

COMPREHENSIVE HOUSING MARKET ANALYSIS

Cincinnati, Ohio- Kentucky-Indiana

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

As of January 1, 2022



PD&R

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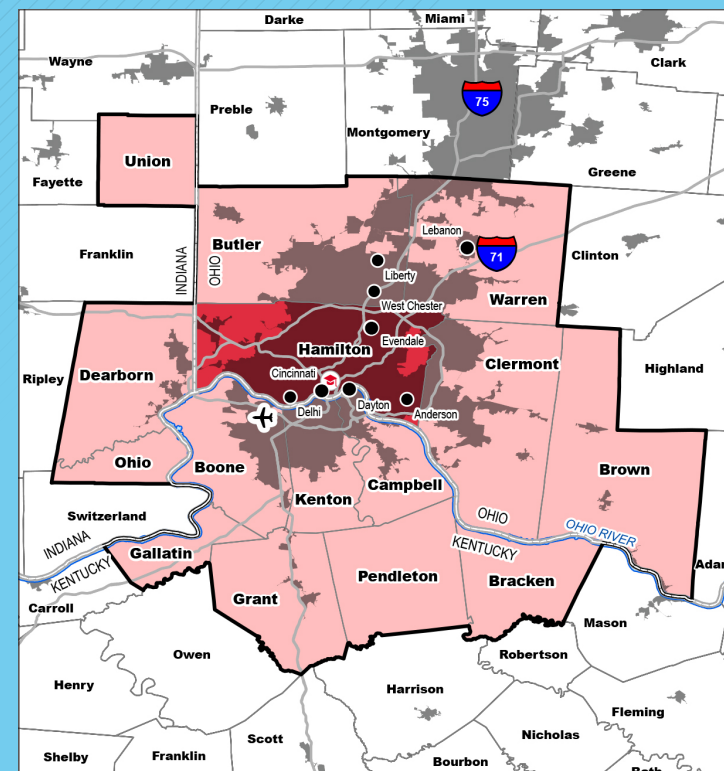
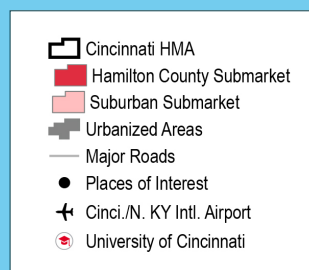
Executive Summary

Housing Market Area Description

The Cincinnati Housing Market Area (HMA), situated along the Ohio River, is coterminous with the Cincinnati, OH-KY-IN Metropolitan Statistical Area and includes 15 counties in Ohio, Kentucky, and Indiana. For the purposes of this analysis, the HMA is divided into two submarkets. The Hamilton County submarket, coterminous with Hamilton County in Ohio, includes the principal city of Cincinnati. The Suburban submarket includes the remaining counties surrounding Hamilton County: Brown, Butler, Clermont, and Warren Counties in Ohio; Boone, Bracken, Campbell, Gallatin, Grant, Kenton, and Pendleton Counties in Kentucky; and Dearborn, Ohio, and Union Counties in Indiana.

The current population of the HMA is estimated at 2.25 million.

The Cincinnati metropolitan area is the most populous metropolitan area in Ohio, but the city of Cincinnati is the third most populous city in the state, behind Columbus and Cleveland. Bisected east and west by the Ohio River and north and south by Interstate 75, the HMA has historically been important to the transportation industry.



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: Nonfarm payrolls increased 2.7 percent to 1.08 million jobs in 2021, but they remain 3.3 percent below 2019 levels.

The economy in the Cincinnati HMA continues to recover from the effects of the COVID-19 pandemic, primarily during 2020, when 65,100 jobs were lost. During 2020, the transportation and utilities sector was the only sector to increase jobs, partly because of increased reliance upon online purchases and deliveries. In 2021, sector jobs were 7.1 percent higher than in 2019. The unemployment rate averaged 4.3 percent during 2021, down from 7.0 percent in 2020. During the second year of the 3-year forecast period, nonfarm payrolls are expected to fully recover from the jobs lost in 2020 and increase by an average of 1.8 percent annually. The Hamilton County submarket has the largest share of jobs in the HMA, due in part to corporate headquarters being located there, but the Suburban submarket will support growth in the forecast, partly due to expansions at the airport.

Sales Market



Tight: The average price of a home sold in 2021 was 13 percent higher than in 2020.

The sales market tightened during the past year, with strong price growth and limited inventory constraining sales. The HMA had 1.4 months of supply in December 2021, down from 1.6 months a year earlier and the lowest level since at least 2012 (Redfin, a national real estate brokerage). Reluctance to list homes for sale as well as headwinds in the construction of new homes contributing to delays led home sales to decline 4 percent year over year to 44,000 homes sold in 2021 (CoreLogic, Inc., with adjustments by the analyst). During the next 3 years, demand is expected for 15,250 new homes. The 3,330 homes under construction will satisfy some of that demand. Approximately 84 percent of the demand will be in the Suburban submarket, where the population is larger and homeownership is higher.

Rental Market



Tight: Builders responded to the tight market conditions by increasing production. Permits for new rental units in the HMA increased 62 percent during 2021 to the highest level of rental construction since at least 2000.

The rental market in the HMA has tightened considerably since the Great Recession, largely because population growth in the Hamilton County submarket, combined with increasing preferences to rent, supported demand for rental housing. During the fourth quarter of 2021, the apartment vacancy rate decreased to 3.8 percent from 5.0 percent during the same period of 2020, and the average rent increased 8 percent to \$1,042, the lowest vacancy rate and strongest rent growth since at least 2000 (CoStar Group). In response to tight market conditions, rental construction surged in 2021 to nearly 4,925 units permitted. During the forecast period, demand is estimated for 10,150 new rental units, of which 51 percent are expected to be in the Hamilton County submarket.

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3-Year Housing Demand Forecast

	Sales Units			Rental Units		
	Cincinnati HMA Total	Hamilton County Submarket	Suburban Submarket	Cincinnati HMA Total	Hamilton County Submarket	Suburban Submarket
Total Demand	15,250	2,400	12,850	10,150	5,225	4,925
Under Construction	3,330	380	2,950	6,325	3,325	3,000

Notes: Total demand represents the estimated production necessary to achieve a balanced market at the end of the forecast period. Housing under construction is as of January 1, 2022. The forecast period is January 1, 2022, to January 1, 2025.

Source: Estimates by the analyst



Economic Conditions

Largest Sector: Professional and Business Services

Seven Fortune 500 companies headquartered in the HMA support payrolls in the professional and business services sector.

Primary Local Economic Factors

The city of Cincinnati was established along the Ohio River in 1788. During the 19th century, transportation, steamboat manufacturing, and meat processing were important industries to the local economy. The city was the pork-packing center of the United States, which earned it the nickname Porkopolis. Fat and oil byproducts from the meat processing industry led to local manufacturing of candles and soapmaking, including two businesses that would merge to become The Procter & Gamble Company (hereafter, P&G). In time, manufacturing declined, and other cities in the Midwest region, such as Chicago, emerged as more prominent transportation hubs. Nevertheless, a recent expansion by Amazon.com, Inc. (hereafter, Amazon) at the Cincinnati/Northern Kentucky International Airport (CVG) reinforces the role of the HMA in the modern transportation industry.

A considerable presence of corporate headquarters supports the economy in the Cincinnati HMA. The management of companies and enterprises industry accounted for only

3.6 percent of total nonfarm payrolls in the HMA during 2021, but this was more than double the national share of 1.6 percent. Notable companies with headquarters in the HMA include seven Fortune 500 companies, with The Kroger Co. headquarters being the highest ranked in the HMA at 17 in 2021, followed by P&G, Fifth Third Bancorp, Western & Southern Financial Group, Inc., American Financial Group, Inc., Cincinnati Financial Corporation, and Cintas Corporation. Of these, The Kroger Co. and P&G are among the ten largest employers in the HMA (Table 1).

Five of the ten largest employers in the HMA provide healthcare services, establishing the HMA as a regional center for medical treatment. Many of these healthcare providers, including Cincinnati Children’s Hospital Medical Center (affiliated with the University of Cincinnati); UC Health; Good Samaritan Hospital (part of TriHealth, Inc. and the oldest private teaching hospital in the HMA); and The Christ Hospital (the thirteenth largest employer in the HMA) are clustered near the University of Cincinnati main campus in an area locally known as Pill Hill. This concentration and cross-collaboration of higher education, research institutions, and healthcare facilities has contributed to Cincinnati Children’s Hospital Medical Center being ranked as the fourth best children’s hospital in the nation (*U.S. News World Report*, 2021–2022). UC Health, Mercy Health (part of Bon Secours Mercy Health), and The Christ Hospital (part of the The Christ Hospital Network) were all ranked among the top 200 best general hospitals in the country in 2021 (*Newsweek*). In 2020, Uptown Cincinnati—a cluster of neighborhoods anchored by the University of Cincinnati, hospitals on Pill Hill, the Cincinnati Zoo & Botanical Garden, and Cincinnati State Technical and Community College (including their satellite locations elsewhere in the HMA)—had a total economic impact on the HMA of \$20.1 billion (University of Cincinnati Economics Center 2021 Report).

Table 1. Major Employers in the Cincinnati HMA

Name of Employer	Nonfarm Payroll Sector	Number of Employees
The Kroger Co.	Wholesale & Retail Trade	18,000
Cincinnati Children’s Hospital Medical Center	Government	16,500
Cincinnati/Northern Kentucky International Airport (CVG)	Transportation & Utilities	14,600
TriHealth, Inc.	Education & Health Services	12,000
St. Elizabeth Healthcare	Education & Health Services	10,300
University of Cincinnati	Government	10,200
UC Health	Government	10,100
The Procter & Gamble Company	Manufacturing	10,000
GE Aviation (a subsidiary of General Electric Company)	Manufacturing	9,000
Bon Secours Mercy Health	Education & Health Services	7,700

Note: Excludes local school districts.
Source: REDI Cincinnati, 2021



Current Conditions— Nonfarm Payrolls

Following 9 years of job gains in the HMA, the economy weakened, and jobs declined in 2020, which was directly related to the countermeasures to slow the spread of COVID-19. Economic conditions in the Cincinnati HMA improved in 2021, but payrolls were still down from 2019 as the local economy continued to recover from the pandemic-related impacts. Nonfarm payrolls in the Cincinnati HMA averaged 1.08 million jobs in 2021, up 2.7 percent from 1.05 million jobs in 2020 (Table 2), but they were still 3.3 percent below 2019 levels. During 2020, nonfarm payrolls decreased by 65,100 jobs, or 5.8 percent. The rate of decline was the same as for the nation. The leisure and hospitality sector accounted for 40 percent of the losses and was down 26,200 jobs, or 20.5 percent from 2019. The transportation and utilities sector was the only sector that had job gains in 2020, adding 1,500 jobs, or 2.8 percent, whereas many businesses in other sectors endured temporary business closures and offered limited services in response to the COVID-19 pandemic. Personal and household adaptations to the pandemic accelerated trends toward increased demand for online purchases and deliveries, which impacted some jobs in the transportation and utilities sector. In 2020, Amazon hired 1,250 people at its Hebron distribution center near CVG. In 2021,

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

	2020	2021	Absolute Change	Percentage Change
Total Nonfarm Payroll Jobs	1,054.7	1,083.1	28.4	2.7
Goods-Producing Sectors	160.8	159.2	-1.6	-1.0
Mining, Logging, & Construction	47.2	47.5	0.3	0.6
Manufacturing	113.7	111.7	-2.0	-1.8
Service-Providing Sectors	893.9	923.9	30.0	3.4
Wholesale & Retail Trade	157.9	162.8	4.9	3.1
Transportation & Utilities	54.9	57.2	2.3	4.2
Information	13.0	13.2	0.2	1.5
Financial Activities	73.2	73.0	-0.2	-0.3
Professional & Business Services	165.5	176.0	10.5	6.3
Education & Health Services	163.8	170.7	6.9	4.2
Leisure & Hospitality	101.3	107.5	6.2	6.1
Other Services	36.5	38.8	2.3	6.3
Government	127.8	124.9	-2.9	-2.3

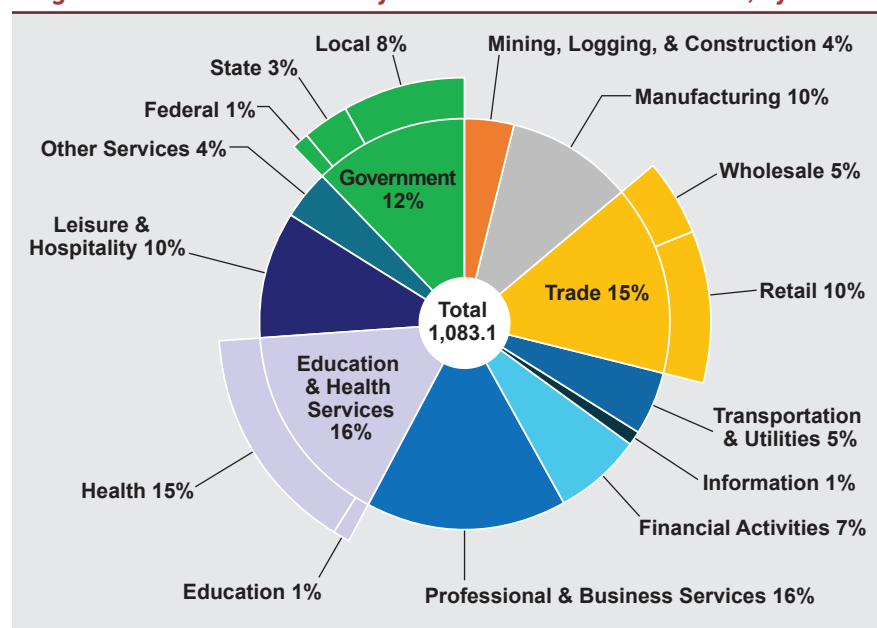
Notes: Based on 12-month averages through 2020 and 2021. Numbers may not add to totals due to rounding. Data are in thousands.
Source: U.S. Bureau of Labor Statistics

Amazon opened its Amazon Air Hub at CVG; the facility is in the process of adding 2,000 jobs through the next several years. In 2020, CVG was the sixth largest cargo hub in the United States (Federal Aviation Administration), and the new addition is Amazon's largest air hub, capable of up to 200 flights per day.

