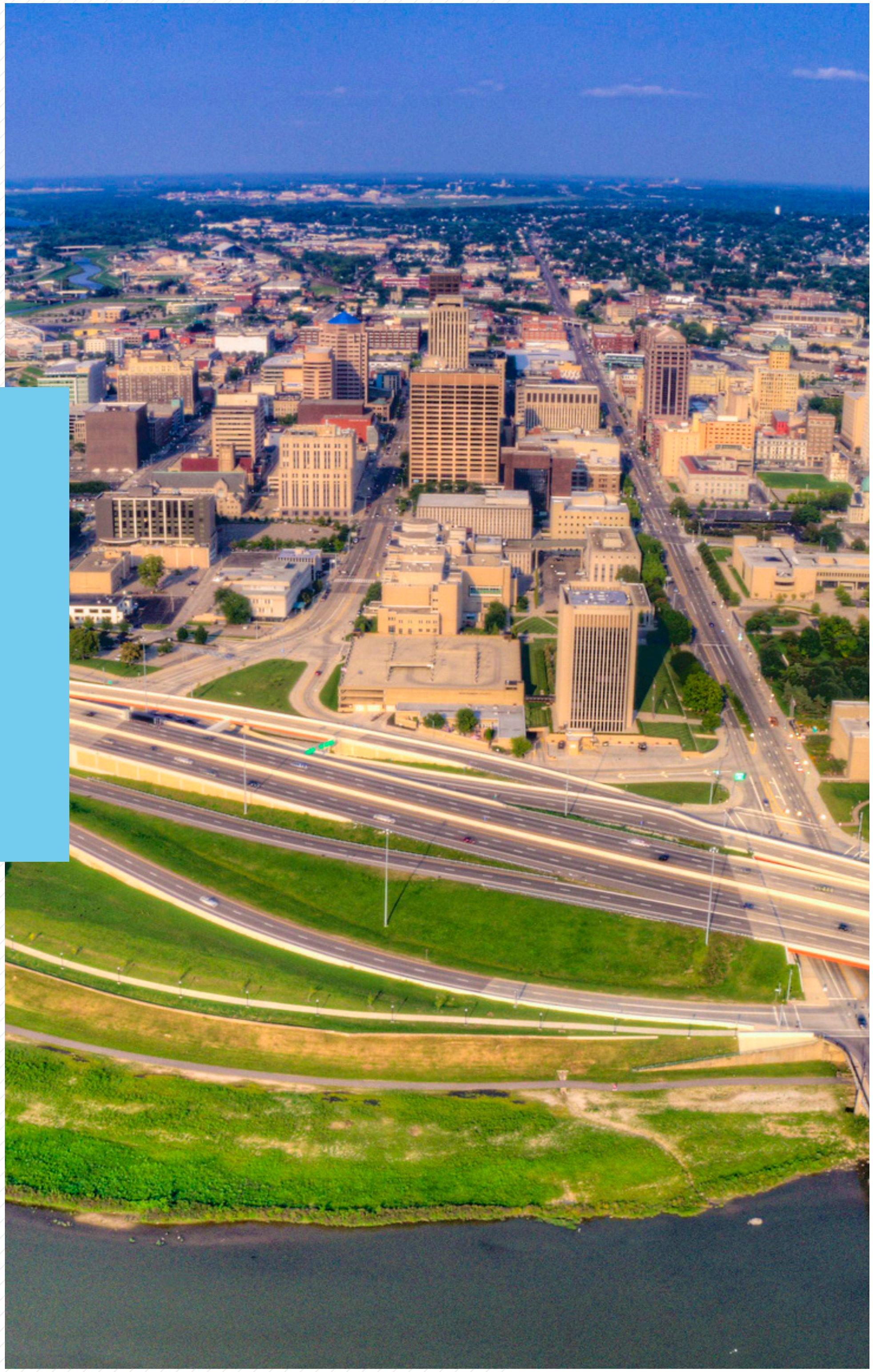
COMPREHENSIVE HOUSING MARKET ANALYSIS

Dayton, Ohio



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

As of April 1, 2021

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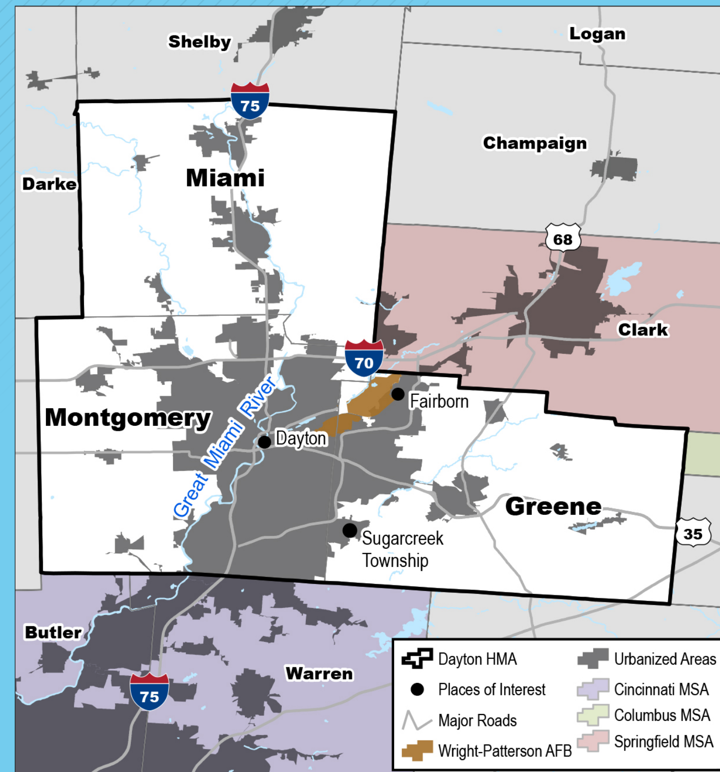

Executive Summary

Housing Market Area Description

The Dayton Housing Market Area (HMA) includes Greene, Miami, and Montgomery Counties in Ohio and is coterminous with the Dayton, OH Metropolitan Statistical Area (MSA). The HMA is in the Miami Valley region of southwest Ohio between the Cincinnati, OH-KY-IN MSA and the Columbus, OH MSA.

The current population of the HMA is estimated at 810,200.

The HMA is known as the birthplace of aviation because the inventors of the first successful airplane, Orville and Wilbur Wright, were from the city of Dayton. During WWI, more than 3,000 airplanes were manufactured at Dayton-Wright Airplane Company plants throughout the HMA, and airplane manufacturing continues to support the economy of the HMA. The HMA is home to Wright-Patterson Air Force Base (AFB), which had an economic impact of $15.54 billion on the HMA in 2018 (Dayton Development Coalition).

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, but Improving: On a month-to-month basis, 30.8 percent of the 57,100 nonfarm payroll jobs lost during March and April 2020 due to countermeasures implemented in March 2020 to slow the spread of COVID-19 were recovered by the end of March 2021 (not seasonally adjusted).

Following a period of economic expansion from 2011 through 2019, significant nonfarm payroll loss in April 2020 contributed to overall job losses during the 12 months ending March 2021 from a year earlier. Nonfarm payrolls in the HMA declined by 26,900 jobs, or 6.9 percent, to 365,600 during the 12 months ending March 2021 from the same period a year earlier. All nonfarm payroll sectors except the transportation and utilities sector contributed to the job loss. During the 3-year forecast period, nearly all the lost jobs are expected to be recovered, and nonfarm payroll growth in the HMA is estimated to average 1.2 percent a year.

Sales Market

Tight: The average home sales price in the HMA has been rising for more than 8 years, and the rate of growth accelerated to the highest level, 13 percent, during the 12 months ending March 2021, as the inventory of homes for sale declined significantly.

The sales housing market in the HMA is tight despite the recent economic contraction, with an estimated 1.3-percent vacancy rate—down from 2.7 percent in 2010, when conditions were soft. During the next 3 years, demand is estimated for 3,575 new homes. Demand in the HMA is expected to increase throughout the 3-year forecast period because of low mortgage interest rates, continued net in-migration, and improving economic conditions. The 310 homes under construction in the HMA are expected to satisfy some of the forecast demand.

Rental Market

Balanced: Renter households currently account for 36.3 percent of all households in the HMA—up from 35.1 percent in 2010.

Rental housing market conditions in the HMA are balanced. The overall vacancy rate is estimated at 8.2 percent—down from 12.3 percent in 2010, when conditions were soft. An increase in renter households since 2010 has contributed to the absorption of excess vacant rental units. The apartment market in the HMA is tight, with a 3.1-percent vacancy rate during the first quarter of 2021, compared with 2.9 percent during the first quarter of 2020 (Moody's Analytics REIS). During the forecast period, demand is expected for 2,825 rental units in the HMA. The 1,325 rental units currently under construction are expected to satisfy a portion of demand during the forecast period.

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3-Year Housing Demand Forecast

		Sales Units	Rental Units
Dayton HMA	Total Demand	3,575	2,825
	Under Construction	310	1,325

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

Economic Conditions

Largest Sector: Education and Health Services

The education and health services sector accounts for 19 percent of all nonfarm payroll jobs in the HMA and was the sector that added the most jobs from 2001 through 2019, before the current economic downturn.

Primary Local Economic Factors

The HMA is the home of Wright-Patterson AFB and is a center for aerospace research and development. With 20,675 active military and civilian employees, Wright-Patterson AFB is the largest employer in the HMA (Table 1) and the largest single-site employer in Ohio. In 2018, the AFB had an economic impact of $15.54 billion on the HMA (Dayton Development Coalition). Located on base is the National Museum of the United States Air Force, the oldest and largest military aviation museum in the world, which attracts more than 800,000 visitors a year and has an economic impact of approximately $40 million a year (*Houston Business Journal*). Along with defense and aerospace, the HMA is home to several private and public universities and several healthcare providers, which represent 5 of the 10 largest employers in the HMA. As a result, the government, the manufacturing, and the education and health services sectors combine to account for 46 percent of nonfarm payrolls (Figure 1).

