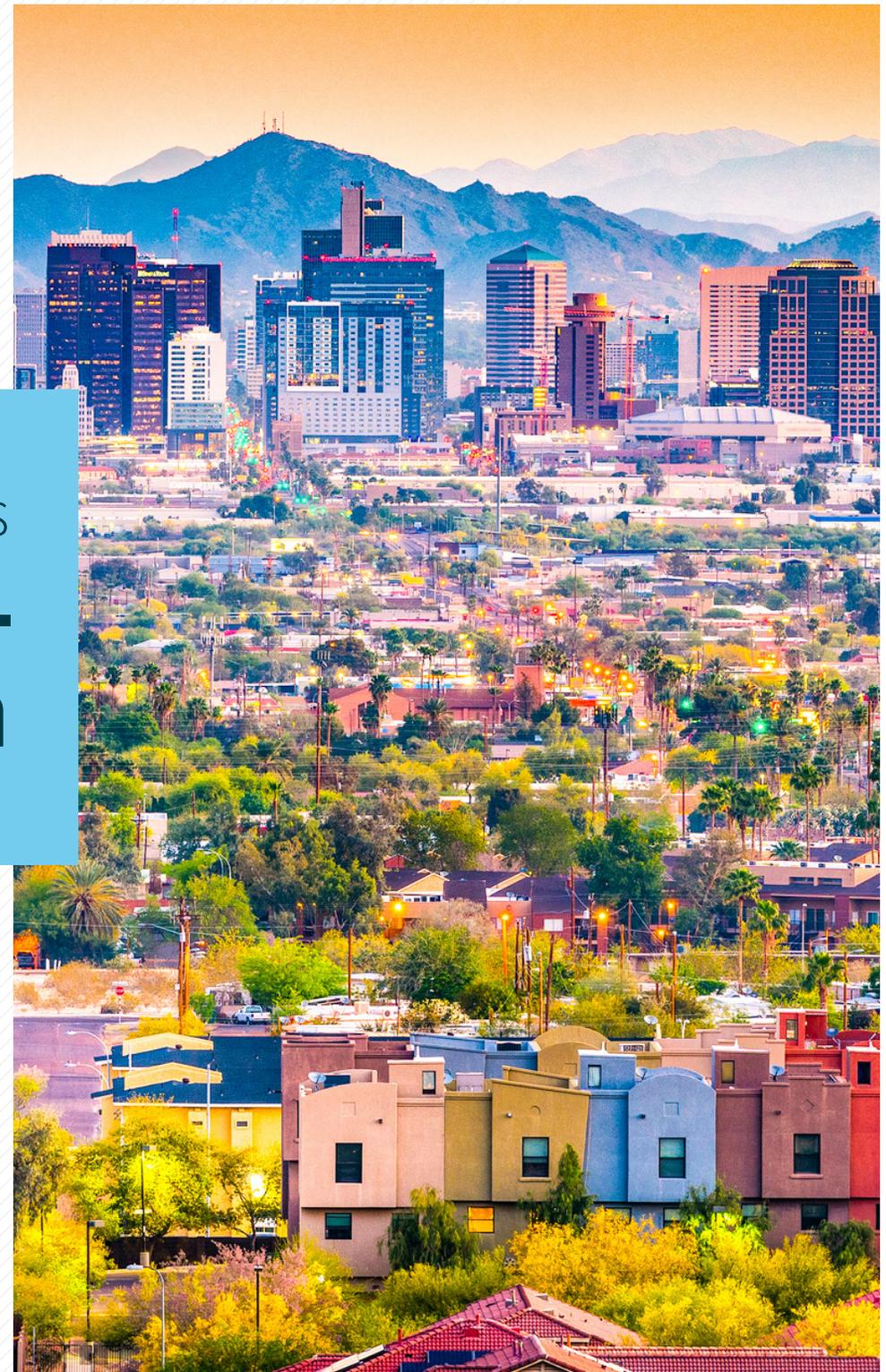


The analysis presented in this report includes data from the early stages of the COVID-19 outbreak in the United States. The unprecedentedly large and rapid changes in many data series, and the similarly unprecedentedly large policy responses, make analysis of, and longer run predictions for, the economy and housing markets exceptionally difficult and uncertain. HUD will continue to monitor market conditions in the HMA and provide an updated report/addendum in the future.



COMPREHENSIVE HOUSING MARKET ANALYSIS

Phoenix-Mesa-Chandler, Arizona

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

As of July 1, 2020



PD&R

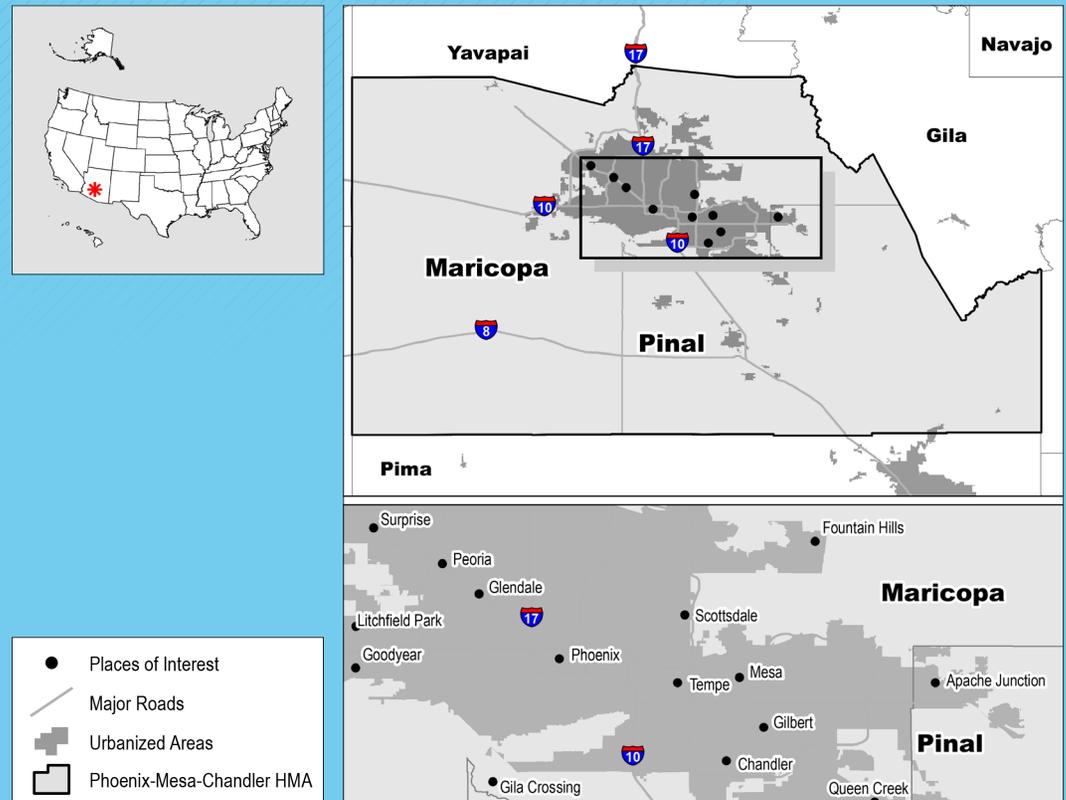
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Executive Summary

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 consists of Maricopa and Pinal Counties. The current HMA population is estimated at 4.91 million.

The HMA is home to two-thirds of the total population in Arizona, primarily due to growth in the city of Phoenix. The city of Phoenix is the capital of Arizona, the largest city in the HMA, and the fifth most populous city in the nation as of July 1, 2019. Population growth in the overall HMA has been strong since 2010 because robust job growth and affordable housing options have attracted new residents. The state of Arizona has a business-friendly tax environment that has attracted several corporate headquarters to relocate to the HMA. Additionally, the limited regulation of residential construction has encouraged significant housing development and kept housing prices affordable.