The COVID-19 pandemic had a severe impact on nonfarm payroll jobs on an annual basis, and because of the short duration of the recession in 2020, it was more pronounced on a monthly basis. In March and April 2020, nonfarm payrolls plummeted by 157,100 jobs, or 14 percent (not seasonally adjusted). Many businesses requiring in-person interactions, such as entertainment venues, schools, and retail establishments, closed. Healthcare facilities restricted non-emergency care. Restaurants were closed to dining but offered takeout and delivery, and offices with employees who could do their jobs from home converted to remote work. Some businesses were able to open in a limited capacity in May 2020, and reopenings and entertainment venue events expanded through the summer and fall. As of December 2021, 153,000 jobs have been recovered, accounting for approximately 98 percent of jobs lost, slightly higher than the 97 percent recovery nationally.

In 2021, the transportation and utilities, the professional and business services, and the education and health services sectors were the only job sectors that surpassed their 2019 prepandemic level. The transportation and utilities sector grew the fastest during the past 2 years and is above 2019 payrolls by 7.1 percent. The sector added 2,300 jobs in 2021, or 4.2 percent, year-over-year. The professional and business services sector, including computer based industries suited for working remotely, and industries that provided office support and were in demand when offices reopened, had the largest number of job gains during 2021, adding 10,500 jobs, or 6.3 percent. With an average of 176,000 jobs, the professional and business services sector is 2.3 percent above 2019 levels, with 5,300 more jobs than the education and health services sector, each accounting for approximately 16 percent of all nonfarm payrolls (Figure 1). The education

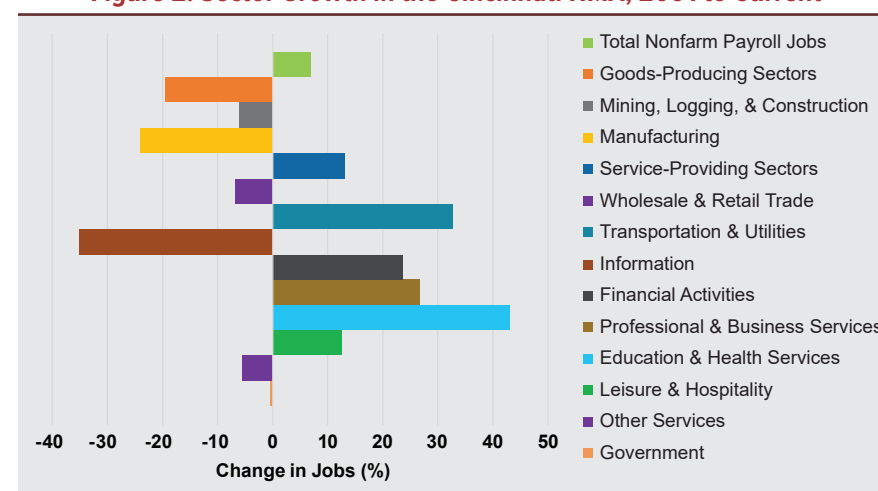
Figure 1. Share of Nonfarm Payroll Jobs in the Cincinnati HMA, by Sector



Notes: Total nonfarm payroll is in thousands. Percentages may not add to 100 percent due to rounding. Based on 12-month averages through 2021. Source: U.S. Bureau of Labor Statistics

and health services sector added 6,900 jobs, or 4.2 percent, year-over-year to 170,700 jobs, 0.5 percent above 2019 sector payrolls, and had the strongest gains in the HMA, increasing 43 percent since 2001 (Figure 2). The leisure and hospitality sector also had strong gains during 2021, adding 6,200 jobs, or 6.1 percent, from 2020, but remains 15.7 percent below 2019 levels, and is the sector with the largest decline from before the pandemic. Although most other sectors continue to recover jobs lost, the manufacturing, the financial activities, and the government sectors all declined in 2021.

Figure 2. Sector Growth in the Cincinnati HMA, 2001 to Current



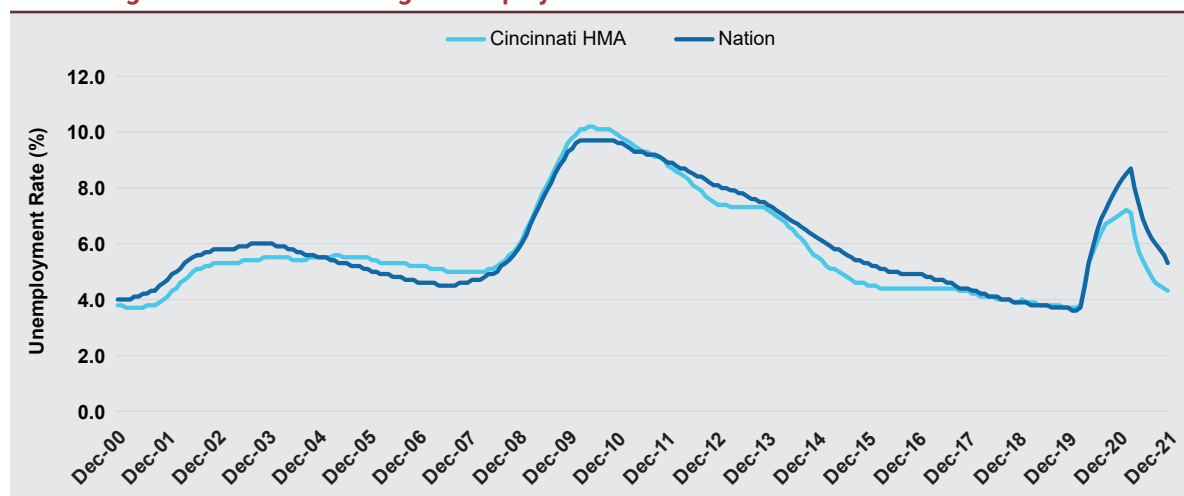
Note: The current date is January 1, 2022.
Source: U.S. Bureau of Labor Statistics

Current Conditions— Unemployment and Labor Force

The unemployment rate decreased in 2021 as the economy continued to recover most jobs lost during 2020. The unemployment rate averaged 4.3 percent during 2021, down from 7.0 percent in 2020, but still slightly elevated from the 3.7 percent rate in 2019 (Figure 3). The unemployment rate, typically similar to the national unemployment rate, was below the national rate in 2020 and 2021.

Despite strong growth in resident employment in the Cincinnati HMA in the past year, increasing 2.5 percent, the overall labor force declined 0.4 percent. Retirements, health concerns regarding the COVID-19 pandemic, and parents anticipating potential pandemic-related daycare and school disruptions were some of the reasons people left the labor force in 2021. Although retirees are typically permanent departures from the labor force, COVID-19 concerns may be temporary, with many of workers returning when the economy fully recovers and uncertainty from the pandemic eases.

Figure 3. 12-Month Average Unemployment Rate in the Cincinnati HMA and the Nation

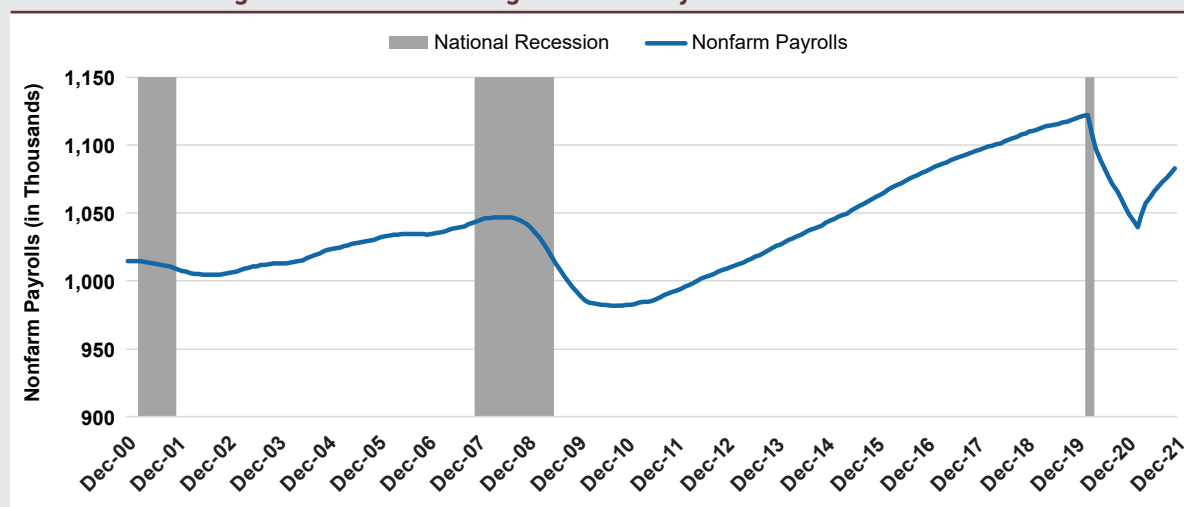


Note: Based on the 12-month moving average.
Source: U.S. Bureau of Labor Statistics

Economic Periods of Significance 2000 Through 2007

Nonfarm payrolls declined at the start of the decade but steadily rose through 2007 (Figure 4). The HMA averaged 1.01 million jobs in 2000 and decreased by an average of 4,400 jobs, or 0.4 percent, each year through 2002. The manufacturing sector led declines, down by 8,800 jobs annually, or 6.2 percent. GE Aviation was among the companies that laid off workers during this period, reducing their workforce by 500 employees in 2001. Recovery was rapid and nearly full in 2003, and the economy entered a period of expansion. From 2003 through 2007, nonfarm payrolls increased by an average of 7,700 jobs, or 0.8 percent, annually. Continued, but much weaker declines

Figure 4. 12-Month Average Nonfarm Payrolls in the Cincinnati HMA



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

in the manufacturing sector of 1,800 jobs, or 1.4 percent, a year, were more than offset by increases in the professional and business services and the education and health services sectors, increasing by averages of 3,500 and 3,400 jobs each year, respectively, or 2.4 and 2.6 percent. In 2007, nonfarm payrolls peaked for the decade at 1.04 million jobs.

2008 Through 2010

The local economic downturn that occurred as part of the Great Recession lasted 3 years in the HMA, and jobs declined by an average of 20,700, or 2.0 percent, annually, to a low of 982,200 jobs. The education and health services sector was the only payroll sector that increased during this period, adding an average of 1,900 jobs, or 1.3 percent, a year. The manufacturing sector continued its decade-long decline and led job losses, decreasing by an average of 5,800 jobs, or 5.1 percent, each year. By 2010, the sector had shrunk 30 percent compared with the number of jobs in 2000.

2011 Through 2019

The 2011 through 2019 period sustained nearly twice the rate of job gains, and for a longer period of time, than the previous period of job growth. Despite

a longer recovery from the Great Recession compared with the previous recession, jobs were added starting in 2011 and nearly recovered from the losses of the Great Recession in 2014. Nonfarm payrolls increased by an average of 15,300 jobs, or 1.5 percent, annually from 2011 through 2019, to 1.12 million jobs. Most sectors, including manufacturing, added jobs, but the information sector lost an average of 100 jobs, or 0.4 percent, a year, and the government sector was unchanged. After declines in the previous decade, the manufacturing sector averaged an addition of 1,900 jobs, or 1.7 percent, each year. In 2014, GE Aviation announced the hiring of 1,400 workers through 2015 as part of a \$300 million expansion at their Evendale facility in the Hamilton County submarket. The strongest job growth was in the leisure and hospitality sector, increasing by an average of 2,800 jobs, or 2.5 percent, each year from 2011 through 2019. In 2017, the HMA had 26.6 million visitors spend \$5.3 billion in the greater Cincinnati area, up 2 percent in visitors and 4 percent in dollars spent compared with the previous year, and through the date of the report had the highest level of tourism to the area (Cincinnati USA Convention and Visitors Bureau 2018 report). Tourists to the Cincinnati area visit attractions like the Cincinnati Zoo & Botanical Garden, ranked best in the nation in 2021 by *USA Today*, museums, and professional and collegiate sporting events.