Table 1. Major Employers in the Dayton HMA

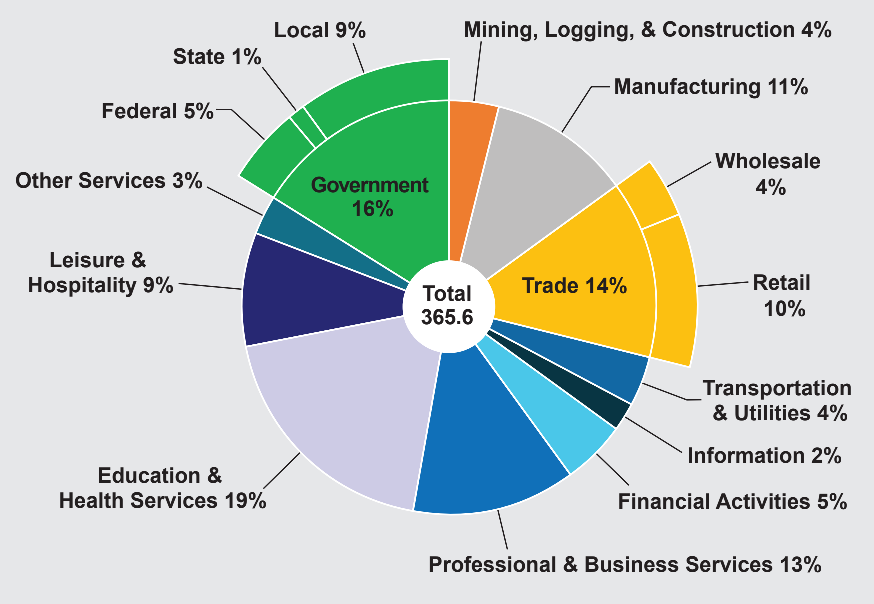
Name of Employer	Nonfarm Payroll Sector	Number of Employees
Wright-Patterson Air Force Base	Government	20,675
Premier Health Partners	Education & Health Services	12,425
Kettering Health	Education & Health Services	9,319
The Kroger Co.	Wholesale & Retail Trade	4,030
Dayton Children's Hospital	Education & Health Services	3,341
American Honda Motor Co., Inc.	Manufacturing	3,200
Sinclair Community College	Government	3,163
American CareSource Holdings, Inc.	Financial Activities	3,021
LexisNexis	Professional & Business Services	3,000
University of Dayton	Education & Health Services	3,000

Notes: Excludes local school districts. Data include military personnel, who generally are not included in nonfarm payroll survey data.
Sources: Moody's Analytics; Defense Manpower System, September 2020

Current Economic Conditions and the Effects of COVID-19—Recent 24 Months

Economic conditions have improved since May 2020, when businesses began to reopen gradually following the closure of nonessential businesses to slow the spread of COVID-19. By March 2021, 30.8 percent of the 57,100 jobs lost on a monthly basis during March and April 2020 (not seasonally adjusted)

Figure 1. Share of Nonfarm Payroll Jobs in the Dayton 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 March 2021.
Source: U.S. Bureau of Labor Statistics

had been recovered. As a result of those losses, economic conditions during the 12 months ending March 2021 were weak, but improving, compared with a year earlier. During the 12 months ending March 2021, jobs declined by 26,900 jobs, or 6.9 percent, to 365,600 (Table 2)—slower than the national rate of 7.4 percent. By comparison, during the 12 months ending March 2020, jobs in the HMA increased by 2,200, or 0.6 percent. Job losses in the HMA during the 12 months ending March 2021 occurred in nearly all sectors and were largest in sectors with jobs that cannot easily be done remotely. Nearly one-third of net job losses occurred in the leisure and hospitality sector, which lost 7,700 jobs—a 19.4-percent decline. Approximately 410 employees were laid off at two hotels, including the Marriott at the University of Dayton and the Crowne Plaza Dayton (Ohio Department of Job and Family Services, Worker Adjustment and Retraining Notification). The education and health services sector contracted by 4,300 jobs, or 5.7 percent, from a year earlier, to 70,800 jobs, partly because hospitals were temporarily unable to provide many elective procedures and colleges and universities moved to remote learning or closed during the 2020 spring and fall semesters. Payrolls in the manufacturing sector declined by 3,900, or 8.9 percent, from a year earlier, partly because the production of some manufactured goods was deemed nonessential. Sectors in which a large percentage of the workforce was able to work remotely were less affected by the countermeasures used to slow the spread of COVID-19, including the government sector, which declined by 2,700 jobs, or 4.3 percent. The transportation and utilities sector was the only sector to add jobs during the past 12 months, increasing by 500 jobs, or 3.8 percent. More than two-thirds of the gain was in the transportation and warehousing industry, which increased by 300 jobs, or 2.8 percent. Greater demand for e-commerce over the past few years was compounded by physical distancing measures and the temporary closure of nonessential brick-and-mortar retail during the pandemic.

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

	12 Months Ending March 2020	12 Months Ending March 2021	Absolute Change	Percentage Change
Total Nonfarm Payroll Jobs	**392.5**	**365.6**	**-26.9**	**-6.9**
Goods-Producing Sectors	57.6	53.4	-4.2	-7.3
Mining, Logging, & Construction	13.8	13.5	-0.3	-2.2
Manufacturing	43.8	39.9	-3.9	-8.9
Service-Providing Sectors	334.9	312.3	-22.6	-6.7
Wholesale & Retail Trade	52.6	50.4	-2.2	-4.2
Transportation & Utilities	13.0	13.5	0.5	3.8
Information	7.5	6.8	-0.7	-9.3
Financial Activities	18.2	17.8	-0.4	-2.2
Professional & Business Services	52.5	49.1	-3.4	-6.5
Education & Health Services	75.1	70.8	-4.3	-5.7
Leisure & Hospitality	39.6	31.9	-7.7	-19.4
Other Services	13.9	12.3	-1.6	-11.5
Government	62.4	59.7	-2.7	-4.3

Notes: Based on 12-month averages through March 2020 and March 2021. Numbers may not add to totals due to rounding. Data are in thousands.
Source: U.S. Bureau of Labor Statistics

Current Conditions—Unemployment

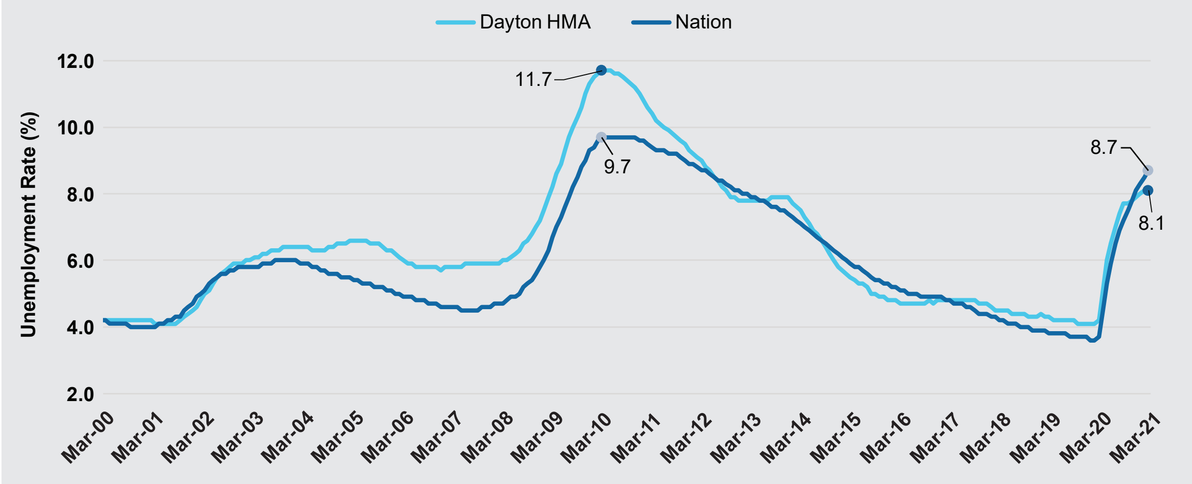
As the economy of the HMA contracted during the 12 months ending March 2021, the average unemployment rate nearly doubled, to 8.1 percent from 4.2 percent a year earlier, but is below the 8.7-percent rate for the nation (Figure 2). The increase in the average unemployment rate in the HMA is in contrast to a general decline that occurred from 2011 through 2019. Although high, the current unemployment rate remains below the previous high of 11.7 percent during the 12 months ending March 2010.

Economic Periods of Significance

Contraction: 2001 Through 2010

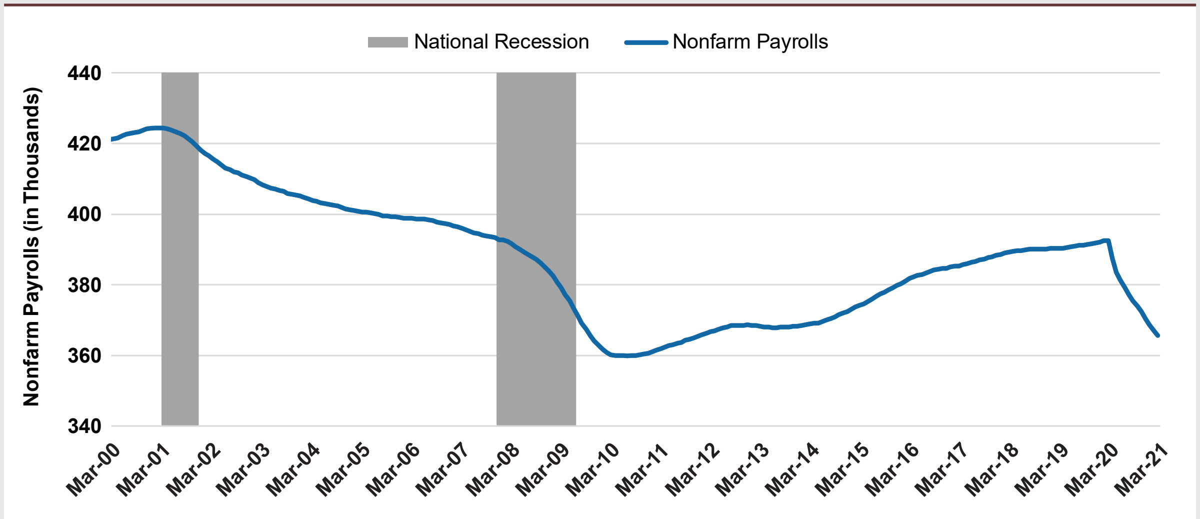
During 2000, jobs in the HMA peaked at 424,400, but from 2001 through 2010, the HMA lost jobs every year, with most of the job loss concentrated at the beginning and the end of the 10-year period, when the nation underwent two economic recessions (Figure 3). From 2001 through 2010, jobs in the HMA declined by an average of 6,400, or 1.6 percent, annually. Job losses occurred in 10 of 11 nonfarm payroll sectors, and the manufacturing sector led declines with an average loss of 3,900 jobs, or 7.1 percent, annually. The largest manufacturing job reduction of 8,900 jobs, or 19.7 percent, occurred in 2009, in part because a General Motors Company (GM) assembly plant closed in the city of Moraine, laying off 1,075 employees. In 1990, the HMA had the largest concentration of GM employees outside Michigan. Government sector jobs decreased by an average of 300, or 0.5 percent, annually from 2001 through 2008 before increasing by an average of 1,100, or 1.7 percent, annually from 2009 through 2010. During the latter part of the period, the federal government subsector increased by an average of 1,100 jobs, or 6.5 percent, annually when the Base Realignment and Closure (BRAC) process added approximately 1,120 new military and civilian employees at Wright-Patterson AFB. From 2001 through 2010, the mining, logging,

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



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

Figure 3. 12-Month Average Nonfarm Payrolls in the Dayton HMA



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

and construction sector lost an average of 500 jobs, or 3.8 percent, annually. Residential construction declined in response to the national housing market downturn and net out-migration of people seeking jobs in larger employment centers, including the Cincinnati and Columbus MSAs. From 2001 through 2010, the education and health services sector was the only sector with a net gain in jobs, increasing by an average of 1,000 jobs, or 1.6 percent, annually, to 67,800 jobs. The sector became the largest nonfarm payroll sector in 2005, contributing nearly 16 percent of jobs, a proportion that increased to 19 percent by 2010.

