



COMPREHENSIVE HOUSING MARKET ANALYSIS

# Phoenix-Mesa-Chandler, Arizona

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

As of January 1, 2023



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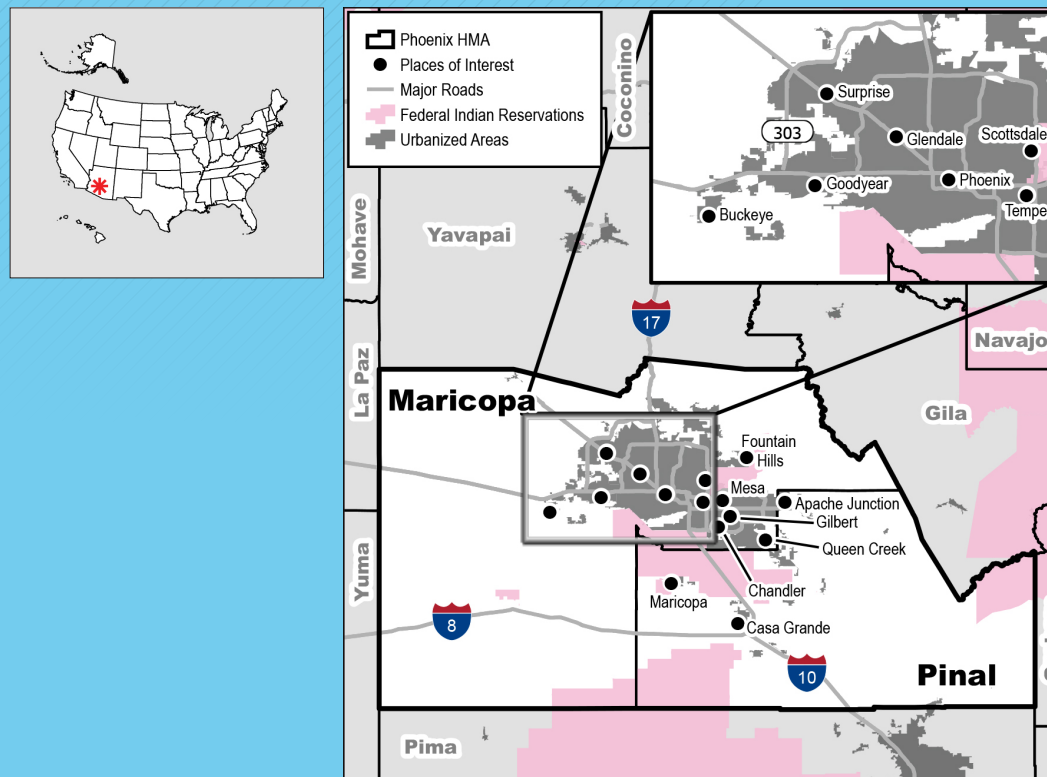
# Executive Summary

## Housing Market Area Description

The Phoenix-Mesa-Chandler Housing Market Area (hereafter, Phoenix HMA) is coterminous with the metropolitan statistical area of the same name and includes Maricopa and Pinal Counties in central Arizona. The HMA is home to more than two-thirds of the total population of Arizona, including the city of Phoenix, the state capital and the fifth most populous city in the nation as of July 1, 2021.

The current HMA population is estimated at 5.08 million.

The HMA has received a surge of investment in high-tech and advanced manufacturing industries—most notably, semiconductor manufacturing—contributing to strong job growth in the manufacturing and the professional and business services sectors. In addition to an ample and well-educated workforce, limited regulations on residential construction have encouraged significant housing development and kept housing prices affordable. However, a two-decade-long drought has resulted in an increase in regulations surrounding water rights, and it is affecting where and what type of development occurs in the HMA.



## 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



**Strong:** During 2022, nonfarm payrolls in the HMA were 5.3 percent higher than in 2019, before the COVID-19 pandemic, compared with nationwide payrolls, which were 1.1 percent higher than pre-pandemic levels.

Nonfarm payrolls increased by 85,900 jobs, or 3.9 percent, in 2022, following a gain of 88,500 jobs, or 4.2 percent, in 2021. All payroll sectors added jobs except the financial activities sector, and the transportation and utilities sector expanded the most from pre-pandemic levels. The unemployment rate in 2022 was 3.1 percent—the lowest in the HMA in more than two decades—compared with 4.5 percent a year ago. During the 3-year forecast period, nonfarm payrolls are expected to increase by an average of 75,050 jobs, or 3.2 percent, annually.

### Sales Market



**Slightly Tight, but Easing:** In December 2022, the supply of for-sale inventory increased to 3.4 months compared with 1.1 months a year ago (Redfin, a national real estate brokerage).

The sales vacancy rate in the HMA is estimated at 1.8 percent as of January 1, 2023, down from 4.3 percent in April 2010, when conditions were very soft. Home sales in the HMA declined 25 percent in 2022 to 123,100, which was preceded by a 12-percent increase in 2021. During the same time, the average home sales price increased 15 percent to \$525,800 after rising 22 percent in 2021 (CoreLogic, Inc., with adjustments by the analyst). During the forecast period, demand is anticipated for 83,500 new sales units in the Phoenix HMA, and the 9,125 homes currently under construction will meet a portion of the demand.

### Rental Market



**Balanced, but Softening:** A surge in rental construction in the HMA since 2020 has contributed to rising rental vacancy rates during the past year.

The overall rental vacancy rate is estimated at 8.0 percent, down from 13.8 percent in April 2020, when rental market conditions were very soft. The apartment market is also balanced but began to soften during the past year. The overall apartment vacancy rate in the HMA was 8.7 percent as of the fourth quarter of 2022 compared with 5.6 percent a year earlier, and the average rent was unchanged at \$1,538 (CoStar Group). Demand is estimated for 45,600 rental units during the forecast period; the 37,500 units under construction and the additional 1,900 units in planning will meet all expected demand for the next 2 years.

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### 3-Year Housing Demand Forecast

	Sales Units	Rental Units
<b>Phoenix HMA</b>	Total Demand	83,500
	Under Construction	9,125

Notes: Total demand represents estimated production necessary to achieve a balanced market at the end of the forecast period. Units under construction as of January 1, 2023. The forecast period is January 1, 2023, to January 1, 2026.  
Source: Estimates by the analyst



## Economic Conditions

### Largest Sector: Professional and Business Services

The professional and business services and the education and health services sectors are the two largest sectors in the Phoenix HMA, accounting for 17 and 16 percent of total nonfarm jobs during 2022, respectively.

### Primary Local Economic Factors

In recent years, an increasing number of companies have relocated to, or expanded in, the HMA, largely because of the business-friendly tax environment, lower cost of living, and access to an educated workforce. The Arizona Commerce Authority has several programs that offer \$25 million in incentives annually to companies relocating or expanding operations in the state, and since 2011, more than 1,050 companies have done so, creating an estimated 237,000 jobs (Arizona Commerce Authority). Many of these companies come from California, where the cost of doing business is much higher. The favorable taxes in the HMA attract support operations, call centers, and data centers for large companies, adding jobs in the financial activities and the professional and business services sectors. The HMA is the sixth largest finance and insurance cluster in the United States (Greater Phoenix Economic Council), and from 2016 through 2021, 15 industry leaders expanded their footprint

in the HMA, adding more than 11,000 jobs. That number includes the addition of 2,350 jobs in 2018 at Allstate Insurance Company, 1,350 jobs in 2019 at Shellpoint Mortgage Servicing, and 370 jobs in 2020 at PennyMac Financial Services, Inc. Two of the largest employers in the HMA are in the financial activities sector (Table 1).

Intel Corporation established a presence in the HMA in the late 1970s, and in 2017, the company invested \$7 billion in a semiconductor fabrication plant in the city of Chandler. In 2021, the company broke ground on a \$20 billion expansion at the same campus, which is expected to add 3,000 jobs. The largest foreign investment in the state to date, \$40 billion, comes from Taiwan Semiconductor Manufacturing Company Limited (TSMC), which currently has two fabrication plants under construction just north of the city of Phoenix. Once operational in 2024, the TSMC facilities are expected to employ 4,500 people. This investment has incited numerous suppliers to move to the area, creating more than 13,000 new jobs (Arizona Commerce Authority). Since 2020, the manufacturing sector has been the second fastest growing employment sector in the HMA (Figure 1).

One of the top reasons cited by companies relocating to or expanding in the HMA is the availability of a highly educated workforce due to the presence of both Arizona State University (ASU) and Grand Canyon University (GCU). During the fall of 2022, those universities had a combined enrollment of 105,000 on-campus students, up 3.6 percent from 2021 (ASU; GCU). The Fulton Schools of Engineering at ASU is the largest engineering school in the country, with 30,000 students enrolled in the fall of 2022, with

**Table 1. Major Employers in the Phoenix HMA**

Name of Employer	Nonfarm Payroll Sector	Number of Employees
Banner Health	Education & Health Services	29,500
State of Arizona	Government	27,700
Walmart Inc.	Wholesale & Retail Trade	22,090
Amazon.com, Inc.	Wholesale & Retail Trade	18,780
The Kroger Co.	Wholesale & Retail Trade	16,300
Wells Fargo & Company	Financial Activities	14,090
Intel Corporation	Professional & Business Services	11,810
Arizona State University	Government	11,360
The Home Depot, Inc.	Wholesale & Retail Trade	9,200
Bank of America Corporation	Financial Activities	8,840

Source: Maricopa Association of Governments, 2021

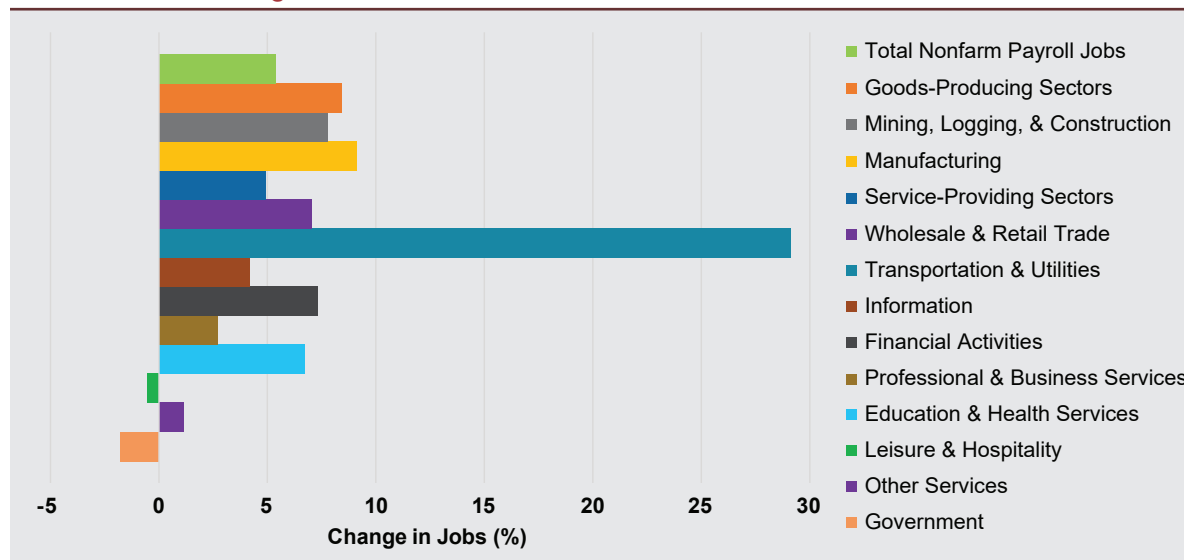


new programs geared to prepare students for the swiftly growing high-tech and advanced manufacturing industries in the HMA.