Jobs by Geography

Hamilton County, including the principal city of Cincinnati, is the largest job center of the HMA, accounting for the plurality of jobs. The Hamilton County submarket accounts for 50 percent of the jobs within the HMA, including jobs in major industries such as healthcare, education, retail trade, and jobs at corporate headquarters (Table 3; Map 1). Jobs are spread out more in the Suburban submarket, with Butler, Boone, and Warren counties having the largest shares, accounting for 15, 9, and 9 percent, respectively. Some of the major employers in the Suburban submarket include CVG in Boone County, St. Elizabeth Healthcare in Kenton County, and Fortune 500 companies Cincinnati Financial Corporation in Butler County and Cintas

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

Hamilton County Submarket	50
Suburban Submarket	50

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

Corporation in Warren County. In addition, many employers based in the Hamilton County submarket have locations in the Suburban submarket, such as distribution and retail outlets for The Kroger Co., manufacturing facilities for P&G, satellite campuses for the University of Cincinnati, and medical centers for the healthcare networks.



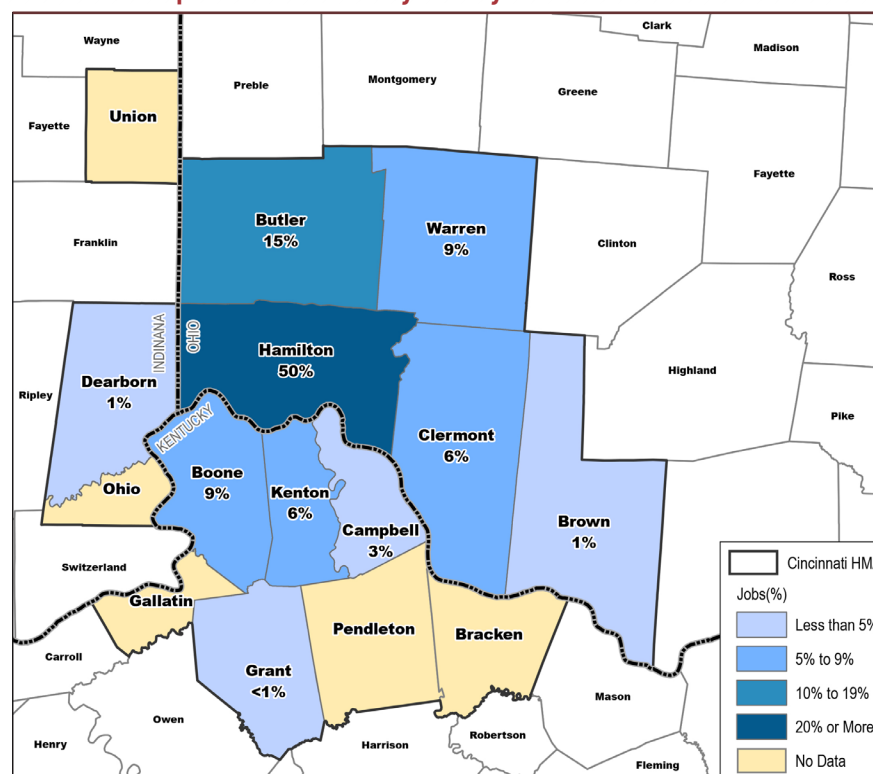
Commuting Patterns

Most HMA residents work in the HMA. In the Hamilton County submarket, 81 percent of the residents work in the county, and 17 percent commute to the Suburban submarket; the remaining 2 percent commute outside of the HMA (Table 4). In the Suburban submarket, nearly 28 percent of the residents commute into Hamilton County, while 66 percent work within the Suburban submarket, and nearly 7 percent commute outside of the HMA.

Forecast

Nonfarm payrolls in the Cincinnati HMA are expected to fully recover from the jobs lost during the pandemic-related recession by the end of 2023. During the next three years, nonfarm payrolls are expected to increase an average of 1.8 percent annually to 1.14 million jobs, exceeding 2019 levels approximately 2 percent by the end of the forecast period. Job growth is expected across most sectors and should be particularly strong in the transportation and utilities sector, because hiring at the Amazon Air Hub at CVG in Boone County will continue through the forecast period. In the manufacturing sector, Vinylmax LLC, a window manufacturer, is expanding their Butler County facility and expects to add 150 jobs during the next 5 years. In the financial activities sector, Massachusetts Mutual Life Insurance Company, which bought Great American Life Insurance Company in 2021, is expanding in downtown Cincinnati and expects to add 150 jobs.

Map 1. Share of Jobs by County in the Cincinnati HMA



Note: The share of jobs shown in this map only include the counties for which there are data.
Source: Census Bureau On the Map, 2019

Table 4. Jobs by Place of Worker Residence in the Cincinnati HMA, by Submarket

Location of Primary Job	Worker Residence	
	Hamilton County Submarket (%)	Suburban Submarket (%)
Hamilton County Submarket	81	28
Suburban Submarket	17	66
Outside the HMA	2	7

Note: Columns may not add to 100 percent due to rounding.
Source: 2015 U.S. Census Journey to Work

Population and Households

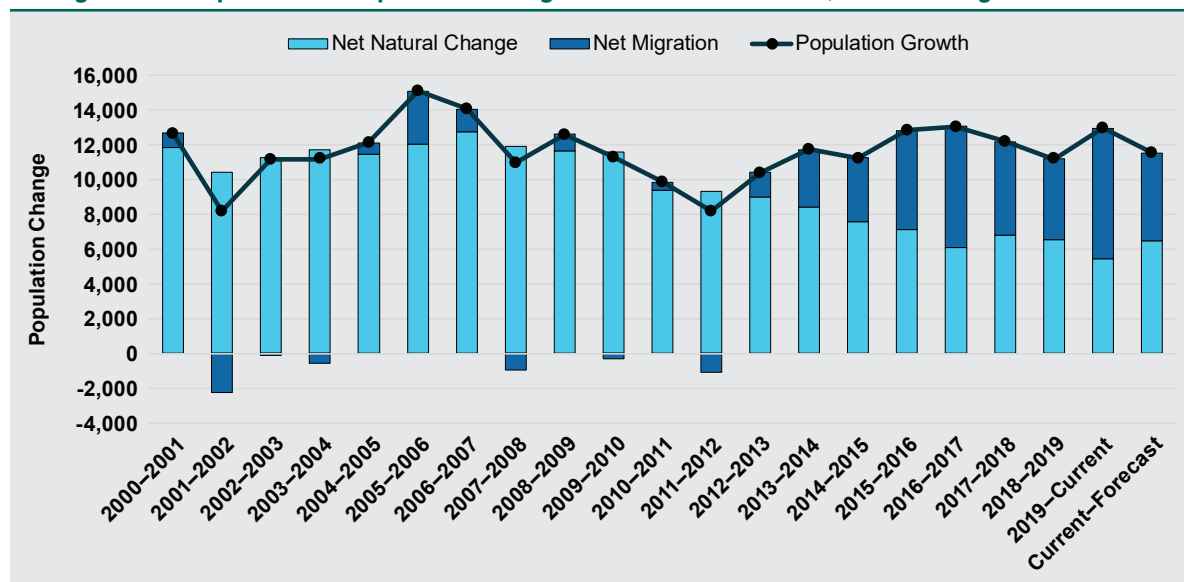
Current Population: 2.25 Million

Population growth has been generally steady since 2000 in the HMA, but a decline in the number of people migrating from the Hamilton County submarket to the Suburban submarket has shifted the geography of population growth since 2009.

Population Trends Cincinnati HMA

Overall population growth in the Cincinnati HMA has been steady since 2000, but there have been shifts in the components of change, with migration increasing shortly after the Great Recession. From 2000 to 2009, the population increased by an average of 12,200 annually, or 0.6 percent (Figure 5). Net in-migration accounted for nearly 4 percent of the population growth, and the majority of growth resulted from net natural increase. From 2009 to 2012, when the HMA economy was weak because of the local impacts from the Great Recession and in the earliest years of recovery, population growth slowed slightly to an average of 9,800 people, or 0.5 percent, a year. Net natural increase averaging 10,100 people a year more than offset net out-migration of 300 people annually, as people moved away seeking employment opportunities elsewhere. From 2012 to 2019, net in-migration resumed in

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



Notes: Data displayed are average annual totals. The forecast period is from the current date (January 1, 2022) to January 1, 2025.
Sources: U.S. Census Bureau; current to forecast—estimates by the analyst

the HMA, averaging 4,425 people a year, but net natural increase slowed to an average of 7,375 people annually, and as a result, the population increased by an average of 11,800, or 0.5 percent, annually. Since 2019, population growth has strengthened slightly, increasing by an average of 12,950 people a year, or 0.6 percent. Net natural increase slowed to an average of 5,500 people a year, partially a result of the increased deaths that resulted from the pandemic. Net in-migration surpassed net natural increase as the largest component of population growth during the period, accounting for more than 58 percent of the population growth and averaging 7,450 people a year. According to a U-Haul International, Inc. report, Ohio was the fourth top destination for movers in 2020, with COVID-19 impacts being identified as contributing factors as people moved to be closer to family and sought more affordable areas, especially those who could work remotely.

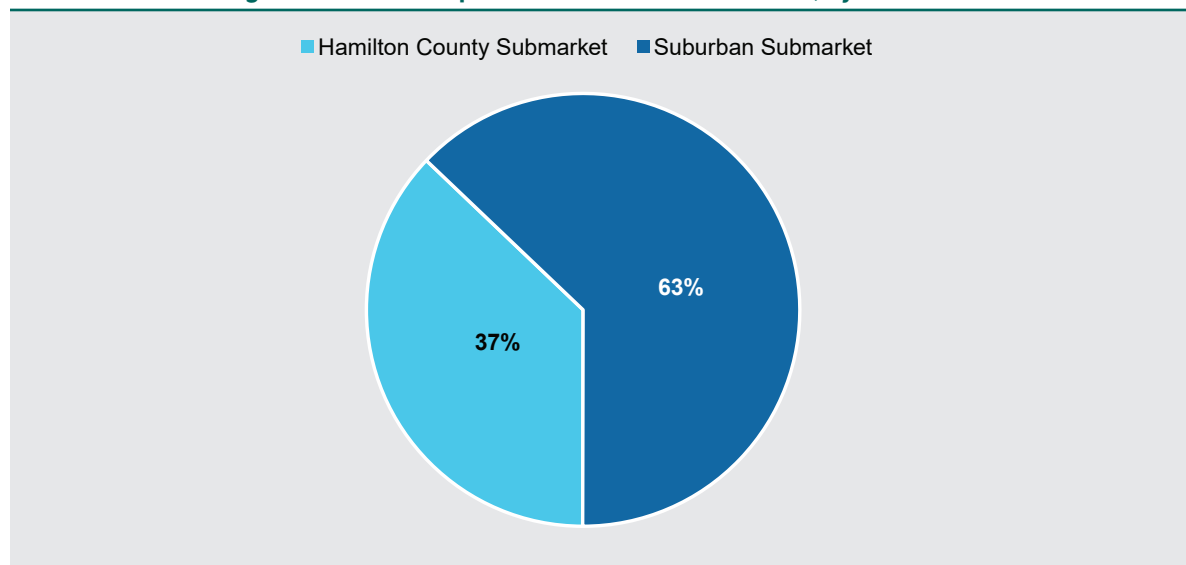
Population Trends by Submarket

Despite relatively steady population growth in the overall HMA, population trends differed between the submarkets, partly due to migration from the Hamilton County submarket to the Suburban submarket,

which was especially strong in the 2000 decade. The Hamilton County submarket has a population of 835,400, accounting for 37 percent of the HMA population (Figure 6). The Suburban submarket population is nearly 1.42 million. By comparison, the Hamilton County submarket accounted for 42 percent of the population in 2000.

From 2000 to 2009, the population in the Hamilton County submarket decreased an average of 0.6 percent annually, as net out-migration averaged 8,225 people each year and more than offset the average annual net natural increase of 3,550 people. Annual net out-migration to the Suburban submarket averaged 4,025 people (2005–2009 American Community Survey [ACS] 5-year data). From 2009 to 2012, net out-migration slowed, and the population increased by an average of 2,200, or 0.3 percent, a year. Net natural increase averaging 3,400 people a year more than offset the net out-migration of 1,200 people annually. From 2012 to 2019, overall population growth was similar to the previous period, averaging 0.3 percent a year, but the components of population growth changed, partly because net out-migration slowed dramatically to an average of 50 people a year, whereas net natural increase slowed to an average of 2,900 people annually. Net out-migration from the Hamilton County submarket to the Suburban submarket slowed by nearly 80 percent from 2015 to 2019, compared with

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



Source: Estimates by the analyst

the 2005 to 2009 period, to an average of 850 people a year (2015–2019 ACS 5-year data). This out-migration was partially offset by in-migration from outside the HMA. Since 2019, the population of the Hamilton County submarket increased an average of 0.3 percent annually. A slower net natural increase averaging 2,200 people a year and net in-migration into the submarket averaging 500 people a year were partially attributed to the pandemic.