Economic Recovery: 2011 Through 2019

Following 10 years of economic contraction, the economy of the HMA generally expanded from 2011 through 2019, but job growth started decelerating in 2016. From 2011 through 2015, nonfarm payrolls rose by an average of 3,800 jobs, or 1.0 percent, annually and slowed to an average gain of 3,000 jobs, or 0.8 percent, a year from 2016 through 2019, to 391,900 jobs. From 2011 through 2019, job growth in the HMA was slower than the 1.6-percent annual growth rate for the nation. Within the HMA, 8 of the 11 sectors added jobs during the 9-year period. The manufacturing sector added the most jobs, increasing by an average of 900 jobs, or 2.2 percent, annually. Expansions in the manufacturing sector included a $350 million Fuyao Glass America automotive glass manufacturing plant at the former GM plant, adding 1,550 employees in 2015. From 2011 through 2019, the education and health services sector added an average of 800 jobs, or 1.1 percent, annually. In 2019, Kettering Health completed a $25 million expansion of Grandview Medical Center in the western portion of the city of Dayton, which doubled the size of the emergency department from 25 to 50 beds. From 2011 through 2019, jobs in the professional and business services sector also increased, by an average of 800, or 1.6 percent, a year, to 52,400 jobs. From 2011 through 2019, job growth in the mining, logging, and construction sector resumed, increasing by an average of 300 jobs, or 2.9 percent, annually, partly because of increased residential construction in response to net in-migration. The government sector lost an average of 200 jobs, or 0.4 percent, annually from 2011 through 2019 because job losses in the state and local government subsectors offset an average annual increase of 100 jobs, or 0.5 percent, in the federal government subsector. Job growth in the federal subsector occurred partly because employment at Wright-Patterson AFB began increasing in 2015 in support of increasing projects, including the development of flying cars.

Employment Forecast

During the 3-year forecast period, nonfarm payrolls are expected to increase by an average of 1.2 percent annually. By the end of the 3-year forecast, the level of nonfarm payrolls is expected to be only 1 percent below the February 2020 level, before the onset of the pandemic. Stronger economic conditions are expected in the early part of the forecast period as COVID-19 precautions are relaxed and businesses continue to reopen. Job growth is expected to resume in the manufacturing and the education and health services sectors. Defense aircraft manufacturing employment is expected to increase by more than 400 jobs when the F-35 Hybrid Product Support Integrator Organization is fully operational in 2022 at Wright-Patterson AFB. In addition, a new $78 million Dayton Children's Hospital specialty care outpatient center is scheduled to be completed in 2023 at the main campus of the hospital. Leisure and hospitality sector jobs are expected to recover a portion of the jobs lost during the pandemic. Four new hotels, with a combined 490 rooms, are scheduled to open, including two in downtown Dayton: the $25 million 118-room Hotel Ardent Tapestry by Hilton, which is being converted from an office building, and the 134-room AC Hotel by Marriott, which was scheduled to be completed in the summer of 2021 but is expected to open in the fall of 2022 because of delays caused by COVID-19.

Population and Households

Current Population: 810,200

Population growth in the Dayton HMA has accelerated since 2015 despite a slowdown in net natural increase because of a shift to net in-migration.

Population Trends

Population trends have generally mirrored economic conditions in the HMA since 2000. From 2000 to 2010, a period when the local economy was contracting, the population decreased by an average of 650, or 0.1 percent, annually (Table 3; Census Bureau decennial census counts). During the period, net out-migration averaged 3,325 people, annually, and offset average annual net natural increase of 2,675 people (Figure 4). Subsequently, when the economy began expanding, the population grew by an average of 250, or less than 0.1 percent, annually from 2010 to 2015. During the period, net out-migration slowed, averaging 1,225 people annually, and net natural increase slowed to an average of 1,475 people a year. During the 15-year period, net out-migration from the HMA was highest to Warren and Franklin Counties, which are part of the Cincinnati and Columbus MSAs, respectively (Internal Revenue Service, County-to-County Migration Data). Economic conditions in those MSAs were stronger. Since 2015, the population has grown an average of 1,675, or 0.2 percent, a year despite the slowdown and subsequent decline in job growth because of a shift to net in-migration, which averaged 1,250 people a year, accounting for 75 percent of population growth. Simultaneously, net natural increase fell to an average of 425 people annually. Some net in-migration was from Warren and Franklin Counties, partly

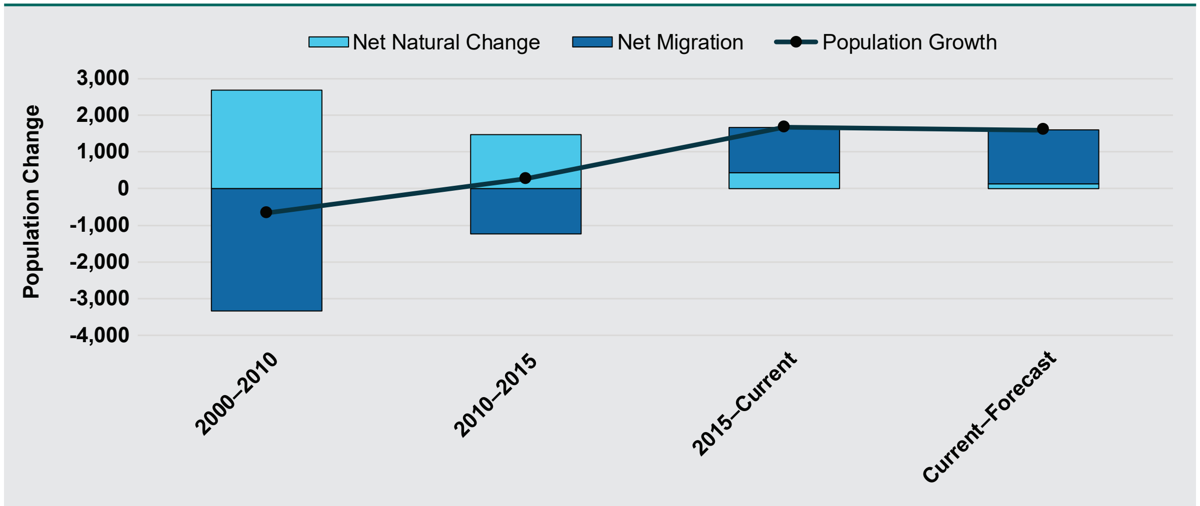
Table 3. Dayton HMA Population and Household Quick Facts

Population Quick Facts		2010	Current	Forecast
	Population	799,232	810,200	815,000
	Average Annual Change	-650	990	1,600
	Percentage Change	-0.1	0.1	0.2

Household Quick Facts		2010	Current	Forecast
	Households	327,630	338,600	342,600
	Average Annual Change	470	1,000	1,325
	Percentage Change	0.1	0.3	0.4

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 (April 1, 2021) to April 1, 2024.
Sources: 2000 and 2010—2000 Census and 2010 Census; current and forecast—estimates by the analyst

Figure 4. Components of Population Change in the Dayton HMA, 2000 Through the Forecast



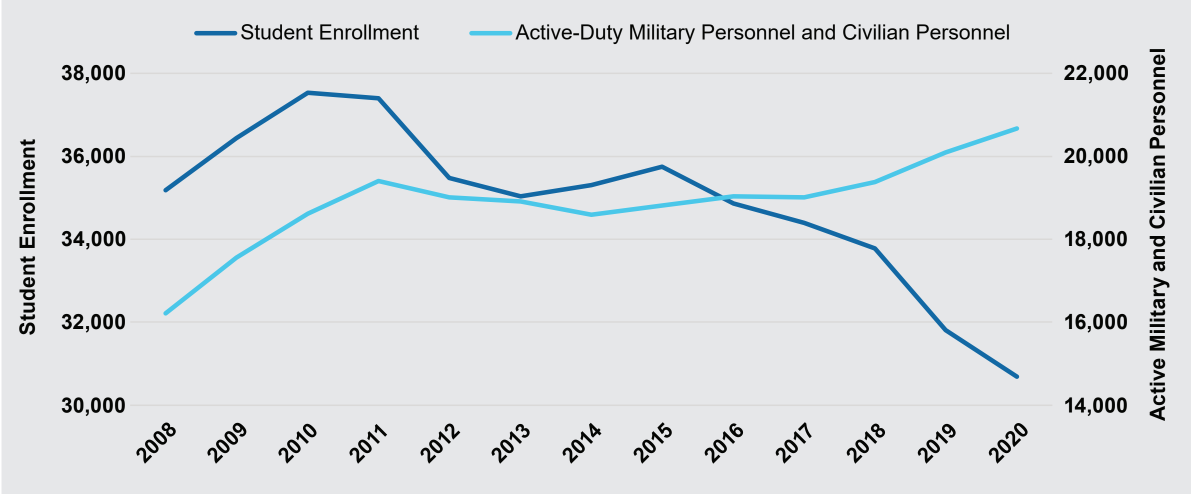
Notes: Average annual changes and percentage changes are based on averages from 2000 to 2010, 2010 to current, and current to forecast. The forecast period is from the current date (April 1, 2021) to April 1, 2024.
Sources: 2000 and 2010—2000 Census and 2010 Census; current and forecast—estimates by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

because the HMA is more affordable than the Cincinnati and Columbus MSAs. An increase in personnel at Wright-Patterson AFB slightly offset decreased student enrollment at universities and colleges (excluding Sinclair Community College) in the HMA since 2011 (Figure 5)—a reversal from increasing enrollment from 2001 through 2010.