The Western United States is currently experiencing the worst drought in more than 1,200 years, and as one of the many consequences, Arizona must cut 21 percent of its Colorado River water allocation each year, which is an amount of water that would supply 2 million households a year. This issue constrains housing development because developers must receive a certificate of assured water supply (CAWS) by providing evidence before building that enough water exists to sustain the population for at least 100 years or provide alternate water sources. The requirement pertains only to new for-sale home subdivisions with six or more lots, which has caused a rise in the number of homes built-for-rent (BFR) and contributed to a decline in new home construction.

The West Valley in Maricopa County is home to nearly 2 million residents and 15 communities, including the fast-growing cities of Goodyear and Buckeye. These cities are growing rapidly, partly in response to job growth from numerous suppliers of the TSMC and Intel Corporation fabrication plants that have opened or are expanding facilities nearby. The Arizona Department of Water Resources (ADWR) recently concluded that the groundwater in the basin where the valley is situated would fall 4.4 million acre-feet short of demand during the next 100 years, affecting

**Figure 1. Sector Growth in the Phoenix HMA, 2020 to Current**



Note: The current date is January 1, 2023.

Source: U.S. Bureau of Labor Statistics

how CAWS are issued in the future (ADWR). Furthermore, in mid-2022, the ADWR stopped granting CAWS within the Pinal Active Management Area to develop homes for sale unless home builders commit to non-groundwater importation or direct delivery. In the city of Casa Grande in Pinal County, which has grown quickly as a main benefactor of the growing advanced manufacturing industry, housing development patterns will be affected by these restrictions.

## Current Conditions and Recent Trends—Nonfarm Payrolls

Economic conditions in the HMA are strong, and current payrolls in the HMA are 5.3 percent above prepandemic levels in 2019. By comparison, national payrolls are 1.1 percent higher than pre-COVID-19 levels. During 2022, nonfarm payrolls in the HMA increased year over year by 85,900 jobs, or 3.9 percent (Table 2), compared with a gain of 88,400 jobs, or 4.2 percent, in 2021. All employment sectors added jobs in 2022 except for the financial activities sector, which fell by 700 jobs, or 0.3 percent, compared with 2021. Job declines in the sector occurred mostly because rising interest rates dampened demand for mortgage lending services. This year is the first year of job declines in the sector since 2010, and it was

one of only four employment sectors that added jobs in 2020 during the height of the pandemic.

Goods-producing sectors added jobs at an accelerated pace in 2022, whereas job growth in service-providing sectors slowed from a year ago. The manufacturing sector was a large source of payroll growth in 2022, increasing by 8,500 jobs, or 6.2 percent, compared with an increase of 3,500 jobs, or 2.6 percent, in 2021. The recent job growth is largely supported by the Intel Corporation and TSMC projects and the numerous suppliers that have moved to the HMA to support them. To put the current growth into context, the manufacturing sector added more than three-and-a-half times more jobs in 2022 than during the 2011-through-2020 period. The mining, logging, and construction sector (98 percent of which is construction-related) increased by 5,700 jobs, or 4.0 percent, in 2022 compared with an increase of 3,000 jobs, or 2.1 percent, in 2021. The growth was due, in part, to record-high residential construction activity and increased commercial and industrial development. Both of these sectors continued expanding during the COVID-19 pandemic recession.

The largest job gains among service-providing sectors were in the leisure and hospitality sector, which added 18,400 jobs, or 8.6 percent, in 2022, following a gain of 20,300 jobs, or 10.5 percent, in 2021. Despite rapid growth during the past 2 years, the number of jobs in the sector is still

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

	12 Months Ending December 2021	12 Months Ending December 2022	Absolute Change	Percentage Change
<b>Total Nonfarm Payroll Jobs</b>	<b>2,210.8</b>	<b>2,296.7</b>	<b>85.9</b>	<b>3.9</b>
<b>Goods-Producing Sectors</b>	<b>278.8</b>	<b>293.1</b>	<b>14.3</b>	<b>5.1</b>
Mining, Logging, & Construction	141.5	147.2	5.7	4.0
Manufacturing	137.4	145.9	8.5	6.2
<b>Service-Providing Sectors</b>	<b>1,932.0</b>	<b>2,003.6</b>	<b>71.6</b>	<b>3.7</b>
Wholesale & Retail Trade	329.3	340.2	10.9	3.3
Transportation & Utilities	111.6	119.6	8.0	7.2
Information	39.9	42.3	2.4	6.0
Financial Activities	215.9	215.2	-0.7	-0.3
Professional & Business Services	370.9	381.9	11.0	3.0
Education & Health Services	343.8	361.8	18.0	5.2
Leisure & Hospitality	213.6	232.0	18.4	8.6
Other Services	68.1	71.1	3.0	4.4
Government	239.0	239.6	0.6	0.3

Notes: Based on 12-month averages through December 2021 and December 2022. Numbers may not add to totals due to rounding. Data are in thousands.  
Source: U.S. Bureau of Labor Statistics

relatively unchanged compared with the level in 2019 because 40,000 jobs were lost in 2020 as a result of measures to slow the spread of COVID-19, almost three times as many as in any other economic sector. Rising wages and a tight labor market have slowed job growth recently because of reliance on relatively lower wage workers in the sector.

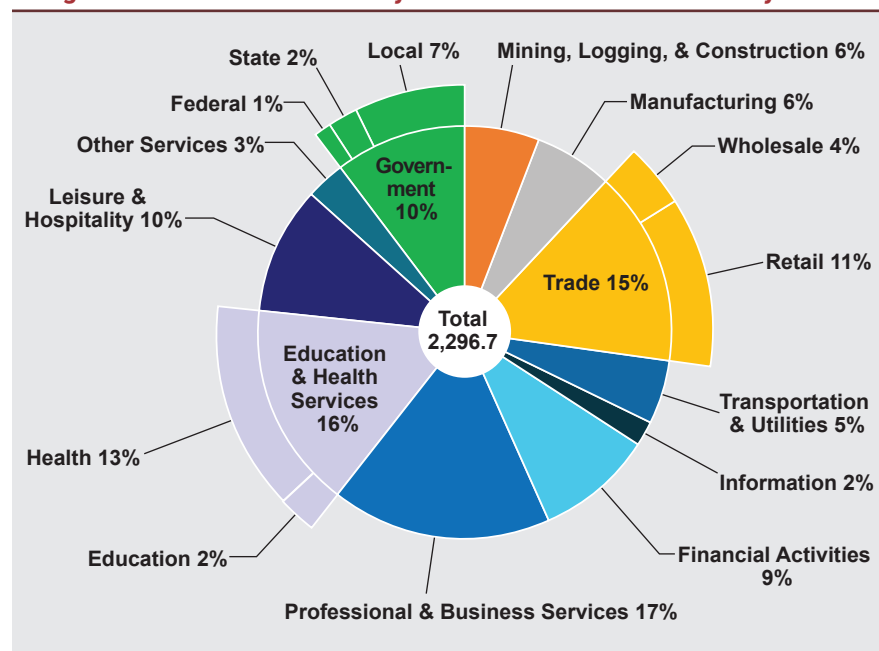
The transportation and utilities sector is one of four employment sectors that added jobs in 2020, and growth has surged ever since. During 2022, the sector expanded by 8,000 jobs, or 7.2 percent, following an increase of 10,000 jobs, or 9.8 percent, in 2021. The West Valley has grown substantially to accommodate new logistics centers, and 2022 expansions include Lowe's Companies, Inc., Amazon.com, Inc., and PUMA North America, Inc., each leasing more than 1 million square feet. The number of transportation and utilities sector payrolls is now 29 percent above prepandemic levels, a percentage increase more than three times as large as for any other economic sector.

Professional and business services sector payrolls increased by 11,000, or 3.0 percent, in 2022 to 381,900 jobs, and it is the largest employment sector in the HMA (Figure 2). By comparison, the sector grew



by 12,600 jobs, or 3.5 percent, in 2021. Although growth has been strong during the past 2 years, payrolls are only 2.7 percent above prepandemic levels because of the loss of 13,600 jobs in 2020, second only to the leisure and hospitality sector in terms of jobs lost. The sector is one of the primary beneficiaries of job growth stemming from relocations and expansions of headquarters operations, call centers, and data centers. Since 2019, Microsoft Corporation, Compass Datacenters, Stream Data Centers, and Vantage Data Centers have all expanded in the West Valley (*Phoenix Business Journal*).

