The COVID-19 pandemic has resulted in unprecedented large and rapid changes in many data series, and similarly unprecedented large policy responses, making analysis of, and longer run predictions for, the economy and housing markets exceptionally difficult and uncertain. HUD will continue to monitor market conditions in the HMA and provide an updated report/ addendum in the future.

COMPREHENSIVE HOUSING MARKET ANALYSIS

Denver-Aurora-Lakewood, Colorado

U.S. Department of Housing and Urban Development,
Office of Policy Development and Research

As of January 1, 2021

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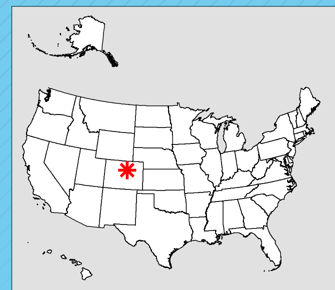

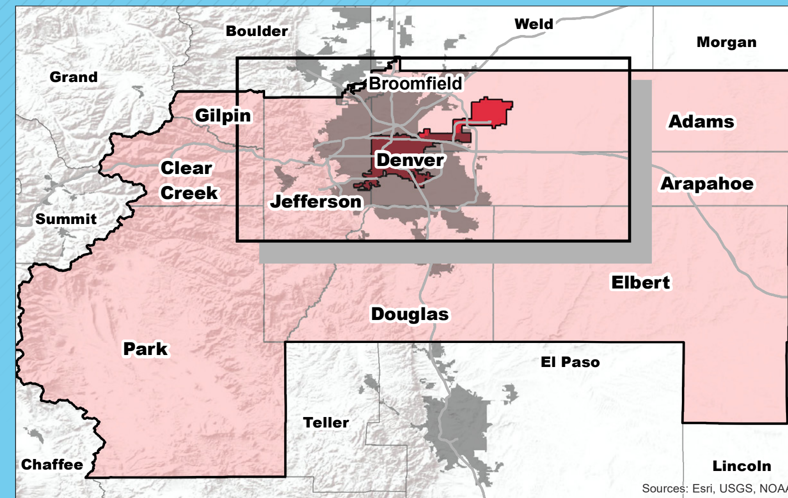

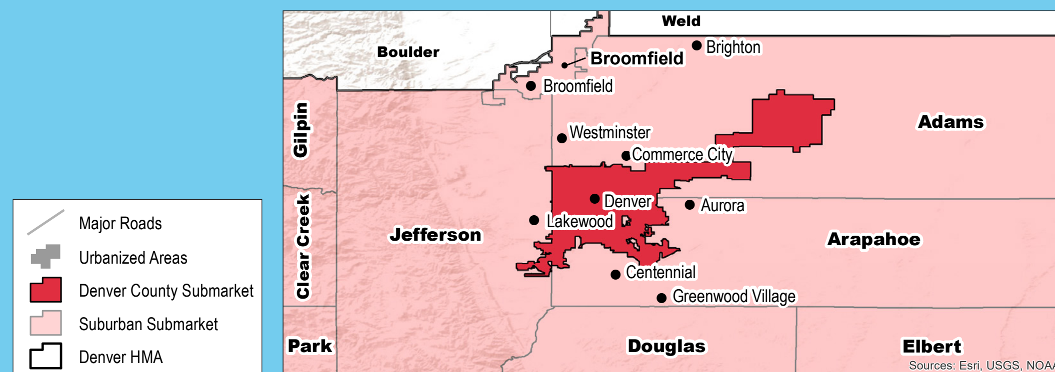

Executive Summary

Housing Market Area Description

The Denver-Aurora-Lakewood Housing Market Area (hereafter, Denver HMA) is coterminous with the metropolitan statistical area of the same name and is in north-central Colorado at the eastern edge of the Rocky Mountains. For purposes of this analysis, the HMA is divided into two submarkets: (1) the Denver County submarket, which is coterminous with the city and county of Denver, and (2) the Suburban submarket, which includes nine counties surrounding Denver: Adams, Arapahoe, Broomfield, Clear Creek, Douglas, Elbert, Gilpin, Jefferson, and Park.

The current HMA population is estimated at 3.02 million.

Tools and Resources

Find interim updates for this metropolitan area, and select geographies nationally, at PD&R's Market-at-a-Glance tool.
Additional data for the HMA can be found in this report's supplemental tables.
For information on HUD-supported activity in this area, see the Community Assessment Reporting Tool.

Market Qualifiers

Economy

Weak: Nonfarm payrolls decreased 3.6 percent in 2020, ending 9 years of job gains.

Job declines in 2020 resulted from the countermeasures to slow the spread of COVID-19; those countermeasures most negatively affected industries requiring in-person interactions, such as tourism, restaurants, and personal services. In 2020, the unemployment rate was 7.3 percent, up from 2.7 percent a year earlier. During the next 3 years, the economy is expected to recover the number of jobs lost, and nonfarm payrolls are expected to increase an average of 2.8 percent a year.

Sales Market

Tight: The average sales price for homes increased 7 percent in both the Denver County and Suburban submarkets.

The supply of homes available for sale has remained below 3.0 months of supply since early 2012 and was 0.5 percent in December 2020 (Redfin, a national real estate brokerage). Total home sales increased 2 percent in 2020, to 69,950 homes sold, and the average price increased 7 percent, to $503,200 (Zonda). The increased sales price has contributed to a decline in affordability of homeownership in the HMA, particularly among younger households. During the next 3 years, demand is expected for 33,150 homes, including the 5,375 homes already under construction.

Rental Market

Slightly soft: The average apartment rent in the Denver County submarket declined during 2020, and the average rent increased slightly in the Suburban submarket.

The estimated vacancy rate for the overall rental market in the Denver HMA is 5.7 percent, down from 7.1 percent in April 2010. The apartment market is also slightly soft. During the fourth quarter of 2020, the average apartment vacancy rate in the HMA was 6.1 percent, up slightly from 6.0 percent a year earlier, and the average rent decreased 1 percent, to $1,440 (*Apartment Insights*). During the 3-year forecast period, demand is expected for 22,425 rental units; the 14,225 units already under construction will meet a portion of that demand.

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3-Year Housing Demand Forecast

	Sales Units			Rental Units		
	Denver HMA Total	Denver County Submarket	Suburban Submarket	Denver HMA Total	Denver County Submarket	Suburban Submarket
Total Demand	33,150	5,450	27,700	22,425	9,775	12,650
Under Construction	5,375	550	4,825	14,225	5,100	9,125

Notes: Total demand represents the estimated production necessary to achieve a balanced market at the end of the forecast period. Units under construction as of January 1, 2021. The forecast period is January 1, 2021, to January 1, 2024.
Source: Estimates by the analyst

Economic Conditions

Largest sector: Professional and Business Services

> The professional and business services sector has increased 43 percent since 2001, the second fastest sector growth in the HMA.

Primary Local Economic Factors

The government sector provides considerable economic stability in the Denver HMA. The HMA is home to the state capital, which, together with other state activities in the HMA, employs 13,200 workers, or 46 percent of total state government employees (State of Colorado Workforce Report 2019–2020). The HMA also has the highest concentration of civilian federal workers outside of the District of Columbia, with many of the offices located in the Denver Federal Center (DFC) in the city of Lakewood. Approximately 6,000 workers in 28 agencies work at the center, and hundreds more workers are scattered in offsite locations throughout the HMA (U.S. General Services Administration).

In addition to the civilian public sector workforce, the federal government also supports active military through the Buckley Air Force Base (AFB) in the city of Aurora and private-sector employment through many Department of Defense (DoD) contractors. Buckley AFB does not have a significant economic impact on the HMA by itself, but it is part of the overall DoD impact, with 7,925 active military and 5,900 civilian workers and defense contractors (Summit Economics, LLC 2018 report). Arapahoe County, which includes the city of Aurora, had the largest direct economic output from the DoD in the HMA, of $5.5 billion in 2016; that amount includes impacts from active military at Buckley AFB, retired military in the area, the Rocky Mountain Regional VA Medical Center, DoD contracts, and others. Approximately $3.60 billion, or 55 percent of statewide DoD contracts, are in the Denver HMA, primarily in Arapahoe County. Lockheed Martin Corporation, a DoD contractor and one of the largest private employers in the HMA (Table 1), operates several facilities in the HMA; the largest of those facilities is in Jefferson County, with projects including aerospace manufacturing and support for NASA missions to Mars. Other DoD contractors with considerable presence in the HMA include Ball Aerospace & Technologies Corporation in the city of Broomfield; United Launch Alliance, LLC, headquartered in the city of Centennial; and FlightSafety International Inc, also in Centennial. The impact of government jobs extends beyond sector payrolls and contributes to jobs in the construction, manufacturing, professional and business services, transportation and utilities, and other sectors.

Table 1. Major Employers in the Denver HMA

Name of Employer	Nonfarm Payroll Sector	Number of Employees
HealthONE Division (HCA Healthcare)	Education & Health Services	9,260
UCHealth: University of Colorado Hospital	Government	9,160
Lockheed Martin Corporation	Manufacturing	7,080
United Airlines, Inc.	Transportation & Utilities	7,000
Children’s Hospital Colorado	Education & Health Services	6,150
Centura Health	Education & Health Services	6,100
Comcast Corporation	Information	5,230
Amazon.com, Inc.	Transportation & Utilities	5,190
Southwest Airlines Co.	Transportation & Utilities	4,450
Lumen Technologies, Inc.	Information	4,410

Note: Excludes local school districts, public administration, and retail.
Source: Metro Denver Economic Development Corporation, 2020

Current Nonfarm Payroll Conditions—2020 Trends

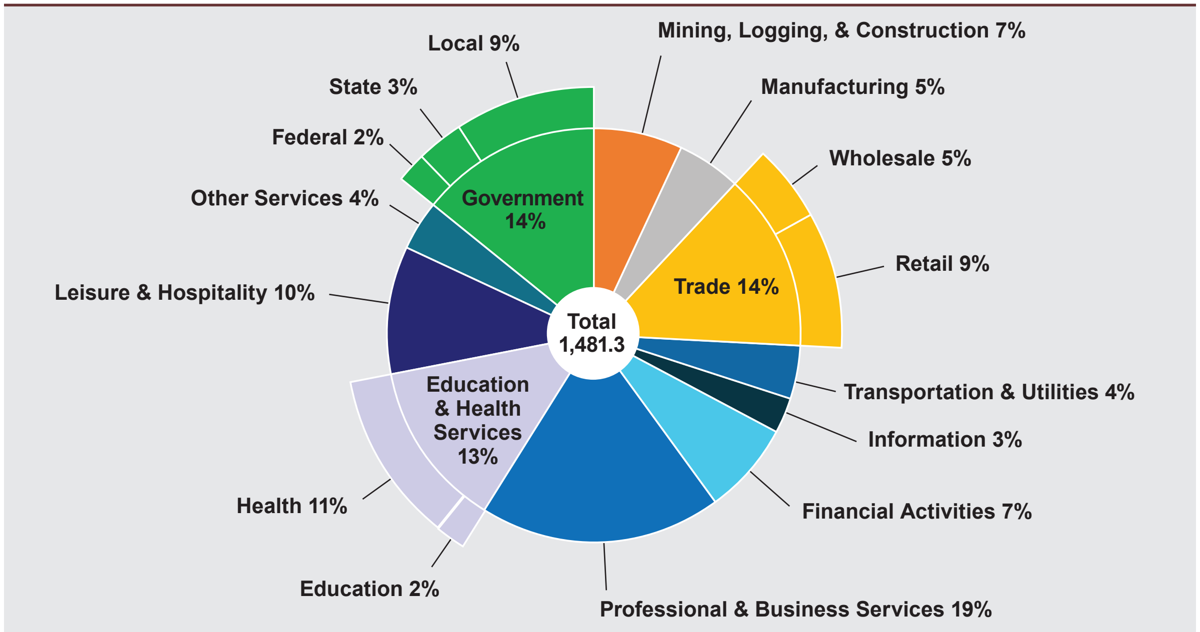
The percentage of job losses in the Denver HMA during 2020 was not as severe as the national average. During 2020, nonfarm payrolls in the HMA decreased by 54,700 jobs, or 3.6 percent, to 1.48 million jobs (Table 2), compared with a 5.8-percent decline nationally. For context, jobs in the HMA and the nation increased 2.2 and 1.4 percent, respectively, in 2019. Nearly 58 percent of job losses in the HMA during 2020 occurred in the leisure and hospitality sector, which was down by 31,700 jobs, or 18.4 percent, from 2019. The sector currently accounts for 10 percent of nonfarm payrolls (Figure 1), down from more than 11 percent in 2019. Other sectors with significant losses included the other services sector, which includes personal care services businesses that were closed for part of 2020; and the wholesale and retail trade; the mining, logging, and construction; and the government sectors, which lost a combined total of 21,300 jobs. Job losses in the mining, logging, and construction sector were primarily in energy-related employment and office and commercial construction; residential construction, especially construction of single-family homes, remained strong during the pandemic, however. All the job losses in the government sector occurred in the local government subsector, which was down 4.0 percent from 2019; state and federal government employment increased in 2020. Reduced sales and tourism tax revenue resulted in many local

Table 2. 12-Month Average Nonfarm Payroll Jobs (1,000s) in the Denver HMA, by Sector

	12 Months Ending December 2019	12 Months Ending December 2020	Absolute Change	Percentage Change
Total Nonfarm Payroll Jobs	1,536.0	1,481.3	-54.7	-3.6
Goods-Producing Sectors	182.5	179.3	-3.2	-1.8
Mining, Logging, & Construction	111.7	106.0	-5.7	-5.1
Manufacturing	70.8	73.4	2.6	3.7
Service-Providing Sectors	1,353.5	1,301.9	-51.6	-3.8
Wholesale & Retail Trade	213.3	208.3	-5.0	-2.3
Transportation & Utilities	65.9	64.6	-1.3	-2.0
Information	50.8	51.1	0.3	0.6
Financial Activities	112.6	109.5	-3.1	-2.8
Professional & Business Services	280.9	284.4	3.5	1.2
Education & Health Services	192.3	188.7	-3.6	-1.9
Leisure & Hospitality	172.7	141.0	-31.7	-18.4
Other Services	58.6	52.3	-6.3	-10.8
Government	206.4	202.1	-4.3	-2.1

Notes: Based on 12-month averages through December 2019 and December 2020. Numbers may not add to totals due to rounding. Data are in thousands.
Source: U.S. Bureau of Labor Statistics

Figure 1. Share of Nonfarm Payroll Jobs in the Denver HMA, by Sector

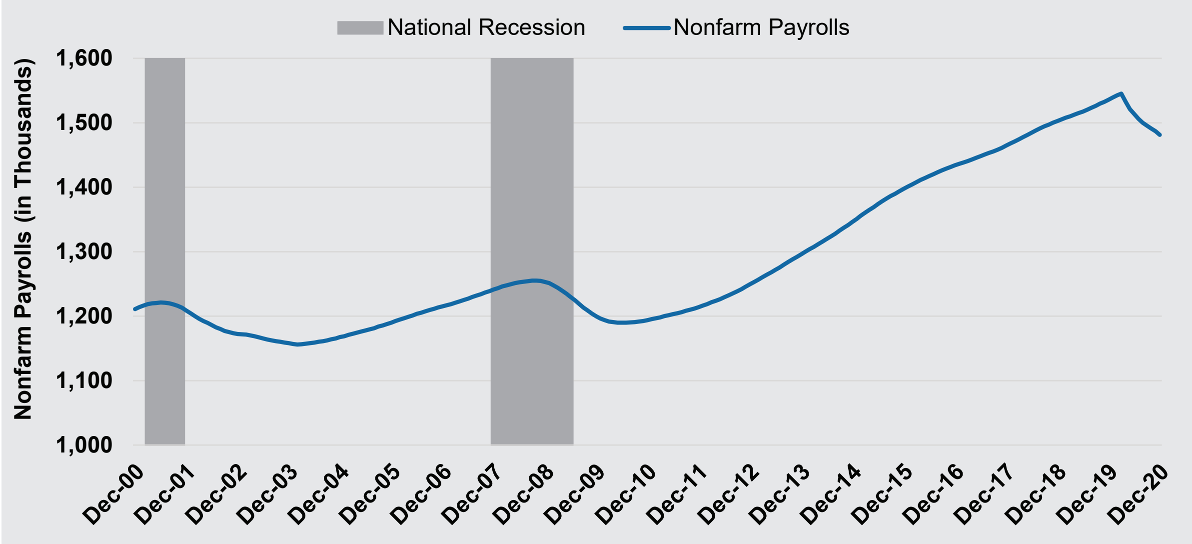


Notes: Total nonfarm payroll is in thousands. Percentages may not add to 100 percent due to rounding. Based on 12-month averages through December 2020.
Source: U.S. Bureau of Labor Statistics

governments furloughing employees for part of the year to offset the revenue losses. The City and County of Broomfield furloughed 235 workers, and the City of Aurora furloughed approximately 575 workers, each for 10 weeks beginning in late April 2020.