Age Cohort Trends

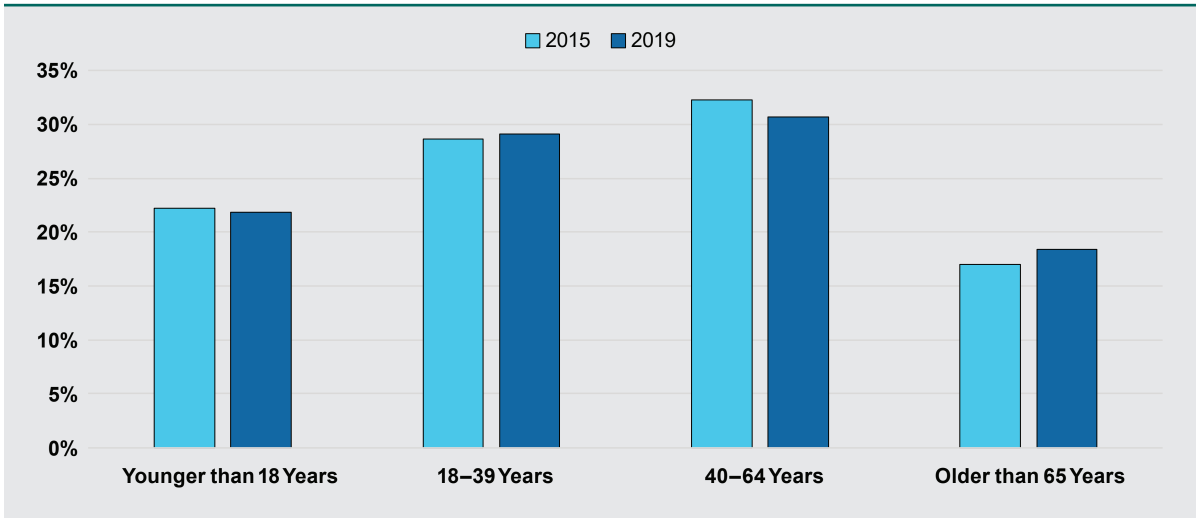
Population growth from 2015 to 2019 was mostly the result of an increase in the retirement-age portion of the population, generally defined as residents age 65 and older. This age cohort increased by an average of 3,050, or 2.2 percent, annually (American Community Survey [ACS] 1-year estimates) during the period. The relatively affordable housing market and services provided by Wright-Patterson AFB to retired military personnel attracted or retained retired civilian and military personnel; approximately 14,000 military retirees reside in the HMA (*Dayton Business Journal*, 2020). At the same time, the HMA is a popular place to live for young adults, including students and military personnel, ages 18 to 39. During 2019, this age cohort increased by an average of 1,500 people, or 0.6 percent, annually and accounted for 29 percent of the population—slightly higher than the proportion in 2015 (Figure 6). During the same period, the portions of the population younger than 18 years old and age 40 to 64 years decreased by annual averages of 490 and 2,700 people, or 0.3 and 1.1 percent, respectively.

Figure 5. Student Enrollment and Active-Duty Military and Civilian Personnel Trends in the Dayton HMA



Note: Student enrollment figures exclude Sinclair Community College.
Sources: Integrated Postsecondary Education Data System, with estimates by the analyst; Defense Manpower System, September 2020

Figure 6. Population by Age Range in the Dayton HMA



Source: U.S. Census Bureau

Population by Geography

Nearly two-thirds of the population is concentrated in Montgomery County; however, Montgomery County has had net out-migration since people began leaving the city of Dayton during the 1960s. In 1960, the population of the city of Dayton peaked at 262,332 but decreased an average of 1.2 percent annually, to 141,527 in 2010. From 2010 to 2020, the population of the city declined an average of 0.1 percent annually, to 139,900. Slower net out-migration from the city partly resulted from the revitalization of downtown Dayton, boosted by economic growth and the popularity of urban living. The population in the suburban and rural counties of Greene and Miami accounts for 21 and 13 percent of the HMA population, respectively.

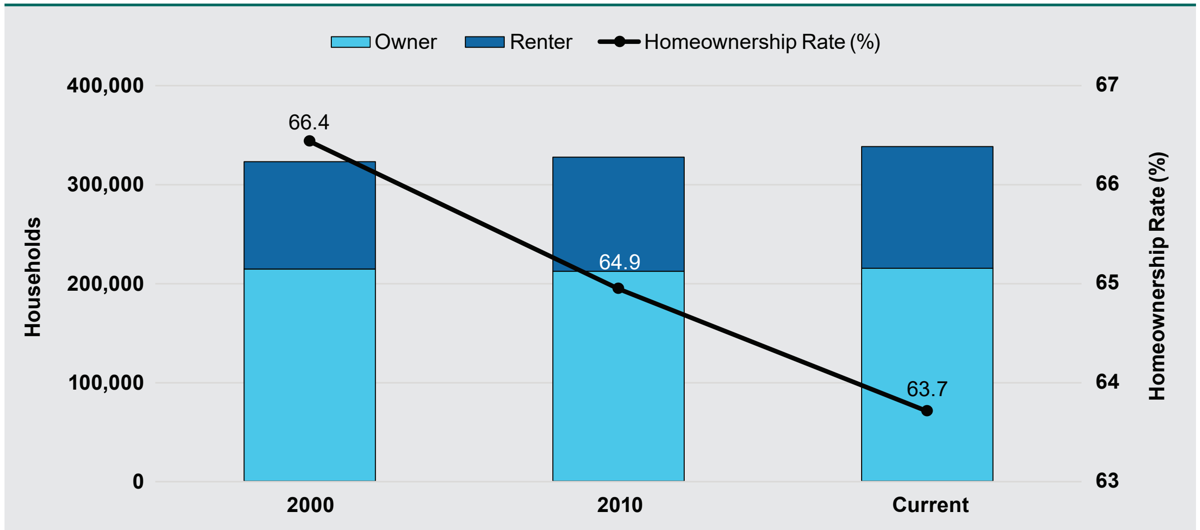
Household Trends

Household growth has exceeded population growth in the HMA since 2000, partly because of a higher proportion of students, active-duty military, and retirees, which have smaller household sizes than family households. The number of households is currently estimated at 338,600, reflecting an average annual increase of 1,000, or 0.3 percent, from 327,630 households in 2010. Among the households in the HMA, a greater proportion have traditionally been owners, but that proportion has been declining for the past two decades, albeit at a slowing rate. Renter households have accounted for 73 percent of net household formation since 2010, compared with all of the household increase during the 2000s. As a result, the homeownership rate fell to an estimated 63.7 percent as of the current date—down from 64.9 percent in 2010 and 66.4 percent in 2000 (Figure 7).

Military and Student Households

Wright-Patterson AFB and colleges and universities affect household formation in the HMA. Wright-Patterson AFB provides unaccompanied housing for 400 military personnel and 100 single-family homes for officers and their dependents. The AFB also provides 2,100 privately operated single-family homes, duplex homes, and townhomes for rent. Of the remaining 2,950 active-duty employees who live off base, approximately 34 percent own homes and 66 percent rent private units (estimates by the analyst). Of the more than 50,600 students that attend colleges and universities in the HMA (Integrated Postsecondary Education Data System, with estimates by the analyst), approximately 14,800 are housed in dormitories or university-affiliated student apartments. The remaining 35,800 students who live off campus and do not live with their parents occupy an estimated 8,600 housing units; approximately 95 percent of

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



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

those households rent private units, and the remainder are homeowners (estimates by the analyst). Together, military and student households account for an estimated 1 and 8 percent of the 215,700 owner and 122,900 renter households, respectively.

Population and Household Growth Forecast

During the 3-year forecast period, population growth is expected to continue at the same rate it has been since 2015, increasing by an average of 1,600, or 0.2 percent, annually, to 815,000 by April 1, 2024. Net in-migration is expected to account for 93 percent of the growth during the forecast period, as people continue to move to the HMA for job opportunities and affordable housing; at the same time, net natural increase is expected to continue slowing. During the next 3 years, the rate of household growth is expected to rise slightly, increasing by an average of 1,325 households, or 0.4 percent, annually, reaching 342,600 households by April 1, 2024. The homeownership rate is expected to continue falling—although at a slower rate than from 2010 to the current date—to 63.5 percent.

Home Sales Market

Market Conditions: Tight

During March 2021, the HMA had 0.6 months of available for-sale inventory—down from 1.4 months a year earlier and significantly below a peak of 12.6 months of available inventory in 2011 (CoreLogic, Inc.).

Current Conditions

The home sales market in the HMA is currently tight, with an estimated vacancy rate of 1.3 percent—down from 2.7 percent in April 2010 (Table 4). Sales market conditions were generally balanced in the early 2000s and began to soften in 2006 during the buildup to the housing market downturn. Conditions softened further through 2011, with the onset of the Great Recession and the subsequent housing market downturn. Substantial overbuilding and net out-migration also contributed to softening conditions. Subsequent economic growth, a shift to net in-migration, and lower levels of homebuilding activity shifted the market to balanced conditions from 2012 through 2019. In 2020, despite significant job losses and increased homebuilding activity, the sales market tightened, partially because of a decline in the number of homes listed for sale and because mortgage interest rates reached their lowest levels in more than 50 years. During March 2021, the HMA had 0.6 months of available for-sale inventory—down from 1.4 months a year earlier and below a peak of 12.6 months of available inventory in 2011 (CoreLogic, Inc.), during the peak of the housing crisis. In March 2021, the average interest rate for a 30-year fixed-rate mortgage was 3.2 percent—down from 3.5 percent in March 2020 and 5.0 in March 2010 (Freddie Mac).