**Figure 2. Share of Nonfarm Payroll Jobs in the Phoenix HMA by Sector**

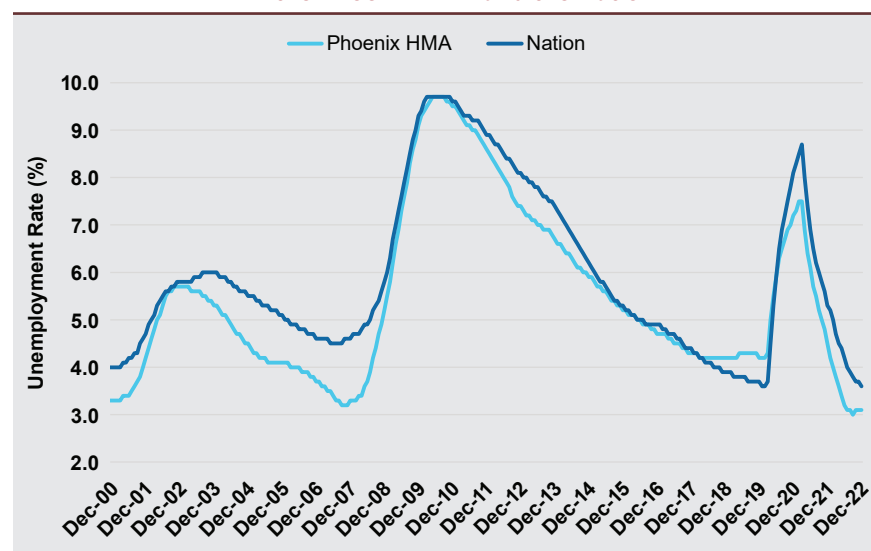


Notes: Total nonfarm payroll is in thousands. Percentages may not add to 100 percent due to rounding. Based on 12-month averages through December 2022. Source: U.S. Bureau of Labor Statistics

## Current Conditions—Unemployment

The unemployment rate in the HMA averaged 3.1 percent in 2022, down from an average of 4.5 percent in 2021, because the employment growth of 3.7 percent far outpaced the 2.2-percent growth in the labor force. The current unemployment rate in the HMA is the lowest rate since at least 2000. For context, the unemployment rate reached a recent annual peak of 7.2 percent in 2020 as a result of the COVID-19 pandemic recession, and it peaked at 9.5 percent in 2010 due to the Great Recession. The current rate in the HMA is below the statewide and national unemployment rates of 3.8 and 3.6 percent, respectively (Figure 3).

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



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

## Economic Periods of Significance

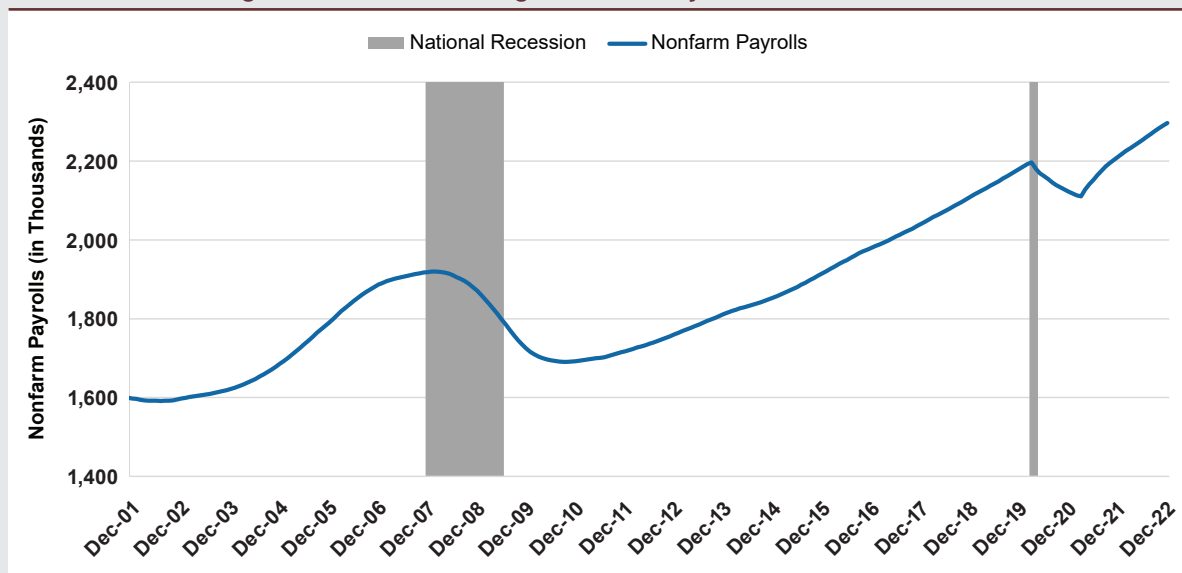
### 2001 Through 2007

During the housing boom, increased homebuilding activity bolstered the local economy in the HMA, which spurred growth in other sectors from 2004 through 2007 after slower growth during the early 2000s. From 2001 through 2003, nonfarm payroll growth averaged 14,700 jobs, or 0.9 percent, annually (Figure 4). The average loss of 10,000 manufacturing jobs, or 6.7 percent, annually kept overall job growth muted during this period. Growth accelerated from 2004 through 2007, when the HMA added an average of 74,200 nonfarm payroll jobs, or 4.3 percent, annually. During this period, the mining, logging, and construction sector added an average of 10,300 jobs, or 7.1 percent, annually, as residential and commercial construction activity increased significantly to meet the demand from elevated net in-migration. Growth occurred in almost all other sectors of the economy during this period, led by gains in the professional and business services and the wholesale and retail trade sectors, which added averages of 16,700 and 13,500 jobs annually, or 5.9 and 4.7 percent, respectively.

### 2008 Through 2010

The HMA was one of the hardest hit areas in the nation in terms of foreclosures and housing vacancy rates during the late 2000s, partly because of the significant amount of speculative building that occurred during the housing boom. As a result, during the national recession, job

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



Note: 12-month moving average.

Sources: U.S. Bureau of Labor Statistics; National Bureau of Economic Research

losses in the HMA were particularly concentrated in the mining, logging, and construction sector and were affected by reduced demand for housing and falling levels of new home construction. From 2008 through 2010, the HMA lost an average of 75,400 jobs, or 4.1 percent, annually. The average annual decline of 28,900 mining, logging, and construction sector jobs, or 21.0 percent, accounted for 38 percent of total nonfarm payroll losses during this period. Significant job declines averaging 18,000 and 13,300 jobs, or 5.9 and 4.3 percent, also occurred in the professional and business services and the wholesale and retail trade sectors, respectively. All other sectors of the local economy lost jobs except for the education and health services sector, which added an average of 10,200 jobs, or 4.6 percent.

### 2011 Through 2019

The local economic recovery began in 2011, and from 2011 through 2019, an average of 54,200 jobs, or 2.9 percent, were added annually in the HMA compared with 1.7 percent average annual growth nationwide. Nonfarm payrolls returned to prerecession levels in 2015. Gains in the HMA were concentrated in the professional and business services and the education and health services sectors, which added respective averages of 11,200 and 10,900 jobs, or 3.6 and 3.9 percent, annually. Strong



economic growth during this period also resulted in increased residential construction activity and office development, benefiting the mining, logging, and construction sector, which added an average of 5,800 jobs, or 5.5

percent, annually. Construction of Arizona State Route 303, or Loop 303—a freeway on the western portion of the HMA—and numerous industrial parks on either side contributed to job growth in the sector.

## Forecast

During the 3-year forecast period, nonfarm payrolls in the HMA are expected to increase by an average of 75,050, or 3.2 percent, annually. Job growth is expected to be widespread across most sectors of the economy, especially those with jobs that support the Intel Corporation and TSMC expansions. The mining, logging, and construction sector will expand at a fast pace in response to elevated demand for industrial and commercial space. Service-providing sectors will continue to add jobs during the forecast period to serve the rapidly growing population.

Several cities in the HMA are expanding to accommodate the growing workforce needed to support the numerous expansions underway. In the city of Buckeye in Maricopa County, KORE Power, Inc., is building a 1 million-square-foot lithium-ion battery manufacturing facility, with expected completion during the second quarter of 2023 (Arizona Commerce Authority). The facility will have the capacity to produce enough power for 3.2 million homes a year, and it will employ 3,400 workers during construction and 3,000 full-time workers on completion. In addition, Meyer Burger Technology AG, a global solar module

manufacturer, announced plans to establish a manufacturing facility in the city of Goodyear in Maricopa County, creating more than 500 jobs; the facility is expected to be finished in the next 2 years.

Industry expansions that will contribute to population growth and housing demand in Pinal County include Lucid Group, Inc., a producer of luxury electric vehicles. Lucid Group opened its advanced manufacturing facility in the city of Casa Grande in early 2021 and has an expansion underway that will add 2.85 million square feet to its production facilities to accommodate additional makes and models (Arizona Commerce Authority). The investment is expected to create 6,000 jobs during the next 6 years. In 2022, Chang Chun (Arizona) LLC, a leading petrochemical supplier based in Taiwan, broke ground on a \$300 million manufacturing facility in Casa Grande that is expected to be operational in 2023 and fully completed in 2025, employing 200 people. Kohler Co. has also invested in a manufacturing facility in the city of Casa Grande that will translate to 400 new jobs once operational in late 2023.



# Population and Households

Current Population: 5.08 Million

The pandemic had a minimal impact on population growth in the HMA because increased net in-migration more than compensated for a sharp reduction in net natural increase.

## Population Trends

Population growth trends in the Phoenix HMA have been generally responsive to economic conditions and housing affordability. As of January 1, 2023, the population of the Phoenix HMA is estimated at 5.08 million (Table 3), reflecting an average annual increase of 88,800 people, or 1.8 percent, since 2019. By comparison, the population increased by an average of 72,750, or 1.6 percent, annually from 2014 to 2019, when job growth accelerated as the local economy recovered and expanded from the Great Recession. Maricopa County accounts for approximately 90 percent of the HMA population, with the remainder residing in Pinal County. Figure 5 shows the annual components of population change from 2000 to the forecast date.

The pandemic caused an abrupt shift to remote work for large swaths of the country, which gave many households the flexibility to move, and historically low mortgage interest rates until 2022 supported increased homeownership. The Phoenix HMA has been a primary beneficiary of

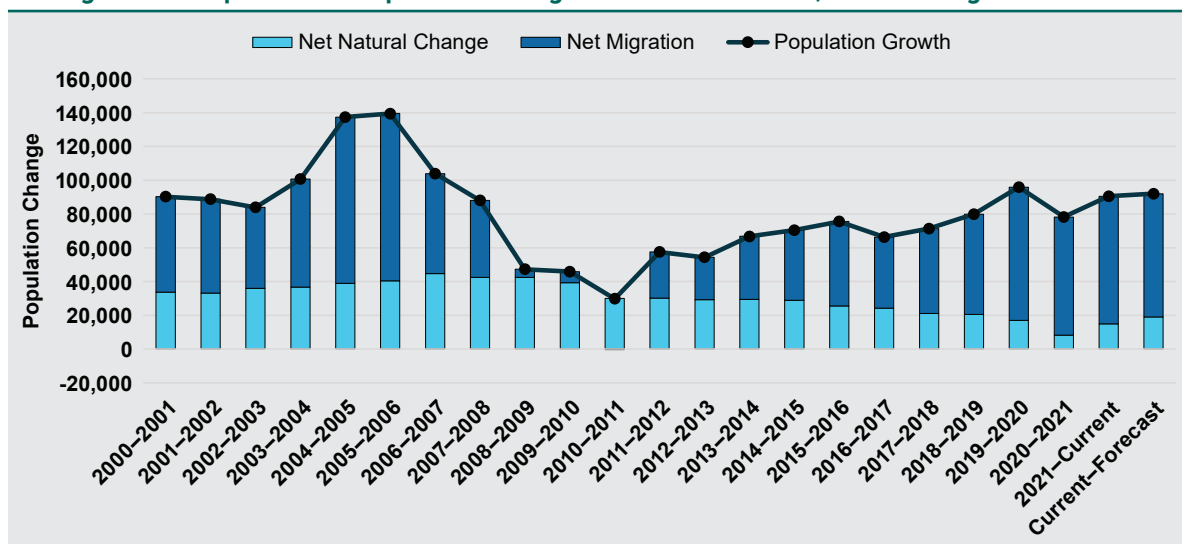
Table 3. Phoenix HMA Population and Household Quick Facts

	2010	Current	Forecast
<b>Population Quick Facts</b>	<b>Population</b>	4,192,887	5,082,000
	Average Annual Change	94,100	69,750
	Percentage Change	2.6	1.5
<b>Household Quick Facts</b>	<b>Households</b>	1,537,173	1,946,400
	Average Annual Change	34,300	32,100
	Percentage Change	2.6	1.9

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, 2023) to January 1, 2026.