Nonfarm payrolls in the Denver HMA declined in 2020 as a result of the efforts to slow the spread of COVID-19, ending 9 years of robust job growth (Figure 2). Following the World Health Organization (WHO) declaration of COVID-19 as a global pandemic in March 2020, businesses throughout the metropolitan area that were deemed nonessential and could not be performed remotely or with sufficient social distancing were closed for approximately 2 months in an effort to slow the spread of the virus. The most severely affected industries were those that rely heavily on in-person interactions; that included many restaurant, retail, tourism, and entertainment jobs, as well as office support jobs such as building support and janitorial staff. The loss of office support jobs was due to office workers transitioning to working from home and students completing the spring 2020 school semester remotely. In addition, many elective healthcare procedures were postponed. Businesses were able to gradually reopen beginning in May if they could adhere to the social distancing protocol and limit their capacity; jobs gradually increased throughout the summer and fall. In the winter,

Figure 2. 12-Month Average Unemployment Rate in the Denver HMA and the Nation



Note: 12-month moving average.
Sources: National Bureau of Economic Research; U.S. Bureau of Labor Statistics

however, a spike in cases approaching the holiday season and colder weather stifled growth, in part because businesses such as restaurants had been using outdoor space to expand their capacity. As of December 2020, jobs in the HMA remained 3 percent lower than the previous peak in February 2020 (not seasonally adjusted).

Despite the widespread economic weakness, some sectors expanded in the past year. Partially offsetting job losses, the professional and business services, the manufacturing, and the information sectors increased by 3,500, 2,600, and 300 jobs, respectively, or 1.2, 3.7, and 0.6 percent. During 2020, Raytheon Technologies Corporation began hiring the first 200 positions in satellite ground control system development in its Intelligence and Space Division in the city of Aurora. The corporation plans to add up to 300 additional jobs by 2024; these gains are expected to contribute to growth in both the manufacturing and the professional and business services sectors. In the information sector, job gains in recent years were not enough to offset more than a decade of losses, and sector employment remains nearly 29 percent below the 2000 peak (Figure 3).

Current Conditions—Unemployment

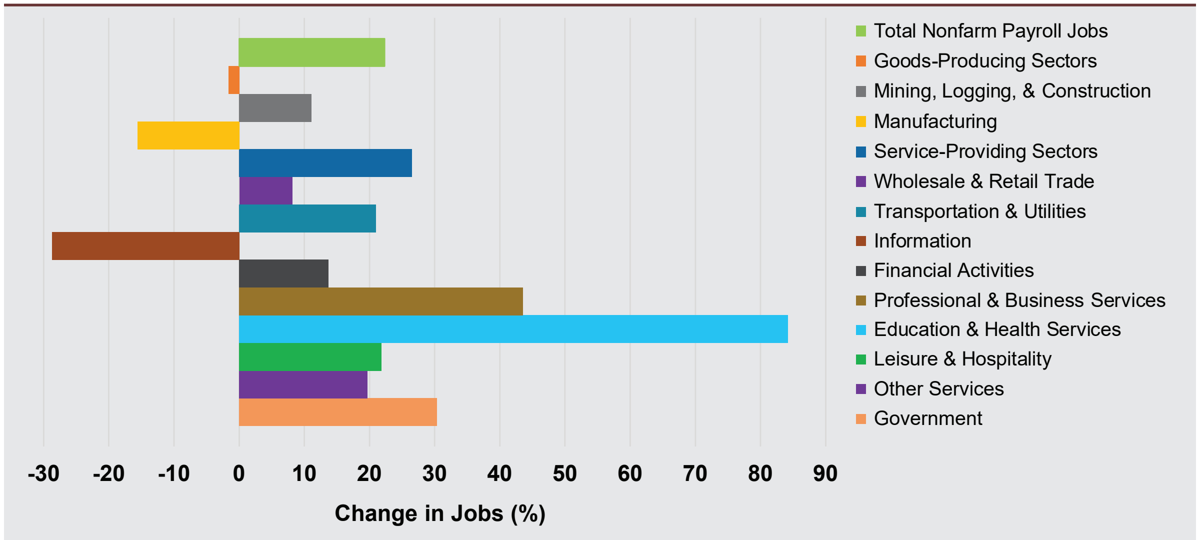
The unemployment rate in the Denver HMA rose to 7.3 percent in 2020, up from 2.7 percent a year earlier, and was at the highest level since 2012 (Figure 4). The unemployment rate previously peaked at 8.7 percent in 2010, which was a direct result of the local impacts from the Great Recession. The unemployment rate increased in the past year because of job losses caused by countermeasures to slow the spread of COVID-19.

Economic Periods of Significance

2000 Through 2003: The dot-com Recession

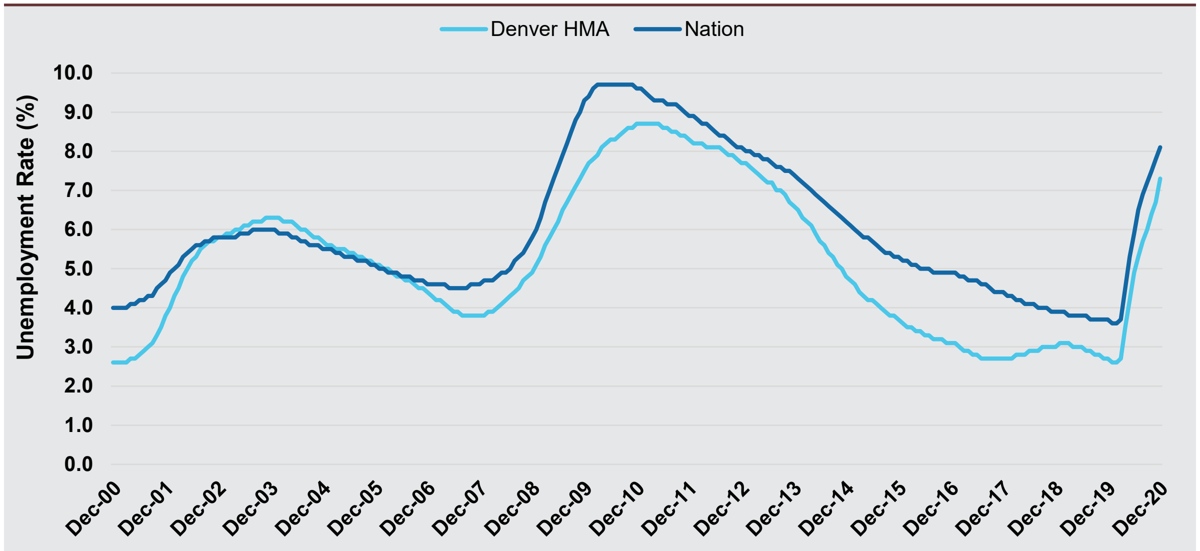
Years of rapid expansion in technology-related industries, such as telecommunications and computer equipment manufacturing, culminated at an annual peak in the total number of nonfarm payroll jobs in 2000, with 1.21 million jobs. During the next 3 years, from 2001 through 2003, jobs in the Denver HMA decreased an average of 17,700 a year, or 1.5 percent, annually because of the local economic downturn that resulted from the dot-com recession. By comparison, jobs declined an average annual rate of 0.7 percent nationally in 2002 and 2003, making the impact in the HMA longer and more severe in comparison. The professional and business services and the information sectors had the most job losses in the HMA, decreasing an average of 6,300 and 5,700 jobs a year, or 3.3 and 8.7 percent, respectively.

Figure 3. Sector Growth in the Denver HMA, 2001 to Current



Note: The current date is January 1, 2021.
Source: U.S. Bureau of Labor Statistics

Figure 4. 12-Month Average Unemployment Rate in the Denver HMA and the Nation



Note: Based on the 12-month moving average.
Source: U.S. Bureau of Labor Statistics

2004 Through 2008: A Brief Recovery

Recovery from the local economic downturn was modest, and the HMA did not surpass the previous peak number of jobs until 2006. From 2004 through 2008, nonfarm payrolls increased an average of 19,000 jobs a year, or 1.6 percent. The professional and business services sector led the recovery, adding an average of 7,500 jobs a year, or 3.9 percent. Partially offsetting job growth across most sectors, however, was the continued decline in the information sector, which lost an average of 1,500 jobs, or 2.9 percent, a year.

2009 Through 2010: Impacts of the Great Recession

During the second economic contraction of the decade, the HMA had 2 years of job losses, averaging declines of 29,700 jobs, or 2.4 percent, a year in 2009 and 2010, for a total loss of just under 5.0 percent of nonfarm payrolls. Although the duration was shorter than the dot-com recession, more jobs were lost; however, the impacts to the HMA were less severe in this economic downturn than those to the nation. Nationally, nonfarm payrolls decreased an average of 1.9 percent a year from 2008 through 2010, for a total loss of nearly 6.0 percent.

The largest job losses in the HMA were the declines averaging 10,900 jobs a year in the mining, logging, and construction sector and 6,200 jobs a year in the professional and business services sector, or 12.7 and 2.9 percent, respectively. The reduced demand for residential construction resulted in losses in construction employment. The information sector also continued to decline, losing an average of 1,600 jobs, or 3.5 percent, each year. By the end of 2010, as a result of both recessions, the information sector had lost one-third of the number of jobs in the sector in 2000.

2011 Through 2019: Recovery and Expansion

Recovery from the Great Recession started off strong in the HMA, although job growth moderated during the latter part of the expansion period. From 2011 through 2015, nonfarm payrolls increased by an average of 40,800 jobs, or 3.2 percent a year, which was the strongest sustained period of economic growth since 2000. The number of nonfarm payrolls lost as a result of the Great Recession were recovered by the end of 2013. Job growth during the recovery and initial expansion phase occurred across all sectors; the growth was led by the professional and business services and the education and health services sectors, which increased by an average of 9,300 and 6,900 jobs, respectively, or 4.2 and 4.4 percent each year. Contributing to the strong growth in the education and health services sector was a growing trend of localized urgent care centers and standalone emergency rooms that opened across neighborhoods in several communities throughout the HMA.

Beginning in 2016, job growth slowed. Tight labor market conditions and difficulty in finding workers constrained job growth from 2016 through 2019; during this period, the unemployment rate averaged around 3.0 percent. From 2016 through 2019, jobs increased by an average of 34,600 jobs, or 2.4 percent, a year. Again, all sectors contributed to the job gains; the strongest growth was in the professional and business services sector, in which the number of jobs increased by an average of 7,400 jobs, or 2.8 percent, annually. Job growth since the recovery was supported by expansions in the professional and business services sector and the number of jobs added by defense contractors. KPMG International Limited, a professional services company, added approximately 650 jobs from 2013 through 2019. From 2016 through 2018, the Ball Corporation Aerospace Manufacturing Center added nearly 1,000 employees. In 2018, Polaris Alpha Advanced Systems Inc., a defense contractor, added 150 jobs and announced its intent to fill an additional 300 jobs by 2026.

Job Centers by Submarket

Jobs within the Denver County submarket account for approximately 35 percent of the total number of jobs within the HMA (Table 3). The Denver County submarket includes the state capital, the central business district in downtown Denver, the airport, and a portion of the Denver Tech Center. The remaining 65 percent of jobs are located throughout the Suburban submarket. Centers of

Table 3. Current Estimated Percent Share of Nonfarm Payrolls in the Denver HMA, by Submarket

Denver County	Suburban
35.0	65.0

Source: U.S. Bureau of Labor Statistics, with estimates by the analyst

economic activity include the Interlocken Business Park in Broomfield, with high-tech, information technology, and aerospace employment; the Denver Federal Center, or DFC, in Lakewood, with a significant amount of federal government employment; and portions of the Denver Tech Center, which has a large concentration of financial, insurance, and telecommunications services in Greenwood Village.

Employment Forecast

During the next 3 years, jobs in the Denver HMA are expected to increase an average of 2.8 percent a year, which is a little stronger than growth during the recent 2016-to-2019 period. Labor shortages are unlikely, however, because of the elevated unemployment rate, and as vaccinations increase, the impacts from the pandemic are expected to subside and businesses to return to full capacity. By the end of the forecast period, the economy is expected to more than recover the number of jobs lost during 2020. Much of the recovery is expected in the industries hit the hardest during the pandemic, such as tourism, retail trade, and transportation; in addition, demand for building support staff is expected to increase as more workers return to offices.

The economy is expected to remain weak during the first year of the forecast period until social distancing measures ease, businesses can open at full capacity, and the public feels comfortable returning to crowded areas again. Job growth is expected to be strongest in the second year, when most of the recovery of jobs lost is expected to occur. In early 2021, App-UniPath, LLC, a private pathology lab in Denver, will close, laying off 154 workers, and Vestas-American Wind Technology, Inc. will lay off 185 workers in its facility in Brighton. Offsetting some of the job losses in the HMA, furloughs at the Regional Transportation District (RTD)—the regional public bus and light rail transit operator—are expected to end in early 2021, and upcoming planned layoffs were canceled; also, nearly 140 previously laid-off workers are expected to return as demand for public transportation increases. Supporting recent growth in the information sector, Udemy, Inc., an online learning platform, is adding 200 jobs through the end of 2021.

Population and Households

Current population: 3.02 million

> Robust population growth averaging 1.9 percent a year beginning in 2010 has slowed to 1.3-percent average annual growth since 2015.