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: Nonfarm payroll growth has averaged nearly 52,700 jobs, or 2.8 percent a year, since the end of the financial and housing crisis in 2010.

Before the COVID-19 pandemic, the economy added jobs every year since 2011. From 2011 through 2019, nonfarm payrolls in the Phoenix HMA increased an average of 2.8 percent a year, and over the 12 months ending June 2020, payrolls averaged an increase of 1.1 percent from a year earlier. However, significant job losses as a result of countermeasures to slow the spread of COVID-19 occurred during March and April 2020, and nonfarm payrolls declined by 109,200 jobs, or 5.1 percent, during the second quarter of 2020 compared with the addition of 63,300 jobs, or 3.0 percent, during the same period a year prior. During the next 3 years, nonfarm payrolls are expected to increase an average of 1.8 percent a year as more businesses reopen.

Sales Market



Balanced: After significant increases in the total number of homes sold in the early 2010s, when distressed home sales at discounted prices accounted for many of the sales, home sales have held steady recently.

Significantly reduced levels of new home construction and increased net in-migration have contributed to the absorption of excess inventory since the early 2010s. As of July 1, 2020, the overall sales vacancy rate was estimated at 1.3 percent, down from 4.3 percent in April 2010. During the past year, home sales were unchanged from a year ago, at 131,700 homes sold during the 12 months ending June 2020, while the average home sales price increased 6 percent to \$345,300. Demand is estimated for 58,650 new homes during the next 3 years; the 8,450 homes underway will satisfy a portion of that demand.

Rental Market



Balanced: During the second quarter of 2020, the apartment vacancy rate was 5.7 percent, down from the 6.6-percent rate during the second quarter of 2019 (*Apartment Insights*).

The current rental vacancy rate in the overall rental market is estimated at 6.5 percent, down from 13.8 percent in 2010. The apartment market is also balanced, as new apartment construction has kept pace with growth in renter households and demand since 2011. During the next 3 years, demand is expected for 18,800 new rental units; the 8,725 units currently under construction will meet much of the demand during the first year of the forecast period.

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3-Year Housing Demand Forecast

	Sales Units	Rental Units
Phoenix HMA		
<u>Total Demand</u>	58,650	18,800
<u>Under Construction</u>	8,450	8,725

Notes: Total demand represents estimated production necessary to achieve a balanced market at the end of the forecast period. Units under construction as of July 1, 2020. The forecast period is from the current date (July 1, 2020) to July 1, 2023.
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, respectively.

Current Conditions and the Impact of the COVID-19 Pandemic

Economic conditions in the Phoenix HMA were strong from 2011 to the first quarter of 2020 and outpaced the national rate of job growth. However, conditions weakened during the second quarter of 2020 due to the shutdown of many economic activities to slow the spread of the COVID-19 virus. From 2011 through 2019, nonfarm payrolls increased by an average of 53,900 jobs, or 2.8 percent, annually. By comparison, national job growth was lower, averaging 1.7 percent annually during the same period.

However, during the second quarter of 2020, the Phoenix HMA lost 109,200 jobs, a 5.1-percent decline, with 65,000 jobs, or 60 percent, of all job losses occurring in the leisure and hospitality sector. To slow the spread of COVID-19, the state of Arizona ordered the closures of bars, movie theatres, and indoor gyms in mid-March and issued a stay-at-home order by the end of March. As a result, the average unemployment rate increased to 10.2 percent during the second quarter of 2020, up from the 4.1-percent rate during the second quarter of 2019. The recent increase has reversed a trend of yearly declines in the unemployment rate from the peak rate of 10.0 percent during the 12 months ending July 2010—around the time of the financial and foreclosure crisis—to 4.0 percent during the 12 months ending February 2020, before the start of the pandemic. Notable layoffs during the second quarter included 422 employees at the Four Seasons Resort in Scottsdale, 250 employees at the Islands Restaurants in Phoenix, and 123 employees at the Punch Bowl Social in Phoenix.

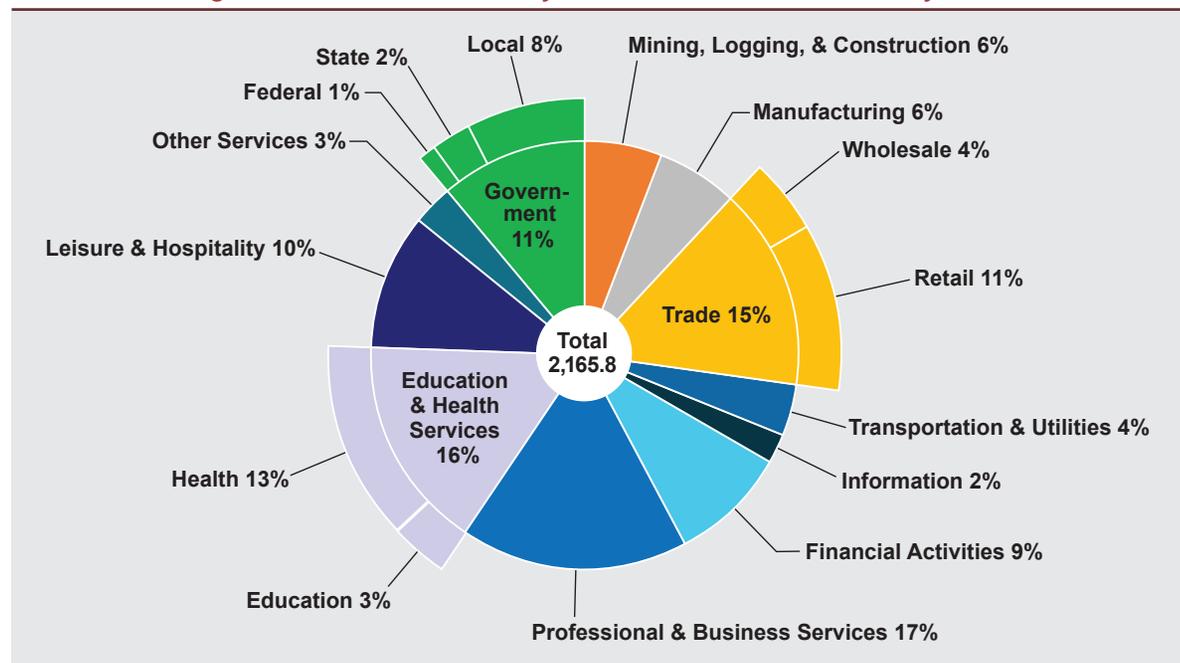
Primary Local Economic Factors—Corporate and Call Center Relocations

The local economy in the Phoenix HMA has benefited from the relocation of support offices and data and call centers of various national banks and insurance companies to the HMA due to business-favorable corporate tax laws, the lower cost of living, and access to a highly educated workforce in the state of Arizona. The Arizona Commerce Authority has several programs that offer \$25 million in incentives annually to companies relocating or expanding operations in the state. From 2014 to 2019, 47 companies relocated or opened new headquarters in Arizona, a large portion of which relocated to the Phoenix HMA, equating to more than 8,000 new jobs and nearly \$1.5 billion in capital expenditures (Arizona Commerce Authority and Greater Phoenix Economic Council). Approximately 32 percent of those companies have originated from California because business operational costs are, on average, 42 percent lower in the Phoenix HMA. Relocations and expansions to the Phoenix HMA include RJR Technologies, Inc.—a semiconductor manufacturer—that moved its company headquarters from Oakland, California, to a new 30,000-square-foot manufacturing facility and a headquarters office in the city of Phoenix in 2017. The 100 jobs created by the move were in engineering, sales, customer service, administration, and manufacturing positions.

While various companies with a diversity of jobs have transferred operations to the HMA, the professional and business services sector has been the primary beneficiary of these relocations and expansions. The sector is the largest employment sector of the local economy, with 365,500 sector jobs as of the 12 months ending June 2020, accounting for 17 percent of all nonfarm payrolls (Figure 1). Growth in the sector has significantly contributed to overall economic growth in the HMA and, since 2011, has added an average of 10,500 jobs, or 3.4 percent, annually.