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

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



Notes: Data displayed are average annual totals. The forecast period is from the current date (January 1, 2023) to January 1, 2026. Sources: U.S. Census Bureau; current to forecast—estimates by the analyst

this movement because of the abundance of relatively affordable housing; a warm, sunny climate; and strong jobs recovery and expansion. Since 2019, net in-migration has averaged 75,200 people a year—a 54-percent increase compared with an average of 48,700 a year from 2014 to 2019—whereas the net natural increase fell 43 percent to an average of 13,600 annually. The largest sources of net in-migration



to the HMA have been from metropolitan areas with more expensive housing markets, including Los Angeles, Chicago, and New York (U.S. Census Bureau Metro-to-Metro Migration Flows, 2016 to 2020; Table 4).

From 2000 to 2007, population growth averaged 105,700 people, or 3.0 percent, annually. Most of this period was one of strong economic growth and robust new home construction, which kept housing prices affordable, inciting a surge of net in-migration to the HMA, averaging 68,300 annually and contributing 65 percent of total population growth. Economic and housing market conditions began to deteriorate in 2007, which began a slew of layoffs in the construction industry. Subsequently, economic and housing market conditions weakened further, and from 2008 to 2011, net in-migration declined to an average of 3,700 annually, and average annual population growth fell to 40,950, or 1.0 percent, including net out-migration of 800 people from 2010 to 2011. Job growth returned to the HMA in 2011, and by 2012, net in-migration returned. From 2012 to 2014, during the initial recovery from the Great Recession, the population increased by an average of 60,550, or 1.4 percent, annually, and net in-migration rose to an average of 31,150 a year.

## Population by Geography

Population growth trends in the HMA have gone through cycles, with some periods of stronger suburban growth and others with higher growth nearest city centers. The recent investments in

**Table 4. Metro-to-Metro Migration Flows in the Phoenix HMA: 2016–2020**

Into the HMA	
Los Angeles-Long Beach-Anaheim, CA	14,800
Tucson, AZ	11,200
Asia	9,675
Chicago-Naperville-Elgin, IL-IN-WI	7,600
Seattle-Tacoma-Bellevue, WA	6,075
Out of the HMA	
Tucson, AZ	13,050
Flagstaff, AZ	5,450
Dallas-Fort Worth-Arlington, TX	4,975
Seattle-Tacoma-Bellevue, WA	4,850
Prescott Valley-Prescott, AZ	4,700
Net Migration	
Los Angeles-Long Beach-Anaheim, CA	10,650
Chicago-Naperville-Elgin, IL-IN-WI	5,525
New York-Newark-Jersey City, NY-NJ-PA	3,300
San Diego-Chula Vista-Carlsbad, CA	3,275
Portland-Vancouver-Hillsboro, OR-WA	2,400

Source: U.S. Census Bureau Migration Flows, 2016–2020 American Community Survey 5-year data

high-tech and advanced manufacturing in the HMA have been concentrated outside the central city of Phoenix, affecting population growth trends and housing development patterns to accommodate the expanding workforce. In 2021, 5 of the top 11 fastest growing cities in the country with populations of more than 50,000 were suburban cities in the HMA, including the cities of Buckeye, Goodyear, and Queen Creek in Maricopa County and the cities of Casa Grande and Maricopa City in Pinal County (U.S. Census Bureau). Although the city of Phoenix was not among the fastest growing during that period, it ranked second in numeric growth.

The West Valley has benefited greatly from the surge of investment, including the cities of Goodyear and Buckeye. From 2019 to 2021, population growth in the two cities averaged 8.2 and 12.8 percent a year, respectively, compared with average annual growth of 3.8 and 6.6 percent from 2015 to 2019. A catalyst to this growth was the completion of the 36-mile Loop 303 freeway in 2017, flanked by growing industrial development on each side, connecting the western edge of the West Valley and terminating north of the city of Phoenix near the new TSMC campus. These trends are expected to continue during the forecast period due to numerous industry expansions. In 2022, the West Valley had the highest concentration of apartment construction in the HMA (CoStar Group), and the city of Buckeye had the highest selling new



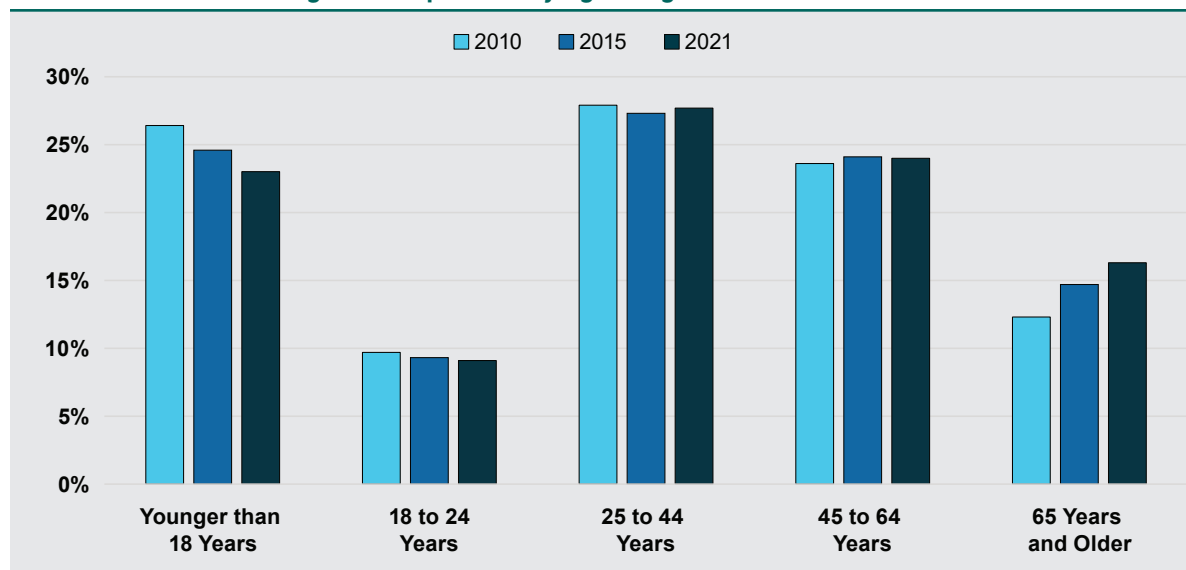
home subdivision in Maricopa County, with one of the lowest median sales prices (Zonda).

Pinal County also benefits from the growing high-tech and advanced manufacturing industries, most notably in the city of Casa Grande. From 2019 to 2021, population in the city rose at an average annual rate of 6.2 percent, compared with an average of 2.7 percent a year from 2015 to 2019. Pinal County is home to the two highest-selling new home subdivisions in the HMA. Although CAWS will no longer be available in most of the county, county officials indicated that tens of thousands of lots were approved before the restriction. The county is anticipating population growth of 130,000 people by 2030 (*Phoenix Business Journal*). Furthermore, multifamily construction and build-for-rental single-family homes are not subject to the same requirements, and the development of those types of homes has surged in response to the regulations.

## Age Cohort Trends and Net Natural Increase

The fastest growing age cohort in the Phoenix HMA includes people aged 65 and older (Figure 6). The share of residents aged 65 and older grew from 12 percent of the HMA population in 2010 to 16 percent in 2021 (Table 5), similar to trends nationwide. During the same period, the share of the population younger than 18 years declined to 23 percent, down from 26 percent in 2010. Meanwhile, the share of

**Figure 6. Population by Age Range in the Phoenix HMA**



Source: American Community Survey 1-year data

**Table 5. Selected Population and Household Demographics in the Phoenix HMA and the Nation**

	Phoenix HMA	Nation
Population Aged 18 and Younger	23.0%	22.1%
Population Aged 65 and Older	16.3%	16.8%
Median Age	37.6	38.8
White	58.5%	61.2%
Black	5.5%	12.1%
Asian	4.1%	5.8%
Other Race	9.6%	7.2%
Hispanic	31.9%	18.8%
Non-Hispanic	68.1%	81.2%
Median Household Income	\$85,806	\$69,717

Source: 2021 American Community Survey 1-year data



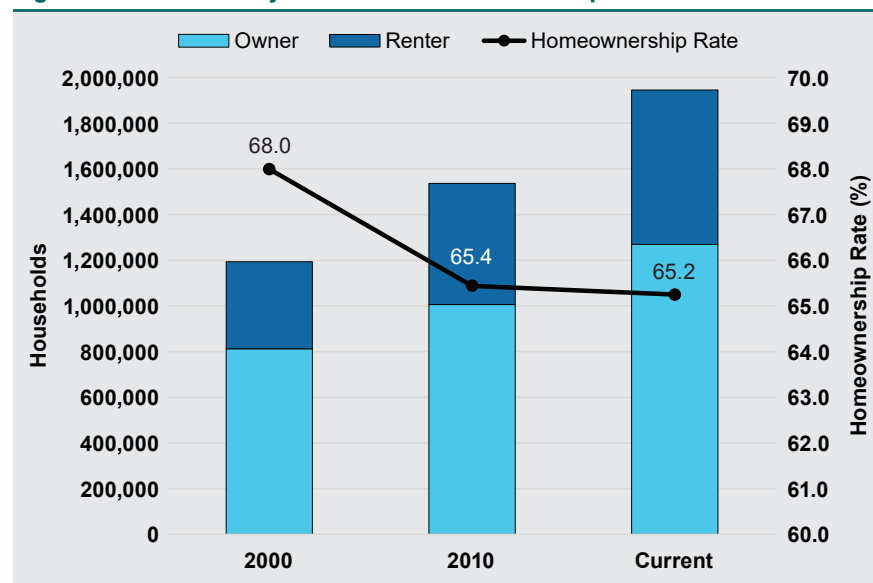
the population in the two largest cohorts—those aged 25 to 44 and 45 to 64 years—remained steady at a combined 52 percent.