Population growth in the Suburban submarket has been stronger than in the Hamilton County submarket since at least 2000, and the submarket increased its share of the population because of migration from the Hamilton County submarket. In the Suburban submarket, the population grew at the fastest rate from 2000 to 2009, increasing by an average of 16,850, or 1.4 percent, annually. Net in-migration of 8,650 people accounted for 51 percent of the growth. Since 2009, the population in the Suburban submarket has increased at twice the rate of the Hamilton County submarket. Beginning in 2009, migration from Hamilton County slowed. The population in the Suburban submarket increased by 7,600, or 0.6 percent, a year from 2009 to 2012, less than half the average annual rate during the previous period. Net in-migration averaging 875 people a year accounted for most of the slowdown, contributing less than 12 percent of the population

growth. The majority of population growth was from net natural increase, which averaged 6,725 people a year. From 2012 to 2019, the population increased an average of 0.7 percent annually, with net in-migration of 4,500 people a year accounting for 50 percent of the population growth and net natural increase averaging 4,475 people. Since 2019, the submarket population continued the 0.7-percent average annual increase, and net in-migration averaging 6,950 people annually increased to 68 percent of the population growth. Net natural increase further slowed to an average of 3,300 people a year.

Migration Trends From Outside the HMA

In recent years, most migration into the Cincinnati HMA came from nearby metropolitan areas, and most people moving out of the HMA went to the South and West regions of the United States. Although the top origination of net migration into the HMA is the New York-Newark-Jersey City, NY-NJ-PA metropolitan area, the top five are rounded out by the nearby metropolitan areas of Cleveland-Elyria, OH, Dayton-Kettering, OH, Akron, OH, and Indianapolis-Carmel-Anderson, IN (Census Bureau metro-to-metro migration 2015–19; Table 5). People from the nearby metropolitan areas are attracted

Table 5. Metro-to-Metro Net-Migration Flows in the Cincinnati HMA: 2015–2019

Into the HMA	
New York-Newark-Jersey City, NY-NJ-PA	1,333
Cleveland-Elyria, OH	1,195
Dayton-Kettering, OH	995
Akron, OH	592
Indianapolis-Carmel-Anderson, IN	563
Out of the HMA	
Seattle-Tacoma-Bellevue, WA	-329
Minneapolis-St. Paul-Bloomington, MN-WI	-348
Phoenix-Mesa-Chandler, AZ	-386
Dallas-Fort Worth-Arlington, TX	-429
Atlanta-Sandy Springs-Alpharetta, GA	-692

Source: U.S. Census Bureau Migration Flows, 2015–2019 American Community Survey, 5-year data

to the job opportunities in industries clustered in the HMA, including healthcare, insurance, manufacturing, and jobs at corporate headquarters. The metropolitan areas accounting for the largest net migration out of the HMA include Atlanta-Sandy Springs-Alpharetta, GA; Dallas-Fort Worth-Arlington, TX; Phoenix-Mesa-Chandler, AZ; Minneapolis-St. Paul-Bloomington, MN-WI; and Seattle-Tacoma-Bellevue, WA. The migration out of the HMA coincides with larger national migration trends toward the south and west.

Household Trends

Household growth in the Cincinnati HMA has generally followed population trends, with generally steady growth since 2000 and slower growth in the Hamilton County submarket than in the Suburban submarket. There are currently 897,900 households in the HMA. From 2000 to 2010, HMA households increased by an average of 5,075, or 0.6 percent, a year, which increased to an average of 6,200, or 0.7 percent, a year from 2010 to current (Table 6). Households in the Hamilton County submarket decreased from 2000 to 2010, with an average annual decline of 1,275 households, or 0.4 percent, followed by an average annual increase of 1,750, or 0.5 percent, since 2010, to 354,400 households currently because the population increased. In the Suburban submarket, the number of households increased by an average of 6,375, or

Table 6. Cincinnati HMA Population and Household Quick Facts

Population Quick Facts	2010	Current	Forecast	
	Population	2,114,580	2,252,000	2,287,000
	Average Annual Change	12,000	11,700	11,550
	Percentage Change	0.6	0.5	0.5
Household Quick Facts	2010	Current	Forecast	
	Households	824,967	897,900	914,300
	Average Annual Change	5,075	6,200	5,475
	Percentage Change	0.6	0.7	0.6

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, 2022) to January 1, 2025. Sources: 2000 and 2010—2000 Census and 2010 Census; current and forecast—estimates by the analyst

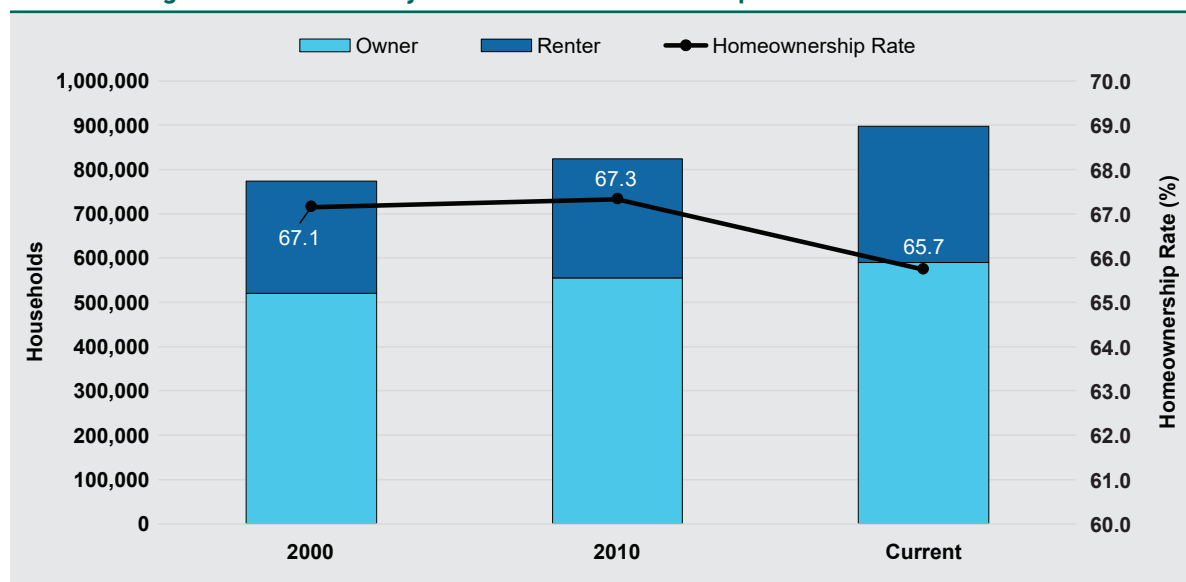


1.4 percent, annually from 2000 to 2010. Since 2010, households have increased at nearly double the rate of the Hamilton County submarket, up an average of 4,475, or 0.9 percent, annually, to 543,500 households currently.

Households by Tenure

The homeownership rate in the Cincinnati HMA increased from 67.1 percent in 2000 to 67.3 percent in 2010 and is currently 65.7 percent (Figure 7). From 2000 to 2010, annual growth in the number of homeowners outpaced renter household growth, 0.7 percent to 0.6 percent, respectively. Despite increases in the homeownership rate in the Cincinnati HMA from 2000 to 2010, the rate decreased in each submarket during the same period. The Hamilton County submarket had homeownership rates more than 13 percentage points lower than the Suburban submarket during both years, and had a decreasing share of the population of the HMA, from 42 percent in 2000 to less than 38 percent in 2010. The decline in the Hamilton County submarket homeownership rate had less of an impact on the overall HMA homeownership rate. Conversely, the increasing population of the Suburban submarket, coupled with a much higher homeownership rate that was decreasing at a slower rate, contributed a larger share of the overall HMA rate by 2010, which is why the overall rate slightly increased in the HMA from 2000 to 2010.

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



Note: The current date is January 1, 2022.

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

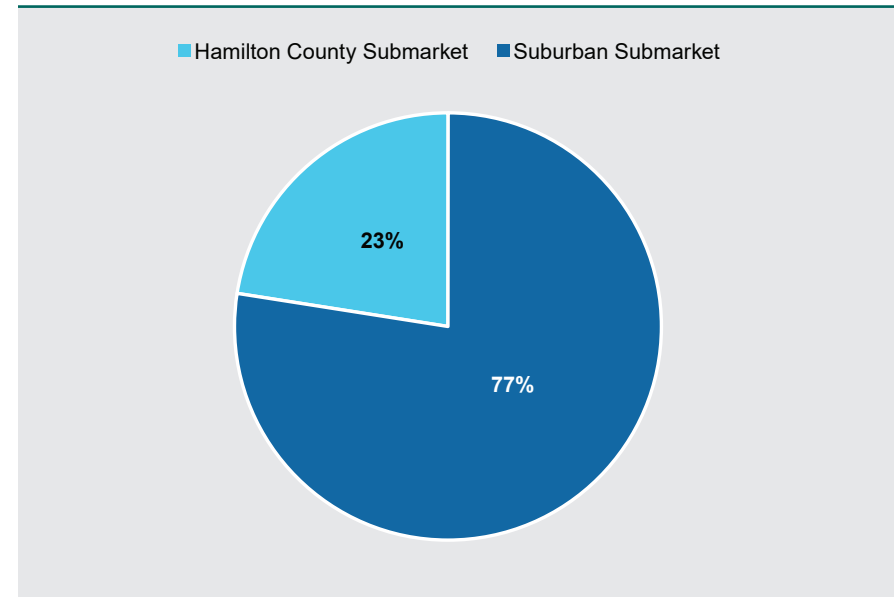
Since 2010, the trend reversed, and growth in renter households has been faster than growth in owner households, with renter households increasing an average of 1.1 percent annually, compared with a 0.6-percent average annual growth of homeowners. The sharpest decline in homeownership was in the Hamilton County submarket, where the homeownership rate of 59.9 percent in 2000 declined to 59.5 percent in 2010 and is currently 56.9 percent. Renter household growth in this submarket has been strong since 2010, partly due to increased net in-migration and having a higher share of rental units. After decreasing by an average annual rate of 0.3 percent from 2000 to 2010, renter households increased an average of 1.0 percent annually since 2010. In the Suburban submarket, where homeownership is more prevalent, the homeownership rate decreased at a slower pace, from 73.1 percent in 2000 to 72.6 percent in 2010 and is currently 71.5 percent.

Forecast

During the three-year forecast period, the population and number of households are expected to increase by averages of 11,550 and 5,475 each year, or 0.5 and 0.6 percent, respectively. The strongest growth

will continue in the Suburban Submarket (Figure 8). The population and the number of households are expected to increase an average of 8,925 and 4,150, or 0.6 and 0.8 percent, a year, respectively. Similar to historic trends, the Hamilton County submarket will increase at about half the rate of the Suburban submarket and increase by an average of 2,600 people and 1,325 households, or 0.3 and 0.4 percent, annually, respectively.

Figure 8. Share of Forecast Population Growth by Submarket



Source: Estimates by the analyst

Home Sales Market

Sales Market—Cincinnati HMA

Market Conditions: Tight

Declining inventory resulting from fewer home listings, coupled with strong migration into the Cincinnati HMA during 2020 and 2021, contributed to tight sales market conditions as of January 1, 2022.

Current Conditions

The sales market in the Cincinnati HMA is currently tight. The sales vacancy rate is estimated at 1.2 percent (Table 7), down from 2.5 percent in 2010 when the market was soft. In December 2021, the HMA had 1.4 months of available for-sale housing inventory, the lowest since at least 2012 and down from 1.6 months a year earlier (Redfin, a national real estate brokerage). By comparison, the inventory was above 3.5 months from 2012 through 2016 and 2.4 months or higher from 2017 through 2019, which was nearly double the December 2021 level.

Total home sales (hereafter, home sales) in the Cincinnati HMA were fairly steady from 2017 through 2019, declining in the past two years, partly due to limited inventory. Home sales averaged 48,450 a year from 2017 through 2019 (CoreLogic, Inc., with adjustments by the analyst). Declining inventory limited the options available for purchase, in part because of the hesitancy

Table 7. Home Sales Quick Facts in the Cincinnati HMA

	Cincinnati HMA	Nation
Vacancy Rate	1.2%	NA
Months of Inventory	1.4	1.0
Total Home Sales	44,000	6,887,000
1-Year Change	-4%	7%
New Home Sales Price	\$357,600	\$458,700
1-Year Change	6%	17%
Existing Home Sales Price	\$232,600	\$368,500
1-Year Change	14%	11%
Mortgage Delinquency Rate	1.7%	2.0%

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 2021; and months of inventory and mortgage delinquency data are as of December 2021. The current date is January 1, 2022.

Sources: Vacancy rate—estimates by the analyst; months of inventory—Redfin, a national real estate brokerage; HMA home sales and prices—CoreLogic, Inc., with adjustments by the analyst; national home sales and prices—National Association of REALTORS® and Census Bureau/HUD

of some sellers to list their homes during the pandemic, and home sales declined in 2020 and 2021 as a result. In 2020, 45,900 homes sold, decreasing 4 percent to 44,000 homes sold in 2021.

Existing home sales have accounted for 92 percent of total home sales since 2018. New home sales as a percentage of total home sales—and in absolute volume of sales—have declined in the HMA. New home sales declined an average of 1 percent annually from 2018 through 2020, but the number was down 12 percent in 2021 because of supply constraints and delivery delays. New home sales accounted for nearly 16 percent of total home sales from 2000 through 2006, when population growth was strong in the Suburban submarket, and it was relatively easy for buyers throughout the HMA to meet the requirements for a mortgage. New home sales as a share of total home sales decreased to 8 percent of home sales since 2018. Part of the slowdown in new home sales is attributed to the changing geography of population growth. The year 2009 marked population growth in the Hamilton County submarket for the first time since at least 2000, and demand for new housing was lower as a result of an excess supply of existing homes resulting from the Great Recession. As fewer people moved from the Hamilton County submarket to the Suburban submarket, demand for additional homes in the Suburban submarket also slowed.

