecast demand. The forecast period is January 1, 2017, to January 1, 2020.

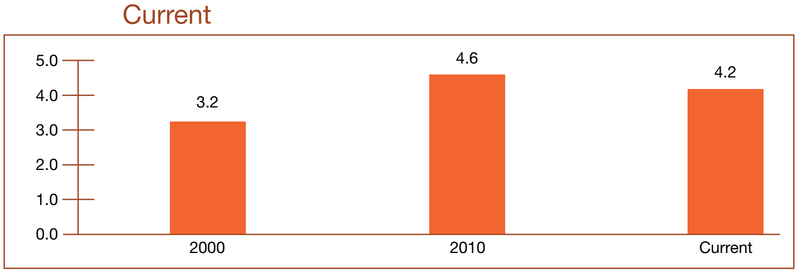
Source: Estimates by analyst

Rental Market

The overall rental housing market in the Boulder HMA is currently balanced, with an estimated 4.2-percent rental vacancy rate as of January 1, 2017, down from 4.6 percent in 2010 (Figure 8). Approximately 35 percent of renter households live in attached or detached single-family homes, up from 27 percent in 2010. By comparison, 50 percent live in multifamily buildings with five or more units, typically apartments, down from 58 percent in 2010 (2010 and 2015 1-year ACS estimates). The remaining renter households live in duplexes, multifamily homes with three or four units, and mobile homes.

Apartment market conditions are slightly soft in the HMA, in part, because the large supply of new units during the past 5 years has outpaced demand.

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



Note: The current date is January 1, 2017.

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

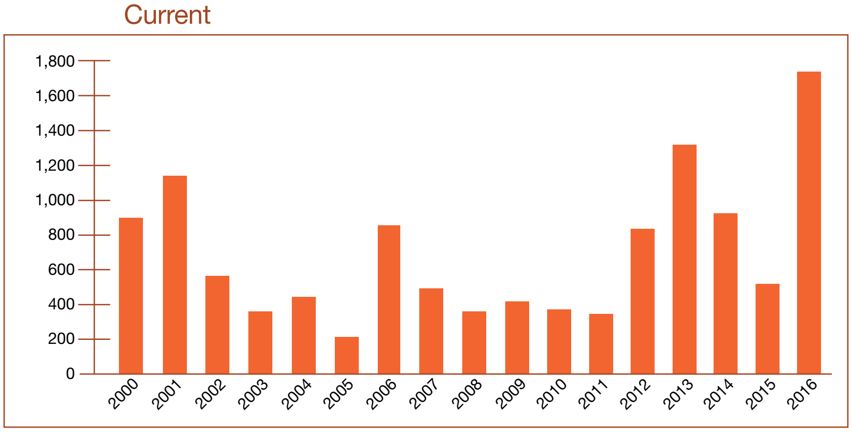
The apartment vacancy rate declined during the past year, however as apartment construction in the city of Boulder slowed. Approximately 970 market-rate units were in lease up in the HMA during the fourth quarter of 2016, down from nearly 1,125 a year earlier (*Apartment Insights*). The average vacancy rate, including projects in lease up, during the fourth quarter of 2016 was 7.4 percent, down from 8.1 percent a year earlier, but up from the 6.0-percent rate in 2012 prior to a surge in apartment construction. The average rent was $1,509 during the fourth quarter of 2016, up 3 percent from the same period in 2015. By comparison, from the fourth quarter of 2011 through the fourth quarter of 2015, the average rent increased 10 percent annually.

The apartment vacancy rate among stabilized market-rate properties is lowest in the southern portion of the city of Boulder surrounding CU Boulder. During the fourth quarter of 2016, the vacancy rate in the *Apartment Insights*-defined Boulder South market area, which includes the university, was 4.5 percent, up from 3.0 percent a year earlier. The average rent increased 6 percent to $1,418. To accommodate increasing enrollment at CU Boulder, construction will begin in 2018 on a new dormitory with 575 dorm beds in the Williams Village area, expected to open for the 2019 fall semester. The additional dorms may help ease tight apartment market conditions surrounding the university. Student households comprise an estimated 14 percent of renter households and are primarily around the university in the city of Boulder. Enrollment is expected to increase by an average of approximately 1 percent annually.

Apartment vacancy rates in the rest of the HMA are notably higher. In the city of Longmont, where most of the construction is under way, the vacancy rate was 5.4 percent during the fourth quarter of 2016, up from 4.6 percent a year earlier. The average rent increased 1 percent to $1,303. The vacancy rate is expected to increase during the next 2 years as a significant wave of new projects comes online. In the portion of the *Apartment Insights*-defined Interlocken submarket contained within the HMA, market conditions are slightly soft, and the vacancy rate increased to 7.3 percent, from 4.5 percent a year earlier. The market area, which contains the cities of Lafayette, Louisville, and Superior, is along the U.S. Route 36 corridor connecting the city of Boulder with the city of Denver. In response to softening market conditions in this market area, the average rent increased less than 1 percent, to average $1,514.