Figure 1. 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 June 2020. Source: U.S. Bureau of Labor Statistics

During the second quarter of 2020, however, the professional and business services sector lost the second highest number of jobs, with a decline of 21,900 jobs, or 6.0 percent. The loss of 21,200 jobs, or 10.2 percent, in the administrative and support and waste management and remediation services industry, was responsible for 97 percent of all sector-wide losses, as the need for office management, which is typically contracted out to third-party firms, was dramatically reduced when workers stopped commuting into corporate offices during the stay-at-home orders issued by the state. As many of the positions in corporate headquarters, data centers, and call centers can be adequately performed while working from home, jobs in the management of companies and enterprises industry were less affected by the COVID-19 pandemic and resulting business closures. During the second quarter of 2020, the industry expanded by 470 jobs, or 1.7 percent—the only industry of the overall professional and business services sector to add jobs.

Despite the recent large-scale shift to working from home, many businesses are continuing to make plans to relocate or expand operations within the Phoenix HMA. In mid-2019, Nationwide Mutual Insurance Company (Nationwide) broke ground on a 134-acre mixed-use development in the city of Scottsdale (in Maricopa County) that will ultimately serve as the new regional headquarters for the company. Before the pandemic, Nationwide estimated that roughly 1,700 employees currently working in various offices around the city of Scottsdale and 500 new employees would occupy the new office space known as Cavasson in late 2020, with room for up to 3,000 eventual employees. While the company will shutter some smaller offices around the country and shift affected employees to permanent work-from-home status, as of the current date, the company has not altered plans for the new Scottsdale regional headquarters.

Another significant expansion to occur in the near future is the relocation from San Francisco to Phoenix of the global headquarters for ZorroSign, Inc.—a global leader in blockchain-based digital signatures and digital transaction management. The company will establish its global operations hub and headquarters at Grand Canyon University (GCU) Canyon Ventures (a business acceleration center with more than 30 start-up firms in rent-free incubator space) during the initial phase of the relocation, the date of which is yet to



be determined. Once the company has grown its presence in the HMA, it will look for its own dedicated office space. The company will establish links with blockchain-related research and development work at both GCU and Arizona State University (ASU) campuses. As of the current date, the center is still closed due to the COVID-19 pandemic, although ZorroSign, Inc. has already begun hiring new employees in the HMA and has given its San Francisco employees the option of relocating or working remotely. The company plans to hire a total of 300 additional employees over the next 3 years in the Phoenix HMA, in professions including technology development, quality assurance, and sales and marketing.

Higher Education

Along with a business-friendly environment, one of the top reasons cited by companies relocating to the Phoenix HMA is the availability of a highly educated workforce due to the presence of both ASU and GCU. During the 2019 fiscal year, those universities had a combined enrollment of 96,900 on-campus students and employed 18,650 faculty and staff (Arizona State University and Grand Canyon Education). As of 2018, approximately 250,000 ASU graduates worked in Arizona and had combined earnings of \$5.6 billion, with more than 90 percent of all graduates living in the Phoenix HMA. Out of all working individuals in the state who earned at least a bachelor's

degree, more than one-fourth graduated from ASU (ASU, W.P. Carey School of Business). The publicly funded ASU is part of the government sector, which added 3,500 jobs during the 12 months ending June 2020, a 1.4-percent increase compared with the previous 12-month period (Table 1).

Similarly, the privately held GCU has a significant impact on the local economy, with more than \$1 billion in investments in new academic programs, classrooms, laboratories, research spaces, and other student amenities since 2010 (Grand Canyon Education). Over the next 5 years, the university expects to invest an additional \$500 million on campus in more than 1 million square feet of classroom, laboratory, library, and office space and the development of 42 new academic programs, among other investments. As of fall 2019, more than 80,000 students (primarily master's or doctoral candidates) attended classes online. Meanwhile, 22,000 students (primarily those seeking undergraduate degrees) attended the main Phoenix campus, a significant increase from the 900 students who were enrolled in 2008.

During the fall 2020 semester, overall enrollment at ASU increased by 7.3 percent from the prior year, but travel concerns and visa issues resulting from the COVID-19 pandemic caused a drop in international

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

	12 Months Ending June 2019	12 Months Ending June 2020	Absolute Change	Percentage Change
Total Nonfarm Payroll Jobs	2,141.7	2,165.8	24.1	1.1
Goods-Producing Sectors	264.2	271.9	7.7	2.9
Mining, Logging, & Construction	133.3	139.1	5.8	4.4
Manufacturing	130.8	132.8	2.0	1.5
Service-Providing Sectors	1,877.6	1,893.9	16.3	0.9
Wholesale & Retail Trade	317.3	318.2	0.9	0.3
Transportation & Utilities	89.2	93.3	4.1	4.6
Information	39.5	39.9	0.4	1.0
Financial Activities	198.2	204.0	5.8	2.9
Professional & Business Services	361.7	365.5	3.8	1.1
Education & Health Services	330.7	340.7	10.0	3.0
Leisure & Hospitality	229.7	217.3	-12.4	-5.4
Other Services	69.9	70.1	0.2	0.3
Government	241.4	244.9	3.5	1.4

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

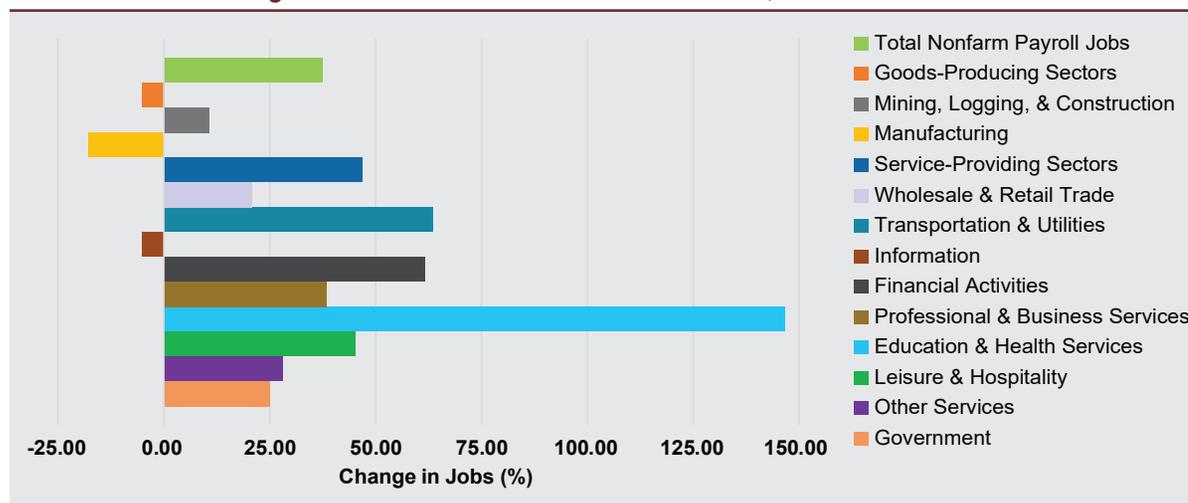


enrollment between 12 and 15 percent. Although the university has lost revenue due to fewer international students who generally pay higher tuition fees, and increased costs to mitigate the spread of COVID-19, ASU does not expect to furlough or cut pay for its faculty and staff. The university has managed its financial situation, in part, because it received more than \$65.5 million from the Coronavirus Aid, Relief, and Economic Security (CARES) Act funding, the largest amount of all colleges nationwide. Meanwhile, GCU received \$22.3 million in CARES Act funding and disbursed all funds to students through emergency financial aid grants. GCU also has no plans for layoffs or temporary furloughs. GCU plans to give across-the-board pay raises averaging 3 to 4 percent to its faculty and staff members (*Phoenix Business Journal*).