Population Trends

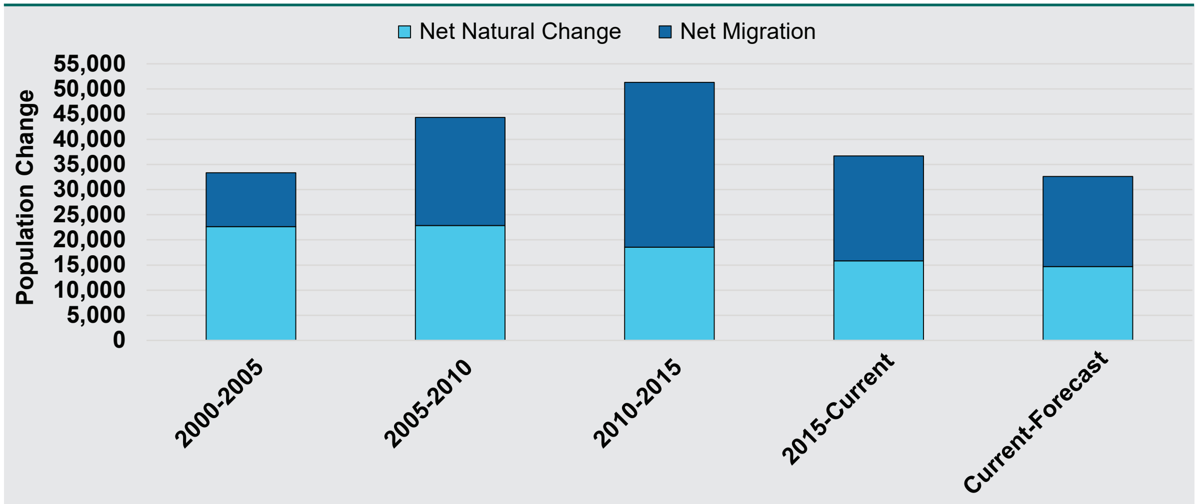
The population of the Denver HMA is currently estimated at 3.02 million, an average annual increase of 43,900, or 1.6 percent, since 2010 (Table 4). Population growth was moderate in the early 2000s but then accelerated as the economy expanded before the impacts of the Great Recession. From 2000 to 2005, which included the dot-com recession and the initial recovery, the population increased an average of 1.5 percent a year; that increase was largely a result of net natural change (resident births minus resident deaths), which accounted for 68 percent of population growth (Census Bureau decennial census counts and population estimates as of July 1; Figure 5). Net in-migration averaged 10,700 people a year during the period and occurred entirely in the Suburban submarket as the Denver County submarket had net out-migration. As the economy strengthened, net in-migration increased to an average annual level of 20,850 from 2005 to 2008, and the population increased by an

Table 4. Denver HMA Population and Household Quick Facts

		2010	Current	Forecast
Population Quick Facts	**Population**	2,543,482	3,015,000	3,113,000
	Average Annual Change	38,550	43,900	32,600
	Percentage Change	1.7	1.6	1.1
		2010	**Current**	**Forecast**
Household Quick Facts	**Households**	1,004,696	1,190,000	1,228,000
	Average Annual Change	16,050	17,200	12,900
	Percentage Change	1.8	1.6	1.1

Notes: Average annual changes and percentage changes are based on averages from 2000 to 2010, 2010 to current, and current to forecast. The forecast period is from the current date (January 1, 2021) to January 1, 2024.
Sources: 2000 and 2010—2000 Census and 2010 Census; current and forecast—estimates by the analyst

Figure 5. Components of Population Change in the Denver HMA, 2000 Through the Forecast



Notes: Net natural change and net migration totals are average annual totals over the time period. The forecast period is from the current date (January 1, 2021) to January 1, 2024.
Sources: U.S. Census Bureau; current to forecast—estimates by the analyst

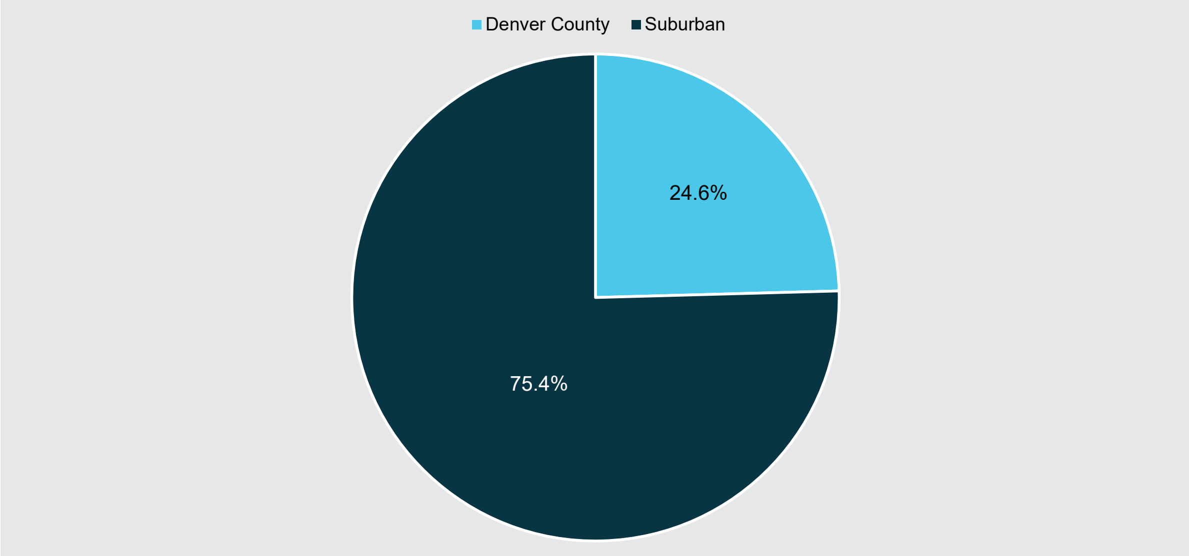
average of 43,750 a year, or 1.8 percent. Net migration accounted for 48 percent of population growth. From 2008 to 2010, population growth remained strong, in part because the impacts of the Great Recession were more severe in other parts of the country, so the HMA had relatively more job opportunities, despite the local economic weakness. The population increased by an average of 45,450 annually, or 1.8 percent, from 2008 to 2010, and net in-migration increased to 50 percent of population growth, averaging 22,700 a year.

Population growth was strong during the robust economic growth following the Great Recession but has eased somewhat in recent years as net in-migration slowed, contributing to the tight labor market conditions that persisted before the pandemic. From 2010 to 2015, the population increased by an average of 51,300 a year, or 1.9 percent, which was the strongest sustained period of population growth since 2000; an average of 32,750 people, or 64 percent of total growth, was from net in-migration. Since 2015, population growth has slowed to an average of 36,800 people a year, or 1.3 percent. Net in-migration as a share of population growth decreased to 58 percent of population growth, and the number decreased to average 20,950 people a year, similar to the level of net in-migration from 2005 to 2008. As economic conditions strengthened in other areas in the country, fewer people moved to the Denver HMA for jobs, and rapidly increasing housing costs made the Denver HMA relatively more expensive than some other metropolitan areas, deterring some movers.

Population Trends in the Denver County Submarket

The population of the Denver County submarket is currently estimated at 740,800, which accounts for nearly 25 percent of the HMA population (Figure 6). From 2000 to 2005, the submarket population declined by an average of 560 people per year, or less than 1 percent, resulting from average annual net out-migration of 6,825 people. People left the HMA in search of jobs, but many people also moved to the Suburban submarket, where newly constructed transit lines connected suburban communities to jobs and homes that were relatively more affordable. From 2005 to 2010, net migration reversed to average 3,875 in-migrants annually as people increasingly wanted to live downtown again, and annual population growth increased to an average of 10,200, or 1.8 percent, during the second half of the decade. Following the Great Recession, migration into the submarket surged. Despite the submarket accounting for one-fourth of the HMA population, approximately one-third of the HMA net in-migration was made up of people moving into the Denver County submarket. Although the Denver County submarket accounts for a larger share of movers from outside the HMA, within the HMA, more people are moving from the Denver County submarket to the suburbs. A net change of approximately 6,950 movers each year are moving from the Denver County submarket to the Suburban submarket (2014–2018 American Community Survey [ACS] 5-year data). From 2010 to 2015, the population in Denver County

Figure 6. Current Population in the Denver HMA, by Submarket



Source: Estimates by the analyst

increased by an average of 15,860 people, or 2.5 percent, a year, and net in-migration accounted for 67 percent of the growth, or 10,650 people per year. Population growth has slowed in the submarket since 2015, however, as housing in the Denver County submarket has become increasingly expensive. Since 2015, the population has increased by an average of 10,450 people a year, or 1.5 percent. Most of the slowdown has resulted from net in-migration subsiding to an average increase of 5,900 people a year, or 56 percent of total population growth.

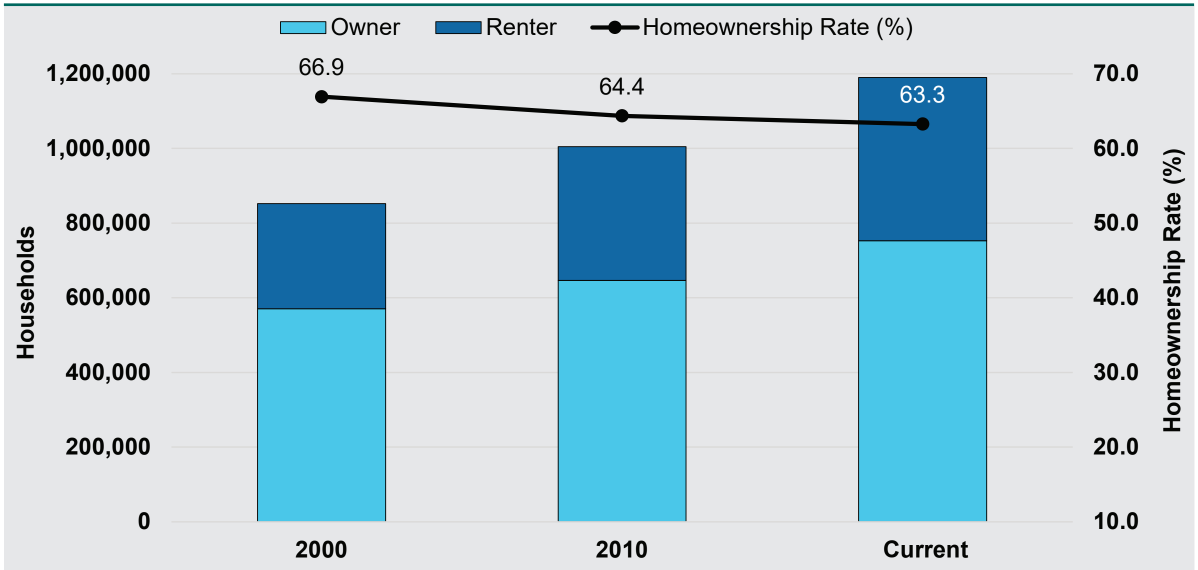
Population Trends in the Suburban Submarket

The Suburban submarket accounts for the remaining 75 percent of the HMA population and is estimated at 2.27 million as of January 1, 2021. Growth in the submarket during the 2000s was stronger than that in the Denver County submarket because of greater housing affordability and increasing access to transit options, as noted above, in the Suburban submarket. From 2000 to 2005, while the population was declining in the Denver County submarket, the population of the Suburban submarket increased by an average of 33,900 people annually, or 2.0 percent, and 52 percent of the population growth resulted from net in-migration. Population growth remained relatively steady from 2005 to 2010, even though growth returned to the Denver County submarket. From 2005 to 2010, the population increased by an average of 34,150 people a year, or 1.9 percent, and 53 percent of growth was from net in-migration. Following the Great Recession, trends reversed. As the Denver County submarket population accelerated, growth slowed somewhat in the Suburban submarket. Although population growth surged in the Denver County submarket from 2010 to 2015, growth remained similar to that of the previous decade in the Suburban submarket, averaging 35,500 people a year, or 1.8 percent; net in-migration increased significantly to account for 62 percent of the growth. Since 2015, population growth has slowed considerably and remained slower than in the Denver County submarket. Since 2015, the population has increased by an average of 26,350 a year, or 1.2 percent, the slowest period of growth in the Suburban submarket since 2000. Net in-migration has accounted for 57 percent of the submarket population growth since 2015.

Household Trends

Household growth in the HMA and submarkets follows trends similar to population growth trends. Currently, an estimated 1.19 million households reside in the Denver HMA, an increase of 1.6 percent, or 17,200, a year since 2010, and 63.3 percent of households own their home, down slightly from 64.4 percent in 2010 (Figure 7). The Denver County submarket has a slightly larger share of households in the HMA, compared with its share of

Figure 7. Households by Tenure and Homeownership Rate in the Denver HMA



Note: The current date is January 1, 2021.
Sources: 2000 and 2010—2000 Census and 2010 Census; current—estimates by the analyst

population, and accounts for 27 percent of all households in the HMA because the average household size is smaller due to a higher percentage of renters. The average household size for owner households in Denver County is 2.6, compared with 2.0 for renter households (2019 ACS 1-year estimates). An estimated 324,100 households are in the Denver County submarket, up an average of 2.0 percent a year since 2010, compared with average annual growth of 1.0 percent from 2000 to 2010. Approximately 48.0 percent of households in the Denver County submarket are owner households. An estimated 865,600 households are in the Suburban submarket. The number of households has increased an average of 1.4 percent annually since 2010, and it increased 2.1 percent from 2000 to 2010. Homeownership is much more common in the Suburban submarket, with owner households accounting for approximately 69.0 percent of the households in this submarket.

Forecast

During the 3-year forecast, the population and number of households in the HMA are expected to increase an average of 32,600 and 12,900 a year, respectively, or 1.1 percent each, to 3.11 million people and 1.23 million households. An estimated 25 percent of the population will live in the Denver County submarket and the remaining 75 percent in the Suburban submarket. In the Denver County submarket, the population and number of households will each increase an average of 1.2 percent a year, faster than the expected 1.0-percent growth in population and households in the Suburban submarket. The slower population growth in the HMA is expected as the result of recent trends continuing into the forecast, with lower net in-migration, in part due to affordability concerns in housing costs.

Home Sales Market
Denver HMA

Market Conditions: Tight

The inventory of for-sale housing is very low and has remained below 3.0 months of supply since early 2012.

Current Conditions

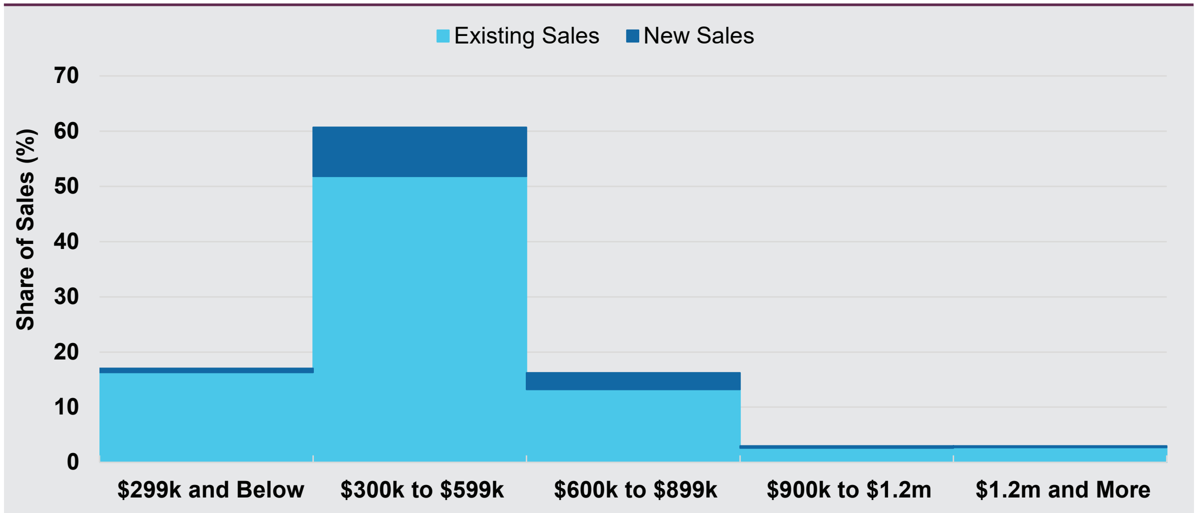
The home sales market in the Denver HMA is tight, with an estimated sales vacancy rate of 0.5 percent (Table 5), down from 2.3 percent in April 2010, when the market was soft as a result of the Great Recession and the corresponding financial crisis. Since recovering from the Great Recession, the sales market has been persistently tight; very low levels of for-sale inventory have contributed to upward pressure on home sales prices and have led to housing affordability concerns. In December 2020, the HMA had approximately 0.5 month of inventory, down from 1.2 months of supply in December 2019 (Redfin, a national real estate brokerage). The months' supply of inventory has remained below 3.0 months of supply since early 2012. Total home sales—including new and existing single-family homes, townhomes, and condominiums (hereafter, homes)—increased 2 percent in 2020, to 69,950 homes sold, and the average price increased 7 percent, to $503,200. Most new and existing homes sold at prices ranging from $300,000 to $599,000 (Figure 8).