The increasing share of seniors in the HMA and the nationwide trend of declining birth rates caused net natural increase to fall steadily from 2010 until the pandemic, when it fell precipitously. The effects of the pandemic on net natural increase have mostly been realized and are likely to be minimal during the forecast period. Net natural increase is expected to return to prepandemic levels, especially with large cohorts of millennials and Generation Z, who are currently in or entering stages of life typically associated with child-rearing. Although the share of people aged 25 to 44 years (which includes portions of both those generations) has been relatively constant in the HMA, this cohort grew at an average annual rate of 1.6 percent from 2015 to 2021, only slightly slower than overall population growth during that time.

## Household Trends

Household growth in the HMA has generally reflected population growth trends since 2000, although an increase in the formation of smaller households has caused household growth to exceed population growth since 2010. As of January 1, 2023, the number of households is estimated at 1.95 million, reflecting an average annual increase of 32,100 households, or 1.9 percent, since 2010, higher than the 1.5-percent rate of population growth. The disparity is due, in part, to the generally strong economic growth during the period and an abundance of affordable housing, which enabled the increased formation of smaller households. The growing cohort of seniors also contributed to the formation of smaller households. An estimated 65.2 percent of households currently in the HMA are homeowners, down slightly from a homeownership rate of 65.4 percent in 2010 and down significantly from the 68.0 percent rate in 2000 (Figure 7). Although homeownership in the HMA has been relatively affordable, the prolonged effects of the Great Recession and the recent disruptions attributed to the pandemic and rising interest rates have curtailed homeownership. Since 2010, owner households have increased by an average of 20,700, or 1.8 percent, annually, compared with average annual growth of 2.2 percent from 2000 to 2010. By comparison, renter households

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



Note: The current date is January 1, 2023.

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

have increased by an average of 11,400, or 1.9 percent, annually since 2010, compared with average annual growth of 3.3 percent from 2000 to 2010.

## Student Households

Student households are estimated to account for slightly less than 4 percent of renter households in the HMA; the concentration is higher near the largest campuses of ASU in the cities of Tempe and downtown Phoenix and near the GCU campus. Approximately 75 percent of ASU students live off campus, and 40 percent of GCU students live off campus (ASU; GCU). An estimated 60 percent of all enrolled students are Arizona state residents.

## Forecast

The population of the HMA is expected to increase by an average of 92,100, or 1.8 percent, annually during the 3-year forecast period, similar to the rate of growth since the pandemic, reaching 5.36 million by January 1, 2026. Net in-migration

is expected to slow slightly from recent trends but remain elevated, contributing nearly 80 percent of the growth. Net natural increase is anticipated to return to prepandemic levels, compensating for the slight decline in net in-migration. The West Valley will continue to grow rapidly due to industry expansions and housing development patterns, as will the city of Casa Grande in Pinal County.

Household growth in the HMA is expected to average 39,550 households, or 2.0 percent, annually during the forecast period, to 2.07 million as of

January 1, 2026. The average household size is likely to continue to decline. Seniors will continue to be a fast-growing cohort in the HMA, and they tend to have smaller households. Decoupling since the onset of the pandemic and new household formation from young residents will further increase the number of smaller households in the HMA. During the forecast period, both owner and renter households are expected to increase at an average annual rate of 2.0 percent.



# Home Sales Market

## Market Conditions: Slightly Tight but Easing

Homes sales in the HMA fell substantially during the past year, and sales price growth slowed.

## Current Conditions

The sales housing market in the HMA is slightly tight but easing. The overall sales vacancy rate is estimated at 1.8 percent (Table 6), reflecting a decrease from 4.3 percent in 2010, when conditions were very soft. Sales market conditions eased from very tight when interest rates started to rise in January 2022. Before the rise in rates, market conditions had been tightening since the late 2010s as the excess inventory of distressed homes for sale was absorbed, and mortgage interest rates remained historically low. In December 2022, the supply of for-sale inventory increased to 3.4 months, compared with 1.1 months a year ago (Redfin, a national real estate brokerage). The median days a home was on the market was 63 in December 2022 compared with 31 days a year ago. Sales construction activity declined in 2022 as a response to both lower demand because of rising interest rates and a shift in development patterns—from single-family homes for sale to single-family homes BFR because of changes in groundwater regulations.

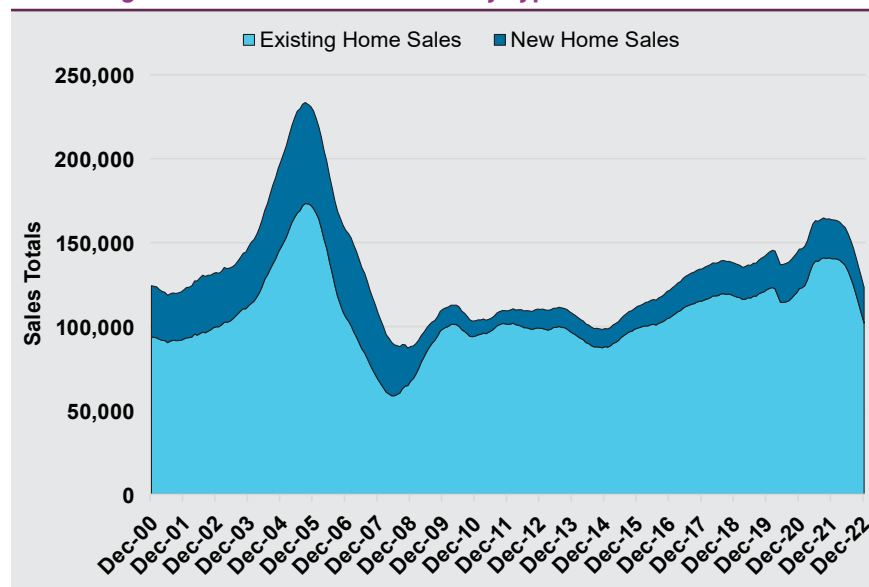
The growth in for-sale inventory coincided with declining home sales, which fell 25 percent year over year to 123,100 home sales in 2022, compared with a 12-percent increase during 2021 (CoreLogic, Inc., with adjustments by the analyst). Since 2019, distressed home sales have accounted for less than 1 percent of existing home sales in the HMA, and new home sales have accounted for 16 percent of all home sales. Figure 8 shows the number of home sales by sales type in the HMA since 2000. Home sales price growth slowed in 2022 but remained elevated, at 15 percent year over year, with the average price reaching \$525,800, compared with a 22-percent increase a year ago (CoreLogic, Inc., with adjustments by the analyst). New home sales

Table 6. Home Sales Quick Facts in the Phoenix HMA

	Phoenix HMA	Nation
<b>Vacancy Rate</b>	1.8%	NA
<b>Months of Inventory</b>	3.4	2.5
<b>Total Home Sales</b>	123,100	6,336,000
1-Year Change	-25%	-19%
<b>New Home Sales Price</b>	\$548,000	\$490,400
1-Year Change	19%	15%
<b>Existing Home Sales Price</b>	\$521,200	\$396,300
1-Year Change	14%	7%
<b>Mortgage Delinquency Rate</b>	0.7%	1.2%

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 2022; and months of inventory and mortgage delinquency data are as of December 2022. The current date is January 1, 2023.  
 Sources: Vacancy rate—estimates by the analyst; months of inventory—Redfin, a national real estate brokerage; mortgage delinquency rate, home sales, and home sales prices—CoreLogic, Inc.

Figure 8. 12-Month Sales Totals by Type in the Phoenix HMA



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



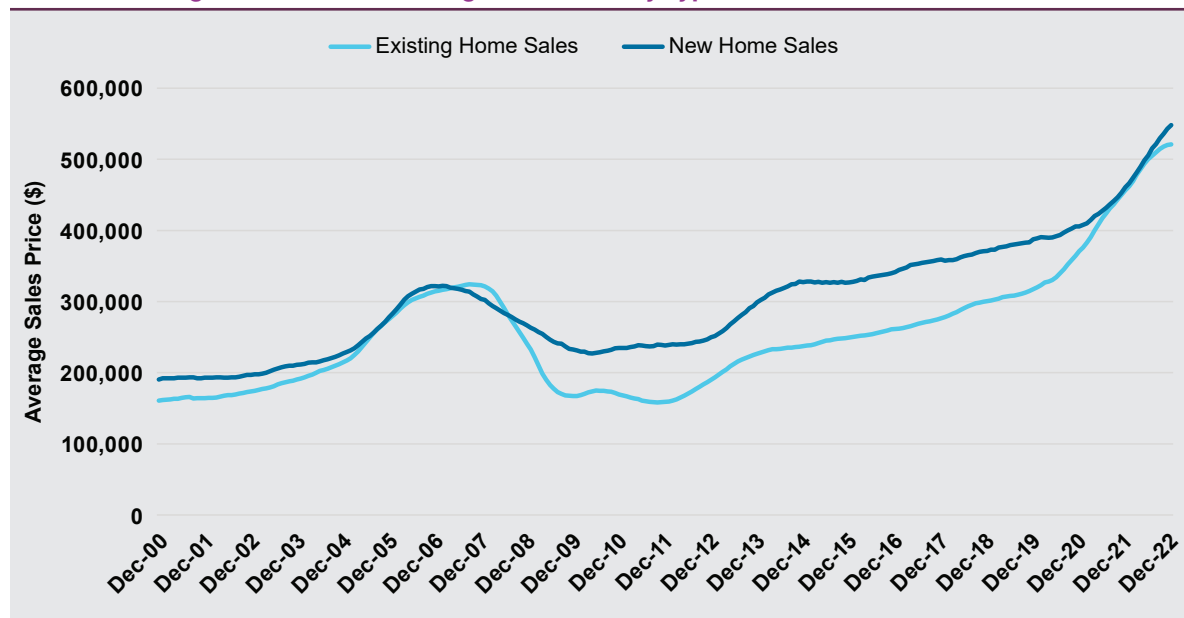
prices rose 19 percent during 2022 to an average of \$548,000, compared with a 14-percent increase in the average sales price of an existing home to \$521,200 (Figure 9). The easing of home sales market conditions is more pronounced when comparing the fourth quarter of 2022 with the same period a year earlier. Home sales declined 47 percent during the period, and sales price growth slowed to 6 percent.