Table 4. Home Sales Quick Facts in the Dayton HMA

Home Sales Quick Facts		Dayton HMA	Nation
	Vacancy Rate	1.3%	NA
	Months of Inventory	0.6	1.2
	Existing Home Sales	11,350	6,010,000
	1-Year Change	-22%	12%
	New Home Sales Price	$337,400	$397,800
	1-Year Change	6%	6%
	Existing Home Sales Price	$184,400	$355,200
	1-Year Change	16%	12%
	Mortgage Delinquency Rate	3.1%	3.7%

NA = data not available.
Notes: The vacancy rate is as of the current date; home sales and prices are for the 12 months ending March 2021; and months of inventory and mortgage delinquency data are as of March 2021. The current date is April 1, 2021.
Sources: Vacancy rate—estimates by the analyst; months of inventory—CoreLogic, Inc.; HMA home sales and prices—Zonda; national home sales and prices—National Association of Realtors® and Census Bureau/HUD

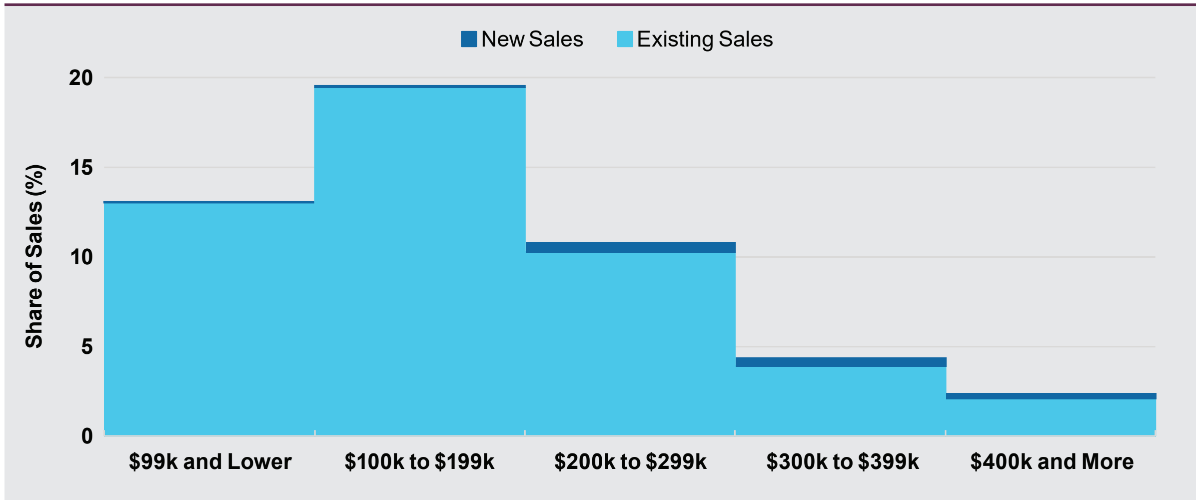
Home sales (including new and existing homes) declined 23 percent, to 11,650 homes, during the 12 months ending March 2021 (Zonda), largely because of declining for-sale inventory. By comparison, home sales increased 2 percent during the 12 months ending March 2020. The reduction in home sales during the 12 months ending March 2021 reflected declines of 19, 62, and 59 percent in regular resale, real estate owned (REO), and new home sales, respectively, which accounted for 95, 3, and 2 percent of total sales. During the 12 months ending March 2021, the average home sales price rose 13 percent, to $188,200, accelerating from the 4-percent increase during the previous year. Home sales prices for all sales types increased, including a 75-percent increase in REO home sales prices. The higher average home sales price is not only a result of a depleting for-sale inventory but also a surge in lumber prices. The price of lumber used to build an average home is nearly three times higher than it was in April 2020, causing the average price of a new single-family home to increase by $24,386 (National Association of Home Builders). More than

90 percent of new home sales in the HMA were priced above $200,000 during the 12 months ending March 2021 (Figure 8).

Trends in Home Sales: 2005 Through 2019

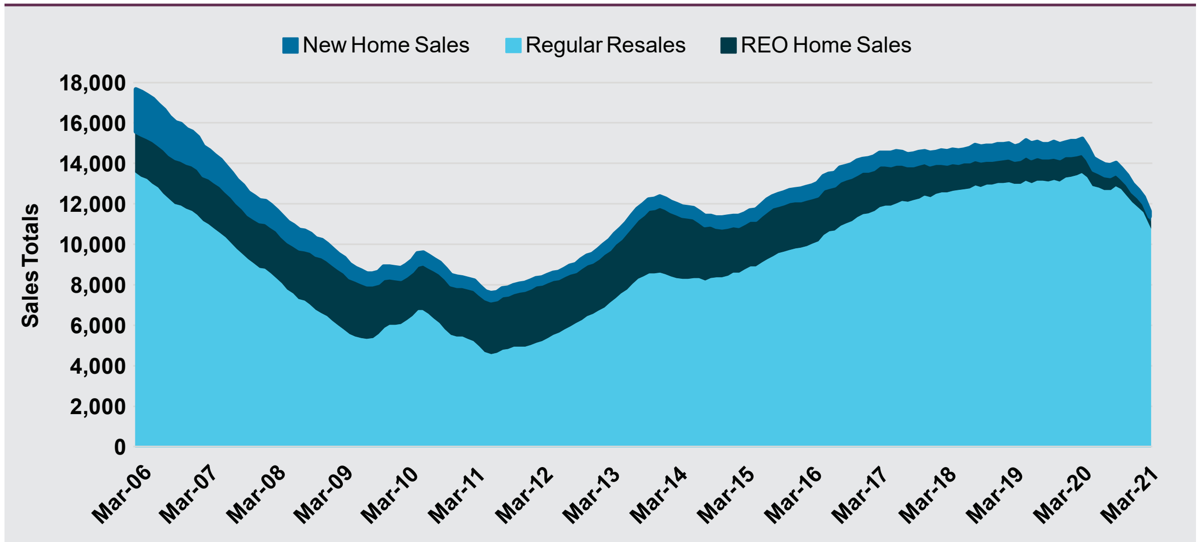
Home sales generally increased from 2012 through 2019 but were below the level reached in 2005 (Figure 9), when mortgage lending standards were lenient. In 2005, home sales totaled 17,800 but declined by an average of 1,625 homes, or 12 percent, annually, to 8,100 in 2011 (Zonda). During that period, tightening mortgage lending standards, the local economic downturn, and net out-migration all put downward pressure on home sales. The decline in home sales from 2006 through 2011 reflected an average annual reduction of 16 and 26 percent in regular resale and new home sales, respectively, but an 8-percent rise in REO home sales. During the period, REO sales increased from 1,775 in 2005 to 2,750 in 2011, accounting for 10 and 34 percent of total home sales, respectively. From 2012 through 2019, home sales increased at an average annual rate of 8 percent, to 15,050 homes sold, in response to improving economic conditions. Nearly all the gain in sales resulted from a 13-percent annual increase in regular resales, to 13,350, that offset an 11-percent annual reduction in REO sales, to 1,075; at the same time, new home sales increased 8 percent a year, to 620 homes.

Figure 8. Share of Overall Sales by Price Range During the 12 Months Ending March 2021 in the Dayton HMA



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

Figure 9. 12-Month Sales Totals by Type in the Dayton HMA



REO = real estate owned.
Source: Zonda

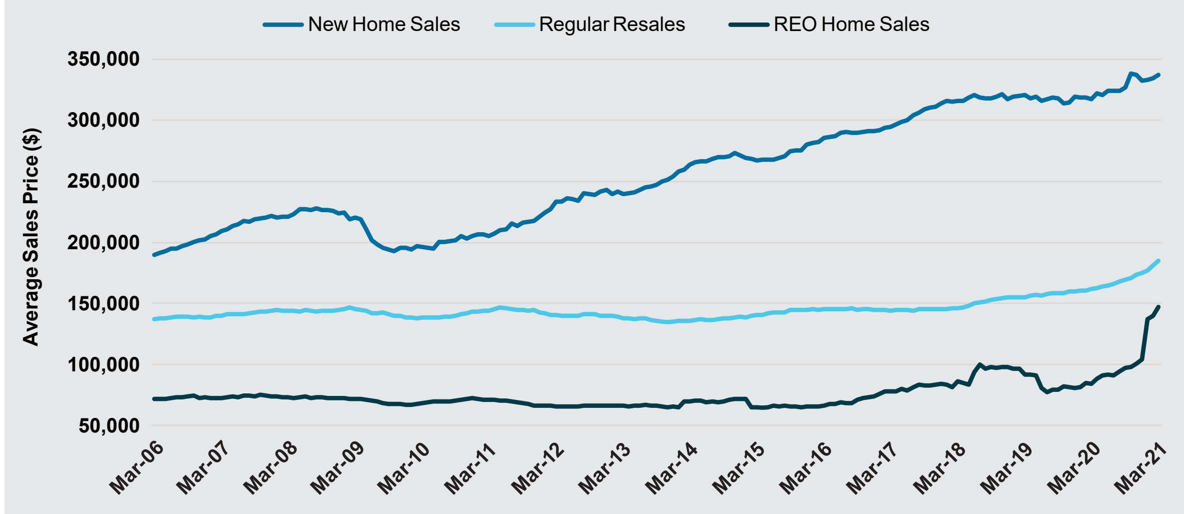
Trends in Home Sales Prices: 2005 Through 2019

The average home sales price increased every year from 2014 through 2019 after generally decreasing from 2006 through 2013 (Figure 10), when REO sales—which tend to sell at a significant discount—were increasing, putting downward pressure on sales prices. From 2006 through 2013, the average home sales price declined at an average annual rate of 1 percent. At the same time, regular resale home prices remained relatively unchanged, and new home sales prices increased an average of 4 percent a year. From 2014 through 2019, a period that included increased home sales, home sales prices increased an average of 4 percent a year, to $164,000. The sales price increased for every housing type during the period as the inventory of homes for sale decreased every year.