Table 5. Home Sales Quick Facts in the Denver HMA

Home Sales Quick Facts		Denver HMA	Nation
	Vacancy Rate	0.5%	NA
	Months of Inventory	0.5	1.6
	Total Home Sales	69,950	5,772,000
	1-Year Change	2%	-1%
	New Home Sales Price	$553,200	$408,400
	1-Year Change	-1%	-1%
	Existing Home Sales Price	$495,400	$346,100
	1-Year Change	9%	12%
	Mortgage Delinquency Rate	2.5%	4.0%

NA = data not available.
Notes: The vacancy rate is as of the current date; home sales and prices are for the 12 months ending December 2020; and months of inventory and mortgage delinquency data are as of December 2020. The current date is January 1, 2021.
Sources: CoreLogic, Inc.; Redfin; Zonda

Figure 8. Share of Overall Sales by Price Range During the 12 Months Ending December 2020 in the Denver HMA



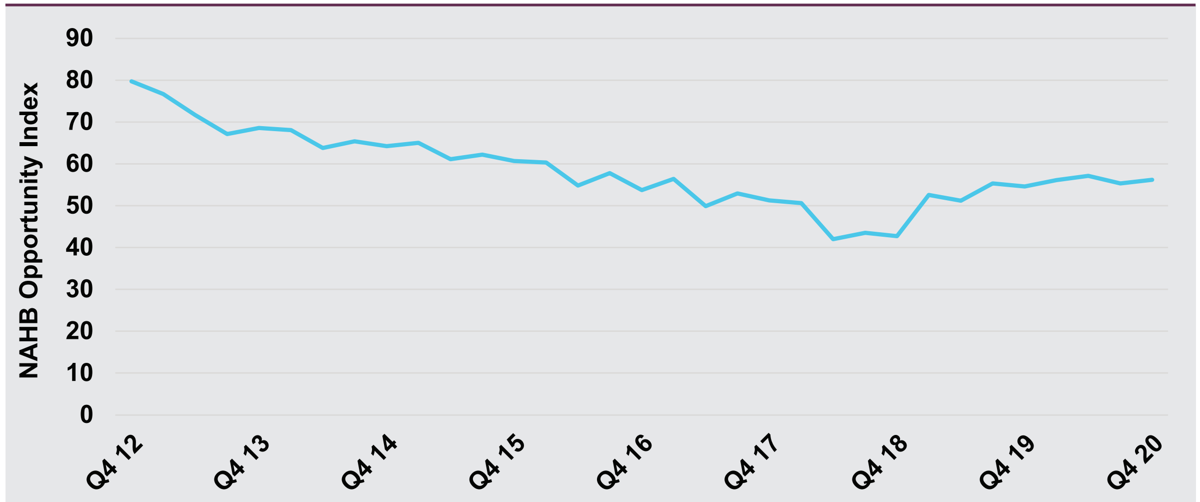
Note: New and existing sales include single-family homes, townhomes, and condominiums.
Source: Zonda

Housing Affordability

Homeownership in the Denver HMA has become increasingly unaffordable. The expanding economy following the Great Recession, declining number of distressed mortgages, persistently low inventory of homes for sale, and strong net in-migration in the early to mid-2010s contributed to increasing home sales prices. The National Association of Home Builders (NAHB)/Wells Fargo Housing Opportunity Index (HOI) for the Denver HMA, which represents the share of homes sold that would have been affordable to a family earning the median income, was 56.2 during the fourth quarter of 2020, up slightly from 54.6 a year ago but down dramatically from 79.7 during the fourth quarter of 2012 (Figure 9). Housing affordability in the Denver metropolitan area is greater than approximately 24 percent of all 268 ranked metropolitan areas in the nation; conversely, approximately 76 percent of ranked metropolitan areas are more affordable than the HMA.

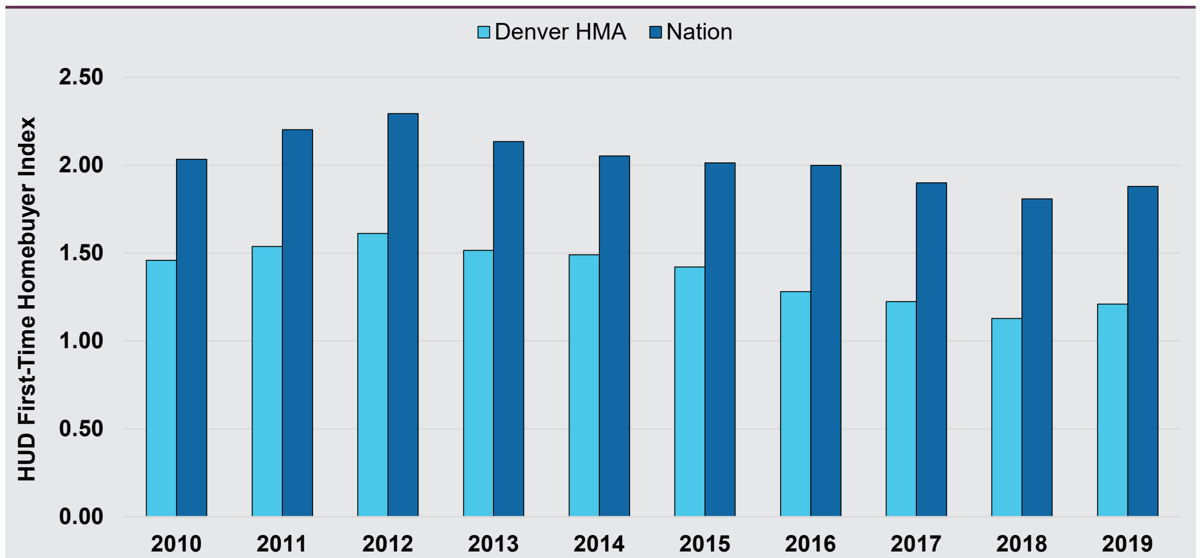
The declining affordability is notable for all potential homebuyers, including first-time homebuyers. The HUD First-Time Homebuyer Affordability Index measures the median household income for householders aged 25 to 44 years old relative to the income needed to purchase the 25th-percentile-priced home. The index has declined almost every year since reaching a peak of 1.61 in 2012 (Figure 10). The median income for householders ages 25 to 44 years old has been more than high enough to afford the 25th-percentile-priced home in

Figure 9. Denver HMA Housing Opportunity Index



NAHB = National Association of Home Builders. Q4 = fourth quarter.
Sources: NAHB; Wells Fargo

Figure 10. Denver HMA HUD First-Time Homebuyer Affordability Index



Sources: American Community Survey 1-year data; Federal Housing Finance Agency; Zonda all years since 2010, but home prices have generally increased faster than median incomes since 2012. During 2019, the index was 1.21, up slightly from 1.13 in 2018. Nationwide, the index also increased slightly, from 1.81 in 2018 to 1.88 in 2019, and the national index has remained well above the rate in the HMA since at least 2010.

As a result of rising sales prices in the Denver HMA, the homeownership rate for heads of household ages 25 to 44 years—a prime age cohort for first-time homebuyers—has declined. The overall homeownership rate remained relatively steady from 2010 to 2019, but the rate fell for the younger cohort of householders (Table 6). From 2010 to 2019, the homeownership rate declined 2.5 and 1.2 percentage points for heads of household aged 25 to 34 and 35 to 44 years, respectively. Although the homeownership rate among the 25-to-44-year-old cohort decreased faster than the rest of the HMA, it was slower than the national trend. Nationwide, homeownership declined 1 percentage point during the 2010-to-2019 period, and for heads of household aged 25 to 34 and 35 to 44 years, the national homeownership rate dropped 3.5 and 4.0 percentage points, respectively.

Forecast

During the 3-year forecast period, demand is expected for 33,150 new homes for sale (Table 7). The 5,375 homes currently under construction will satisfy a portion of the demand in the first year of the forecast. Approximately 84 percent of the demand will be in the Suburban submarket, which has a larger share of the population and more land available for home construction. Demand will increase during the next 3 years as the economy improves.

Table 6. Homeownership Rates by Age of Householder

	Denver HMA		Nation	
	2010	2019	2010	2019
Householder Aged 25 to 34 Years	42.9	40.4	42.0	38.5
Householder Aged 35 to 44 Years	64.9	63.7	62.3	58.3
Total Households	64.4	64.3	65.1	64.1

Sources: 2010 Decennial Census; 2019 American Community Survey 1-year estimates

Table 7. Demand for New Sales Units in the Denver HMA During the Forecast Period

	Sales Units
Demand	33,150 Units
Under Construction	5,375 Units

Note: The forecast period is from January 1, 2021, to January 1, 2024.
Source: Estimates by the analyst

Denver County Submarket

Market Conditions: Tight

The sales vacancy rate decreased from 3.6 percent in 2010 to an estimated rate of 0.6 percent currently.

Current Conditions

The sales market in the Denver County submarket is currently tight, with an estimated sales vacancy rate of 0.6 percent (Table 8), down from 3.6 percent in April 2010, when the financial crisis and Great Recession contributed to elevated foreclosures and a soft sales market. The months' supply of for-sale inventory in the Denver County submarket typically mirrors that of the entire HMA. In 2019 and 2020, however, the for-sale inventory was slightly higher in the Denver County submarket than in the entire HMA; nevertheless, the inventory remains very low, and conditions have been persistently tight since early 2012, with the months' supply of inventory consistently below 3.0 months. In December 2020, there was a 0.8-month supply, down from 1.2 months of supply in December 2019 (Redfin, a national real estate brokerage). Further compounding the persistently low supply of for-sale inventory, many households were reluctant to list their home during the pandemic, partially contributing to the decline in the past year. Home sales in the submarket were virtually flat in 2020, with 16,300 homes sold, as an increase in the sale of existing homes offset a decline in new home sales (Zonda; Figure 11). More than one-half the homes sold were in the $300,000-to-$599,000 range (Figure 12). The Denver County submarket is the most expensive area in the HMA, with an average sales price of $558,500, up 7 percent from 2019 (Figure 13).

Existing Home Sales and Prices

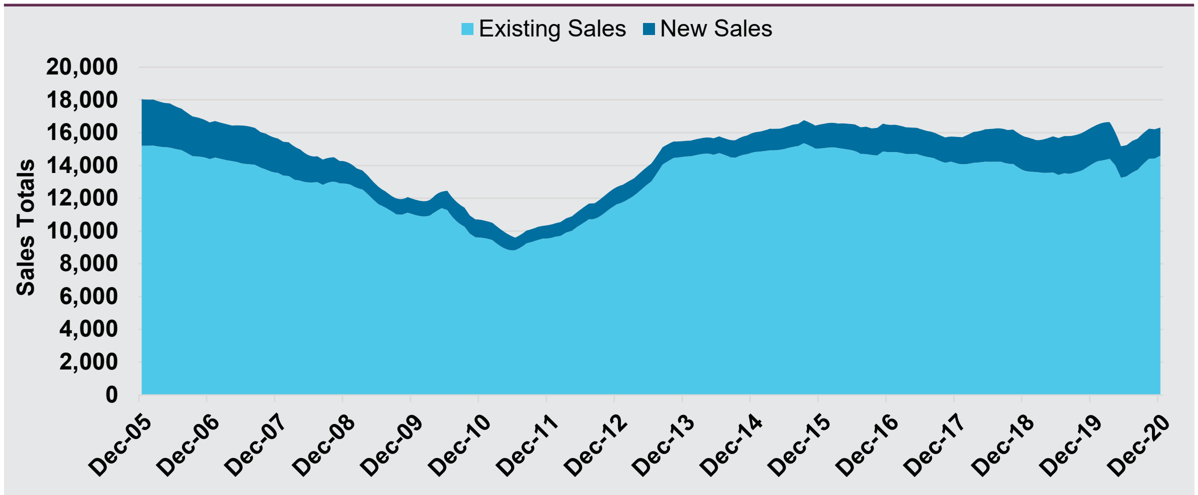
General economic weakness led to lower demand for homes from 2006 through 2011. Despite the relatively strong population growth during most of this period, uncertainty in the financial and job markets contributed to many households choosing to rent, which resulted in a softening of the sales market. Existing home sales decreased by an average of 940 homes, or 7 percent, annually, to a low of 9,550 homes sold in 2011. As markets recovered and migration into the submarket entered its strongest period, demand for sales housing also increased. From 2012 through 2015, existing

Table 8. Home Sales Quick Facts in the Denver County Submarket

		Denver County	Denver HMA
Home Sales Quick Facts	Vacancy Rate	0.6%	0.5%
	Months of Inventory	0.8	0.5
	Total Home Sales	16,300	69,950
	1-Year Change	0%	2%
	New Home Sales Price	$607,200	$553,200
	1-Year Change	2%	-1%
	Existing Home Sales Price	$552,900	$495,400
	1-Year Change	8%	9%
	Mortgage Delinquency Rate	2.4%	2.5%

Notes: The vacancy rate is as of the current date; home sales and prices are for the 12 months ending December 2020; and months of inventory and mortgage delinquency data are as of December 2020. The current date is January 1, 2021.
Sources: CoreLogic, Inc.; Redfin; Zonda

Figure 11. 12-Month Sales Totals by Type in the Denver County Submarket

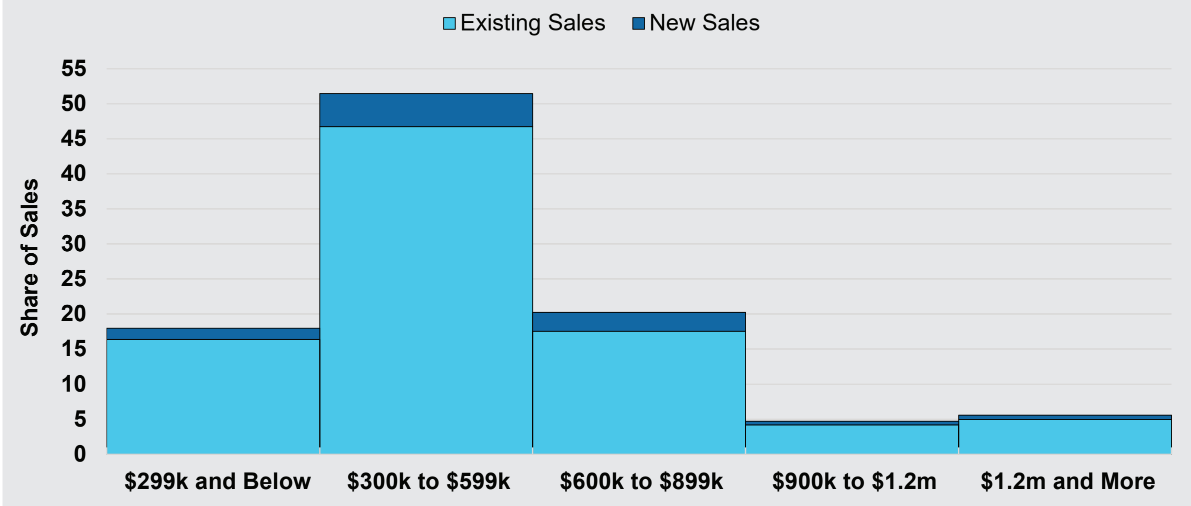


Source: Zonda

home sales increased an average of 12 percent a year. As population growth slowed, existing home sales from 2016 through 2019 were relatively flat, averaging 14,200 home sales a year. During 2020, 14,600 existing homes sold, up 3 percent from a year earlier.