## Home Sales and Price Trends by Geography

In December 2022, home sales in the HMA totaled 4,775—down 45 percent from a year ago—and sales in Maricopa County accounted for 86 percent of the total; this share has been relatively constant since 2019 (Redfin, a national real estate brokerage). For context, home sales in the HMA totaled 8,750 in December 2021, down 7 percent from a year earlier. The median home sales price in the HMA fell almost 3 percent from December 2021 to December 2022 to \$424,000, preceded by a 16-percent increase the year before. In Maricopa County, the median sales price in December 2022 was \$437,000 compared with \$350,000 in Pinal County.

Nearly all cities had price declines in December 2022 compared with a year ago, and the declines were largest in the cities with the swiftest price growth in 2021. These trends indicate that price growth was driven by a surge in demand following the onset of the pandemic, which has

Figure 9. 12-Month Average Sales Price by Type of Sale in the Phoenix HMA



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

been curtailed since interest rates began to rise. From December 2021 to December 2022, the city of Buckeye had the largest median sales price reduction, at 10 percent, and the city also had the fastest price growth from December 2020 to December 2021, at 37 percent. Conversely, Goodyear was one of the few cities with median sales price growth during the past year, at 2 percent. This growth was preceded by a 27-percent increase a year before, which was among the smallest price increases in the HMA during the period. In December 2022, the median sales price for a home in the cities of Goodyear and Buckeye was \$478,000 and \$383,000, respectively.

Nearly one-quarter of all home sales in the HMA in December 2022 was in the city of Phoenix, where 1,250 homes sold, down 48 percent from a year ago, and the median sales price fell almost 2 percent to \$409,000 compared with a 30-percent increase a year ago. The city of Mesa had the second highest concentration of home sales in December 2022, at 440, down 41 percent from a year ago, and the median sales price fell 4 percent to \$412,000 compared with a 31-percent increase a year before. The city of Scottsdale had the largest drop in home sales during the period and the strongest price growth. Home



sales in the city fell 56 percent, whereas the median sales price increased nearly 6 percent to \$770,000, following a 16-percent increase a year before.

In Pinal County, major cities include Apache Junction and Casa Grande, the latter of which has received an influx of investment from the rise of high-tech and advanced manufacturing. Home sales in the city of Casa Grande fell 54 percent in December 2022 from a year earlier, and the median sales price increased 2 percent to \$327,000, which was preceded by a 36-percent increase a year earlier. In the city of Apache Junction, home sales fell 7 percent, the smallest decline in the HMA. However, the 14-percent reduction in the median sales price was the largest drop in the HMA and was preceded by a 38-percent increase a year before, which was also the largest increase during that period.

## Recovery and Expansion From the Housing Crisis

The peak years of the housing boom in the HMA were 2003 through 2006, when an average of 183,000 homes were sold each year, and price growth averaged 15 percent annually (CoreLogic, Inc., with adjustments by the analyst). As economic conditions and population growth slowed during the national recession, home sales and prices fell sharply. An average of 102,300 homes were sold each year from 2007 through 2010, down 44 percent compared with the 2003-through-2006 period, and the average sales price declined at an average annual rate of 14 percent. An increasing number of home sales during this period were distressed home sales. From 2007 through 2010, distressed home sales averaged 38,450, or 47 percent of existing home sales, as homebuyers took advantage of the lower prices of distressed sales. During the 2007-through-2010 period, the distressed home sales price ranged from \$128,200 to \$276,300, or 16 to 38 percent lower than the average price for resales.

Although the economic recovery began in 2011 and the rate of seriously delinquent mortgages declined gradually from its peak, a significant inventory of distressed housing remained on the market. From 2011 through 2014, an average of 106,500 homes were sold, and the average home sales price

increased at an average annual rate of 9 percent. During the same period, distressed sales averaged 28,900 annually, accounting for 30 percent of existing home sales, lower than the recessionary period from 2007 through 2010 but still elevated.

From 2015 through 2019, accelerating economic growth and strong market conditions resulted in the absorption of much of the distressed inventory. Distressed sales accounted for only 4 percent of existing home sales during the period. Restrained residential construction activity helped achieve balanced market conditions, and from 2015 through 2019, an average of 129,700 homes were sold annually. The average home sales price increased an average of 6 percent annually during the 2015-to-2019 period. In 2020, home sales increased 2 percent from a year earlier to 146,200 sales, while the average sales price increased 15 percent, nearly triple the rate of price growth a year earlier.

## Seriously Delinquent Mortgages and REO Properties

Few areas in the nation were affected by the housing crisis as severely as the Phoenix HMA. In January 2010, the HMA was among the top 3 percent of all metropolitan areas nationally with the highest rate of seriously delinquent loans and real estate owned (REO) properties at 13.8 percent, compared with 8.6 percent nationwide (CoreLogic, Inc.).

The rate of seriously delinquent loans and REO properties in the HMA has been below the national rate since March 2012 because of the strength of the economy and housing market during that period. The percentage of home loans in the Phoenix HMA that were seriously delinquent or in REO status declined from 1.1 percent in December 2021 to 0.7 percent in December 2022, and the decline came from a 38-percent reduction in mortgages that were 90 or more days delinquent (CoreLogic, Inc.). For context, the rate in the HMA peaked at 3.0 percent from August through October 2020 because of the impacts of the COVID-19 pandemic. The current rate is equal to the rate in Arizona and below the 1.2-percent rate for the nation.



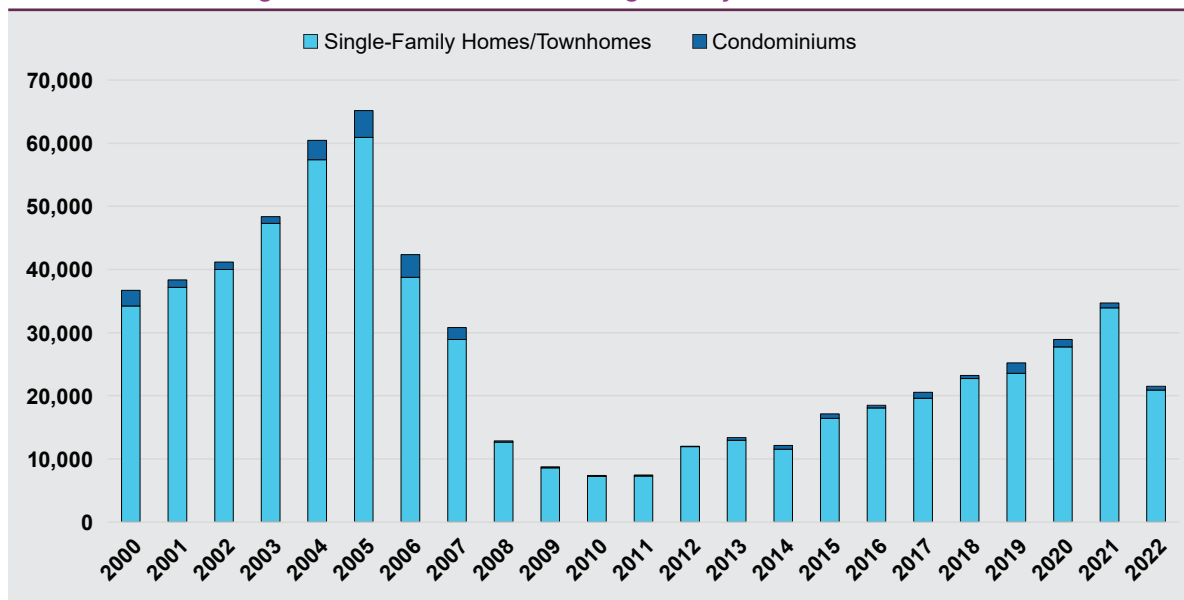
## Sales Construction Activity

New home construction, as measured by the number of single-family homes, townhomes, and condominiums permitted, increased from 2012 through 2021 (Figure 10). Sales demand weakened in 2022 as interest rates rose sharply, and builders responded by reducing new home construction. In 2022, 21,450 new homes were permitted, down 38 percent from 2021 (U.S. Census Bureau, preliminary data, with adjustments by the analyst).

Current new home production is significantly below levels during the buildup to the housing crisis from 2003 through 2006, when an average of 54,050 new homes were permitted annually. Production exceeded demand during this period, leading to soft market conditions during the national recession. In response, the number of homes permitted declined an average of 30 percent annually from 2007 through 2011. Although construction activity began to rise steadily in 2012, new home construction remained low, at an average of 12,450 homes a year during the 2012-through-2014 period. As the inventory of distressed properties was absorbed and economic conditions continued to improve, sales market conditions moved toward balance. From 2015 through 2021, permitting of for-sale units increased at an average annual rate of 16 percent to a high of 34,700 in 2021.

Since 2000, the plurality of new home construction in the HMA has occurred in the city of Phoenix,

Figure 10. Annual Sales Permitting Activity in the Phoenix HMA



Sources: U.S. Census Bureau, Building Permits Survey; 2000–21—final data and estimates by the analyst; past 24 months of data—preliminary data and estimates by the analyst

where 3,975 new homes were permitted in 2022, down 19 percent from a year ago but still accounting for about one-fifth of the HMA total. Most new home construction in the city of Phoenix was in subdivisions with six or fewer lots, which are not required to obtain a CAWS. Sales construction activity in the HMA has increased rapidly in the West Valley since the completion of Loop 303 and the quickly expanding job market associated with the high-tech and advanced manufacturing industry. In the city of Buckeye, new home construction averaged 730 units annually from 2012 through 2014 and then accelerated to an average of 2,600 units a year through 2021; building activity in the city slowed 19 percent to 2,130 new homes in 2022. Trends in the other cities of the West Valley are similar, with new home construction surging since the completion of Loop 303 but falling in 2022—an exception being the city of Avondale, where sales permitting activity nearly doubled in 2022 to 1,400 new homes. Declines in new home construction in the more established cities of Mesa, Gilbert, and Chandler—all east of the city of Phoenix—ranged from 25 to 70 percent from 2021 levels. In Pinal County, building activity in the city of Casa Grande had a similar trajectory. From 2016 through 2019, the city permitted an average of 270 sales units annually, and that figure rose to an average of 1,250 sales units a year from 2020 through 2022.

The largest master-planned community in the state, Teravalis, is under construction in the city of Buckeye (*Phoenix Business Journal*). The project covers 37,000 acres, and the first phase received a CAWS that covers 3,029 acres, which will amount to approximately 7,000 homes. The first homes are expected to be completed in mid- to late 2023. At buildout, 100,000 homes are expected, with more than 300,000 residents, although additional CAWS will have to be granted after the completion of phase one. In February 2023, after the as-of date of this report, the city of Buckeye purchased \$80 million worth of groundwater rights that will provide for the development of 17,800 homes.