REO Sales and Delinquent Mortgages

Seriously delinquent mortgages and real estate owned (REO) properties are low in the Cincinnati HMA. The rate during December 2021 was 1.7 percent, down from 3.4 percent a year earlier and slightly higher than the 1.5 percent rate in December 2019 (CoreLogic, Inc.). There was a small increase during 2020 that

resulted from hardship during the impacts of the recession induced by the COVID-19 pandemic, reaching a high of 3.6 percent of loans in September 2020. The rate previously peaked at 6.6 percent in January 2012 as part of the housing foreclosure crisis and the impacts from the Great Recession. Despite the increase in seriously delinquent mortgages, actual foreclosures decreased because of protections offered by the federal government during the pandemic, such as mortgage forbearance. The number of foreclosures in 2021 was 8,475, nearly one-half of the 16,225 foreclosures in 2019 prior to the pandemic.

Home Sale Prices

The average price of a home increased markedly during the past year as the sales market tightened considerably. During 2021, the average price of a home increased 13 percent from 2020 to \$241,300 (CoreLogic, Inc., with adjustments by the analyst). By comparison, the average home sales price increased 6 percent annually from 2018 through 2020. The average price of a new home increased 6 percent from 2020 to 2021, to \$360,500, twice the rate of the average annual increase from 2018 through 2020.

Forecast

During the next 3 years, demand is expected for 15,250 new homes (Table 8). The 3,330 homes under construction will account for a portion of the demand during the first year. Approximately 84 percent of the demand will be in the Suburban submarket, which has more land for development, a larger population, and a higher rate of homeownership.

Table 8. Demand for New Sales Units in the Cincinnati HMA During the Forecast Period

Sales Units	
Demand	15,250 Units
Under Construction	3,330 Units

Note: The forecast period is from January 1, 2022, to January 1, 2025.
Source: Estimates by the analyst

Sales Market— Hamilton County Submarket

Current Conditions

Home sales conditions in the Hamilton County submarket are currently tight. The sales vacancy rate in 2021 was 1.3 percent (Table 9). That figure is down from 3.0 percent in 2010, when the market was soft due to the slow population growth, elevated foreclosures, and shifting preferences towards renting. The supply of inventory in December 2021 was 1.9 months, down from 2.5 months a year earlier and the lowest level since at least 2012 (Redfin, a national real estate brokerage). The inventory has been steadily declining since a high of 8.5 months in December 2012.

Home sales in the Hamilton County submarket were strong in the early 2000s but they declined during the period in and around the Great Recession

Table 9. Home Sales Quick Facts in the Hamilton County Submarket

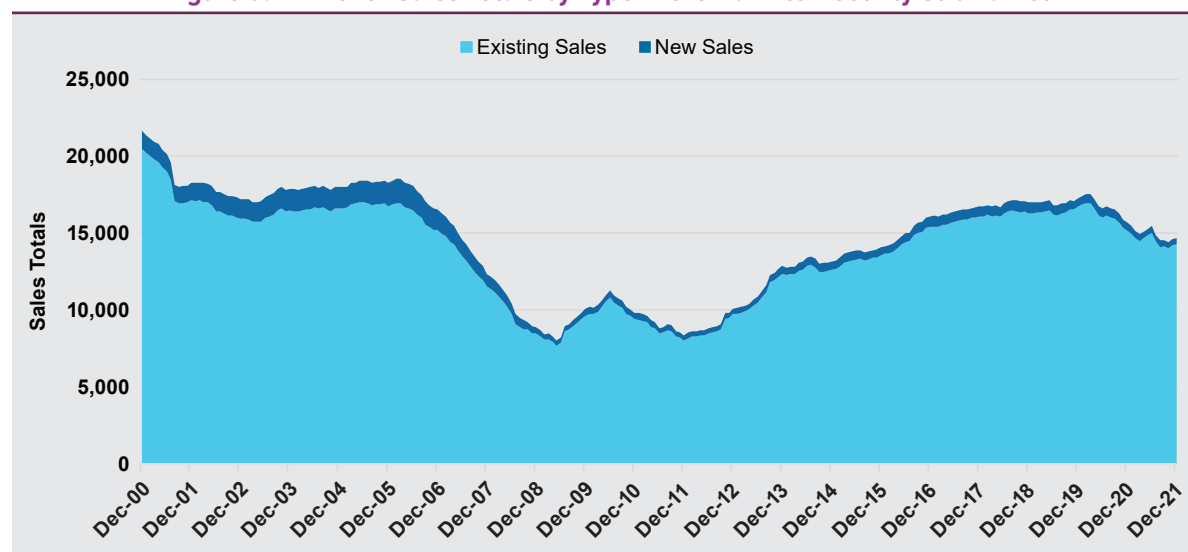
	Hamilton County Submarket	Cincinnati HMA
Vacancy Rate	1.3%	1.2%
Months of Inventory	1.7	1.4
Total Home Sales	14,700	44,000
1-Year Change	-6%	-4%
New Home Sales Price	\$338,900	\$357,600
1-Year Change	-6%	6%
Existing Home Sales Price	\$240,600	\$232,600
1-Year Change	15%	14%
Mortgage Delinquency Rate	2.0%	1.7%

Notes: The vacancy rate is as of the current date; home sales and prices are for the 12 months ending December 2021; months of inventory and mortgage delinquency data are as of December 2021. The current date is January 1, 2022.

Sources: Vacancy rate—estimates by the analyst; months of inventory—Redfin, a national real estate brokerage; HMA home sales and prices—CoreLogic, Inc., with adjustments by the analyst; national home sales and prices—National Association of REALTORS® and Census Bureau/HUD

and were recovering through 2019, before the COVID-19 pandemic. From 2000 through 2006, an average of 18,300 homes sold annually (CoreLogic, Inc., with adjustments by the analyst; Figure 9). Despite the declining population in the submarket, approximately 7 percent of sales were for new homes. Home sales subsequently declined, and from 2007 through 2012, they averaged 9,950 homes sold annually, or approximately 54 percent of the number of sales during the previous period. During this period, despite the reversal in population and household growth, sales declined partly due to the foreclosure crisis, more stringent lending standards making it harder to qualify for a loan, and an increasing preference for renting. From 2013 through 2019, demand increased for homes as the economy recovered and the population increased. Home sales increased by an average of 1,025 homes, or 8 percent, annually, to 17,300 homes sold in 2019, approximately 5 percent lower than the levels in the early 2000s. By 2019, new home sales constituted approximately 4 percent of all home sales. Beginning in 2020, sales declined, due in part to the pandemic. Home sales in 2020 were down 9 percent from 2019, and sales declined 6 percent in 2021 to 14,700 homes sold. New home sales decreased 15 percent in 2020 and again in 2021, due to construction delays and supply chain issues. In 2021, new home sales accounted for 3 percent of all home sales.

Figure 9. 12-Month Sales Totals by Type in the Hamilton County Submarket



Source: CoreLogic, Inc., with adjustments by the analyst

REO Sales and Delinquent Mortgages

Seriously delinquent mortgages and REO properties have declined in the submarket following the Great Recession, despite a small increase in 2020 due to impacts from the COVID-19 pandemic. During December 2021, 2.0 percent of home loans were seriously delinquent or in REO status, down from 3.9 percent a year earlier, but slightly above the 1.8-percent rate in December 2019. The rate peaked at 7.1 percent in January 2012, which was higher than the rate in the overall HMA. Because of restrictions on foreclosures during the pandemic, the number of foreclosures has decreased significantly from 2019. During 2021, the number of foreclosures was 3,775, 46 percent below the level in 2019.

Home Sale Prices

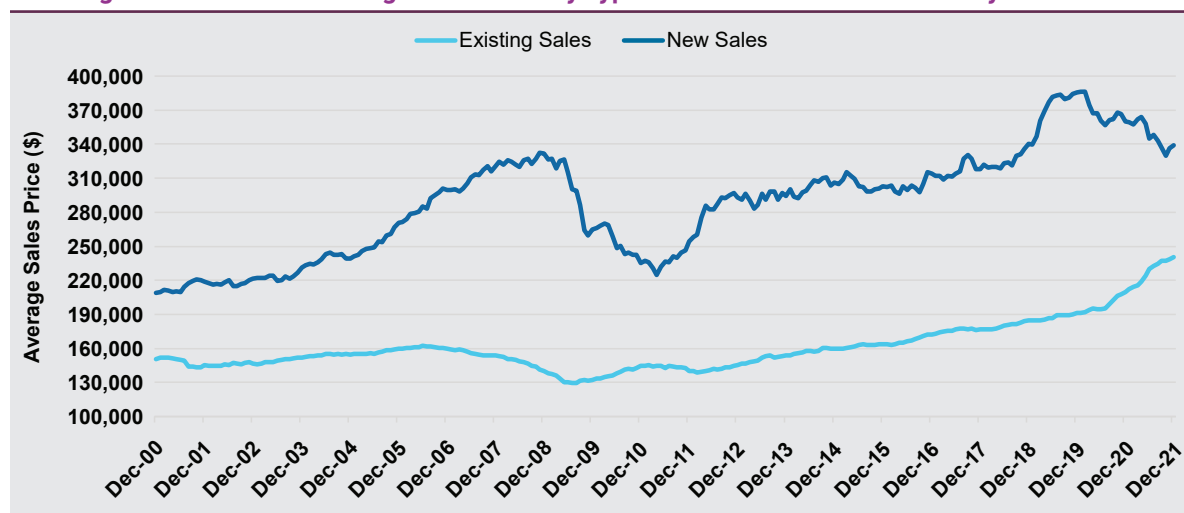
During the past 2 years, the average home sales price increased sharply in response to tight market conditions. During 2021, the average home sales price increased 14 percent from 2020 to \$243,400 (Figure 10). The price in 2020 was up 9 percent from the previous year. Historically, sales price growth in the submarket was much more moderate, largely because of the balanced-to-soft market conditions that persisted. Average sales prices increased 2 percent annually from 2001 through 2006, then decreased

an average of 2 percent each year through 2012. From 2013 through 2019, the average price increased 4 percent annually, less than one-half the rate of the price increase in 2020 and 2021. Although accounting for only a small share of total home sales, the average price of a new home in 2021 was \$338,900, 41 percent higher than the average price for an existing home of \$240,600 during that same year.

Sales Construction

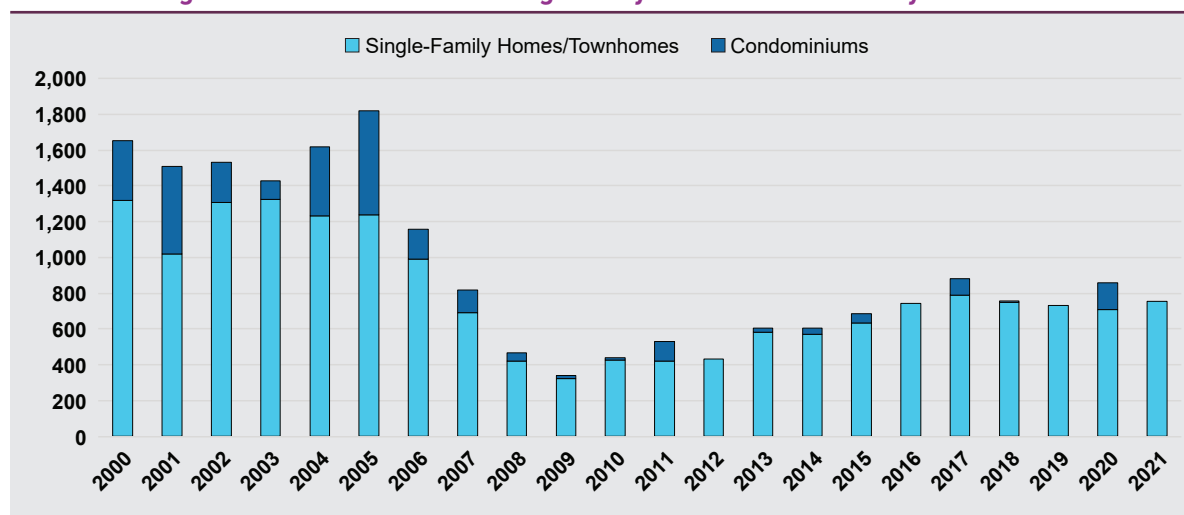
Sales construction activity in the Hamilton County submarket was very strong in the early 2000s, despite the declining population. Sales construction activity, as measured by the number of building permits issued for homes intended for purchase, averaged 1,525 homes a year from 2000 through 2006 (Figure 11). The large volume of homes built and migration out of the submarket contributed to softening market conditions. From 2007 through 2009, the level of construction slowed by an average of 270 homes, or 33 percent, each year, to a low of 340 homes permitted in 2009 as the economy weakened. As the population began to increase, there was some demand for additional homes, although the soft housing market kept it subdued. From 2010 through 2015, new home construction increased by an average of 60 homes, or 12 percent, annually. From 2016 through 2020, new home construction averaged 790 homes annually, decreasing slightly to 760 homes in 2021 (preliminary data, with adjustments by the analyst).