REO Sales and Delinquent Mortgages

The overall improvement in sales housing market conditions in the HMA since 2010 has led to a reduction in the rate of seriously delinquent mortgages and REO properties. As of March 2021, 3.1 percent of home loans were seriously delinquent or had transitioned into REO status—down from a peak of 7.5 percent in January 2010 (CoreLogic, Inc.). The current rate is below the 3.7-percent rate for the nation. The overall rate in

Figure 10. 12-Month Average Sales Price by Type of Sale in the Dayton HMA



REO = real estate owned.
Source: Zonda

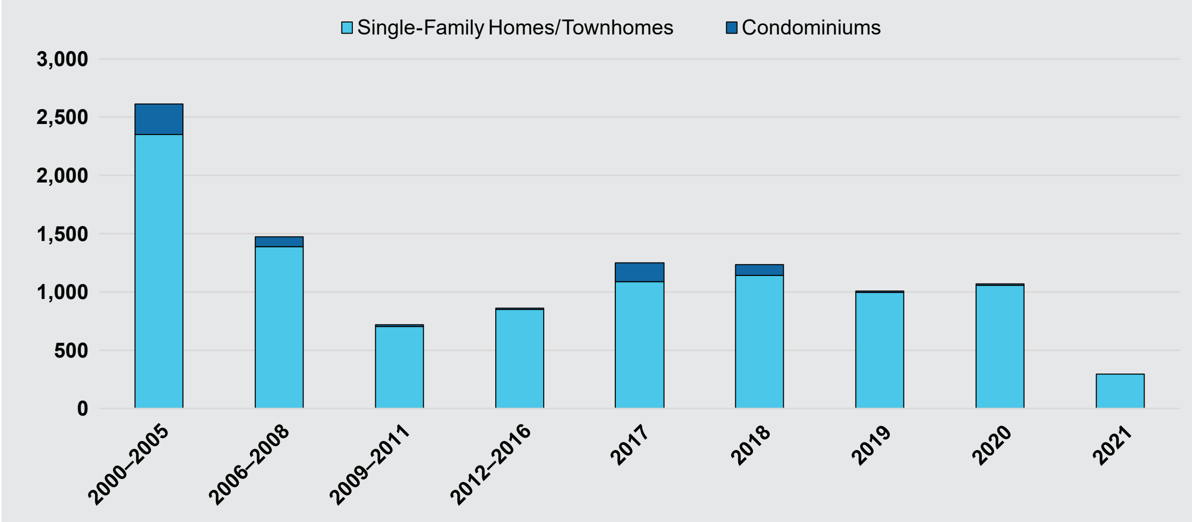
the HMA, however, increased from 1.6 percent a year ago. The recent increase in the rate began in May 2020, after the introduction of countermeasures to slow the spread of COVID-19 resulted in significant job losses, and some homeowners struggled to make their mortgage payments. Approximately 2,725 mortgages in the region were 90 or more days past due in March 2021—almost a twofold increase from March 2020; however, the number of foreclosures declined 32 percent, and REOs declined 62 percent. The decline in foreclosures reflects increased participation in mortgage forbearance programs by borrowers, which was provided for under the $2.2 trillion Coronavirus Aid, Relief, and Economic Security (CARES) Act.

Sales Construction Activity

Homebuilding activity, as measured by the number of sales units permitted, has generally increased since 2012, but fewer new homes have been permitted on an annual basis compared with the 2000-through-2008 period (Figure 11). From 2000 through 2005, an average of 2,600 homes were permitted annually. In response to continued local economic contraction and the onset of the national housing market downturn, the number of homes permitted decreased to an average of 1,475 homes annually from 2006 through 2008 before declining further to an average of 710 homes permitted annually from 2009 through 2011. Production began to increase the following year, and from 2012 through 2020—a period that included economic expansion and a shift to net in-migration—homebuilding activity increased to an average of 860 homes annually. During the 12 months ending March 2021, approximately 1,125 homes were permitted—up 100 homes compared with the same period the previous year. From 2000 through 2008, approximately 9 percent of all homes permitted were condominiums, but since 2009, that proportion has dropped to 3 percent, partly because purchasing a single-family home is relatively affordable in the HMA. All condominium construction in the HMA has occurred in Greene and Montgomery Counties since 2000.

More than 83 percent of new for-sale home construction since 2012 has occurred in Greene and Montgomery Counties. In Greene County, just east of Wright-Patterson AFB, in the city of Fairborn is the Waterford Landing community, which was established in 2011 and has more than 200 completed homes; homes sales are currently underway at Phase 9. The most recent phase includes 37 single-family residential lots, with three- and four-bedroom homes starting at $296,990 and $316,490, respectively. Approximately 20 miles southwest, in Montgomery County, the Trails at Saddle Creek in Centerville is a planned community with 277 lots. At the community, 238 lots have been sold, and 39 are available for sale. Homes in the community feature two to seven bedrooms and two to seven bathrooms. The price of the most recently sold home was $351,500.

Figure 11. Average Annual Sales Permitting Activity in the Dayton HMA



Notes: Includes single-family homes, townhomes, and condominiums. Data for 2021 are through March 2021.
Sources: U.S. Census Bureau, Building Permits Survey; 2000 through 2020—final data and estimates by the analyst; 2021—preliminary data and estimates by the analyst

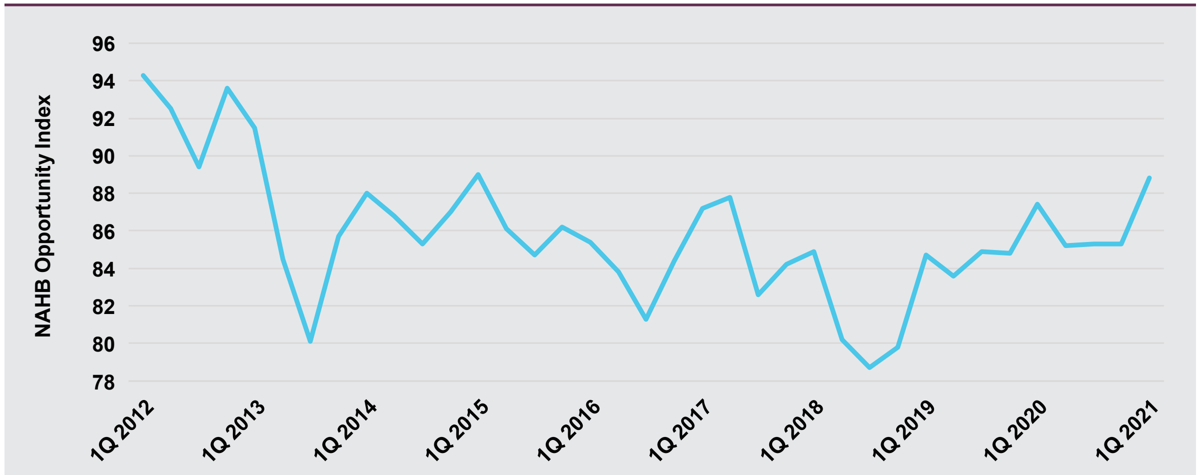
Housing Affordability

Homeownership in the HMA is generally affordable, although the affordability of buying a home in the HMA has trended downward since the early 2010s (Figure 12), when more REO homes were on the market during the foreclosure crisis. Many of those homes have since been sold, putting upward pressure on sales prices despite only moderate income growth. The National Association of Home Builders and Wells Fargo Housing Opportunity Index (HOI)—which represents the share of homes sold that would have been affordable to a family earning the local median income—for the HMA was 88.8 during the first quarter of 2021, up from 87.4 during the first quarter of 2020. During the first quarter of 2021, the HMA was more affordable than 213, or 90 percent, of the 237 ranked MSAs in the nation. By comparison, the Cincinnati and Columbus MSAs were more affordable than 208 and 146 MSAs, respectively. Despite the recent increase in affordability, the HOI in the HMA is below the high of 94.3 reached during the first quarter of 2012, when the HMA was more affordable than 222, or 94 percent, of the ranked MSAs in the nation. From the first quarter of 2012 to the first quarter of 2021, median income grew at a slower pace than median home price—up 20 and 78 percent, respectively.

Forecast

During the next 3 years, demand is expected for an estimated 3,575 new homes in the HMA (Table 5). Demand is expected to increase slightly every year of the forecast period. Currently tight sales housing market conditions combined with low mortgage interest rates, continued net in-migration, and economic recovery will contribute to increased demand. The 310 homes currently under construction will satisfy a portion of the demand.

Figure 12. Dayton HMA Housing Opportunity Index



NAHB = National Association of Home Builders. 1Q = first quarter.
Sources: NAHB; Wells Fargo

Table 5. Demand for New Sales Units in the Dayton HMA During the Forecast Period

	Sales Units
Demand	3,575 Units
Under Construction	310 Units

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

Rental Market

Market Conditions: Balanced

Rental construction activity has increased since 2015, but the overall rental vacancy rate and the apartment vacancy rate have declined since 2010, when conditions were soft.

Current Conditions and Recent Trends

The overall rental market in the HMA is balanced, with an estimated 8.2-percent vacancy rate—down from 12.3 percent in April 2010, when conditions were soft (Table 6). The elevated vacancy rates reflect the large number of abandoned single-family rental properties that are captured in the available-for-rent data. The vacancy rate has declined since 2010, partly due to a shift to net in-migration and a shift from homeownership to renting. More recently, a surge in apartment construction since 2015 and the impact of COVID-19 since early 2020 had minimal impacts on the vacancy rate. The Federal Housing Finance Agency, which extended the eviction moratorium until September 2021 from rental units with federally backed mortgages, may have partly eased the full impact of the countermeasures used to slow the spread of COVID-19. Renter households currently account for 36.3 percent of all households in the HMA—up from 35.1 percent in 2010. Nationally, renter households accounted for 34.6 percent of total households in 2019 (ACS 1-year data). Approximately 42 percent of renter households in the HMA lived in single-family homes as of 2019—down from 44 percent during 2013 (ACS 1-year data). In addition, 20 percent of all renter households lived in buildings with two to four units during 2019—unchanged from 2013. Multifamily buildings with five or more units, typically apartments, accounted for 38 percent of all occupied rental units during 2019—up from 36 percent during 2013.