### Recent Developments

The two highest selling new home subdivisions in the HMA in 2022 were in Pinal County (Zonda). The Arizona City subdivision, approximately 15 miles south of the city of Casa Grande, had 220 home sales, with a median sales price of \$243,300. Gila Buttes, in the city of Casa Grande, was the second highest selling, with 200 new home sales and a median sales price of \$369,800. In Maricopa County, the city of Buckeye had the highest selling new home subdivisions. The top two include Desert Moon Estates, which had 160 new home sales and a median sales price of \$379,600. The second highest selling was Sun City Festival, an age-restricted, master-planned community, where 130 new homes sold, with a median sales price of \$473,600.

### Forecast

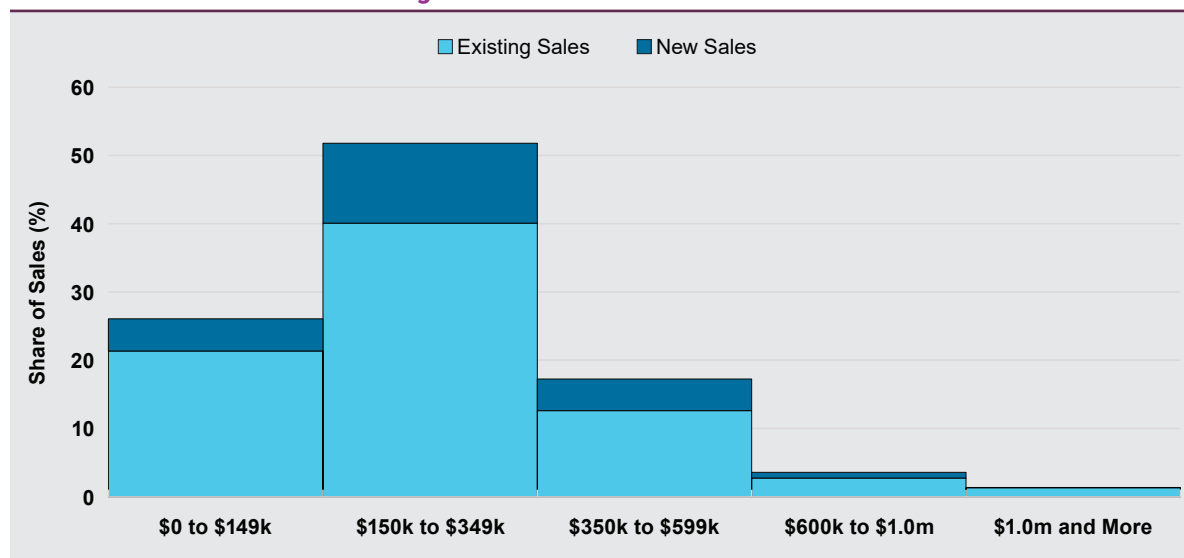
During the next 3 years, demand is expected for 83,500 new sales units in the Phoenix HMA, with demand increasing each year of the forecast period as interest rates moderate and homeownership becomes more affordable (Table 7). The 9,125 homes currently under construction will meet a portion of the demand. Demand is expected to be highest where land is most affordable, including in the West Valley and Pinal County. Homes in the lowest price ranges, less than \$350,000, are expected to account for the greatest portion of demand (Figure 11).

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

Sales Units	
<b>Demand</b>	83,500 Units
<b>Under Construction</b>	9,125 Units

Note: The forecast period is from January 1, 2023, to January 1, 2026.  
Source: Estimates by the analyst

**Figure 11. Share of Overall Sales by Price Range During the 12 Months Ending December 2022 in the Phoenix HMA**



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



# Rental Market

## Market Conditions: Balanced but Softening

A surge in rental construction since 2020 and slowing absorption have contributed to softening market conditions.

## Current Conditions and Recent Trends

The overall rental housing market in the Phoenix HMA—including apartments, single-family homes, and other housing options available for rent—is balanced but softening, with an estimated overall rental vacancy rate of 8.0 percent, down from 13.8 percent in April 2010, when conditions were very soft (Table 8). Conditions have eased during the past year because rental construction has significantly outpaced absorption. In addition to record-level apartment construction, developers have increased the production of homes BFR, partly to avoid the need for a CAWS. In 2022, almost 20 percent of rental units permitted were for homes BFR, compared with less than 5 percent a year earlier. Elevated apartment construction since 2016 has contributed to a decline in the share of renter households living in single-family homes. In 2021, approximately 36 percent of renter households in the HMA lived in single-family homes compared with 41 percent in 2010.

**Table 8. Rental Market Quick Facts in the Phoenix HMA**

Rental Market Quick Facts	2010 (%)	Current (%)	
	<b>Rental Vacancy Rate</b>	13.8	8.0
Occupied Rental Units by Structure	2010 (%)	2021 (%)	
	Single-Family Attached & Detached	41	36
	Multifamily (2–4 Units)	11	11
	Multifamily (5+ Units)	45	50
	Other (Including Mobile Homes)	3	3

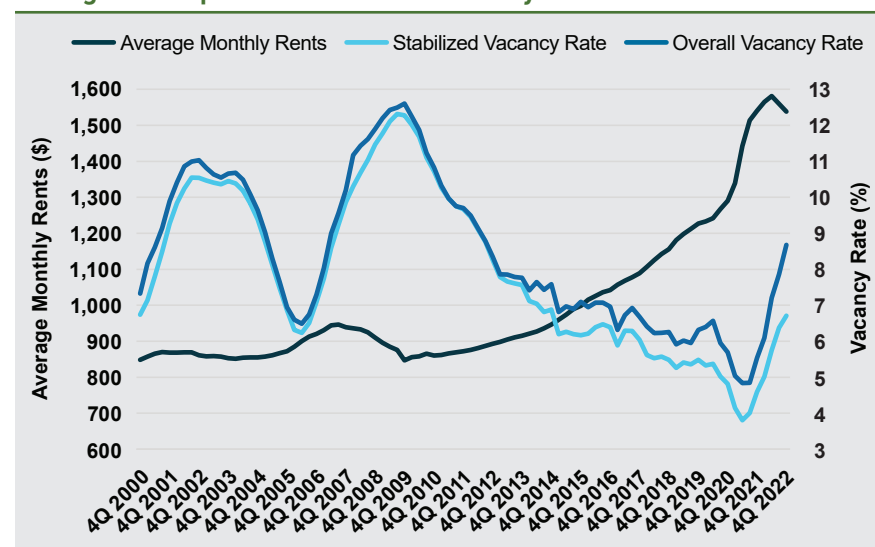
Notes: The current date is January 1, 2023. Percentages may not add to 100 due to rounding.

Sources: 2010 vacancy rate—2010 Census; current vacancy rate—estimate by the analyst; occupied rental units by structure—2010 and 2021 American Community Survey 1-year data

## Apartment Market Conditions

Accelerating in-migration contributed to sharply declining apartment vacancy rates in the HMA in 2020, but conditions moved to being balanced during the past year as a surge of new units entered the market and rent growth accelerated considerably. Currently, apartment market conditions are balanced but softening, with an 8.7-percent vacancy rate as of the fourth quarter of 2022 compared with 5.6 percent a year ago (CoStar Group). The increase in the rate occurred because 18,400 units were completed in 2022, whereas only 1,950 units were absorbed, evidenced by the increased divergence between the overall apartment vacancy rate and the stabilized apartment vacancy rate (Figure 12). By comparison, in 2021, approximately 13,450 units were completed, and absorption totaled 13,200 units. As of the fourth quarter of 2022, the average rent in the HMA was unchanged compared with the fourth quarter of 2021. Rents increased an average of 19 percent from the fourth quarter of 2020

**Figure 12. Apartment Rents and Vacancy Rates in the Phoenix HMA**



4Q = fourth quarter.  
Source: CoStar Group



to the fourth quarter of 2021, which was preceded by a 5-percent increase during the same period in 2020. The impact of slowing absorption and high completions is more apparent in quarter-to-quarter comparisons. The average rent in the HMA declined 1 percent from the second to the third quarter of 2022 and fell an additional percent from the third to the fourth quarter.

Overall apartment vacancy rates rose precipitously during the Great Recession in the late 2000s. The significant single-family rental inventory from distressed properties purchased by investors shifted renters away from apartments. The fourth quarter apartment vacancy rate was 6.9 percent in 2005 and rose every year, reaching a high of 12.6 percent in 2009. During this period, average apartment rents in the HMA declined an average of 1 percent a year. A significant drop in new apartment construction from 2009 through 2011 allowed for the absorption of vacant apartment units, resulting in a decline in the fourth quarter vacancy rate to 7.8 percent in 2013 and average rent growth of 2 percent annually. From the fourth quarter of 2013 through the fourth quarter of 2018, the vacancy rate generally declined, and market conditions were generally balanced; rents increased at an average annual rate of 5 percent. The vacancy rate crept up slightly in 2019 to 6.4 percent as fewer than 8,975 of the record-high 10,150 units completed were absorbed. Absorption increased 22 percent in 2020, surpassing the number of units completed during the period, and the vacancy rate fell below 6 percent for the first time in more than two decades to 5.8 percent during the fourth quarter; the average rent increased 5 percent from a year earlier.

## Apartment Market Conditions by Geography

Apartment market conditions are easing throughout the HMA. Of the 15 CoStar Group-defined market areas (hereafter, areas) that make up the HMA, 8 had rent declines during the fourth quarter of 2022, and 3 were relatively unchanged. All market areas in the HMA had year-over-year rent growth during the fourth quarter of 2021, which was the fastest fourth quarter growth during any year since at least 2000 by more than double and, in many cases, triple. All market areas had increasing overall vacancy rates as of the fourth

quarter of 2022 compared with a year ago, generally because apartment completions outpaced absorption.

Overall vacancy rates increased between 3.1 and 6.2 percentage points in the four CoStar Group-defined market areas that cover the West Valley, largely because of the 5,200 units completed during 2022—accounting for 28 percent of all units completed in the HMA—whereas fewer than 900 units were absorbed. For comparison, in 2021, 3,200 units were completed in the West Valley and 2,900 units were absorbed. Rent trends in the West Valley were mixed, from a 2-percent annual decline as of the fourth quarter of 2022 in the West Maricopa County market area, which includes the city of Buckeye, to a 1-percent increase in the South West Valley market area, which includes the city of Goodyear and accounts for 47 percent of apartment inventory in the West Valley. The West Maricopa County market area had the highest overall vacancy rate at 16.5 percent and the highest asking rent in the West Valley at \$1,639.