Figure 10. 12-Month Average Sales Price by Type of Sale in the Hamilton County Submarket



Source: CoreLogic, Inc., with adjustments by the analyst

Figure 11. Annual Sales Permitting Activity in the Hamilton County Submarket



Sources: U.S. Census Bureau, Building Permits Survey; 2000–20—final data and estimates by the analyst; 2021—preliminary data and estimates by the analyst

Despite the tight sales market conditions, supply constraints—including limited availability and rapid price increases of lumber, appliances, and other inputs and some social distancing measures for workers—contributed to delays in 2021 completions. Some local builders, including two of the largest in the HMA, Drees Homes and Fischer Homes, temporarily limited new construction contracts in the spring of 2021 to manage the delays and surging prices that led to some canceled contracts. The submarket accounted for only 14 percent of the sales construction activity in 2021, despite 39 percent of the Cincinnati HMA households living in the Hamilton County submarket.

The Hamilton County submarket has some land available for development, but it is generally more constrained than the Suburban submarket. Single-family developments often have fewer lots than in the Suburban submarket, are closer to job centers, and are higher priced. Greenside Estates, a 32-lot subdivision in the Delhi Township, 6 miles west of the city of Cincinnati, is offering two- to six-bedroom homes starting at \$521,700. In Anderson Township, 15 miles southeast of Cincinnati, the 34-lot Enclave at Woodruff is under construction, with 3-bedroom homes starting at \$424,000.

Forecast

During the next 3 years, demand is expected for 2,400 additional homes, including the 380 homes under construction (Table 10). Because of the tight housing market conditions in the submarket, construction will need to remain elevated during the forecast, because the excess homes that were available when conditions were soft have been sold. Most of the for-sale housing demand will be in the suburban areas of Hamilton County, outside of the city of Cincinnati. Demand will be roughly equal during each year of the forecast, similar to job and population growth.

Table 10. Demand for New Sales Units in the Hamilton County Submarket During the Forecast Period

Sales Units	
Demand	2,400 Units
Under Construction	380 Units

Note: The forecast period is from January 1, 2022, to January 1, 2025.

Source: Estimates by the analyst

Sales Market—Suburban Submarket Current Conditions

The home sales market in the Suburban submarket is currently tight, with an estimated sales vacancy rate of 1.1 percent (Table 11). That figure is down from 2.2 percent in 2010 when conditions were soft. A reluctance by some would-be sellers to list their homes during the pandemic contributed to a decline in the inventory of homes available. The supply of inventory in the submarket ranges from 0.7 months in Boone County to 5.3 months in Bracken County, with most counties in the range of 1.0 to 3.0 months (Redfin, a national real estate brokerage). By comparison, in December 2020, inventories in the counties ranged from 0.7 to 4.0 months. Inventory has decreased from December 2019, when the counties ranged from 1.7 to 6.2 months of supply, and in December 2012 and 2013, when all counties had 4.8 months of supply or more.

Home sales in the Suburban submarket have decreased in the past 2 years, partly due to the decrease in available inventory and a decline in new home

Table 11. Home Sales Quick Facts in the Suburban Submarket

	Suburban Submarket	Cincinnati HMA
Vacancy Rate	1.1%	1.2%
Months of Inventory	0.7–5.3	1.4
Total Home Sales	29,300	44,000
1-Year Change	-3%	-4%
New Home Sales Price	\$360,500	\$357,600
1-Year Change	8%	6%
Existing Home Sales Price	\$228,300	\$232,600
1-Year Change	14%	14%
Mortgage Delinquency Rate	1.5%	1.7%

Notes: The vacancy rate is as of the current date; home sales and prices are for the 12 months ending December 2021; months of inventory and mortgage delinquency data are as of December 2021. The current date is January 1, 2022.

Sources: Vacancy rate—estimates by the analyst; months of inventory—Redfin, a national real estate brokerage; HMA home sales and prices—CoreLogic, Inc., with adjustments by the analyst; national home sales and prices—National Association of REALTORS® and Census Bureau/HUD

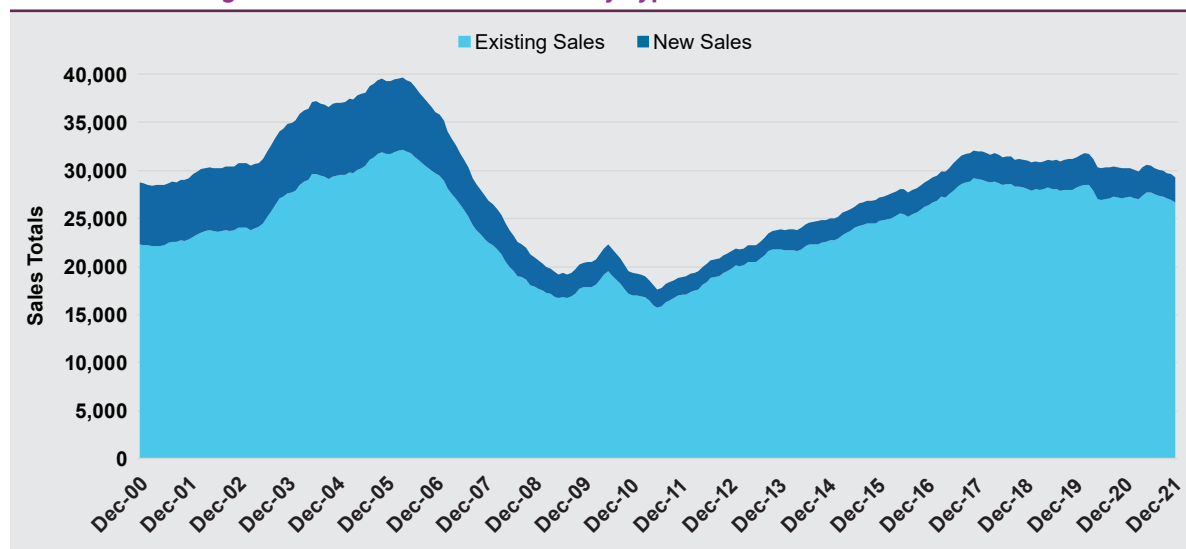


sales. The submarket has the same supply chain issues and construction delays hampering the rest of the HMA and many areas of the nation. During 2021, home sales decreased 3 percent to 29,750 homes sold, including a 12 percent decline in new home sales (CoreLogic, Inc., with adjustments by the analyst; Figure 12). This decrease followed a 4 percent decline in home sales in 2020. Approximately 10 percent of homes sold in the submarket in 2020 and 2021 were new home sales, much higher than in the Hamilton County submarket, but still a decline from the early 2000s. From 2000 through 2007, an average of 32,900 homes sold annually, and 20 percent were new home sales. From 2008 through 2013, home sales decreased to an average of 20,850 homes sold each year, and new home sales accounted for 11 percent of sales. As the economy recovered, and despite the slower population growth, home sales began increasing strongly, up 8 percent annually, from 2014 through 2017, before stabilizing to an average of 31,200 homes sold each year in 2018 and 2019. New home sales accounted for 9 percent of sales from 2014 through 2019.

REO Sales and Delinquent Mortgages

The rate of seriously delinquent mortgages and REO properties in the submarket declined in 2021 and nearly reflects the prepandemic rate. In December 2021, 1.5 percent of home loans

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



Source: CoreLogic, Inc., with adjustments by the analyst

were seriously delinquent or in REO status, down from 3.1 percent a year earlier, but slightly above the 1.4 percent rate in December 2019. Previously, the rate peaked at 6.3 percent in January 2012. Although the rate is similar to 2019, foreclosures are down. The number of foreclosures during 2021 decreased 49 percent compared with 2019, to 4,725, because many types of foreclosures were restricted during the pandemic, and many homeowners took advantage of mortgage forbearance programs.

Home Sale Prices

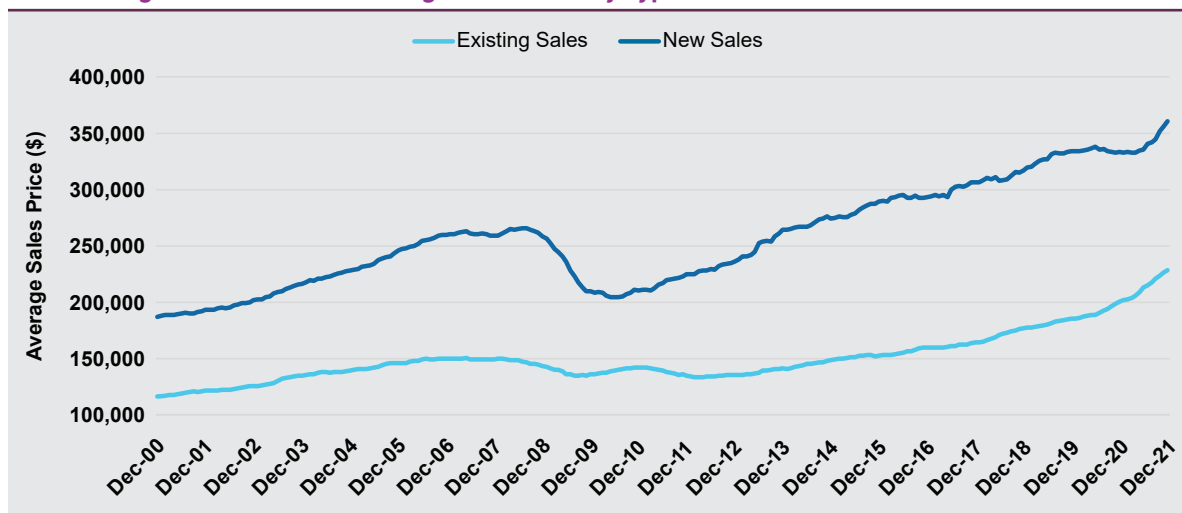
Home prices increased sharply in 2021 because of the increased demand and limited inventory. During 2021, the average price of a home sold increased 13 percent, the strongest annual price increase since at least 2000, to \$240,200 (Figure 13). The average price of a new home in 2021 was \$360,500, or 58 percent higher than an existing home sold. By comparison, the average price of total homes sold increased 7 percent in 2020. Previously, the average price of a home increased 3 percent annually from 2001 through 2007 but decreased an average of 1 percent annually from 2008 through 2012, during the local economic downturn related to the Great Recession and the national foreclosure crisis. From 2013 through 2019, the average price increased 5 percent annually.

Sales Construction

Sales construction activity is stronger in the Suburban submarket compared with the Hamilton County submarket. Nevertheless, sales construction activity in the submarket has declined since the early 2000s, a trend also reflected in the Hamilton County submarket. From 2000 through 2005, an average of 9,600 homes were permitted annually, but this number declined by an average of 1,150 homes, or 20 percent, each year through 2012 (Figure 14). Demand for for-sale housing slowed before the Great Recession and afterward, when population growth slowed dramatically. From 2013 through 2020, construction increased again moderately, adding 310 homes, or 10 percent annually. Home construction in 2021 was 1 percent higher than in 2020 and totaled 4,725 for the submarket (preliminary data, with adjustments by the analyst).

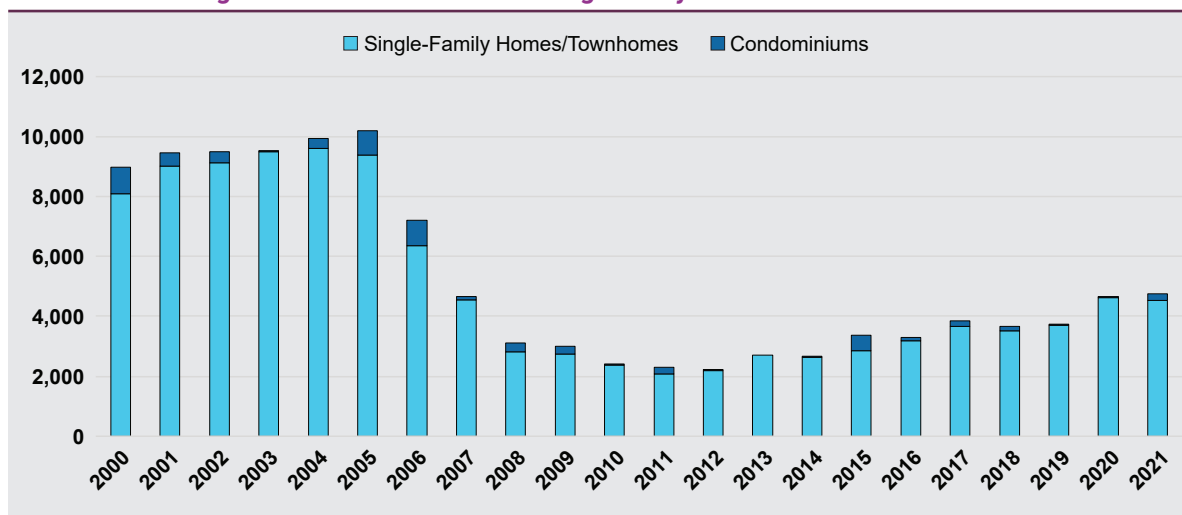
The Suburban submarket has ample land for development. Warren County accounts for the plurality of single-family homebuilding activity, with 28 percent of the construction in the submarket. Butler County has the second highest level, with 21 percent of the homes built. The remaining Ohio counties account for 17 percent of homebuilding activity in the submarket, the Kentucky counties account for 30 percent, and the Indiana counties have less than 4 percent. In the city of Lebanon in Warren County, 10 lots remain of the 71 lots in the first phase of the Autumn Ridge subdivision, and 18 lots are

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



Source: CoreLogic, Inc., with adjustments by the analyst

Figure 14. Annual Sales Permitting Activity in the Suburban Submarket



Sources: U.S. Census Bureau, Building Permits Survey; 2000–20—final data and estimates by the analyst; 2021—preliminary data and estimates by the analyst

available in the second phase. The three-bedroom and four-bedroom homes start at \$379,000. In Liberty Township in Butler County, site work is underway at Callaway Place; construction on homes is expected to begin in early 2022, with 12 single-family homes, 52 duplex homes, and 84 townhomes, with prices starting at \$322,500.