Table 6. Rental and Apartment Market Quick Facts in the Dayton HMA

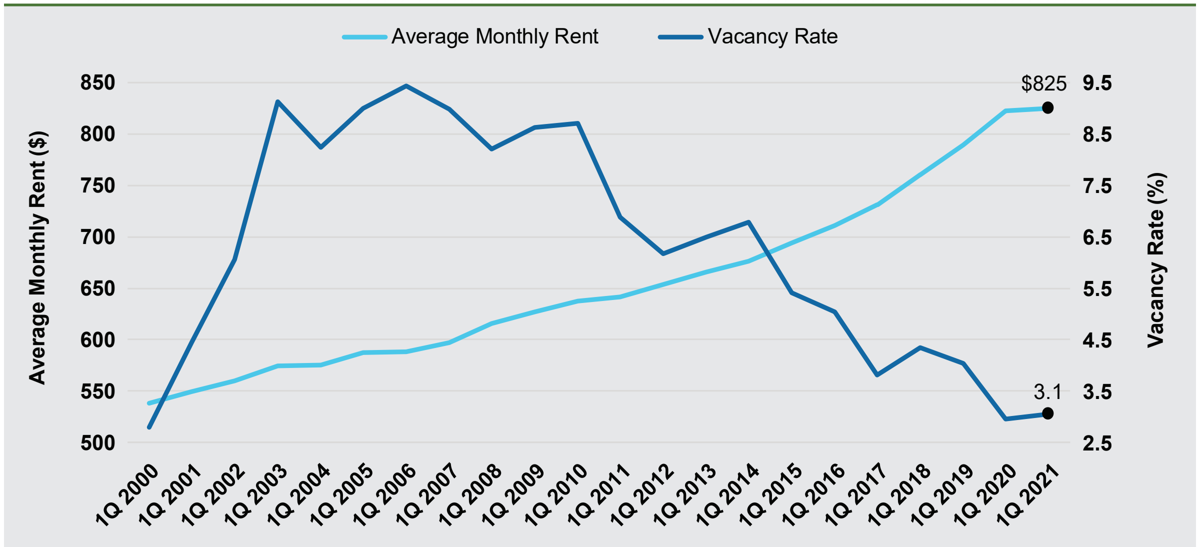
		2010 (%)	Current (%)
Rental Market Quick Facts	Rental Vacancy Rate	12.3	8.2
		2013 (%)	2019 (%)
	Occupied Rental Units by Structure		
	Single-Family Attached & Detached	43.5	41.8
	Multifamily (2–4 Units)	19.6	20.3
	Multifamily (5+ Units)	35.8	37.8
	Other (Including Mobile Homes)	0.1	0.0
		1Q 2021	YoY Change
Apartment Market Quick Facts	Apartment Vacancy Rate	3.1	0.2
	Average Rent	$825	0%

1Q = first quarter. YoY= year-over-year.
Notes: The current date is April 1, 2021. Percentages may not add to 100 due to rounding.
Sources: 2010 vacancy rate—2010 Census; current vacancy rate—estimate by the analyst; occupied rental units by structure—2010 and 2019 American Community Survey 1-year data; apartment data—Moody's Analytics REIS, with adjustments by the analyst

Apartment Market Conditions and Trends

The apartment market in the HMA is tight and has generally been tightening since 2007, when conditions were soft. During the first quarter of 2021, the apartment vacancy rate was 3.1 percent, compared with 2.9 percent during the first quarter of 2020 (Moody's Analytics REIS; Figure 13) and below the 5.4-percent rate for the nation. The average apartment rent in the HMA was relatively unchanged—up by $2, or less than 1 percent, to $825 during the first quarter of 2021 from a year earlier. By comparison, the average rent decreased 3 percent, to $1,453, nationally. From the first quarter of 2000 through the first quarter of 2006, when readily available access to mortgage credit contributed to a higher propensity for homeownership, the apartment vacancy rate in the HMA increased from 2.8 to 9.4 percent. With stricter lending standards after 2006, demand for apartments increased despite continued net out-migration, and the apartment vacancy rate decreased to 6.2 percent by the first quarter of 2012. From the first quarter of 2000 through the first quarter of 2012, the average rent increased an average of $10, or 2 percent, annually, to $654. When the sales housing market began to recover from the housing crisis and net out-migration continued, demand for apartments decreased slightly, and the apartment vacancy rate increased to 6.8 percent by the first quarter of 2014. Although home sales continued to increase and apartment construction began increasing in 2015, the vacancy rate declined nearly every year to reach 4.0 percent during the first quarter of 2019 because of improving economic conditions and net in-migration. From the first quarter of 2013 through the first quarter of 2019, the average rent increased by an average of $21, or 3 percent, annually, to $790.

Figure 13. Apartment Rents and Vacancy Rates in the Dayton HMA



1Q = first quarter.
Source: Moody's Analytics REIS, with adjustments by the analyst

Apartment Market Conditions by Market Area

Wright-Patterson AFB, the University of Dayton, and Wright State University—the universities with the highest enrollment in the HMA—have significant impacts on the apartment market in the HMA and the surrounding market areas. In the Moody's Analytics REIS-defined Northeast market area, immediately surrounding the AFB and Wright State University, the vacancy rate during the first quarter of 2021 was 2.1 percent—up slightly from 1.7 percent during the first quarter of 2020. The current rate is down significantly from the 8.5-percent vacancy rate during the first quarter of 2006, immediately before sales housing market conditions began to deteriorate and 1 year after the BRAC process began increasing personnel at Wright-Patterson AFB. The rent in the market area rose an average of 2 percent a year from the first quarter of 2007 through the first quarter of 2021, to $881—the second highest rent of the five market areas that constitute the HMA. The highest rent, $890, was in the South market area, where most for-sale housing construction is occurring and where the vacancy rate was 3.8 percent—unchanged from the first quarter of 2020.

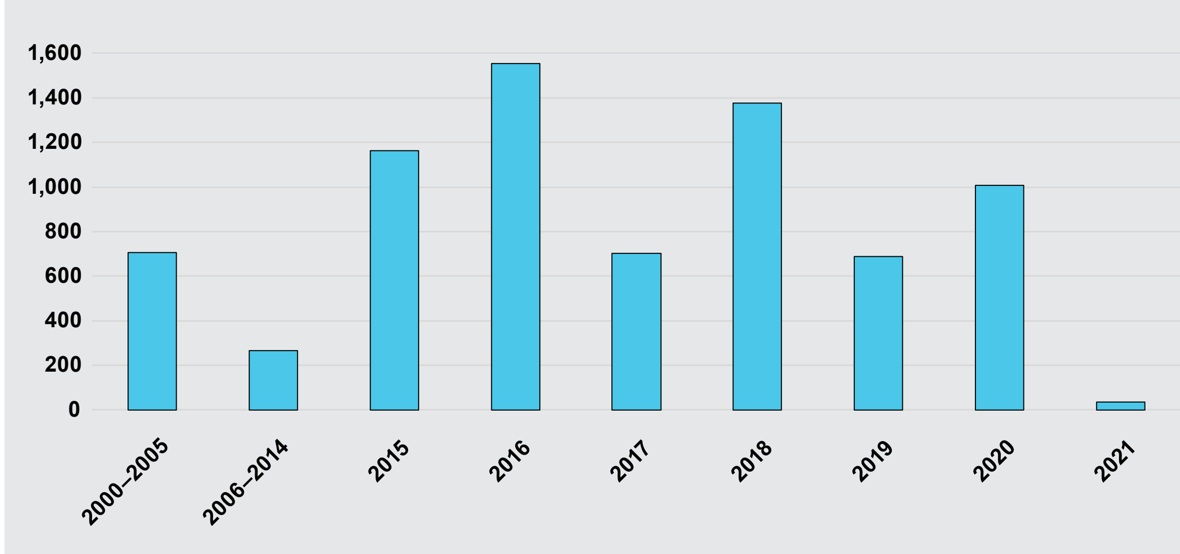
In the Central Dayton market area, which contains the University of Dayton and downtown Dayton, the vacancy rate declined to 3.9 percent during the first quarter of 2021—down from 4.1 percent during the first quarter of 2020 and the lowest vacancy rate since the first quarter of 2000. During the recent period, the average rent was relatively unchanged—up $2, or less than 1 percent, to $734. Even though the University of Dayton moved to remote learning during the 2020–2021 school year in an effort to reduce COVID-19 outbreaks, the decline in the vacancy rate occurred partly because student enrollment has generally increased since 2001. From fall 2001 through fall 2019, enrollment rose by an average of 70 students, or 0.6 percent, a year, to 11,500 (Integrated Postsecondary Education Data System, with adjustments by the analyst), of which nearly one-half lived in off-campus apartments. In addition, the revitalization of downtown Dayton attractions boosted the popularity of urban living in apartments that were repurposed from warehouses and offices. Revitalization of attractions in the market area included the completion of the RiverScape MetroPark, a park along the Great Miami River, in 2000; the Fifth Third Field, a baseball field, which opened in 2000; and the Benjamin & Marian Schuster Performing Arts Center, which opened in 2003.

Rents in the remaining two market areas, where the least apartment construction has occurred recently, were the lowest among the five market areas that constitute the HMA. During the first quarter of 2021, rents averaged $716 and $697, respectively, in the Miami County and the Northwest market areas—down 1 and 4 percent from the previous year. At the same time, the vacancy rates decreased to 2.6 percent from 2.8 percent in the Miami County market area and increased to 1.3 percent from 1.0 percent in the Northwest market area.

Rental Construction Activity

Rental construction, as measured by the number of rental units permitted, has been at an elevated level since 2015 (Figure 14), and the total number of units permitted is only 2 percent below the total number of units permitted during the period from 2000 through 2014. From 2000 through 2005, an average of 710 rental units were permitted annually, before decreasing to an average of 270 units permitted annually from 2006 through 2014, a period that included weak economic conditions and net out-migration. By 2015, when economic conditions had improved for a few years and population growth accelerated because of a shift to net in-migration, production rebounded. From 2015 through 2020, rental construction activity increased to an average of 910 units annually. During the 12 months ending March 2021, approximately 1,025 rental units were permitted—up nearly 41 percent from the 12 months ending March 2020 (preliminary data, with adjustments by the analyst).