In the city of Phoenix, the overall vacancy rate increased 1.9 to 3.8 percentage points in the three market areas that cover the city. The highest vacancy rate was 11.4 percent in the Downtown Phoenix market area, up from 9.1 percent a year ago, and the average rent was unchanged at \$1,489. Approximately 3,300 units were completed in the market area in 2022, and less than one-half were absorbed. The average rent increased 1 percent as of the fourth quarter of 2022 in the North Phoenix market area to \$1,398 after rising 20 percent a year ago, and the vacancy rate increased from 5.2 to 6.8 percent, the lowest vacancy rate in the HMA.

In the Chandler, Gilbert, and East Valley (which includes the city of Mesa) market areas, overall vacancy rates were higher as of the fourth quarter of 2022 compared with a year ago, and rent declines ranged from 1 to 2 percent. In 2022, approximately 2,825 apartments were completed in the East Valley market area, the second highest concentration among market areas in the HMA and nearly five times the amount in 2021, while absorption was negative. The vacancy rate in the market area increased from 4.5 percent in the fourth quarter of 2021 to 10.3 percent by the fourth quarter of 2022.



Conversely, in the Gilbert market area, new completions fell 66 percent in 2022 to 860 units, while 620 units were absorbed, and the vacancy rate increased less than 1.0 percentage point in the fourth quarter of 2022 to 12.7 percent. In the Tempe market area (home to the main ASU campus), the overall vacancy rate increased 2.5 percentage points to 8.0 percent, the average rent was unchanged at \$1,607, and only 400 of the 1,550 units completed in 2022 were absorbed. Both market areas that cover the city of Scottsdale had rent declines from a year ago as of the fourth quarter of 2022, with the largest, 4 percent, in the Old Town Scottsdale market area. The North Scottsdale market area had the highest asking rent in the HMA at \$2,139, down 2 percent from a year ago, and it also has the smallest decline, 0.5 percentage point, in the overall vacancy rate among market areas in the HMA, to 8.6 percent.

The Southeast Valley market area covers most of Pinal County, including the city of Casa Grande. The overall vacancy rate in the market area increased from 3.4 percent in the fourth quarter of 2021 to 6.0 percent as of the fourth quarter of 2022, largely because completions outpaced absorption. During the same time, the average rent increased 3 percent to \$1,263, the lowest asking rent in the HMA.

### Single-Family Built-for-Rent Market Conditions

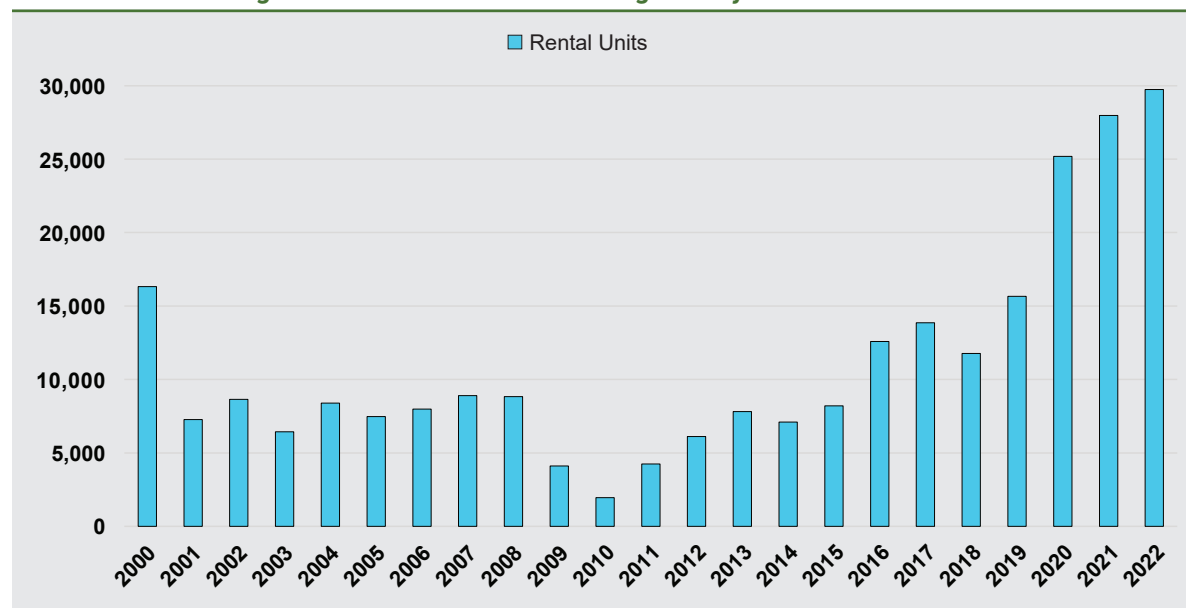
The market for single-family homes BFR is tighter than the apartment market in the HMA. The city of

Goodyear has one of the highest concentrations of homes BFR in the HMA, estimated at a combined 1,025 units in five properties. The vacancy rate for the stabilized properties ranges from 6.9 to 9.4 percent, and rents range from \$1,590 to \$2,675. In the city of Phoenix, there are an estimated 1,050 BFR units with stabilized vacancy rates ranging from 2.4 to 9.5 percent and average rents ranging from \$1,784 to \$2,567. The city of Surprise in the West Valley has approximately 1,025 BFR units, with vacancy rates ranging from 3.5 to 9.8 percent and rents from \$1,588 to \$1,950, respectively.

### Rental Construction Activity

Despite many indications that the rental market is cooling, rental construction—as measured by the number of rental units permitted—during 2022 is at its highest level on record (Figure 13), partly due to a surge in single-family homes BFR. Approximately 29,750 rental units were permitted in 2022, and almost 20 percent were homes BFR. By comparison, 28,000 rental units were permitted in 2021, and less than 5 percent were homes BFR.

Figure 13. Annual Rental Permitting Activity in the Phoenix HMA



Note: Includes apartments and units intended for rental occupancy, such as built-for-rent (BFR) single-family homes. Sources: U.S. Census Bureau, Building Permits Survey; 2000–21—final data and estimates by the analyst; past 24 months of data—preliminary data and estimates by the analyst



Rental construction was moderate in the early to mid-2000s, as homeownership was more attainable and a significant amount of distressed inventory was bought by investors and turned into single-family rentals. From 2001 through 2008, rental construction averaged 8,000 units annually, and toward the end of the period, market conditions started to weaken, with rising vacancies and declining rents. As market conditions weakened further, builders responded by significantly reducing rental construction from 2009 through 2011, when an average of 3,450 rental units were permitted each year. As apartment market conditions tightened with the improving economy and increased net in-migration, rental construction activity increased. From 2012 through 2020, rental construction increased at an average annual rate of 22 percent to 25,200 units in 2020.

An estimated 37,500 rental units are under construction in the HMA, including an estimated 3,850 homes BFR. In nearly all market areas in the HMA, the number of apartments under construction far surpasses the number of units delivered in the past year, which, as previously discussed, caused market conditions to soften considerably. In the West Valley market areas, approximately 7,350 apartments and 1,800 homes BFR are under construction, accounting for nearly 25 percent of all rental units under construction in the HMA. The Downtown Phoenix market area accounts for 4,400 apartments under construction and 460 homes BFR, including one of the largest communities of this type in the country, the 400-unit Arroyo Verde, expected to be completed in 2024. In the Tempe market area, nearly 5,000 apartments are under construction. The Southeast Valley market area, which covers Pinal County, has 630 apartments under construction and 196 BFR homes in Maricopa City at the Bungalows on Bowlin development, which will be completed in 2023. Another example of a future development of this type includes one by Modus Construction, a Phoenix-based developer, which will break ground on a community of 470 BFR homes in Casa Grande during the second or third quarter of 2023 (*Phoenix Business Journal*).

## Recent Developments

Of the 20 large apartment developments (with 250 or more units) completed in the HMA since 2021, a large share is in the West Valley. In the city of Goodyear, six large apartment developments have opened, the largest being the 336-unit Cabana Bullard, which started leasing in October 2022. Rents start at \$1,188 for studios, \$1,407 for one-bedroom units, and \$1,723 for two-bedroom units (CoStar Group). The city of Glendale, on the eastern edge of the West Valley, has had five large apartment developments, and the largest development to open was the 324-unit Escape at Arrowhead in 2021. The property has a 1.8-percent vacancy rate; rents start at \$1,620 for one-bedroom units, \$2,026 for two-bedroom units, and \$2,359 for three-bedroom units.

## Forecast

During the 3-year forecast period, demand is expected for an estimated 45,600 rental units in the HMA (Table 9). Demand is anticipated to increase each year of the forecast period as market conditions stop softening and the market returns to being balanced. The 37,500 units under construction and an additional 1,900 in planning will meet all expected demand during the next 2 years. Rental construction is expected to be concentrated near centers of job growth, including the West Valley and Pinal County.

**Table 9. Demand for New Rental Units in the Phoenix HMA During the Forecast Period**

Rental Units	
<b>Demand</b>	45,600 Units
<b>Under Construction</b>	37,500 Units

Note: The forecast period is from January 1, 2023, to January 1, 2026.  
Source: Estimates by the analyst



# Terminology Definitions and Notes

## A. Definitions

<b>Acre-Foot/ Acre-Feet</b>	A unit of volume equal to the volume of a sheet of water 1 acre in area and 1 foot in depth; 43,560 cubic feet.
<b>Building Permits</b>	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.
<b>Certificate of Assured Water Supply (CAWS)</b>	A certificate issued to home builders by the Arizona Department of Water Resources indicating that the location has enough groundwater to sustain the population for 100 years.
<b>Demand</b>	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.
<b>Distressed Sales</b>	Short sales and real estate owned (REO) sales.
<b>Existing Home Sales</b>	Includes resales, short sales, and REO sales.
<b>Forecast Period</b>	1/1/2023–1/1/2026—Estimates by the analyst.
<b>Home Sales/ Home Sales Prices</b>	Includes single-family home, townhome, and condominium sales.





<b>Net Natural Increase</b>	<b>Resident births minus resident deaths.</b>
<b>Overall Apartment Vacancy Rate</b>	<b>Includes apartment units in lease up.</b>
<b>Rental Market/ Rental Vacancy Rate</b>	<b>Includes apartments and other rental units, such as single-family, multifamily, and mobile homes.</b>
<b>Resales</b>	<b>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.</b>
<b>Seriously Delinquent Mortgages</b>	<b>Mortgages 90+ days delinquent or in foreclosure.</b>
<b>Stabilized Apartment Vacancy Rate</b>	<b>Excludes apartment units in lease up.</b>

## 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.

## 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.
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2.	<p>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.</p>
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#### D. Photo/Map Credits

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