Forecast

During the next three years, demand is expected for 12,850 homes (Table 12). The 2,950 homes under construction will satisfy some of the demand during the first year. Demand is expected to be strongest in Warren and Butler Counties, where the plurality of construction occurs.

Table 12. Demand for New Sales Units in the Suburban Submarket During the Forecast Period

Sales Units	
Demand	12,850 Units
Under Construction	2,950 Units

Note: The forecast period is from January 1, 2022, to January 1, 2025.
Source: Estimates by the analyst



Rental Market

Rental Market—Cincinnati HMA

Market Conditions: Tight

During the fourth quarter of 2021, the apartment vacancy rate decreased to 3.8 percent from 5.0 percent a year earlier, and the average rent increased 8 percent year-over-year to \$1,048 (CoStar Group).

Current Conditions and Recent Trends

Rental market conditions in the Cincinnati HMA are tight. The estimated overall vacancy rate is 3.9 percent (Table 13), down from 11.8 percent in 2010 when the rental market was soft. The decline in the vacancy rate resulted from increased net in-migration and a shift in renting preferences, contributing to more demand for rental units. In the HMA, 32 percent of renter households live in single-family homes or townhomes, 20 percent live in small multifamily buildings with 4 units or fewer, 45 percent live in multifamily buildings with 5 or more units—typically apartments but may include some condominiums available for lease—and the remaining 3 percent rent mobile homes or other types of housing units (2019 ACS 1-year data). This is essentially unchanged from 2010, when 33 percent of renter households lived in single-

Table 13. Rental and Apartment Market Quick Facts in the Cincinnati HMA

Rental Market Quick Facts		2010 (%)	Current (%)
	Rental Vacancy Rate	11.8	3.9
		2010 (%)	2019 (%)
	Occupied Rental Units by Structure		
	Single-Family Attached & Detached	32.5	32.2
	Multifamily (2–4 Units)	21.4	19.6
	Multifamily (5+ Units)	43.7	45.6
	Other (Including Mobile Homes)	2.3	2.6
Apartment Market Quick Facts		Q4 2021	YoY Change
	Apartment Vacancy Rate	3.7	-0.9
	Average Rent	\$1,042	8%
	Studio	\$855	7%
	One-Bedroom	\$914	8%
	Two-Bedroom	\$1,100	9%
	Three-Bedroom	\$1,286	8%

Q4 = fourth quarter. YoY = year-over-year.

Notes: The current date is January 1, 2022. 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—CoStar Group

family homes or townhomes, 21 percent lived in small multifamily buildings, 44 percent lived in larger multifamily buildings, and 2 percent lived in other housing units (ACS 1-year data).

The apartment market in the Cincinnati HMA is also tight. The stabilized apartment vacancy rate during the fourth quarter of 2021 was 3.7 percent, down from 4.7 percent a year earlier (CoStar Group). By comparison, the fourth quarter vacancy rate peaked at 9.7 percent in 2003, when market conditions were soft following the recession at the beginning of the 2000s, a period when homeownership was stronger because lender standards to acquire a mortgage were more accessible for more households. The fourth quarter vacancy rate was 5.0 percent or higher every year from 2000 through 2019.

Rent Growth

Rent growth in the Cincinnati HMA surged during the past year, indicative of the tight market conditions, and it was the strongest year-over-year increase in any quarter since at least 2001. During the fourth quarter of 2021, the asking rent averaged \$1,048, up 8 percent from a year earlier. By comparison, following the

Great Recession, rent growth was moderate, averaging 3 percent a year from the fourth quarter of 2012 to the fourth quarter of 2019. The COVID-19-induced recession did not significantly affect rent growth. The average rent increased 3 percent year-over-year in the fourth quarter of 2020.

Forecast

During the next 3 years, demand is estimated for 10,150 rental units (Table 14). Despite tight conditions, the 6,325 units under construction is elevated and will meet the demand for approximately the first 2 years. Demand is slightly stronger in the Hamilton County submarket, where the largest inventory of rental units is located. Demand is expected to be equal during each year of the forecast, similar to the population and job growth.

Table 14. Demand for New Rental Units in the Cincinnati HMA During the Forecast Period

Rental Units	
Demand	10,150 Units
Under Construction	6,325 Units

Note: The forecast period is January 1, 2022, to January 1, 2025.

Source: Estimates by the analyst

Rental Market— Hamilton County Submarket

Current Conditions and Recent Trends

The Hamilton County submarket accounts for 39 percent of households in the HMA and 50 percent of all renter households. The plurality of rental inventory in the HMA is located in the Hamilton County submarket, particularly in the city of Cincinnati, where the residential inventory is a higher density. Rental market conditions in the Hamilton County submarket are tight, with an estimated vacancy rate of 4.6 percent, down from 13.0 percent in 2010 (Table 15), when conditions were soft. Approximately 50 percent of renter

Table 15. Rental and Apartment Market Quick Facts in the Hamilton County Submarket

Rental Market Quick Facts	2010 (%)	Current (%)
	Rental Vacancy Rate	13.0 4.6
	2010 (%)	2019 (%)
	Occupied Rental Units by Structure	
	Single-Family Attached & Detached	26.5 25.5
Apartment Market Quick Facts	Multifamily (2–4 Units)	26.2 24.0
	Multifamily (5+ Units)	46.7 49.9
	Other (Including Mobile Homes)	0.5 0.5
	Q4 2021	YoY Change
	Apartment Vacancy Rate	4.4 -1.2
	Average Rent	\$1,037 7%
	Studio	\$920 6%
	One-Bedroom	\$922 6%
	Two-Bedroom	\$1,102 7%
	Three-Bedroom	\$1,347 7%

Q4 = fourth quarter. YoY = year-over-year.

Notes: The current date is January 1, 2022. 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—CoStar Group

households in the submarket live in multifamily buildings with five or more units per building, up from 47 percent in 2010 (2010 and 2019 ACS 1-year data). The remaining households rent single-family homes, units in multifamily buildings with two to four units, mobile homes, or other units.

Apartment market conditions are also tight in the Hamilton County submarket. During the fourth quarter of 2021, the apartment vacancy rate was 4.4 percent, down from 5.6 percent a year earlier and the lowest fourth quarter vacancy rate since at least 2000 (CoStar Group). The fourth quarter vacancy rate peaked at 10.1 percent in 2003, when migration out of the submarket was strong. The vacancy rate stayed above 7.0 percent through the fourth quarter of 2014 because the out-migration before 2009 and the weak economy

during the Great Recession softened the market considerably. By the end of 2019, the fourth quarter vacancy rate declined to 5.8 percent.

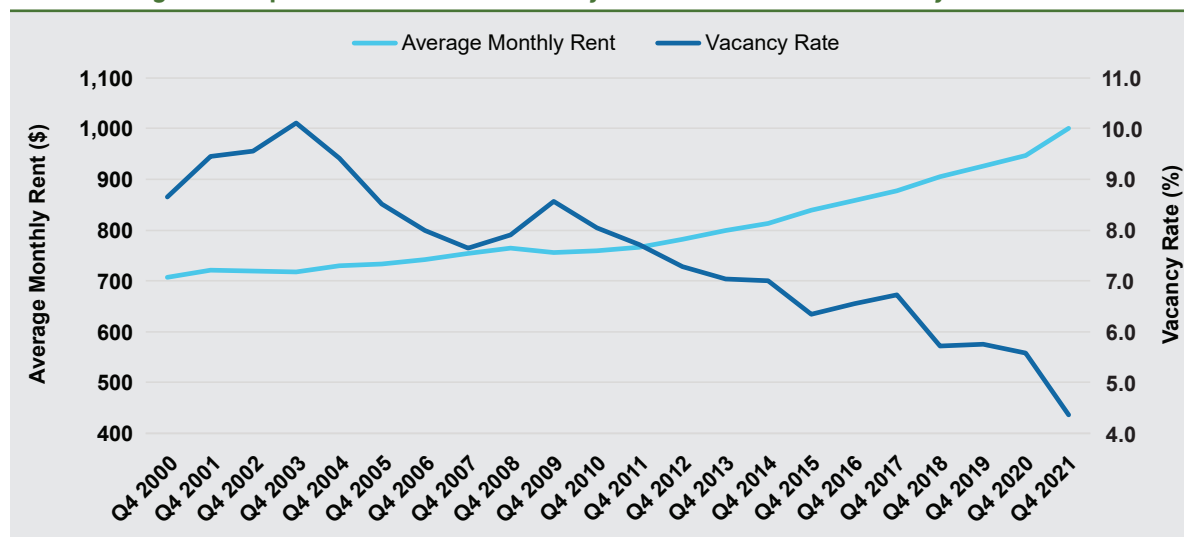
Rent Growth

Average asking rents in the Hamilton County submarket surpassed \$1,000 a month for the first time during the fourth quarter of 2021. The asking rent was \$1,001, up 6 percent from a year earlier (Figure 15). This was the strongest rent growth in the submarket since at least 2000. Average rents in the downtown Cincinnati urban core are among the highest in the submarket. From 2001 through 2014, when conditions were soft, the asking rent increased an average of 1 percent annually. Rent growth averaged 3 percent annually through 2019, when the market was generally balanced and the economy was expanding. Rent growth slowed slightly in 2020, increasing 2 percent, despite the declining vacancy rate.

Downtown Cincinnati Trends

In the CoStar Group-defined Downtown Cincinnati market area, which includes the areas around the University of Cincinnati and job centers such as Pill Hill and the central business district, rents are more expensive. The region was among the most severely impacted by the COVID-19 pandemic and related precautions in 2020. During the fourth quarter of 2021, the average rent increased 4 percent from a year earlier to \$1,179. Average monthly rents have surpassed \$1,000 since 2014. The market area was impacted by COVID-19,

Figure 15. Apartment Rents and Vacancy Rates in the Hamilton County Submarket



Q4 = fourth quarter.

Source: CoStar Group

with a brief softening of market conditions, despite a tightening elsewhere in the submarket and HMA. During the fourth quarter of 2020, the average rent was unchanged from 2019. In addition, the market area has the highest vacancy rate in the HMA, in part because some of the inventory is older. The 6.8-percent vacancy rate during the fourth quarter of 2019 spiked to 9.5 percent during the fourth quarter of 2020. Many households left urban centers for areas with more space, and a lot of the entertainment amenities that make urban centers appealing were closed or had limited capacity. Many workers were able to work remotely, and university classes were remote in fall 2020, so some renters chose to live in areas with lower rents. As entertainment options reopened and workers returned to offices, demand increased for rental units downtown again, and during the fourth quarter of 2021, the vacancy rate dropped to 6.4 percent, which was the lowest fourth quarter vacancy rate since at least 2000, contributing to the increase in rents.

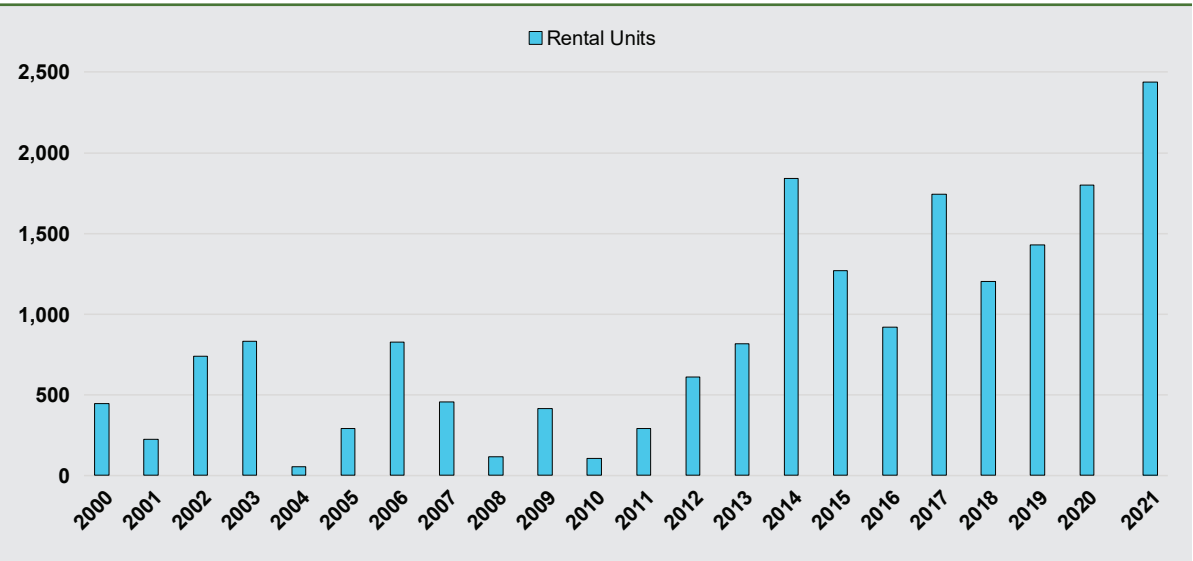
University of Cincinnati students living off-campus influences market conditions in the Downtown Cincinnati market area, with lower vacancy rates among properties marketed to students. Approximately 46,700 students were enrolled in fall 2021 at the University of Cincinnati, accounting for less than 6 percent of the Hamilton County submarket population. Approximately 7,000 students live on campus. Student households account for an estimated 11,900 renter households in the HMA, primarily in the Hamilton County submarket

surrounding the university. The vacancy rate among units marketed to students in the Hamilton County submarket, of which 90 percent are in the Downtown Cincinnati market area, was 5.5 percent during the fourth quarter of 2021, down from 8.1 percent a year earlier, when classes were online, and students did not need to live near campus. The average asking rent increased nearly 2 percent year-over-year to \$848 per bed in the fourth quarter of 2021.