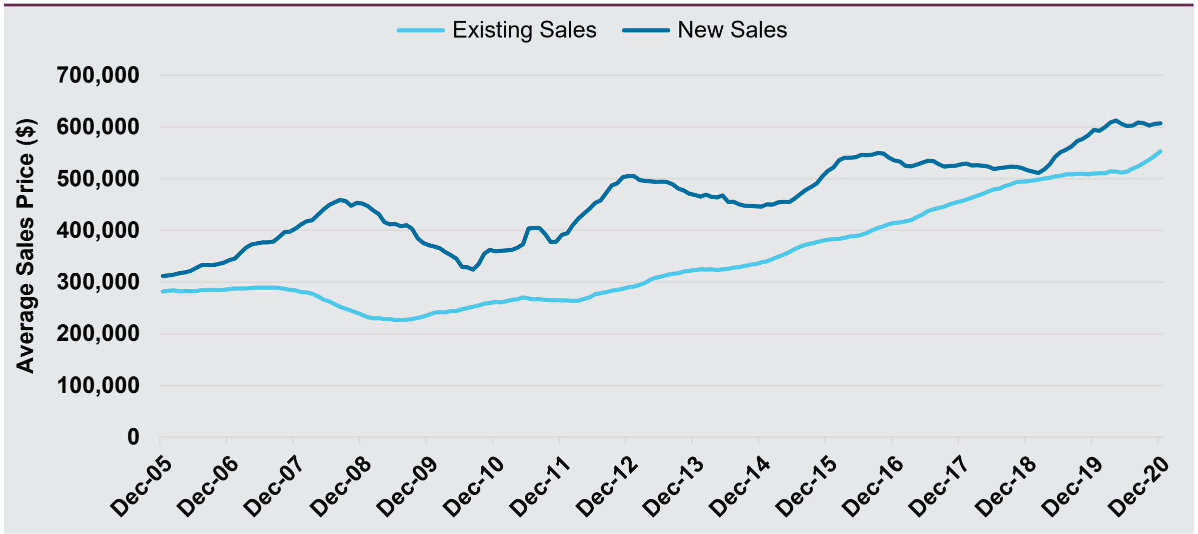
The low inventory of for-sale housing has contributed to strong price growth in the past year. During 2020, the average price of an existing home increased 8 percent from 2019, to $552,900. The low inventory and strong population growth following the Great Recession have contributed to strong demand for homes and supported strong price growth since 2011. From 2006 through 2011, the average price of an existing home decreased an average of 1 percent a year, to $264,600. During this time, elevated foreclosures contributed to the lower prices. Real estate owned (REO) sales peaked at 40 percent of existing home sales in 2008, and the average price of an REO home, $121,700, was 62 percent lower than the average price of a regular resale home, $317,300. As foreclosures were absorbed and population growth accelerated, home prices increased. From 2012 through 2015, the average price of an existing home increased an average of 10 percent a year before moderating to a 7-percent average annual increase from 2016 through 2019. REO sales accounted for approximately 1 percent of existing home sales in 2019 and 2020 and have been below 10 percent of sales since accounting for 16 percent of sales in

Figure 12. Share of Overall Sales by Price Range During the 12 Months Ending December 2020 in the Denver County Submarket



Source: Zonda

Figure 13. 12-Month Average Sales Price by Type of Sale in the Denver County Submarket



Source: Zonda

2012. In addition, the price of an REO home relative to a regular resale increased and in 2020 was only approximately 22 percent lower.

New Home Sales and Prices

New home sales in the Denver County submarket decreased 24 percent in the past year, with 1,700 new homes sold in 2020, as limited land availability is suppressing low-density home construction. New home sales were weak during the period surrounding the Great Recession, but as the economy strengthened and migration into the submarket increased, so too did demand for new sales housing. From 2006 through 2011, new home sales decreased an average of 19 percent a year, to nearly 810 homes sold in 2011. Demand for additional housing strengthened from 2012 through 2015, resulting in new home sales increasing rapidly at 16 percent a year. New home sales moderated to an 11-percent average annual increase from 2016 through 2019, when job and population growth also slowed. Condominiums have accounted for a very small share of new home sales since the late 2000s because the construction of condominiums in the submarket has been limited, as discussed below.

The average price of a new home increased 2 percent in the past year, to $607,200. The price growth was the slowest since before 2006. From 2006 through 2011, the average price of a new home increased 4 percent annually. From 2012 through 2015, when demand for additional housing was at its strongest, the price of a new home increased an average of 7 percent annually. As demand for new housing slowed, so too did the increase in the average price, which was up an average of 4 percent a year from 2016 through 2019.

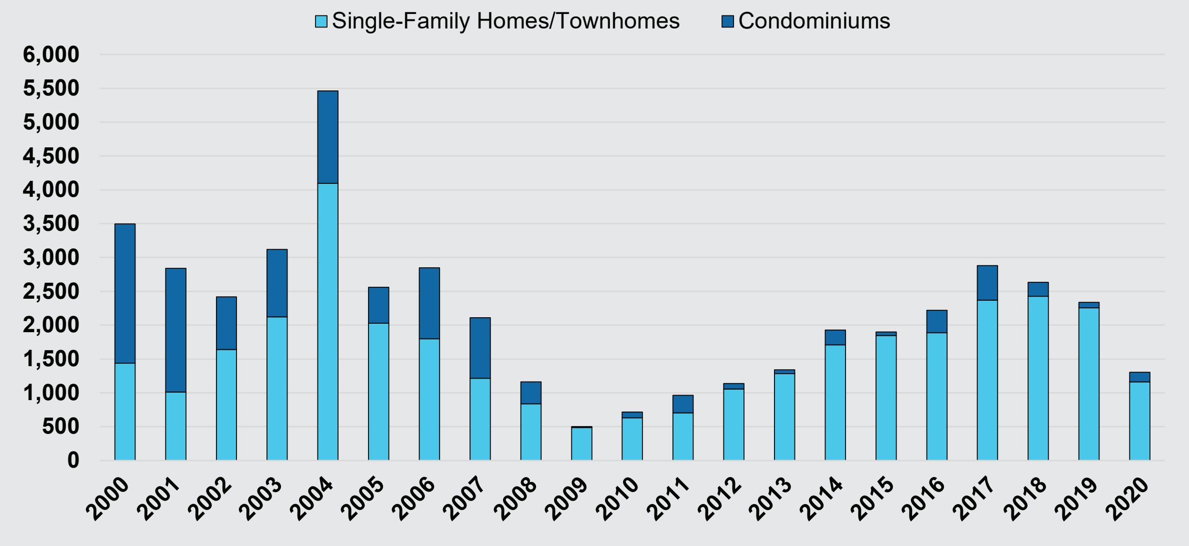
Seriously Delinquent Mortgages and REO Properties

The impact of the pandemic on job losses and overall financial uncertainty has led to a significant increase in the rate of seriously delinquent mortgages and REO properties in the Denver County submarket recently. In December 2020, 2.4 percent of mortgages in the submarket were seriously delinquent or had transitioned into REO status, up significantly from 0.4 percent a year earlier; despite the sharp increase in the past year, the rate remains below the previous submarket peak of 6.1 percent and the national peak of 8.6 percent, both in January 2010. The rise in delinquencies partly reflects an increased reliance on mortgage forbearance by borrowers, which was partly provided for under the $2.2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act. Approximately 2,525 mortgages in the submarket were 90 or more days past due in December 2020, almost a seven-fold increase from December 2019; however, the number of foreclosures declined 63 percent, in part because the CARES Act limited foreclosures among federally backed mortgages. For context, the national rate of seriously delinquent mortgages and REO properties increased from 1.4 percent to 4.0 percent during the same period.

Sales Construction Activity

Home sales construction activity, as measured by the number of single-family homes, townhomes, and condominiums permitted (building permits) in the Denver County submarket, was strongest in the early 2000s, despite net out-migration from the submarket (Figure 14). As the financial crisis and the Great Recession limited demand for for-sale housing, construction decreased and remained subdued until the economy recovered. From 2000 through 2007, an average of 3,100 homes were permitted annually. From 2008 through 2011, this average decreased to an average of 840 homes permitted each year. Strong population growth following the Great Recession and increasing confidence in the economy and financial markets contributed to demand for additional sales housing, and sales construction increased an average of 20 percent a year from 2012 through 2017, to 2,875 homes permitted. This peak was the highest recent peak since before the Great Recession. Home sales construction activity has decreased recently as the submarket continues to be constrained geographically by the surrounding suburbs, and land for development is limited. In 2018 and 2019, sales construction decreased an average of 10 percent a year, and it decreased an additional 44 percent, to 1,300 homes permitted, in 2020 (preliminary data, with adjustments by the analyst).

Figure 14. Average Annual Sales Permitting Activity in the Denver County Submarket



Notes: Includes single-family homes, townhomes, and condominiums. Data for 2020 are through December 2020.
Sources: U.S. Census Bureau, Building Permits Survey; 2000 through 2019—final data and estimates by the analyst; 2020—preliminary data and estimates by the analyst

Construction Challenges in the Denver County Sales Market

Construction of for-sale housing in the Denver County submarket is severely limited by lot availability. The Denver County submarket is coterminous with the city limits of Denver, limiting expansion; therefore, construction of for-sale single-family homes is increasingly occurring in infill lots and redeveloped areas as master-planned communities are being completed. The two largest subdivisions in the submarket, based on construction activity in the past year—Central Park and Green Valley Ranch—are 92 and 97 percent built out, respectively; fewer than 450 vacant developable lots remain, combined, in both subdivisions (Zonda). For context, nearly 510 new homes sold in the subdivisions in 2020. The prices for single-family homes in the Central Park and Green Valley Ranch communities start at $473,000 and $276,000, respectively.

Further hampering construction of for-sale housing is subdued condominium development since 2007. Condominiums have accounted for less than 5 percent of multifamily units built in the submarket since before the Great Recession, with developers preferring apartment construction; that preference is spurred by a strong demand for apartments and by decreased interest among developers to build condominiums because of concerns over potential construction defects litigation, spawned by a state law revised in 2007. According to several developers in the area, these concerns have resulted in more stringent financing requirements and increased construction insurance for condominium development, making condominium construction costs significantly higher than rental apartment construction costs. From 2000 through 2007, condominiums accounted for 15 percent of for-sale construction activity, which decreased to 4 percent from 2008 through 2020. The condominiums that are being built are typically luxury units, with up to 10 percent of the homes income restricted. The 334-unit Coloradan condominium development opened in downtown Denver near Union Station in February 2019. Sales prices for the 301 market-rate units ranged from $429,000 to $3.0 million.

Forecast

During the next 3 years, demand is expected for 5,450 new homes in the Denver County submarket (Table 9). The 550 homes currently under construction will meet a portion of the demand in the first year. Continued headwinds for the sales market include land availability and a preference among builders that high-density residential construction be built for rent, which is expected to keep unsold inventory subdued, resulting in further upward price pressure on for-sale housing.

Suburban Submarket

Market Conditions: Tight

High demand and low inventory of homes for sale in the Suburban submarket contributed to a 7-percent increase in the average price of a home sold in 2020.

Current Conditions

The sales market in the Suburban submarket is currently tight, with an estimated sales vacancy rate of 0.5 percent (Table 10); that rate is down from 2.0 percent in April 2010, when the market was soft but not nearly as soft as in the Denver County submarket. The for-sale inventory decreased in the past year, partly due to the reluctance of would-be sellers to list their homes during the pandemic. The months' supply of for-sale inventory in the Suburban submarket in December 2020 ranged from approximately 0.3 months in Jefferson County to 1.5 months in Clear Creek County, compared with a higher range of 0.9 in Broomfield County to 4.4 months in Park County in December 2019. Clear Creek, Gilpin, and Park Counties are sparsely populated counties located farther west, into the foothills and mountains, and typically have more variable home sales activity than the rest of the HMA. The counties closer to the population, transit, and job centers typically have stronger demand for sales housing and much lower months of supply of inventory. Home sales in the submarket increased 3 percent in 2020, with nearly 53,650 homes sold (Zonda; Figure 15); some local builders reported

Table 9. Demand for New Sales Units in the Denver County Submarket During the Forecast Period

	Sales Units
Demand	5,450 Units
Under Construction	550 Units

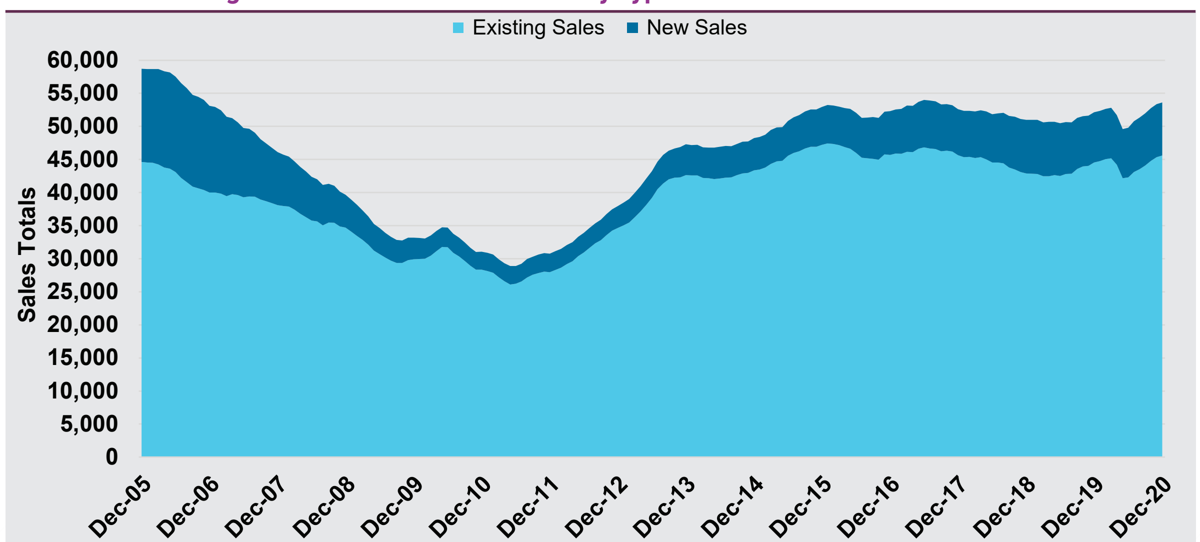
Note: The forecast period is from January 1, 2021, to January 1, 2024.
Source: Estimates by the analyst

Table 10. Home Sales Quick Facts in the Suburban Submarket

Home Sales Quick Facts		Suburban	Denver HMA
	Vacancy Rate	0.5%	0.5%
	Months of Inventory	0.5-1.5	0.5
	Total Home Sales	53,650	69,950
	1-Year Change	3%	2%
	New Home Sales Price	$541,800	$553,200
	1-Year Change	-2%	-1%
	Existing Home Sales Price	$476,900	$495,400
	1-Year Change	9%	9%
	Mortgage Delinquency Rate	2.5%	2.5%

Notes: The vacancy rate is as of the current date; home sales and prices are for the 12 months ending December 2020; and months of inventory and mortgage delinquency data are as of December 2020. The current date is January 1, 2021.
Sources: CoreLogic, Inc.; Redfin; Zonda

Figure 15. 12-Month Sales Totals by Type in the Suburban Submarket



Source: Zonda

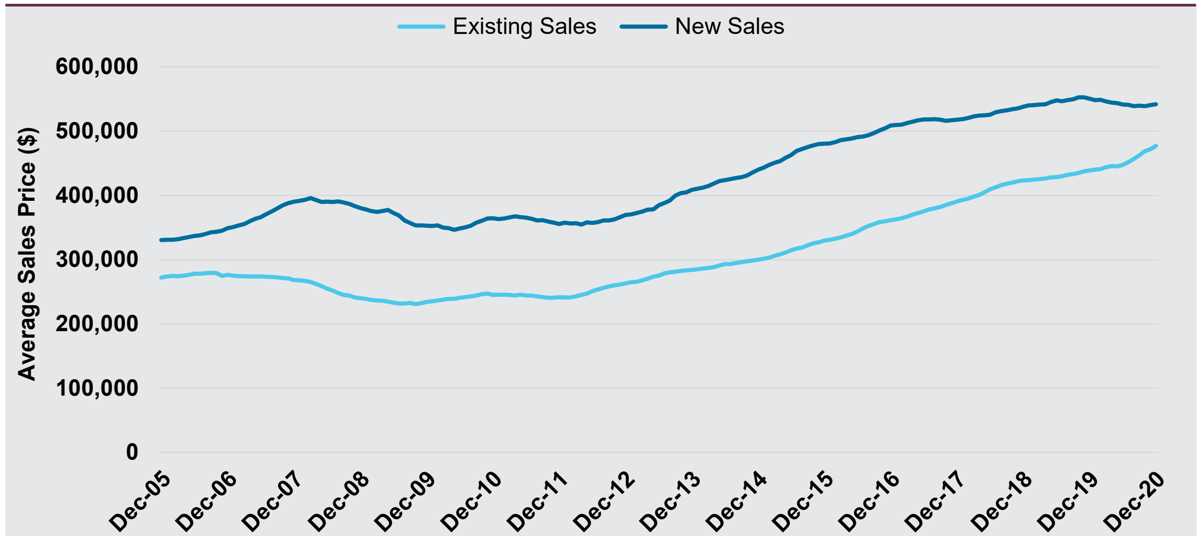
increased demand in the suburban areas during the pandemic as buyers sought additional space to accommodate home offices and virtual schooling. The average sales price increased 7 percent in the past year, to $486,300 (Figure 16). More than 60 percent of homes sold in the submarket were in the $300,000-to-$599,000 range (Figure 17), more than in the Denver County submarket.