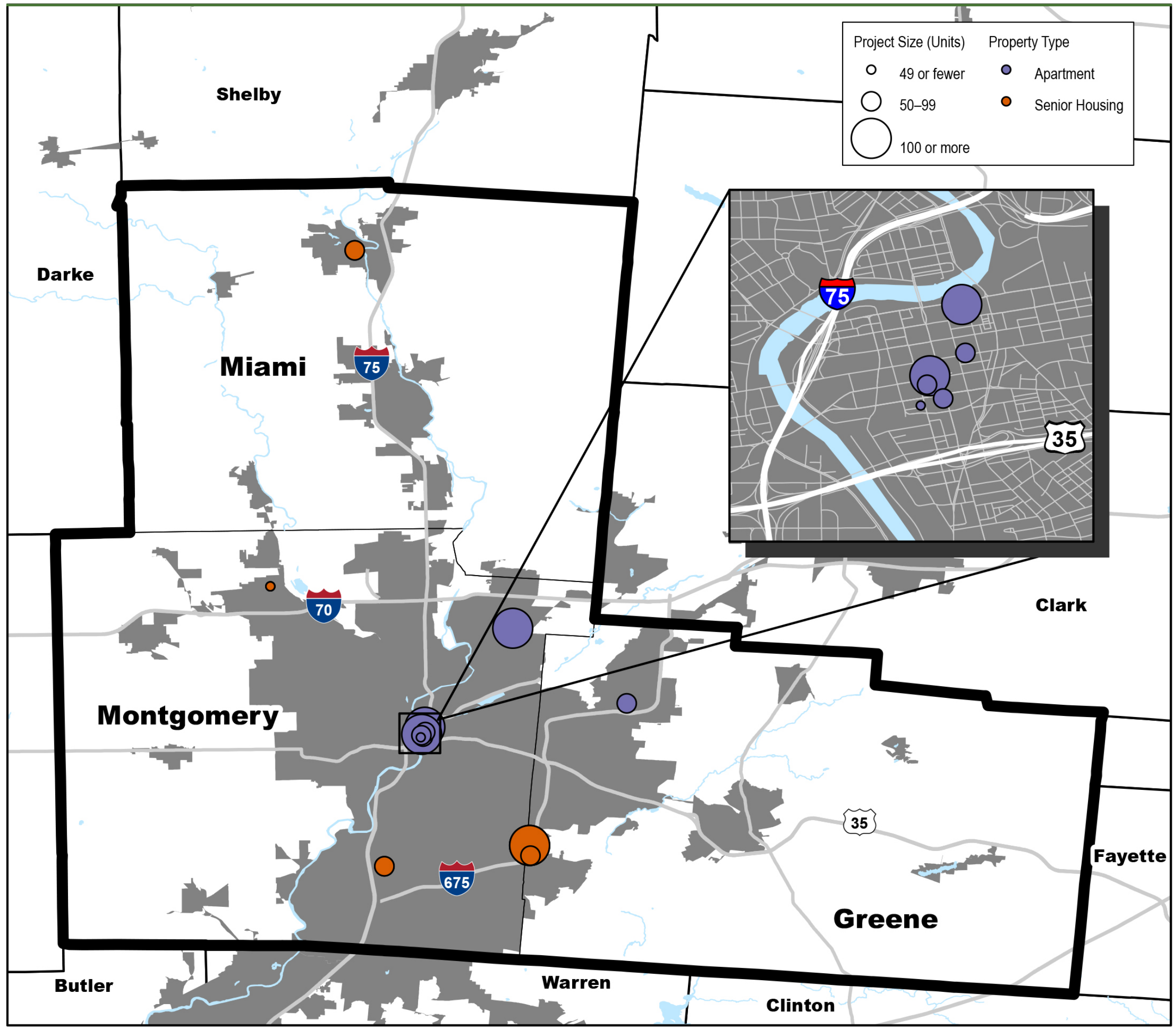
Figure 14. Average Annual Rental Permitting Activity in the Dayton HMA



Notes: Includes apartments and units intended for rental occupancy. Data for 2021 are through March 2021.
Sources: U.S. Census Bureau, Building Permits Survey; 2000–2020—final data and estimates by the analyst; 2021—preliminary data and estimates by the analyst

Recent rental development has been concentrated in Montgomery County, in and around downtown Dayton, and in Greene County, particularly in Sugarcreek Township (Map 1). In downtown Dayton, across from the RiverScape MetroPark, one of the largest properties under construction is The Monument apartments. When complete in April 2022, the property will include 125 market-rate units. In addition, the Art Lofts at the Arcade in the newly remodeled Dayton Arcade—a nine-building property with work spaces, shopping, and event space in downtown Dayton—is expected to be completed in June 2021; the Dayton Arcade will reopen after 30 years of being closed. Art Lofts will feature 103 affordable units and 7 market-rate units oriented toward artists, with rents ranging from $748 to $930 for one-bedroom units and from $878 to $1,080 for two-bedroom units. The growing aging population has also affected the rental market, and 30 percent of units under construction are senior housing. In Sugarcreek Township, Dogwood Commons will feature 55 apartment units for residents age 55 and older when it opens in August 2021. Approximately 1 mile north, 224 independent-living, assisted-living, and memory-care units are underway at The Grand of Sugarcreek, which is expected to open in November 2021.

Map 1. Completed Projects in the Dayton HMA since 2010



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

Housing Affordability: Rental

The rental market in the HMA has become more affordable since 2015 despite a decrease in affordability in 2016, when rent growth outpaced income growth. From 2015 to 2019, the median income for renter households rose 28 percent, from $26,856 in 2015 to $34,209 in 2019. During the same time, the median gross monthly rent increased 8 percent, from $754 to $812. As a result, the HUD Rental Affordability Index, a measure of median renter household income relative to qualifying income for the median-priced rental unit, trended upward (Figure 15). The index was 105.3 during 2019—up from 89.0 in 2014.

Renter Cost Burdens

During the 2013-through-2017 period, an estimated 20.2 percent of all renter households in the HMA were cost burdened and 21.0 percent were severely cost burdened, spending 50 percent or more of their income on rent (Table 7). By comparison, nationwide, 21.8 and 22.9 percent of renter households were cost-burdened and severely cost-burdened, respectively. Cost-burden is a more significant issue for lower-income renter households in the HMA. Of renter households with incomes less than 50 percent of the area median family income in the HMA, 28.0 percent paid between 30 and

49 percent of their incomes toward rent and 46.6 percent paid 50 percent or more during the 2013-to-2017 period. Nationwide, 50.1 percent of households were severely cost-burdened.

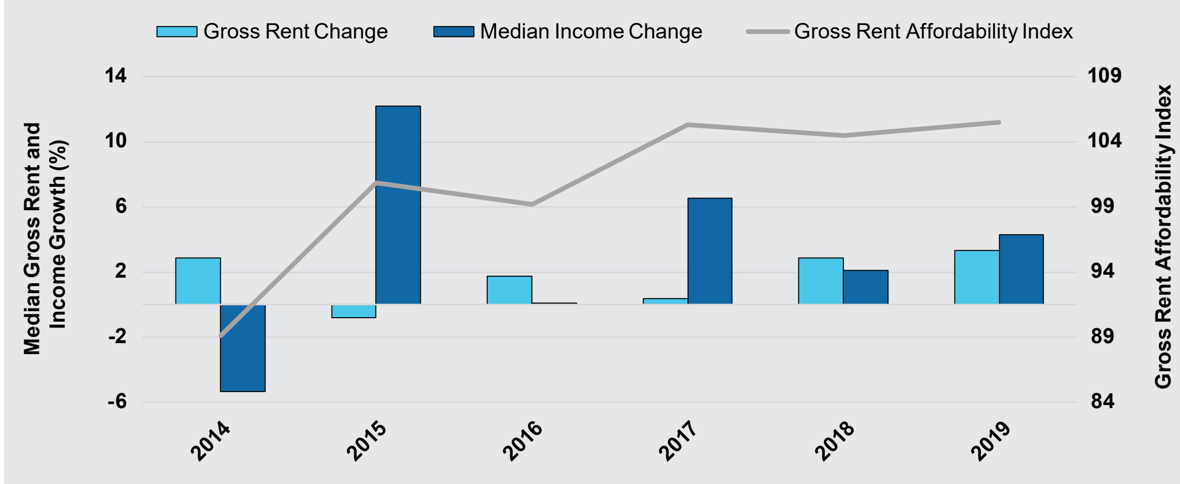
Homelessness

In 2020, approximately 740 people throughout Montgomery County were homeless (Point-in-Time Count). Of that number, less than 7 percent were unsheltered—a rate lower than the 17 percent in Ohio and 39 percent throughout the nation, Puerto Rico, and the U.S. territories. Approximately 60 people—or 7 percent of people that were homeless in Montgomery County—were veterans, the same percentage as in Ohio and higher than the 6-percent rate for the nation, Puerto Rico, and the U.S. territories.

Forecast

During the 3-year forecast period, demand is estimated for 2,825 new rental units (Table 8). The 1,325 units currently under construction will satisfy a portion of the demand. Continued economic recovery and household growth are expected to result in rental demand at a similar level compared with recent years. Significant rental demand is likely to continue in and near the city of Dayton, along the Great Miami River, and in Sugarcreek Township.

Figure 15. Dayton HMA Gross Rent Affordability Index



Notes: Rental affordability is for the larger Dayton 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 7. Percentage of Cost-Burdened Renter Households by Income, 2013–2017

	Cost Burdened: 30–49 Percent of Income Toward Rent		Severely Cost Burdened: More than 50 Percent of Income Toward Rent	
	Dayton HMA	Nation	Dayton HMA	Nation
Renter Households with Income <50% HAMFI	28.0	25.6	46.6	50.1
Total Renter Households	20.2	21.8	21.0	22.9

CHAS = Comprehensive Housing Affordability Strategy. HAMFI = HUD Area Median Family Income.
Sources: Consolidated Planning/CHAS Data; 2013–2017 American Community Survey 5-year estimates

Table 8. Demand for New Rental Units in the Dayton HMA During the Forecast Period

	Rental Units
Demand	2,825 Units
Under Construction	1,325 Units

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

Terminology Definitions and Notes

A. Definitions

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.
Existing Home Sales	Includes regular resales and real estate owned sales per Zonda.
Forecast Period	4/1/2021–4/1/2024—Estimates by the analyst.
Home Sales/ Home Sales Prices	Includes single-family home, townhome, and condominium sales.
Homebuilding Activity/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.
Net Natural Increase	Resident births minus resident deaths.

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.
Real Estate Owned	A class of property that is owned by a lender.
Regular Resales	These are existing sales that include short sales but exclude real estate owned sales per Zonda.
Rental Housing Market Conditions/ Rental Market/ Rental Vacancy Rate	Includes apartments and other rental units, such as single-family, multifamily, and mobile homes.
Senior Housing	Housing units limited to residence by older adults, typically age 55 and older. Properties classified as senior apartments, independent-living facilities, continuing-care retirement communities, or assisted-living facilities are considered senior housing.
Seriously Delinquent Mortgages	Mortgages 90+ days delinquent or in foreclosure.
Student Apartments	Apartments designed and marketed to, but not limited to, student residence and typically located close to a university campus. Leasing cycles and lease terms may be focused on the academic year.
Unaccompanied Housing	Military housing intended to be occupied by members of the armed forces serving a tour of duty unaccompanied by dependents.

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 National Association of Home Builders (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.

D. Photo/Map Credits

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