Rental Construction

The Hamilton County submarket accounts for nearly one-half of the rental construction in the HMA since 2010. During 2021, nearly 2,450 rental units were permitted, up 36 percent from a year earlier, the highest level of rental permitting since at least 2000 (Figure 16). Rental construction was subdued through 2011 because of the declining population during the 2000 decade and soft rental market conditions. From 2000 through 2011, an average of 400 units were permitted annually. From 2012 through 2019, the economy improved, the population increased, and the apartment market transitioned from soft to balanced. Apartment builders responded to the need for additional rental units by increasing production. An average of 1,225 units were permitted each year from 2012 through 2019. Since 2012, approximately 73 percent of rental construction in the Hamilton County submarket occurred in the city of Cincinnati.

Figure 16. Annual Rental Permitting Activity in the Hamilton County Submarket



Note: Includes apartments and units intended for rental occupancy.
Sources: U.S. Census Bureau, Building Permits Survey; 2000–20—final data and estimates by the analyst; 2021—preliminary data and estimates by the analyst

The largest apartment properties in the submarket are in the city of Cincinnati. The 334-unit Artistry Cincy Apartments opened in downtown Cincinnati in December 2021, with rents ranging from \$1,359 to \$3,085 for studio to three-bedroom units. The 322-unit Woodburn Exchange is a redevelopment property in the East Walnut Hills neighborhood expected to have studio, one-, two-, and three-bedroom units when complete in the fall of 2022.

Forecast

During the next 3 years, demand is expected for 5,225 additional rental units in the Hamilton County submarket (Table 16). Because of the spike in construction in 2021, the 3,325 units under construction will satisfy most of the demand during the first 2 years, and demand will be strongest in the city of Cincinnati.

Table 16. Demand for New Rental Units in the Hamilton County Submarket During the Forecast Period

Rental Units	
Demand	5,225 Units
Under Construction	3,325 Units

Note: The forecast period is January 1, 2022, to January 1, 2025.
Source: Estimates by the analyst

Rental Market—Suburban Submarket

Current Conditions and Recent Trends

The Suburban submarket accounts for 61 percent of all HMA households but only 50 percent of renter households. Rental market conditions in the submarket are tight, like the rest of the HMA. The estimated vacancy rate as of January 1, 2022, is 3.1 percent, down from 10.6 percent in 2010 (Table 17), when the market was soft. Approximately 42 percent of renter households in this submarket reside in multifamily buildings with five or more units per building, typically apartments (2019 ACS 1-year estimates). Nearly 39 percent of households rent single-family homes, and the remaining 19 percent are in small multifamily buildings with two to four units per building, mobile homes, or other units.

Table 17. Rental and Apartment Market Quick Facts in the Suburban Submarket

Rental Market Quick Facts		2010 (%)	Current (%)
	Rental Vacancy Rate	10.6	3.1
		2010 (%)	2019 (%)
	Occupied Rental Units by Structure		
	Single-Family Attached & Detached	38.6	38.7
	Multifamily (2–4 Units)	16.6	15.2
Apartment Market Quick Facts	Multifamily (5+ Units)	40.6	41.5
	Other (Including Mobile Homes)	4.2	4.6
		Q4 2021	YoY Change
	Apartment Vacancy Rate	320.0	-0.6
	Average Rent	\$1,047	9.6%
	Studio	\$695	10.7%
	One-Bedroom	\$904	10.4%
	Two-Bedroom	\$1,099	10.0%
	Three-Bedroom	\$1,247	7.6%

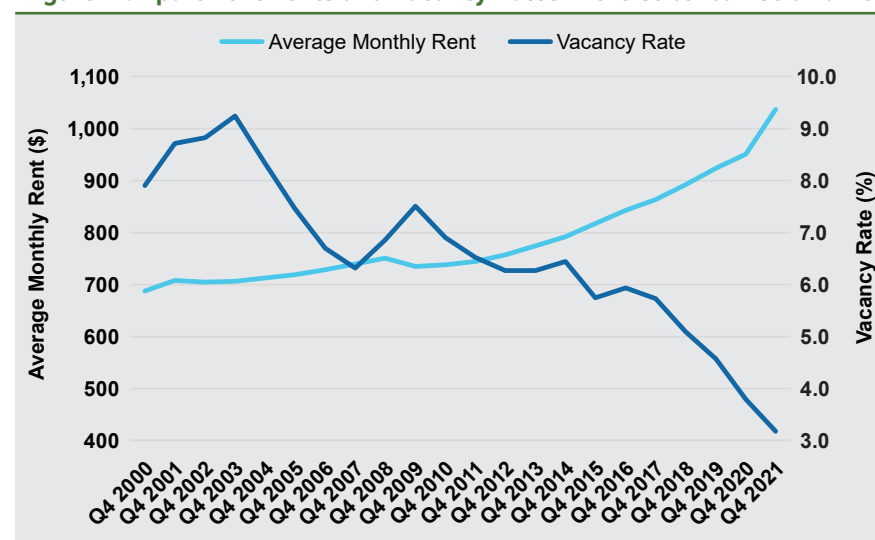
Q4 = fourth quarter. YoY = year-over-year.

Notes: The current date is January 1, 2022. 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—CoStar Group

Apartment market conditions in the submarket are tight. The stabilized vacancy rate during the fourth quarter of 2021 averaged 3.2 percent in the submarket, down from 3.8 percent a year earlier (Figure 17). The rental market in the submarket was not impacted by COVID-19 like the downtown Cincinnati market area, in part because the Suburban submarket offered the larger units that some residents were seeking. The fourth quarter of 2019 was the first time the vacancy rate decreased below 5.0 percent; the vacancy rate had been generally declining after a peak of 9.2 percent in 2003.

Figure 17. Apartment Rents and Vacancy Rates in the Suburban Submarket



Q4 = fourth quarter.

Source: CoStar Group

Rent Growth

Rent growth in the Suburban submarket accelerated after the HMA recovered from the Great Recession and as the vacancy rate declined. From 2001 through 2014, the fourth quarter average rent increased 1 percent, annually, and it increased further by an average of 3 percent annually through the fourth quarter of 2019. The average rent increased another 3 percent from the fourth quarter

of 2019 to the same period in 2020, faster than in the Hamilton County submarket because there was a less negative impact from the pandemic. In 2021, the average fourth quarter rent increased 9 percent year-over-year to \$1,037.

Market Conditions by Geography

Much of the apartment inventory in the Suburban submarket is located in the CoStar Group-defined market areas of Northern Kentucky and North Cincinnati, which account for approximately 42 and 29 percent of the apartment inventory, respectively, in the submarket. The Northern Kentucky market area includes the suburbs along the Ohio River that face the Cincinnati skyline, situated between the downtown Cincinnati and CVG job centers. During the fourth quarter of 2021, the vacancy rate was 3.0 percent, down from 3.1 percent a year earlier, and the average rent was up 9 percent from a year earlier to \$1,038. In the North Cincinnati market area, which is within Butler County near a large share of submarket jobs and includes the Cincinnati Financial Corporation headquarters, conditions were generally similar. During 2021, the fourth quarter vacancy rate was 3.2 percent, down from 3.3 percent a year earlier, and the average rent increased 11 percent to \$1,084.

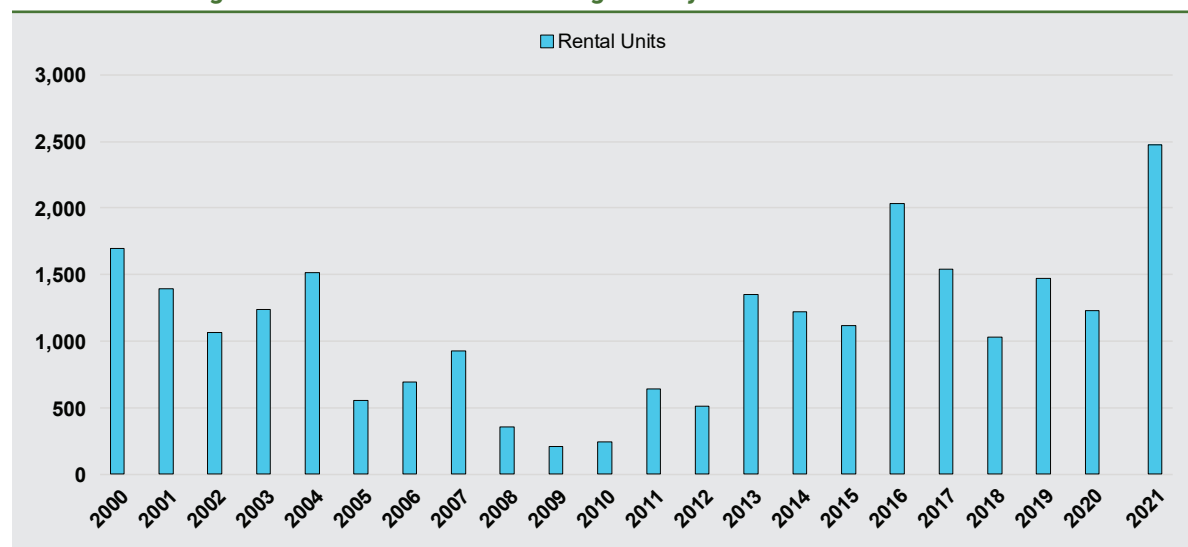
Rental Construction

Rental construction in the Suburban submarket has decreased as a share of total HMA rental construction. Because of the stronger population

growth from 2000 through 2009, the submarket accounted for 69 percent of the rental construction in the HMA, but because of the shift in population growth and increasing desire to rent in the Hamilton County submarket, the Suburban submarket decreased to a 51-percent share of rental construction from 2010 through 2021. The recent surge in construction in the Suburban submarket virtually matched the spike in the Hamilton County submarket. From 2000 through 2007, rental construction averaged 1,125 units per year and decreased to 390 units annually from 2008 through 2012 (Figure 18), when the economy was weaker, and the submarket transitioned towards slower population growth. As the vacancy rate decreased in the submarket, construction increased and surpassed the levels in the early 2000s; rental construction averaged 1,375 units annually from 2013 through 2020 before spiking to 2,475 units in 2021.

Larger apartment buildings are generally in the Northern Kentucky and North Cincinnati market areas. The 263-unit Manhattan on the River apartments opened in the city of Dayton in Campbell County in December 2019, and it was 94 percent occupied by November 2021 (ALN Data, Inc.). Rents for the one-, two-, and three-bedroom units start at \$1,252, \$1,601, and \$2,088, respectively. Construction began on the 326-unit Residences at Clocktower apartments in West Chester Township in Butler County in October 2021 and is expected to be complete in 2023.

Figure 18. Annual Rental Permitting Activity in the Suburban Submarket



Note: Includes apartments and units intended for rental occupancy.

Sources: U.S. Census Bureau, Building Permits Survey; 2000–20—final data and estimates by the analyst; 2021—preliminary data and estimates by the analyst

Forecast

During the next 3 years, demand is estimated for an additional 4,925 rental units (Table 18). The 3,000 units currently under construction will meet most of the demand during the first year and a half of the forecast period. Demand is expected to be strongest in the Northern Kentucky and North Cincinnati market areas.

Table 18. Demand for New Rental Units in the Suburban Submarket During the Forecast Period

Rental Units	
Demand	4,925 Units
Under Construction	3,000 Units

Note: The forecast period is January 1, 2022, to January 1, 2025.

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.
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 resale sales, short sales, and REO sales.
Forecast Period	1/1/2022–1/1/2025—Estimates by the analyst.
Home Sales/ Home Sales Prices	Includes single-family, townhome, and condominium sales.
Net Natural Increase	Resident births minus resident deaths.
Rental Market	Includes apartments and other rental units such as single-family, multifamily, and mobile homes.
Resales	These are home closings that have no ties to either new home closings (builders) or foreclosures. They are homes that were previously constructed and sold to an unaffiliated third party.

Seriously Delinquent Mortgages	Mortgages 90+ days delinquent or in foreclosure.
Stabilized Apartment Vacancy Rate	Includes only properties that have finished lease-up.

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's 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.	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.
2.	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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