Healthcare

Along with job growth from private universities within the Phoenix HMA, the expansion of several large healthcare facilities to meet the demand for services from the growing population has contributed to the significance of the education and health services sector in the local economy. Since 2000, the sector has been the fastest growing, adding an average of 10,400 jobs, or 4.7 percent, annually (Figure 2). Health services industries—including hospitals, nursing homes, and ambulatory services—accounted for 80 percent of the total growth in the sector,

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



Note: The current date is July 1, 2020.

Source: U.S. Bureau of Labor Statistics

expanding by an average of 8,375 jobs, or 4.5 percent a year. In particular, hospitals have contributed to a total of 126,500 jobs and nearly \$20.6 billion in total economic output in the Phoenix HMA during 2018 (Rounds Consulting Group, Inc.).

With almost 45,900 employees, Banner Health is the largest employer in both the HMA and the state of Arizona (Table 2). The healthcare organization has been steadily expanding its presence within the HMA for the past two decades. The Banner Estrella Medical Center, which opened in the western portion of Phoenix in 2005, and Banner Gateway Medical Center, which opened in 2007 in the city of Gilbert to replace Mesa Lutheran hospital, are among a few of the healthcare facility expansions within the health network during the past couple decades.

In early March 2020, before the onset of the COVID-19 pandemic, Banner Health planned to fill more than 900 job openings across the Phoenix HMA in positions such as medical assistants, janitorial and environmental services staff, patient financial services representatives, and nurses. However, several factors have led to significant revenue losses for hospitals during the COVID-19 pandemic, including fewer emergency room visits, a hold on elective surgeries, and increased preparations for the care of

Table 2. Major Employers in the Phoenix HMA

Name of Employer	Nonfarm Payroll Sector	Number of Employees
Banner Health	Education & Health Services	45,894
Walmart Inc.	Wholesale & Retail Trade	33,619
Fry's Food Stores of Arizona, Inc.	Wholesale & Retail Trade	20,165
Wells Fargo & Company	Financial Activities	16,700
Arizona State University	Government	14,889
HonorHealth	Education & Health Services	12,163
Dignity Health	Education & Health Services	10,598
Intel Corporation	Manufacturing	10,400
Bank of America Corporation	Financial Activities	10,000
JPMorgan Chase & Company	Financial Activities	10,000

Note: Excludes local school districts.
Source: Moody's Economy.com

COVID-19 patients, resulting in furloughs of healthcare workers. In April 2020, Banner Health imposed short-term furloughs and pay cuts that affected 5 to 7 percent of its workforce. Additionally, the healthcare organization has paused hiring for most non-clinical positions but will continue to post and recruit for positions essential to meet the needs of the COVID-19 pandemic. Banner Health has redeployed more than 1,500 employees to jobs outside their normal work scope to support critical COVID-19 needs and has offered a voluntary and unpaid month of sabbatical leave to some employees. Healthcare providers across the HMA have enacted similar cost-cutting measures. As a result, the education and health services sector lost 7,100 jobs, a 2.1-percent decline, during the second quarter of 2020, compared with a year earlier.

Historical Trends: 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 3). The average loss of 10,000 manufacturing jobs, or 6.7 percent annually, kept 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

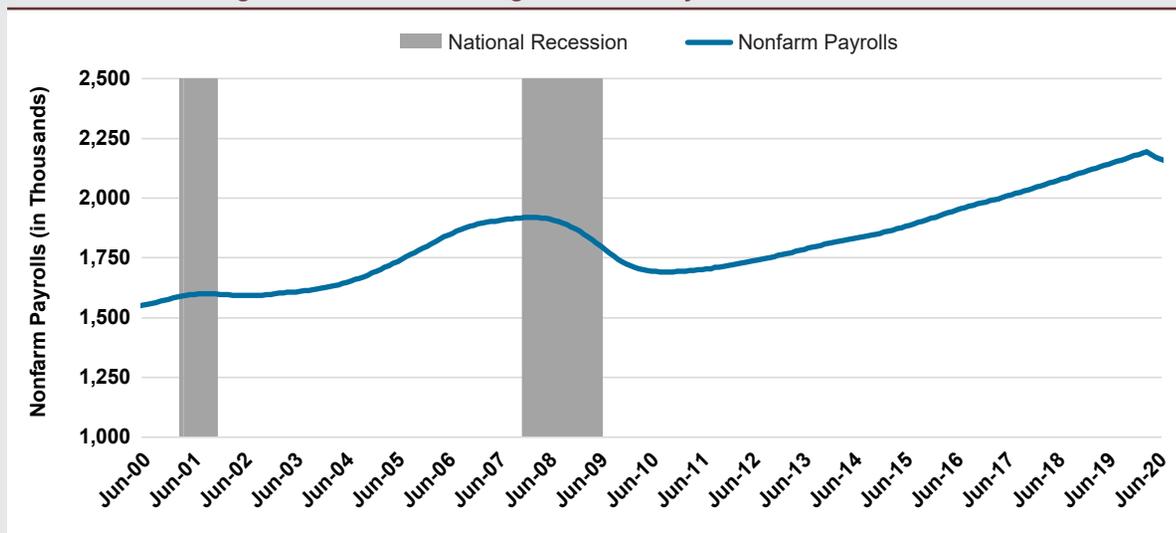
construction sector added an average of 10,300 jobs, or 7.1 percent annually, as residential and commercial construction activity increased significantly. Growth occurred in almost all other sectors of the economy during this period, led by gains in the professional and business services and the wholesale and retail trade sectors, which added an average of 16,600 and 13,500 jobs, or 5.9 and 4.7 percent, respectively.

Historical Trends: 2008 Through 2010

The HMA was one of the hardest-hit areas in the nation in terms of foreclosure 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 losses in the HMA were particularly concentrated in the mining, logging, and construction sector and were affected by reduced demand 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 29,000 mining, logging, and construction jobs, or 20.9 percent, accounted for 38 percent of total nonfarm payroll losses during this period. Significant job declines averaging 18,200 and 13,300 jobs, or 6.0 and 4.3 percent, also occurred in the professional and business services and the wholesale and retail trade



Figure 3. 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

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.

Historical Trends: 2011 Through 2019

The local economic recovery began in 2011, and from 2011 through 2019, an average of 53,900 jobs, or 2.8 percent, were added annually in the HMA. Gains were concentrated in the professional and business services and the education and health services sectors, which added respective averages of 11,000 and 10,800 jobs, or 3.5 and 3.8 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 5.4 percent, annually from 2011 through 2019. During this period, the \$700 million Marina Heights office development in Tempe was completed

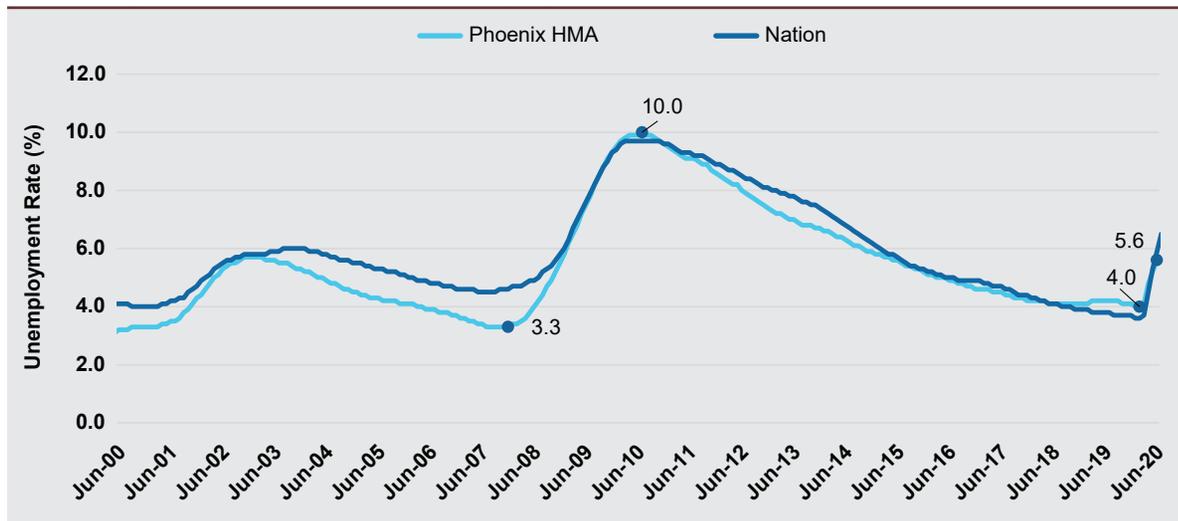
in 2017 and became the new regional headquarters for State Farm Mutual Automobile Insurance Company. Approximately 5,500 employees work at the consolidated campus. By comparison, nonfarm payroll growth nationwide averaged 1.7 percent annually during the 2011-through-2019 period.