Existing Home Sales and Prices

General economic uncertainty led to lower demand for existing home sales in the Suburban submarket from 2006 through 2011. Despite the relatively strong population growth during most of this period, uncertainty in the financial and job markets contributed to many households choosing to rent, contributing to the softening of the sales market. Existing home sales decreased by an average of 2,775 homes sold, or 8 percent, annually, to a low of 27,950 homes sold in 2011. As markets recovered and migration into the submarket strengthened, demand for sales housing also increased. From 2012 through 2013, existing home sales increased an average of 24 percent a year. Strong population growth in 2014 had slowed considerably by 2019, and home sales stagnated; home sales from 2014 through 2019 averaged 44,900 home sales a year. During 2020, existing home sales increased 2 percent from 2019, to 45,600 homes sold.

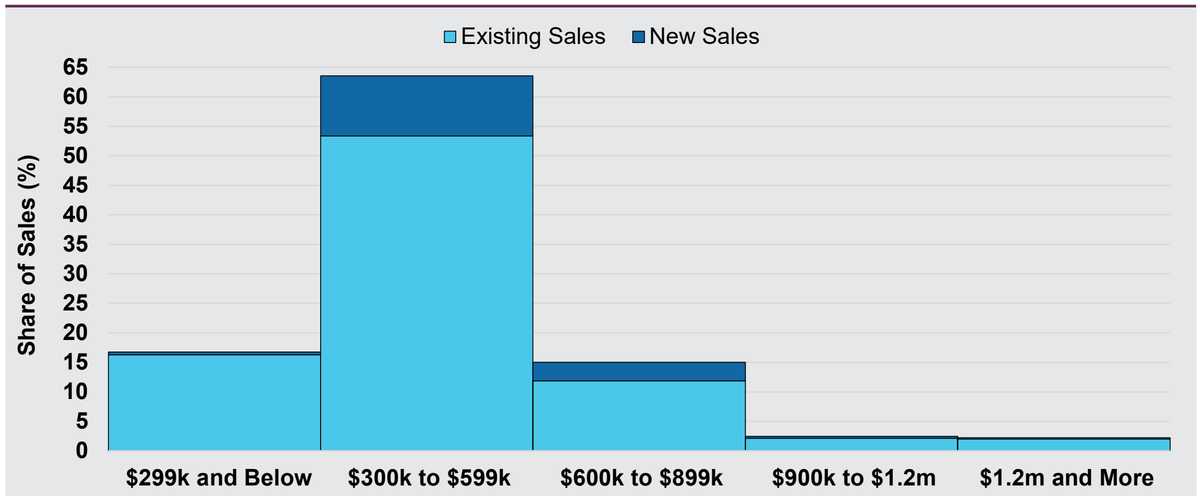
The low inventory of for-sale housing contributed to strong price growth in the past year. During 2020, the average price of an existing home increased

Figure 16. 12-Month Average Sales Price by Type of Sale in the Suburban Submarket



Source: Zonda

Figure 17. Share of Sales by Price Range During the 12 Months Ending December 2020 in the Suburban Submarket



Source: Zonda

9 percent from 2019, to $476,900. The low inventory and strong population growth following the Great Recession have contributed to strong demand for homes and supported strong price growth since 2011. From 2006 through 2011, the average price of an existing home decreased an average of 2 percent a year, to $241,900. During this time, increasing foreclosures contributed to the lower prices. As foreclosures were absorbed and population growth accelerated, home prices increased. During 2008, REO sales peaked at 39 percent of existing home sales, slightly lower than in the Denver County submarket, and the average price of an REO home, $159,800, was 45 percent lower than a regular resale home which averaged $291,000. From 2012 through 2019, the average price of an existing home increased 8 percent a year, to $438,700. REO sales have averaged approximately 1 percent of existing home sales since 2018. By 2020, the average price of an REO home was just 9 percent lower than the average price of a regular resale.

New Home Sales and Prices

New home sales in the Suburban submarket increased 6 percent in the past year, with 8,025 new homes sold in 2020. New home sales were weak during the period surrounding the Great Recession, but as the economy strengthened and migration into the submarket increased, so too did demand for new sales housing. From 2006 through 2011, new home sales decreased an average of 24 percent a year, to 2,800 homes sold in 2011. Demand for additional housing strengthened in 2013 and 2014 before moderating through 2019. In 2013 and 2014, new home sales increased 29 percent each year and slowed to a 9-percent average annual increase from 2015 through 2019, when 7,575 new homes sold.

Despite the increase in sales in the past year, the average price of a new home decreased 2 percent, to nearly $541,800. From 2006 through 2011, despite declining demand, the average price of a new home increased 1 percent annually. From 2012 through 2013, the price of a new home increased an average of 7 percent, annually, before slowing slightly to 5-percent average annual gains from 2014 through 2019.

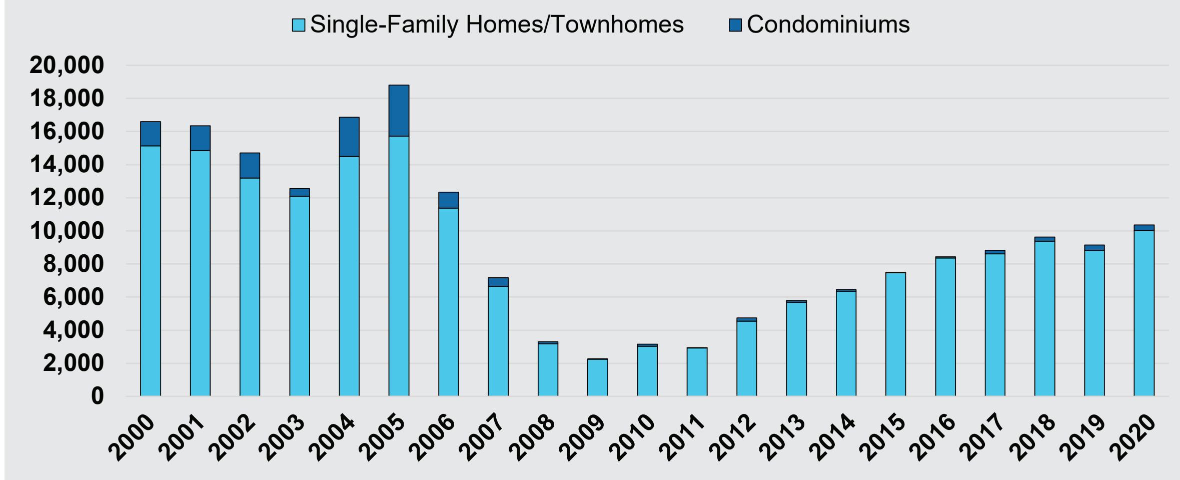
Seriously Delinquent Mortgages and REO Properties

The impact of the pandemic on job losses and overall financial uncertainty has led to a significant increase in the rate of seriously delinquent mortgages and REO properties in the Suburban submarket recently. In December 2020, 2.5 percent of mortgages in the submarket were seriously delinquent or had transitioned into REO status, up significantly from 0.4 percent a year earlier and similar to the rate for the Denver County submarket. By comparison, the rate previously peaked in February 2010 at 5.7 percent as a result of the Great Recession. The rise in delinquencies in the past year partly reflects an increased reliance on mortgage forbearance by borrowers, which was partly provided for under the CARES Act. Approximately 9,325 mortgages in the submarket were 90 or more days past due in December 2020, nearly a six-fold increase from December 2019; however, the number of foreclosures declined 47 percent, largely attributable to the provisions in the CARES Act temporarily restricting foreclosures on government-backed mortgages.

Sales Construction Activity

Sales construction activity in the Suburban submarket, as measured by the number of homes permitted, was strongest in the early 2000s. Less stringent lender requirements and population growth contributed to strong demand for additional housing. As the financial crisis and the Great Recession contributed to significant economic and financial uncertainty, those conditions limited demand for for-sale housing and construction decreased, remaining suppressed until the economy recovered. From 2000 through 2005, an average of 16,000 homes were permitted annually (Figure 18). From 2006 through 2009, permitting decreased by an average of 4,150 homes permitted, or 41 percent a year, to 2,250 homes permitted in 2009. Strong population growth following the Great Recession and increasing confidence in the economy and financial markets contributed to increased demand for additional sales housing; sales construction increased an average of 18 percent a year, to nearly 9,625 homes permitted in 2018. In 2019, sales construction decreased 5 percent, to 9,150 homes permitted, but then increased approximately 12 percent in the past year, to 10,350 in 2020. Construction increased in 2020, in part because of demand stemming from impacts from the pandemic and also because an increase in lot development added to the supply of land available for home construction. The Sterling Ranch subdivision in northwestern Douglas County opened additional phases in 2020, contributing to the increase in the number of lots available for development. Sterling Ranch is one of the largest communities in the submarket under construction; homebuilding activity began in 2016, and the community is approximately 10-percent complete. During 2020, 330 homes sold at an average price of $628,200. Nearly 700 vacant lots are available, and additional phases planned for a total of 12,000 homes are expected to take at least 20 years to complete.

Figure 18. Average Annual Sales Permitting Activity in the Suburban Submarket



Notes: Includes single-family homes, townhomes, and condominiums. Data for 2020 are through December 2020.
Sources: U.S. Census Bureau, Building Permits Survey; 2000 through 2019—final data and estimates by the analyst; 2020—preliminary data and estimates by the analyst

Forecast

During the next 3 years, demand is expected for 27,700 new homes in the Suburban submarket (Table 11). The 4,825 homes currently under construction will meet a portion of the demand in the first year. In general, this submarket has ample land for development; however, there are localized areas of opportunities and limitations. As mentioned earlier, the mountainous counties of Clear Creek, Gilpin, and Park are largely rural, with limited residential construction; the rate of construction is lower in part because the area is farther from the job opportunities of the HMA but also because large swaths of forested land are publicly owned. Elbert County, on the eastern side of the submarket, is rural and lacks some of the transit access into Denver. Like Denver, the City and County of Broomfield are largely constrained by their small geographic size. In 2019, the city of Lakewood, in Jefferson County, voted to limit residential construction to 1 percent a year, which may limit growth within the city but spur growth in the surrounding areas. Adams, Arapahoe, Douglas, and Jefferson Counties all have access to job hubs, public transit options, and available developable land. Most development of for-sale housing in the HMA will occur in these counties during the forecast period.

Table 11. Demand for New Sales Units in the Suburban Submarket During the Forecast Period

	Sales Units
Demand	27,700 Units
Under Construction	4,825 Units

Note: The forecast period is from January 1, 2021, to January 1, 2024.
Source: Estimates by the analyst

Rental Market
Denver HMA

Market Conditions: Slightly Soft

The average apartment rent in the HMA decreased 1 percent in the past year because slight rent growth in the Suburban submarket was more than offset by declines in the Denver County submarket.

Current Conditions and Recent Trends

The overall rental market in the Denver HMA—including apartments, single-family homes, and other housing options available for rent—is slightly soft; the estimated 5.7-percent vacancy rate is down from 7.1 percent in April 2010, when conditions were soft (Table 12). Unlike the sales market, in which all areas are tight, rental market conditions range from slightly soft to balanced throughout the HMA.

Apartment market conditions are slightly soft. Years of elevated apartment construction were compounded by significant uncertainty in the apartment market and economic weakness stemming from the countermeasures to slow the spread of COVID-19 in 2020; those factors contributed to declining apartment rents despite relatively stable vacancy rates. During the fourth quarter of 2020, the apartment vacancy rate in the HMA was 6.1 percent, up slightly from 6.0 percent a year earlier (*Apartment Insights*). The average rent, however, decreased 1 percent, to $1,440. By comparison, the vacancy rate was 5.9 percent during the fourth quarter of 2018, and from 2018 to 2019, the average rent increased 4 percent.

Table 12. Rental and Apartment Market Quick Facts in the Denver HMA

		2010 (%)	Current (%)
Rental Market Quick Facts	**Rental Vacancy Rate**	7.1	5.7
	Occupied Rental Units by Structure		
	Single-Family Attached & Detached	29.1	27.9
	Multifamily (2–4 Units)	9.7	7.6
	Multifamily (5+ Units)	59.8	63.5
	Other (Including Mobile Homes)	1.3	1.0
		Current	**YoY Change**
	Apartment Vacancy Rate	6.1	2
	Average Rent	$1,440	-1
	Studio	$1,162	-7
	One-Bedroom	$1,264	-3
	Two-Bedroom	$1,591	0
	Three-Bedroom	$2,015	2

YoY = year-over-year.
Notes: The current date is January 1, 2021. Percentages may not add to 100 due to rounding.
Sources: 2010 and 2019 American Community Survey 1-year data; Reis, Inc.

Housing Affordability in the Rental Market

Rental housing is slightly unaffordable in the Denver HMA. Although renter household income and gross rents have grown at differing rates since 2010, rental affordability has improved during the past year. During 2019, the median gross monthly rent in the HMA rose 6 percent—more than offset by a 12-percent increase in the median household income for renter households. As a result, the Gross Rent Affordability Index, a measure of median renter household income relative to qualifying income for the median-priced rental unit, increased from 92 in 2018 to 98 in 2019; the index has remained in the 90s since 2011 (Figure 19). In contrast to the gradual decline of affordability in the Denver HMA, affordability in the nation has gradually increased; the national Gross Rent Affordability Index increased from approximately 90 in 2011 to 97 in 2019. The Denver HMA was less affordable than the nation from 2016 through 2018, but due to the strong renter income growth in the HMA during 2019, the affordability in the Denver HMA slightly exceeded that of the nation. Both rent and renter income growth were stronger in the HMA than in the nation in 2019; by comparison, nationwide, the median gross monthly rent rose 4 percent, and the median household income for renter households rose 5 percent.