Despite slightly soft apartment conditions, multifamily construction increased during the past year. Multifamily construction, as measured by the number of units permitted, spiked in 2016 to the highest level in more than 30 years. In the HMA, 1,725 units were permitted, up from 520 units permitted in 2015 (preliminary data and estimates by the analyst). Essentially, all the multifamily units permitted were for apartments, as fewer than 40 condominiums units have been permitted annually since 2008. In 2001, permitting of multifamily units increased 30 percent to 1,125 units, but construction decreased during the recession. From 2002 through 2005, permitting decreased 35 percent annually to 210 units permitted, as population growth slowed. Multifamily construction spiked to 850 units permitted in 2006 and then averaged 390 units annually from 2007 through 2011, during the housing crisis and national recession. Construction quickly increased during the economic recovery as jobs and net in-migration increased. During 2012 and 2013, the number of multifamily units permitted increased 100 percent annually to 1,300 in 2013. Permitting decreased by an average of 37 percent annually in 2014 and 2015, and construction began to slow to allow the surge of new units in the market to absorb. Figure 9 shows multifamily permitting in the HMA since 2000.

Figure 9. Multifamily Units Permitted in the Boulder HMA, 2000 to Current



Notes: Excludes townhomes. Current includes data through December 2016.
Sources: U.S. Census Bureau, Building Permits Survey; estimates by analyst

Apartment construction decreased 77 percent in the city of Boulder during the past year to fewer than 30 units, because of the height restriction ordinance. The 100-unit U Club on 28th, permitted in May 2015, was approved prior to the implementation of the height restriction ordinance. U Club on 28th was completed in 2016 and is primarily marketed to students at CU Boulder, with monthly rents starting at $1,029 per bedroom in a four-bedroom apartment. In the rest of the HMA, offsetting declines in the city of Boulder, multifamily construction activity increased more than 200 percent, primarily in the city of Longmont, to 1,125 units permitted. Approximately 1,500 apartment units are under construction in the city of Longmont. The 276-unit Watermark at Harvest Junction began in November 2016. Construction is expected through the next 2 years, and the proposed rents are not available. In addition, the Sandstone Vistas and Sandstone Ranch, both 240 units, are under way and expected to be completed in 2018.

Several apartment developments under way include income-restricted units to address increasing affordability concerns throughout the HMA. In Longmont, three projects under way have units restricted to households with incomes at or below 60 percent of the area median income. The 140-unit Centennial Park, 240-unit Copper Peak, and 114-unit Crisman Apartments are all expected to be complete by the end of 2017. In Louisville, the 200-unit Kestrel Development is under way and expected to be complete by the fall of 2017; it will also be income-restricted.

During the 3-year forecast period, demand is expected for an additional 2,325 market-rate units, with demand increasing each year of the forecast as in-migration increases in the HMA (Table 1). The 950 market-rate units currently under construction will meet a significant portion of the demand. Additional units should be timed to enter the market late in the second year to allow for absorption of units already under way or in planning. The majority of demand will be for one- and two-bedroom units (Table 5).

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

Zero Bedrooms		One Bedroom		Two Bedrooms		Three or More Bedrooms	
Monthly Gross Rent ($)	Units of Demand	Monthly Gross Rent ($)	Units of Demand	Monthly Gross Rent ($)	Units of Demand	Monthly Gross Rent ($)	Units of Demand
1,050 to 1,249	60	1,100 to 1,299	560	1,300 to 1,499	520	1,500 to 1,699	20
1,250 to 1,449	20	1,300 to 1,499	280	1,500 to 1,699	260	1,700 to 1,899	15
1,450 or more	20	1,500 or more	280	1,700 or more	260	1,900 or more	15
Total	100	Total	1,125	Total	1,050	Total	50

Notes: Numbers may not add to totals because of rounding. Monthly rent does not include utilities or concessions. The 950 units currently under construction will likely satisfy some of the estimated demand. The forecast period is January 1, 2017, to January 1, 2020.

Source: Estimates by analyst

Data Profile

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

	2000	2010	Current	Average Annual Change (%) 2000 to 2010	Average Annual Change (%) 2010 to Current
Total resident employment	156,146	158,308	175,800	0.1	1.8
Unemployment rate	2.4%	7.0%	2.7%		
Nonfarm payroll jobs	163,700	159,200	185,300	– 0.3	2.6
Total population	269,814	294,567	325,200	0.9	1.5
Total households	106,534	119,300	129,850	1.1	1.3
Owner households	68,636	74,993	77,200	0.9	0.4
Percent owner	64.4%	62.9%	59.5%		
Renter households	37,898	44,307	52,650	1.6	2.6
Percent renter	35.6%	37.1%	40.5%		
Total housing units	111,435	127,071	136,700	1.3	1.1
Owner vacancy rate	0.8%	1.8%	0.7%		
Rental vacancy rate	3.2%	4.6%	4.2%		
Median Family Income	$68,700	$89,100	$99,400	2.6	1.8

Notes: Numbers may not add to totals because of rounding. Employment data represent annual averages for 2000, 2010, and the 12 months through December 2016. Median Family Incomes are for 1999, 2009, and 2015. The current date is January 1, 2017.

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

Data Definitions and Sources

2000: 4/1/2000—U.S. Decennial Census
2010: 4/1/2010—U.S. Decennial Census
Current date: 1/1/2017—Estimates by the analyst
Forecast period: 1/1/2017–1/1/2020—Estimates by the analyst

The metropolitan statistical area definition 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 huduser.gov/publications/pdf/CMARtables_BoulderCO_17.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.

For additional reports on other market areas, please go to huduser.gov/portal/ushmc/chma_archive.html.