Unemployment Trends

Resulting from the impacts of the Great Recession, the unemployment rate in the HMA peaked at 10.0 percent during the 12 months ending July 2010, up from a low of 3.3 percent during the 12 months ending December 2007 (Figure 4). The average unemployment rate declined during the expansion from 2010 through 2019; however, the unemployment rate began to increase in recent months as countermeasures to the COVID-19 pandemic resulted in many business closures. During the 12 months ending June 2020, the unemployment rate averaged 5.6 percent, up from the 4.2-percent rate a year earlier. While businesses started reopening during the second quarter of 2020, the unemployment rate of 10.2 percent during the 3 months ending June 2020 was still significantly elevated from the rate of 4.1 percent during the same period in 2019.



Figure 4. 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

Employment Forecast

During the 3-year forecast period, nonfarm payrolls in the HMA are expected to increase by an average of 40,200 jobs, or 1.8 percent, annually. Despite the significant shift to working from home in many of the service-providing professions that have previously led economic growth, namely in headquarters operations and customer service, expansions and relocations of large companies to the Phoenix HMA are still ongoing and expected to continue during the forecast period. While the healthcare industry is undergoing temporary strain due to the COVID-19 pandemic, the education and health services sector should benefit from continued, albeit slower, population growth. Although nonfarm payroll growth is expected to be slower than it has been during the past decade, a jobs recovery in the leisure and hospitality and the wholesale and retail trade sectors is also expected.



Population and Households

Current Population: 4.91 million

Population growth was strong throughout the 2010s as the economy recovered from the Great Recession, with growth strongest during the latter part of the decade as a result of significant net in-migration.

Population and Migration Trends

As of July 1, 2020, the population of the Phoenix HMA is estimated at 4.91 million (Table 3). Population growth since the 2000s has been responsive to economic conditions and housing affordability in the HMA. From 2010 to 2014, population growth averaged 49,900 people, or 1.2 percent, annually; net in-migration accounted for the addition of an average of 19,850 people a year, or approximately 40 percent of the increase (State of Arizona Office of Economic Opportunity, Arizona Department of Health Services). The average net natural change of 30,050 people a year accounted for the remaining 60 percent of total population growth during this period. Figure 5 shows the components of population change during periods of significance between 2000 and the forecast date.

Since 2014, continued economic growth and increased company relocations spurred population growth, which has averaged 84,250

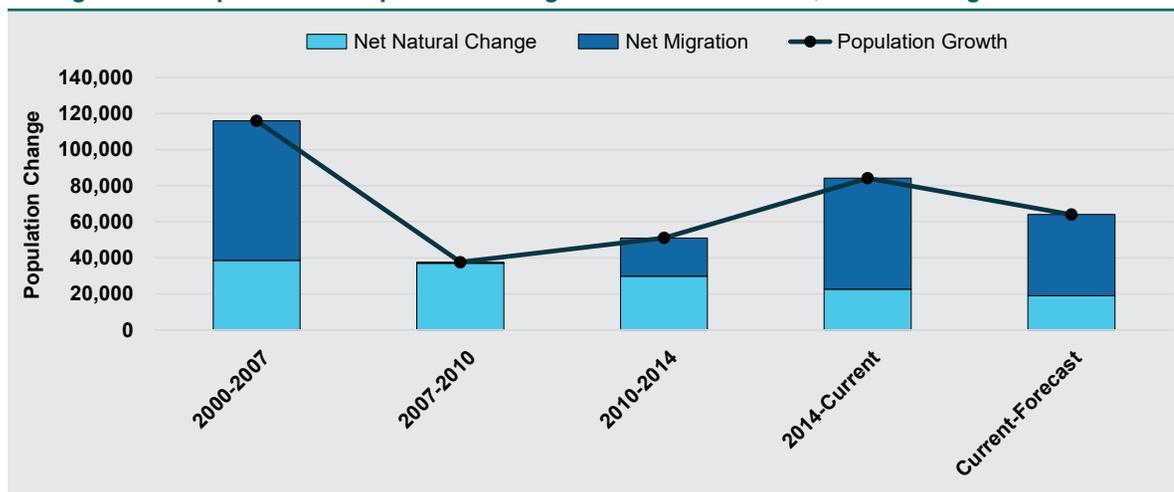
Table 3. Phoenix HMA Population and Household Quick Facts

	2010	Current	Forecast	
Population Quick Facts	Population	4,192,887	4,910,000	5,102,000
	Average Annual Change	94,100	70,000	64,050
	Percentage Change	2.6	1.6	1.3
Household Quick Facts	Households	1,537,173	1,838,000	1,909,000
	Average Annual Change	34,300	29,350	23,600
	Percentage Change	2.6	1.8	1.3

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 (July 1, 2020) to July 1, 2023.

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: Net natural change and net migration totals are average annual totals over the time period. The forecast period is from the current date (July 1, 2020) to July 1, 2023.

Sources: State of Arizona Office of Economic Opportunity, Arizona Department of Health Services; current to forecast—estimates by the analyst

people, or 1.8 percent, annually. Average net in-migration of 61,650 people a year contributed to almost three-fourths of total population growth during this period. Relatively low housing prices and increasing job prospects in the HMA attracted new residents, particularly from more expensive housing markets such as Los Angeles, Chicago, San Diego, and Seattle (Census Bureau Metro-to-Metro Flows 2014 to 2018, Table 4).

Table 4. Metro-to-Metro Migration Flows in the Phoenix HMA: 2014–2018

Into the HMA	
Los Angeles-Long Beach-Anaheim, CA	13,605
Tucson, AZ	11,571
Chicago-Naperville-Elgin, IL-IN-WI	7,675
San Diego-Carlsbad, CA	5,638
Seattle-Tacoma-Bellevue, WA	5,145
Out of the HMA	
Tucson, AZ	10,696
Flagstaff, AZ	6,004
Prescott, AZ	5,508
Los Angeles-Long Beach-Anaheim, CA	5,037
Seattle-Tacoma-Bellevue, WA	4,569