Renter Cost Burdens

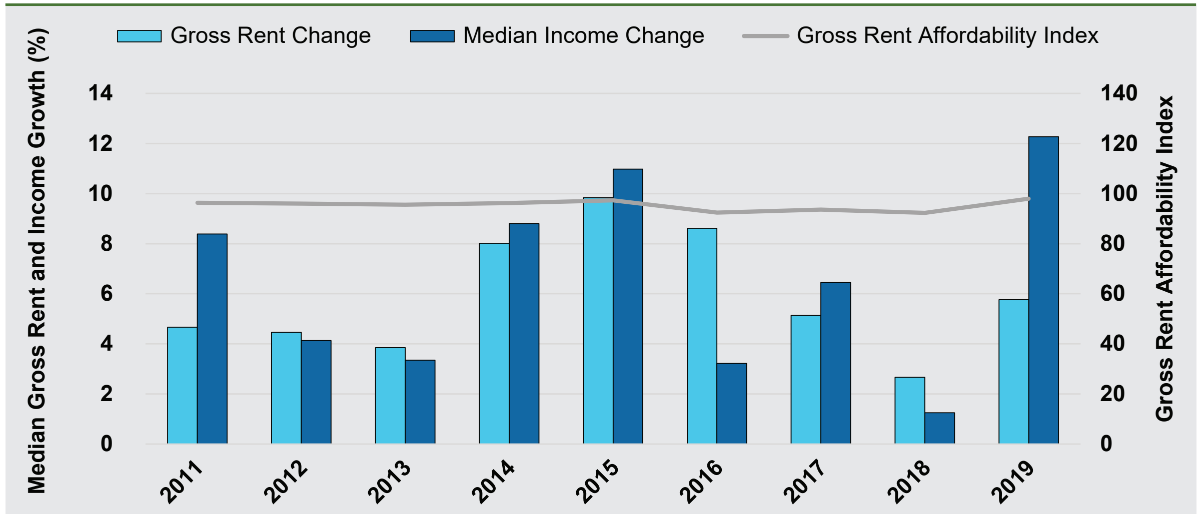
Although overall rental housing is only slightly unaffordable in the Denver HMA, renters in the HMA are more cost burdened than renters nationally, contributing to increased affordability concerns among certain households, particularly those with lower incomes. In general, although renters in the HMA are more likely to be cost burdened than the nation, they are less likely to be severely cost burdened (Table 13). The portion of households in the HMA earning up to 50 percent of area median family income (AMFI), however, is slightly more likely to be cost burdened than the national average and considerably more likely to be severely cost burdened.

Current Affordable Housing Options: LIHTC, PBRA, HCV

Low-Income Housing Tax Credit (LIHTC) is the primary source of funding for new affordable rental housing in the nation. From 2010 to 2018, a total of 9,075 LIHTC units were placed in service in the HMA. Approximately 4,850, or 54 percent, of all LIHTC units placed in service in the HMA since 2010 have been in the Denver County submarket. Recently completed LIHTC apartments in the HMA include the 216-unit North Range Crossings in Commerce City in the Suburban submarket and the 209-unit Sierra Vista Apartments in the Denver County submarket; both properties are restricted to households earning up to 60 percent of area median income (AMI).

In addition to LIHTC, income-eligible residents may qualify for project-based rental assistance (PBRA) or housing choice vouchers (HCV) through the local public housing authority (PHA). The PHAs in the HMA administered approximately 17,570 HCVs under lease in 2020. Some HCV holders report difficulties in obtaining a suitable unit at an affordable rent; not obtaining a unit can result in loss of the voucher, and the average wait time

Figure 19. Denver HMA Gross Rent Affordability Index



MSA = metropolitan statistical area.
Note: Rental affordability is for the larger Denver MSA. The Gross Rent Affordability Index differs from the HUD Rental affordability Index published on the U.S. Housing Market Conditions website in that it is based on combined rent and utilities expenditure.
Source: American Community Survey 1-year data

Table 13. Percentage of Cost-Burdened Renter Households by Income, 2013–2017

	Cost Burdened		Severely Cost Burdened	
	Denver HMA	Nation	Denver HMA	Nation
Renter Households with Income <50% HAMFI	26.7	25.6	54.0	50.1
Total Renter Households	24.1	21.8	21.9	22.9

Sources: Consolidated Planning/CHAS Data; 2013–2017 American Community Survey 5-year estimates (huduser.gov) reported to obtain an HCV is more than 3 years. Within the Denver HMA, an additional 14,650 subsidized units are available through PBRA and other programs and are more than 95-percent occupied (HUD Picture of Subsidized Housing). The number of households receiving federal rental assistance and the number of households that have an HCV in the HMA has increased 3.3 and 14.8 percent, respectively, since 2010 due to rising household costs. To address the growing number of assisted households with rising costs, the (inflation-adjusted) rent subsidy from HUD has increased 21 percent in the HMA since 2010; during the same time, the (inflation-adjusted) tenant contribution for an HCV decreased 2 percent. By comparison, the total number of assisted and voucher households expanded by respective averages of 3.9 and 13.4 percent nationwide, whereas the inflation-adjusted HUD subsidy has increased slightly, by 0.1 percent, and the inflation-adjusted tenant contribution has decreased 0.5 percent since 2010.

Homelessness

In the Denver HMA, approximately 6,100 people were homeless in 2020, and 26 percent were unsheltered homeless. By comparison, about 30 percent of homeless persons in Colorado were unsheltered (2020 Point-in-Time Count).

Policy Initiatives

Policy initiatives are in place to address affordability concerns, particularly among those lower income households that are more likely to be cost burdened. In 2018, the city of Denver increased the tax on cannabis sales by 2 percent; the result was more than $11 million of cannabis tax revenue dedicated to an affordable housing fund. One of the first developments to benefit from the fund, the 180-unit Moline Apartments in the Central Park neighborhood, opened in 2019 and is income restricted to households earning up to 60 percent of AMI. The affordable housing fund has supported the construction of nearly 1,900 income-restricted units in the city of Denver. After the as-of date of this report, in March 2021, the state reversed a 20-year ban on inclusionary zoning, which will allow communities to decide for themselves whether to mandate income-restricted housing and may lead to additional construction of affordable housing in the future.

Forecast

During the next 3 years, demand is estimated for 22,425 rental units in the HMA (Table 15). The 14,225 units already under construction and 1,375 units in planning are expected to be completed during the next 3 years and will meet a portion of the demand. Map 2 shows current developments under construction. Demand will likely increase throughout the 3 years as jobs recover.

Table 14. Picture of Subsidized Households, 2020

	Denver HMA	HMA Change Since 2010	National Total	National Change Since 2010
Total Assisted Households (2020)	31,545	3.3%	4,599,832	3.9%
Total Housing Voucher Households (2020)	17,570	14.8%	2,313,166	13.4%
Average HCV Tenant Monthly Contribution	$364	-2.0%	$386	-0.5%
Average Monthly HUD Subsidy	$1,109	21.1%	$834	0.1%

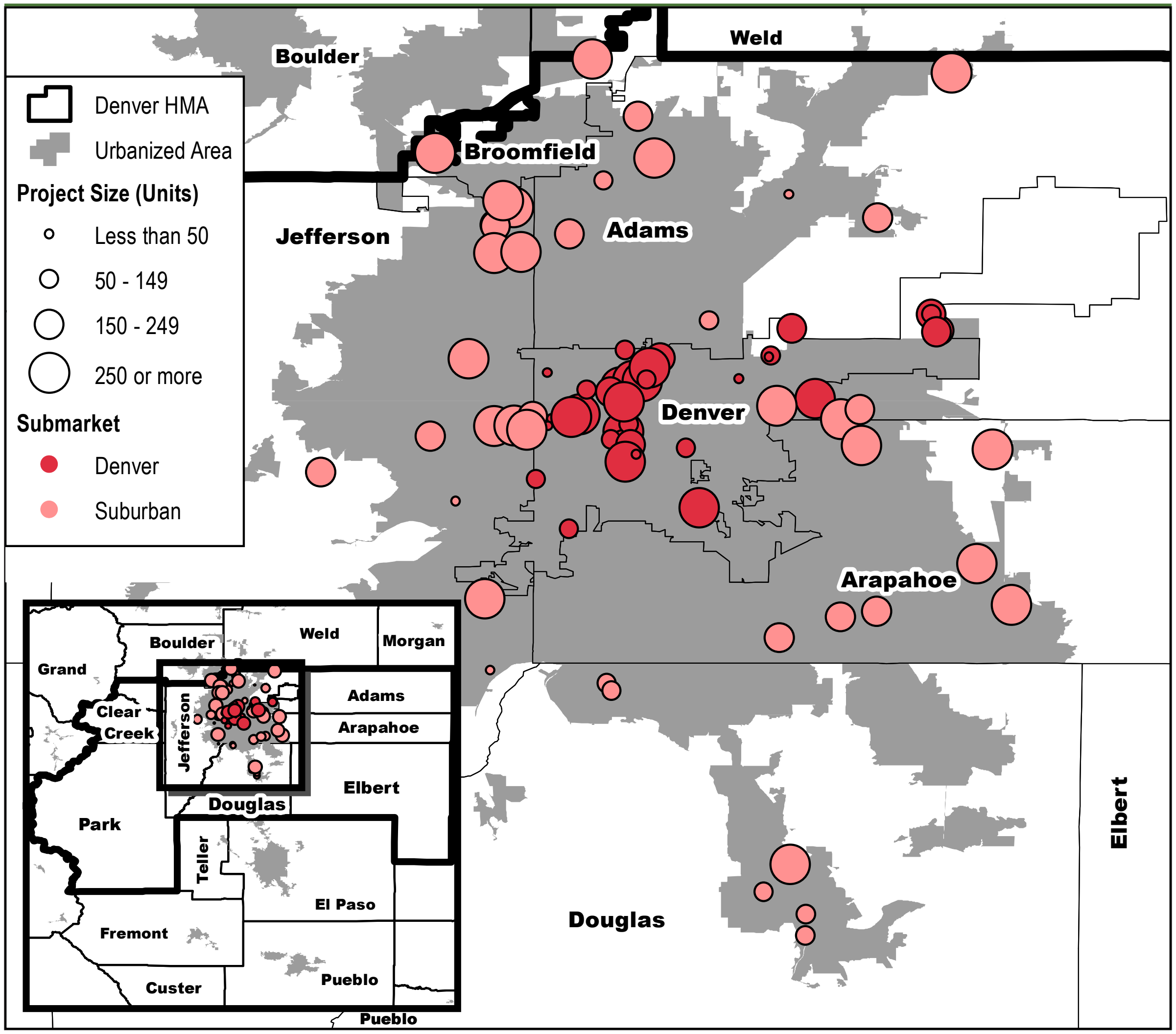
HCV = housing choice voucher.
Note: Dollar changes are inflation adjusted using the Consumer Price Index for All Urban Consumers (CPI-U).
Source: HUD Picture of Subsidized Households

Table 15. Demand for New Rental Units in the Denver HMA During the Forecast Period

	Rental Units
Demand	22,425 Units
Under Construction	14,225 Units

Note: The forecast period is January 1, 2021, to January 1, 2024.
Source: Estimates by the analyst

Map 2. Apartments Underway in the Denver HMA



Source: McGraw-Hill Construction Pipeline database, with adjustments by the analyst

Denver County Submarket

Market Conditions: Slightly Soft

> The average apartment rent decreased 4 percent during the past year, which was the first time rents declined in the submarket in more than a decade.

Current Conditions and Recent Trends

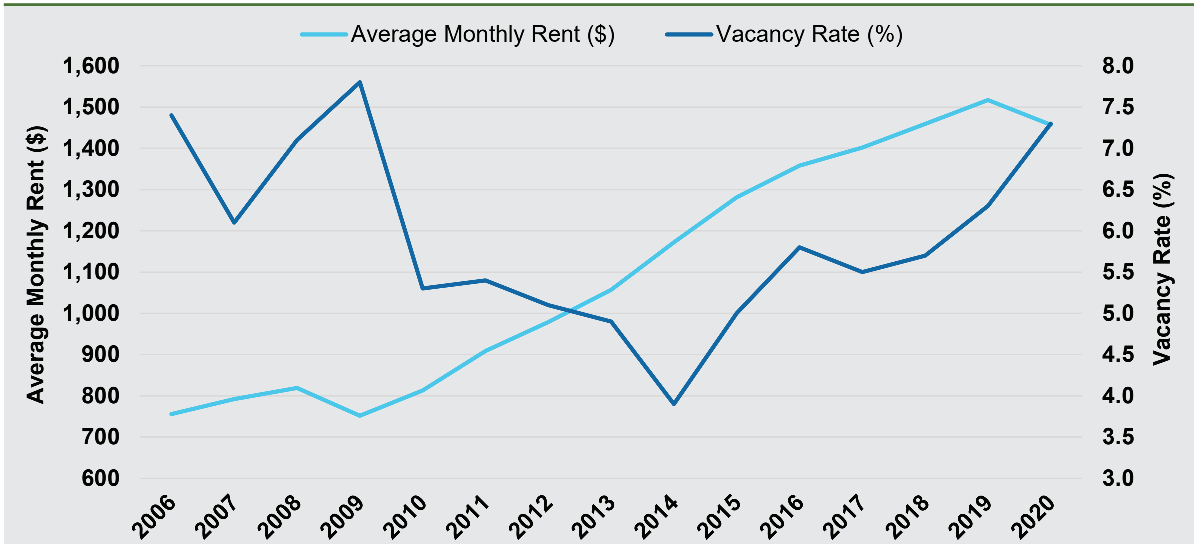
Rental market conditions in the Denver County submarket are slightly soft, following years of elevated apartment construction concentrated in the downtown area. The rental vacancy rate is currently estimated at 7.2 percent, comparable to the 7.3-percent rate from April 2010, when the market was also slightly soft (Table 16). Approximately 69 percent of renter households in the Denver County submarket live in multifamily buildings with five or more units, typically apartments, which is higher than in the Suburban submarket (2019 1-year American Community Survey estimates). The apartment vacancy rate is similar to the overall market, and apartment market conditions are also slightly soft. During the fourth quarter of 2020, the average apartment vacancy rate was 7.3 percent, up from 6.3 percent a year earlier, and the average rent decreased 4 percent, to $1,457 (Figure 20; *Apartment Insights*). The last time the Denver County submarket experienced declining

Table 16. Rental and Apartment Market Quick Facts in the Denver County Submarket

Rental Market Quick Facts		2010 (%)	Current (%)
	Rental Vacancy Rate	7.3	7.2
	Occupied Rental Units by Structure		
	Single-Family Attached & Detached	23.3	23.6
	Multifamily (2–4 Units)	11.3	7.2
	Multifamily (5+ Units)	64.5	69.1
	Other (Including Mobile Homes)	0.8	0.2
		Current	**YoY Change**
	Apartment Vacancy Rate	7.3%	15.9
	Average Rent	$1,457	-4
	Studio	$1,175	-9
	One-Bedroom	$1,293	-6
	Two-Bedroom	$1,689	-2
	Three-Bedroom	$2,199	5

YoY = year-over-year.
Notes: The current date is January 1, 2021. Percentages may not add to 100 due to rounding.
Sources: 2010 and 2019 American Community Survey 1-year data; Reis, Inc.