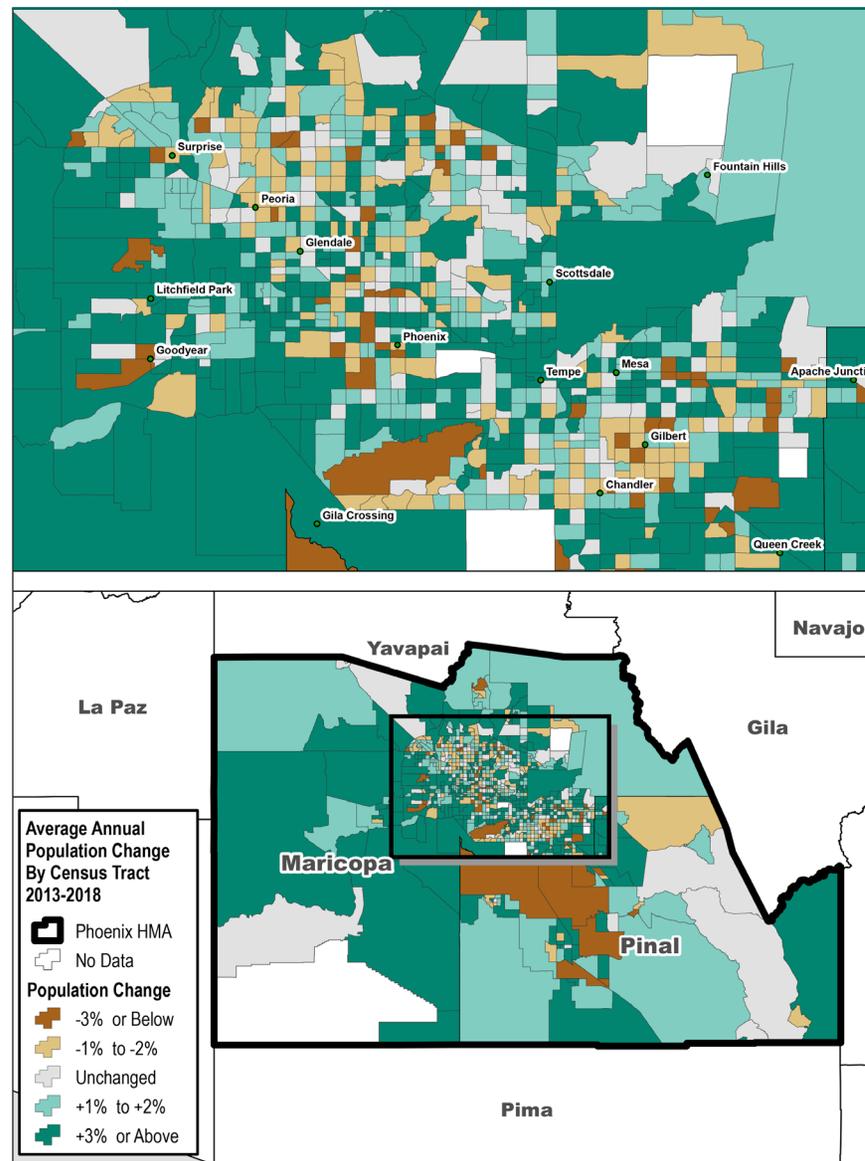
Sources: U.S. Census Metro-to-Metro Migration Flows; 2014–2018 American Community Survey, 5-year data

From 2000 to 2010, the population of the HMA increased by an average of 94,100, or 2.6 percent, annually. During the housing boom from 2000 to 2008, the population grew by an average of 110,900, or 3.1 percent, due primarily to net in-migration, which averaged 73,000 people a year and accounted for 66 percent of total population growth. Growth slowed significantly from 2008 to 2010, to an average of 14,800, or 0.4 percent, as the Phoenix HMA was particularly affected by the Great Recession. This was the only period in the last 20 years where migration out of the HMA outpaced migration into the HMA, with net out-migration averaging 20,050 people a year.

Population by Geography

From 2013 to 2018, population growth was concentrated within census tracts of the HMA with active downtown areas and greater availability of dense, multifamily housing, typically apartments or condos, while the population declined in suburban areas of the HMA (Map 2). In particular, census tracts with the greatest population growth were in the cities of Scottsdale, Tempe, Glendale, Mesa, and Apache Junction, where urban amenities are more

Map 2: Average Annual Population Change by Census Tract in the Phoenix HMA, 2013–2018



Sources: 2008–2012 and 2013–2018 American Community Survey, 5-year data

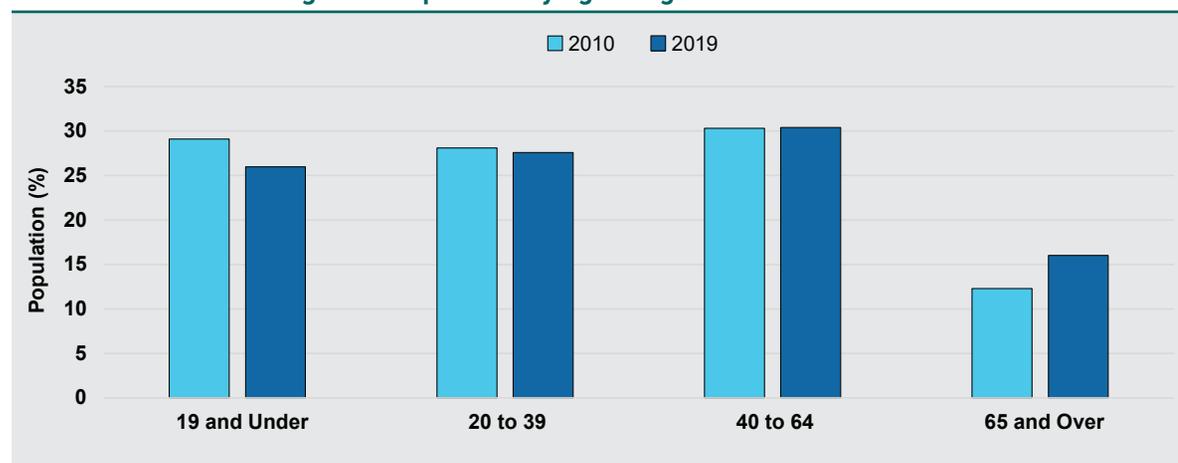


available in the respective downtowns and where multifamily units accounted for between 35 to 60 percent of the total housing inventory from 2013 to 2018 (2013–2018 American Community Survey [ACS] 5-year data). By contrast, the population declined in many census tracts of large swaths of Pinal County and in the cities of Chandler, Gilbert, and Peoria, where single-family housing accounted for upwards of 75 percent of the total housing inventory during the same period. In the city of Phoenix, population growth was mixed but was generally positive in the central city, and population declines occurred in the outlying areas of the city.

Age Cohort Trends

The fastest growing cohort in the Phoenix HMA is 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 2019, similar to trends nationwide (ACS 1-year estimates). At the national level, this age cohort grew from 13 percent of the population in 2010 to almost 17 percent in 2019 (Table 5). The population in younger age cohorts in the HMA declined during this same period; in 2019, the share of the population under age 39 declined to 54 percent, down from the 57-percent share in 2010. Meanwhile, the share of the population aged 40 to 64 remained steady at 30 percent. The median age in the Phoenix HMA has increased from 34.7 in 2010 to 37.2 in 2019, compared with 37.2 in 2010 and 38.5 in 2019 for the nation.

Figure 6. Population by Age Range in the Phoenix HMA



Sources: U.S. Census Bureau, 2010 and 2019 American Community Surveys, 1-year estimates

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

	Phoenix HMA	Nation
Population Age 18 and Under	23.3%	22.2%
Population Age 65 and Over	16.0%	16.5%
Median Age	37.2	38.5
White, Alone	79.1%	72.0%
Black or African American, Alone	5.8%	12.8%
Asian, Alone	4.0%	5.7%
Other Race, Alone	7.4%	6.1%
Two or More Races	3.7%	3.4%
Hispanic or Latino Origin (of Any Race)	31.3%	18.4%
White Alone, Not Hispanic or Latino	54.5%	60.0%
Median Household Income	\$33,960	\$32,280

Source: 2019 American Community Survey, 1-year data



Population Forecast

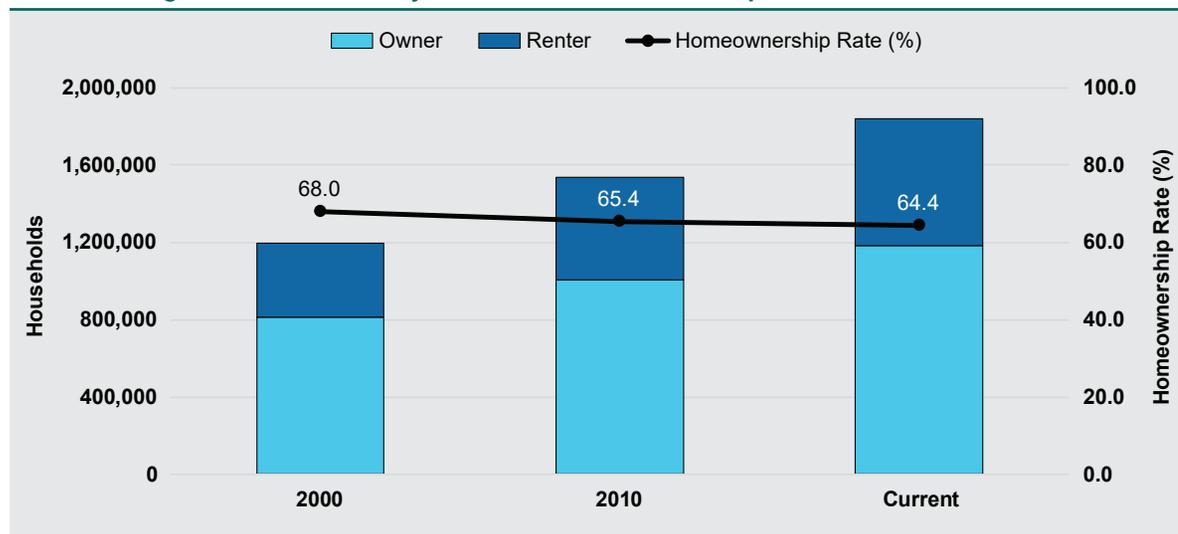
Population growth is expected to continue during the 3-year forecast period, but at a slower rate due to weaker economic conditions. The population is expected to reach 5.10 million by July 1, 2023, reflecting average annual growth of 64,050 people, or 1.3 percent. Net in-migration is expected to continue to account for most population growth as the HMA will continue to attract movers to the area. In a recent study of 25,000 moves booked in 2020, the city of Scottsdale had the highest gains in net-movers of all cities in the nation, with 68 percent more people moving in than out (HireAHelper).

Household Trends

Household growth in the HMA has generally reflected population growth trends since 2000. As of July 2020, the number of households is estimated at 1.84 million, including an estimated 1.18 million owner households and 653,700 renter households. From 2000 to 2010, households increased by an average of approximately 34,300, or 2.6 percent, a year—the same growth rate as the population. Since 2010, households increased by an average of 29,350, or 1.8 percent, a year, higher than the 1.6-percent rate of population growth as strong economic conditions allowed greater formation of smaller sized households.

An estimated 64.4 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). The Great Recession

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



Note: The current date is July 1, 2020.

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

particularly impacted homeownership because a large amount of speculative building in the Phoenix HMA resulted in large declines in home prices. However, since 2011, the 9-year economic growth period following the recession has helped improve sales housing market conditions from soft to balanced, and homeownership has gradually increased. Renter household formation, however, has slowed since 2010, increasing at an average annual rate of 2.0 percent, or 11,950 households, compared with an average annual increase of 3.3 percent, or 14,900 households, during the 2000-to-2010 period. The slowdown in renter household growth during the 2010s occurred during the first part of the decade, when impacts of the national recession delayed household formation—particularly among young residents, who tend to be renters.

Household Forecast

Because economic conditions are expected to moderate and population growth to slow, household growth in the HMA is expected to slow to an average of 23,600, or 1.3 percent, annually during the next 3 years. By the end of the forecast period, the homeownership rate is expected to remain unchanged at 64.4 percent.

Home Sales Market

Market Conditions: Balanced

Strong employment conditions, population growth, and significant investment activity in distressed housing have contributed to the absorption of excess inventory since the early 2010s.

Trends in Sales Market Conditions

The home sales market in the Phoenix HMA is balanced, with an estimated 1.3-percent vacancy rate, down from 4.3 percent in April 2010. As of June 2020, the Phoenix HMA had a 1.5-month supply of available inventory, down from 2.1 months during June 2019 and less than the June high of 3.5 months in 2014 (Table 6). By comparison, national data show a 2.1-month supply as of June 2020, down from 2.7 months in June 2019 and a June high of 4.4 months in 2010. Consistent with the decline in available inventory, the median number of days on the market was 42 days in the Phoenix HMA during June 2020, down slightly from 43 days in June 2019 but higher than the national median of 38 days.

Table 6. Home Sales Quick Facts in the Phoenix HMA

	Phoenix HMA	Nation
Vacancy Rate	1.3%	NA
Months of Inventory	1.5	2.1
Total Home Sales	131,700	5,394,000
1-Year Change	-1%	-5%
New Home Sales Price	\$395,200	\$409,800
1-Year Change	2%	4%
Existing Home Sales Price	\$335,900	\$317,700
1-Year Change	7%	4%
Mortgage Delinquency Rate	2.5%	4.0%

NA = data not available.

Notes: The vacancy rate is as of the current date (July 1, 2020); home sales and prices are for the 12 months ending June 2020; and months of inventory and mortgage delinquency data are as of June 2020.

Sources: CoreLogic, Inc.; Metrostudy, A Hanley Wood Company; Redfin

Due to significant declines in the number of distressed sales, total home sales activity has trended downward since the early 2010s from highs during the housing boom in the mid-2000s. Approximately 131,700 new and existing homes, including single-family homes, townhomes, and condominiums, were sold during the 12 months ending June 2020 (Figure 8), unchanged from the previous 12-month period, with existing home sales accounting for 84 percent of all home sales (Metrostudy, A Hanley Wood Company, with adjustments by the analyst). Real estate owned (REO) home sales and regular resales declined 28 and 2 percent during the 12 months ending June 2020, to 2,825 and 107,900 homes. New home sales rose 12 percent to 20,900 homes, offsetting declines in the other sale types.

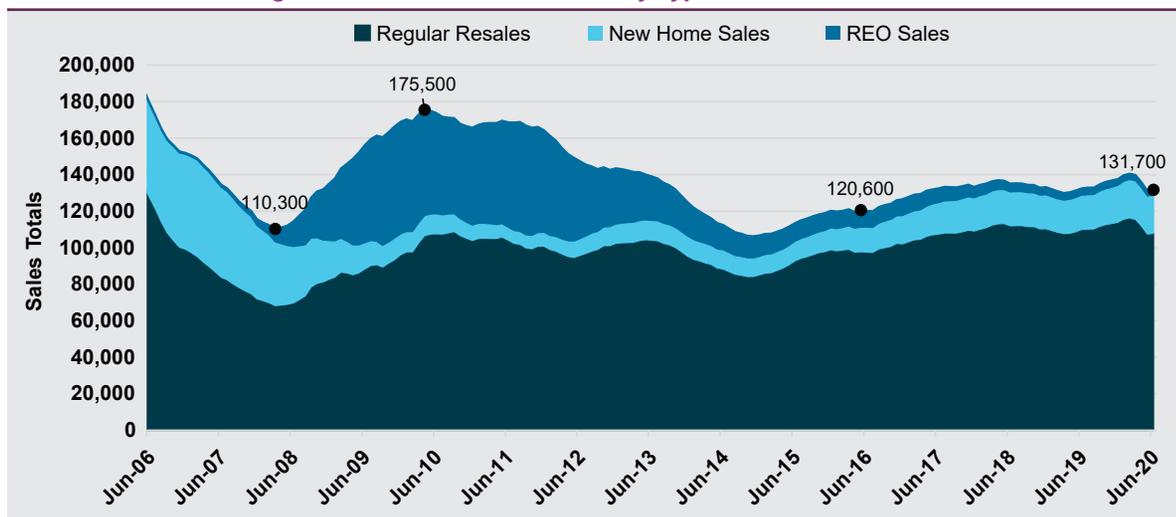
During the 12 months ending June 2020, the average sales price for new and existing homes increased 6 percent to \$345,300. The recent increase in home prices is primarily due to a 7-percent increase in the average sales price of an existing home to \$335,900, whereas the average price of a new home increased 2 percent to \$395,150 (Figure 9).