Figure 20. Apartment Rents and Vacancy Rates in the Denver County Submarket



Note: Data are for the fourth quarter.
Source: *Apartment Insights*

rents was during the Great Recession; in 2009, the vacancy rate was also elevated, and the average rent declined 4 percent, to $752. From 2010 through 2019, the fourth quarter rent increased an average of 8 percent annually, and the soft market conditions improved because of stronger population growth relative to the previous decade. The vacancy rate decreased from 5.3 percent during the fourth quarter of 2010 to 3.9 percent in 2014; the fourth quarter vacancy rate increased from 2015 through 2018 but stayed below 6.0 percent. The most recent softness in the market is attributed primarily to a surge of apartment construction and a preference for renters to live outside the city during the pandemic. That preference was due to urban amenities such as entertainment venues, restaurants, and bars being limited; the desire by households to have more space to accommodate social distancing; and the increase in remote working and virtual schooling.

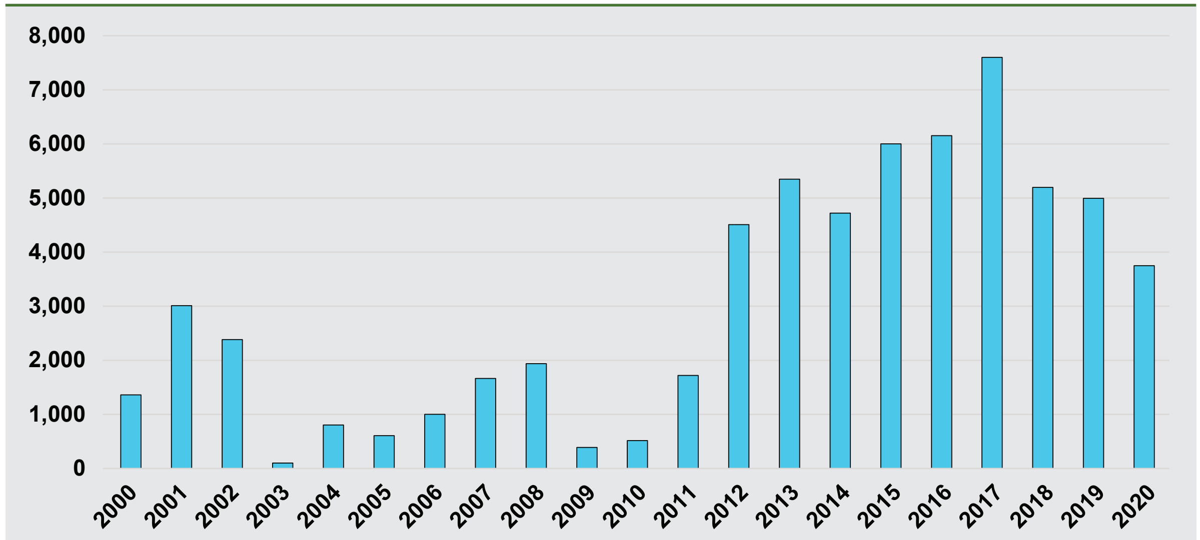
Market Conditions in the Central Business District

Weakening apartment market conditions in the central business district (CBD) contributed to the overall softness in the Denver County submarket. During the fourth quarter of 2020, the vacancy rate in the CBD was 8.8 percent, up from 6.8 percent a year earlier, and the average rent declined 11 percent, to $1,623. By comparison, the fourth quarter rent increased an average of 3 percent each year from 2013 through 2019. The CBD has high rents, approximately 11 percent higher than the submarket average. Many of the new developments are Class A, including some units with very high rents, but rent growth has been suppressed through the extended use of concessions. Management companies of new properties often offer concessions during the lease-up period, typically up to 1 month free with a 12-month lease, but many in the CBD have continued to offer concessions after stabilization because of increased competition from the constant supply of new apartment units coming online during the past several years. Of the nearly 18,950 apartment units in the CBD, 43 percent were completed in the past 5 years. In addition, approximately one-third of apartment construction in the Denver County submarket has occurred in the CBD. The 300-unit Parq on Speer opened in 2019 and is in lease up. The property is about 75-percent occupied so far and is offering 2 months free for a lease longer than 12 months, with rents ranging from $1,510 for a studio unit to $10,485 for a four-bedroom penthouse unit.

Rental Construction Activity

Rental construction activity in the Denver County submarket, as measured by the number of rental units permitted, primarily includes apartments; that activity has been elevated for the past 9 years despite declines in recent years. From 2000 through 2011, the number of units permitted fluctuated year to year but averaged 1,300 rental units each year (Figure 21). As the expanding economy following the Great Recession supported population growth and

Figure 21. Average Annual Rental Permitting Activity in the Denver County Submarket



Notes: Includes apartments and units intended for rental occupancy. Data for 2020 are through December 2020.
Sources: U.S. Census Bureau, Building Permits Survey; 2000–2019—final data and estimates by the analyst; 2020—preliminary data and estimates by the analyst

the rental market tightened, rental construction increased. From 2012 through 2017, rental permitting increased an average of 28 percent each year, to a peak of 7,600 rental units in 2017. In 2018 and 2019, the number of units permitted decreased 19 percent each year, to 5,000 units, and then another 25 percent in 2020 to 3,750 rental units. The decline is primarily attributed to builders responding to the softening market conditions and slower population growth. Construction began on the 397-unit Residences at RiNo in the CBD in October 2020, with the first units expected to be available to lease in the summer of 2022; completion is expected a year later. In the Washington Park neighborhood, construction started on 373-unit Broadway Park in October 2020. The project is expected to be complete in late 2022.

Forecast

During the next 3 years, demand is estimated for 9,775 rental units (Table 17). The 5,100 units currently under construction and the additional 450 units in planning and expected to be completed will meet demand into the second year. Representing an increase from recent trends over the past 5 years in which approximately one-third of construction has occurred in the CBD, approximately 45 percent of the apartment units currently under construction are located in the CBD.

Suburban Submarket

Market Conditions: Balanced

The average apartment rent increased slightly in the past year, and the fourth quarter vacancy rate declined from 5.7 in 2019 to 5.4 percent in 2020.

Current Conditions and Recent Trends

Rental market conditions in the Suburban submarket are balanced, with an estimated 4.8-percent rental vacancy rate, down from 6.9 percent in April 2010, when the market was soft (Table 18). Approximately 60 percent of all renter households reside in multifamily buildings with five or more units per building, typically apartments (2019 ACS 1-year data). The apartment market is also balanced. During the fourth quarter of 2020, the apartment vacancy rate was 5.4 percent, down from 5.7 percent a year earlier (*Apartment Insights*). Despite a decline in the average vacancy rate, the average apartment rent increased less than 1 percent, to $1,433 (Figure 22). The gap between the rents in the Denver County submarket and Suburban submarket closed in the past year; the average rent in the Suburban submarket was 2 percent lower, compared with 6 percent lower in 2019.

The average apartment rent in the Suburban submarket has increased every year since 2009, when rents decreased 6 percent due to the economic weakness and financial crisis associated with the Great Recession. The apartment market was tight, and average rents increased from 2010 through 2014, averaging nearly 9 percent a year. The vacancy rate declined from 5.6 to 4.2 percent during that time. The market moderated from 2015 through 2019, and conditions were more balanced. Rent growth averaged 5 percent annually, and the vacancy rate was higher, ranging from 4.9 to 6.0 percent.

Table 17. Demand for New Rental Units in the Denver County Submarket During the Forecast Period

	Rental Units
Demand	9,775 units
Under Construction	5,100 units

Note: The forecast period is January 1, 2021, to January 1, 2024.
Source: Estimates by the analyst

Table 18. Rental and Apartment Market Quick Facts in the Suburban Submarket

Rental Market Quick Facts		2010 (%)	Current (%)
	Rental Vacancy Rate	6.9	4.8
	Occupied Rental Units by Structure		
	Single-Family Attached & Detached	32.5	30.6
	Multifamily (2–4 Units)	8.8	7.9
	Multifamily (5+ Units)	57.1	60.0
	Other (Including Mobile Homes)	1.2	1.5
		Current	**YoY Change**
	Apartment Vacancy Rate	5.4	5.3
	Average Rent	$1,433	0
	Studio	$1,113	1
	One-Bedroom	$1,248	-1
	Two-Bedroom	$1,549	1
	Three-Bedroom	$1,961	0

YoY = year-over-year.
Notes: The current date is January 1, 2021. Percentages may not add to 100 due to rounding.
Sources: 2010 and 2019 American Community Survey 1-year data; Reis, Inc.

Rental Construction Activity

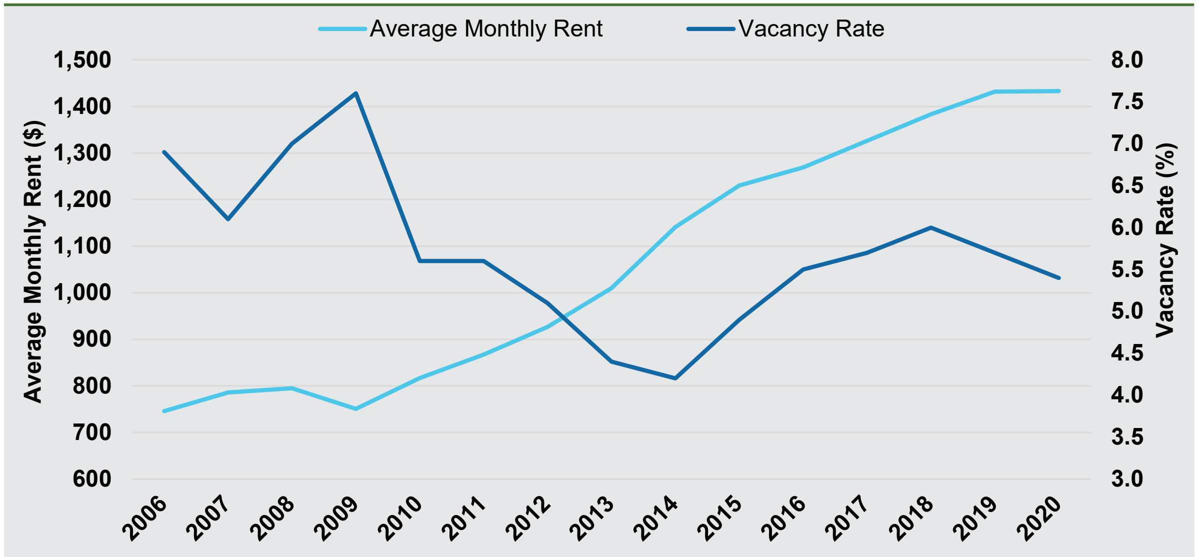
Rental construction activity, as measured by rental units permitted, surged in the Suburban submarket in the past year to the highest level since at least 2000. After 7,775 rental units were permitted in 2000, rental construction decreased an average of 46 percent a year, to 670 rental units permitted in 2004 (Figure 23). From

2005 through 2010, permitting fluctuated, averaging 1,500 units permitted a year. In response to the tightening apartment market, builders increased construction after the Great Recession, and from 2011 through 2014, rental permitting increased an average of 72 percent a year, to 5,750 units in 2014. From 2015 through 2019, permitting remained elevated, averaging 5,150 units a year. In 2020, the number of multifamily units permitted spiked, to 8,250 units. In 2019, the 260-unit Alta Green Mountain opened in the city of Lakewood. Rents for the one-bedroom, two-bedroom, and three-bedroom units average $1,846 a month. In January 2020, construction started on the 306-unit MAA Westglenn apartments in the city of Westminster and is expected to be completed by the fall of 2021. In November 2020, the 338-unit Stanley TCR was underway in the city of Aurora, with expected completion in early 2023.

Forecast

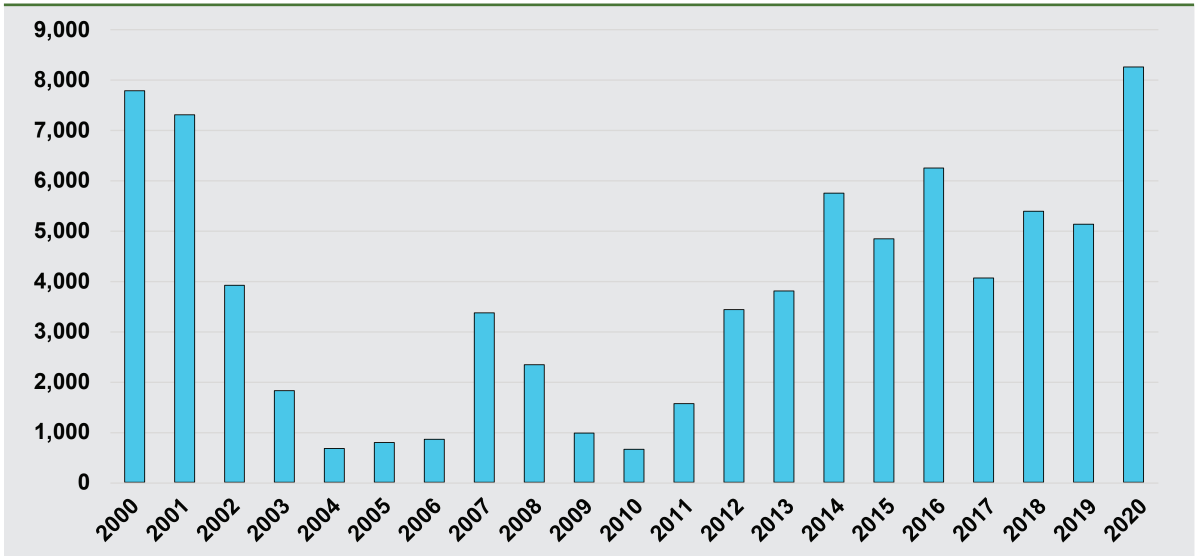
During the next 3 years, demand is estimated for 12,650 units (Table 19). The 9,125 units under construction and additional 925 units in planning are expected to be completed during the forecast and are expected to meet the demand for the first 2.5 years. Similar to the sales construction in the Suburban submarket, most of the demand is expected in the inner counties in communities near transit lines and access to job centers.

Figure 22. Apartment Rents and Vacancy Rates in the Suburban Submarket



Source: *Apartment Insights*

Figure 23. Average Annual Rental Permitting Activity in the Suburban Submarket



Notes: Includes apartments and units intended for rental occupancy. Data for 2020 are through December 2020.
Sources: U.S. Census Bureau, Building Permits Survey; 2000–2019—final data and estimates by the analyst; 2020—preliminary data and estimates by the analyst

Table 19. Demand for New Rental Units in the Suburban Submarket During the Forecast Period

Rental Units	
Demand	12,650 Units
Under Construction	9,125 Units

Note: The forecast period is January 1, 2021, to January 1, 2024.
Source: Estimates by the analyst

Terminology Definitions and Notes

A. Definitions

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.
Cost Burdened	Spending more than 30 percent of household income on housing costs.
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.
Forecast Period	1/1/2021–1/1/2024—Estimates by the analyst.
Home Sales/ Home Sales Prices	Includes single-family home, townhome, and condominium sales.
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.

Rental Market/ Rental Vacancy Rate	Includes apartments and other rental units, such as single-family, multifamily, and mobile homes.
Seriously Delinquent Mortgages	Mortgages 90+ days delinquent or in foreclosure.

B. Notes on Geography

1.	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 April 10, 2018.
2.	Urbanized areas are defined using the U.S. Census Bureau 2010 Census Urban and Rural Classification and the Urban Area Criteria.
3.	The census tracts referenced in this report are from the 2010 Census.

C. Additional Notes

1.	The NAHB Housing Opportunity Index represents the share of homes sold in the HMA that would have been affordable to a family earning the local median income, based on standard mortgage underwriting criteria.
2.	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.

3.	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.
Cover Photo	iStock

Contact Information

Katharine Jones, Economist
Denver HUD Regional Office
303–672–5060
katharine.jones@hud.gov