Impact of the COVID-19 Pandemic on Home Sales and Listings

The COVID-19 pandemic and stay-at-home orders issued by the state of Arizona had a



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



REO = real estate owned.
Source: CoreLogic, Inc., with adjustments by the analyst

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



REO = real estate owned.
Source: CoreLogic, Inc., with adjustments by the analyst

significant impact on the housing market during the second quarter of 2020. As homeowners were wary of moving and potential homebuyers disinclined toward attending open houses, the number of new homes listed for sale declined steeply. During the 3 months ending June 7, 2020, new home listings totaled almost 2,000, a decline of more than 12 percent from the 2,250 new home listings during the same period a year prior (Redfin). During this same time, the number of pending sales declined 13 percent. By comparison, in all metropolitan areas covered by Redfin, new home listings declined by almost 28 percent. The number of pending sales declined by more than 20 percent during the same period.

However, as the pandemic increases the focus on where residents spend most of their time—home—the sales housing market is showing signs of rebounding quickly, at least in the immediate term. During the 3 months ending June 7, 2020, the median number of days on the market was 34.7, down from 39.5 during the same period a year ago. Additionally, fewer active listings had reductions in list price from a year ago, at 4.6 percent, down from 5.2 percent.

Recovery From the Housing Crisis

During the housing boom, total sales of new and existing homes averaged 184,900 a year from 2005 through 2006, and the average sales price increased an average of 14 percent annually. As

economic conditions slowed during the national recession, housing sales declined by one-fifth. An average of 146,500 homes were sold from 2007 through 2010, and the average sales price declined an average of 14 percent annually. During this period, an increasing number of sales were distressed home sales. An average of 37,450 distressed sales annually accounted for almost 30 percent of total existing sales, as investors and homebuyers took advantage of lower home prices. During the 2007-through-2010 period, the distressed home sales price ranged from \$130,200 to \$241,100, or 22 to 28 percent lower than the average price of an existing home overall.

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 29,200 distressed sales, annually, accounted for 23 percent of total existing sales, lower than the recessionary period from 2007 through 2010, but still elevated. An average of 135,100 new and existing homes were sold during the 2011-through-2014 period, and the average sales price increased an average of 13 percent from 2012 through 2014.

From 2015 through 2019, continued economic growth and strong market conditions resulted in the absorption of much of the distressed inventory. Distressed sales accounted for only 5 percent of total new and existing sales. Constrained residential construction activity helped achieve balanced market conditions, and from 2015 through 2019, an average of 130,400 homes were sold annually, lower than every other period of the decade. The average home sales price increased by an average of 7 percent annually during the 2015-to-2019 period.

Distressed Sales and Seriously Delinquent Mortgages

Few areas in the nation were affected more severely by the housing crisis than the Phoenix HMA, and the steep home price declines during the national

recession made the HMA a particularly attractive area for real estate investors, who contributed to the relatively rapid absorption of distressed properties in the early and mid-2010s. From 2008 through 2010, the average sales price declined 18 percent annually in the Phoenix HMA, compared with a 6-percent average annual decline in the average sales price nationwide. In January 2010, the HMA was among the top 3 percent of all metropolitan areas nationally with the highest rate of seriously delinquent mortgages (90 or more days delinquent or in foreclosure) or in REO status at 13.8 percent (CoreLogic, Inc.). The rate of seriously delinquent loans or properties in REO status in the HMA has been below the national rate since March 2012, however, as investor purchases have absorbed those homes with seriously delinquent loans and REO properties. By contrast, from 2008 through 2012, the Phoenix HMA rate was well above the national rate. As the rate increased when the housing bubble burst, the percentage of home purchases made by absentee owners in the HMA (a measure of investor purchases) rose each year, from 15 percent of all home sales in 2005 to a high of 39 percent in 2011 (Metrostudy, A Hanley Wood Company, with adjustments by the analyst). The percentage of purchases made by absentee owners declined to 17 percent in 2017 as home price growth began to accelerate, reducing the attractiveness of investment housing. Since 2017, however, investor or second home purchases within the Phoenix HMA have increased again; during the 12 months ending June 2020, 25 percent of all purchases were made by absentee owners, unchanged from the previous year.

While the 9-year period of consecutive economic growth from 2011 to 2019 has resulted in a steadily declining rate of seriously delinquent mortgages and those in REO status in the HMA since reaching a peak of 13.8 percent in December 2009, the rate has ticked up recently, primarily as a result of weakened economic conditions. While mortgage forbearances have increased due to pandemic-related closures and job losses, the number of foreclosures has declined because of federal and local foreclosure moratoriums for government-backed loans. During June 2020, a total of

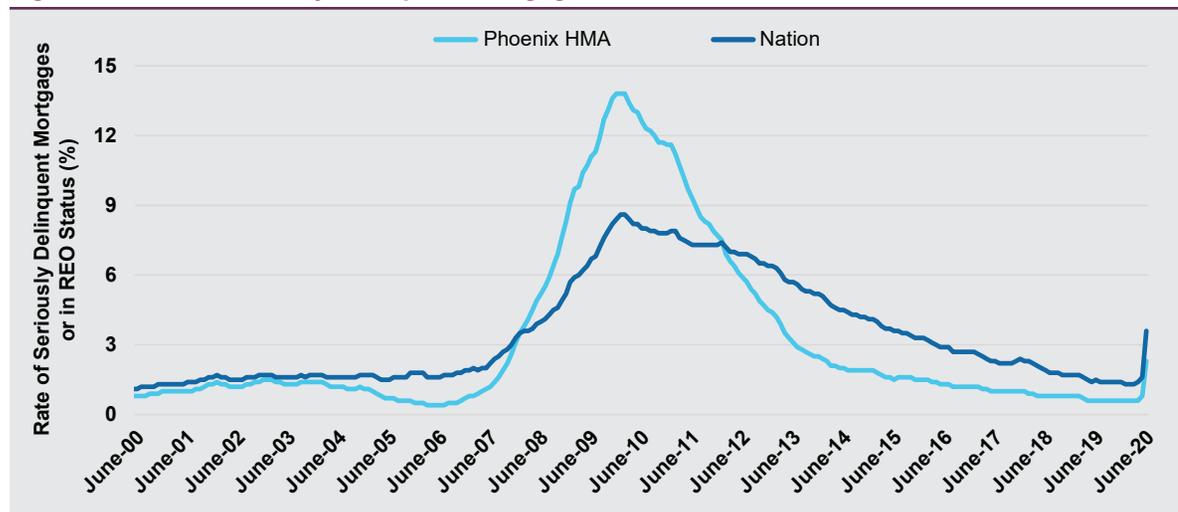


560 loans were in foreclosure or REO status, down 38 percent from June 2019. Meanwhile, 16,100 loans were 90 or more days delinquent during June 2020, almost quadruple the 4,100 seriously delinquent loans in the Phoenix HMA during June 2019. However, the moratoriums are set to expire in January 2021 and may lead to an increase in the number of foreclosures or REOs. In a recent study, Maricopa County, the principal county of the Phoenix HMA, has had one of the highest rates of eviction and foreclosure in the nation from 2014 to 2018 (New America). Census tracts with the highest eviction and foreclosure rates were often those that overlapped with ZIP Codes with the highest number of job losses due to COVID-19 related business closures. In June 2020, 2.3 percent of mortgages in the HMA were seriously delinquent or in REO status, up from 0.6 percent a year earlier (Figure 10). Nationally, the rate increased from 1.5 to 3.6 percent during the same period.

Sales Construction Activity

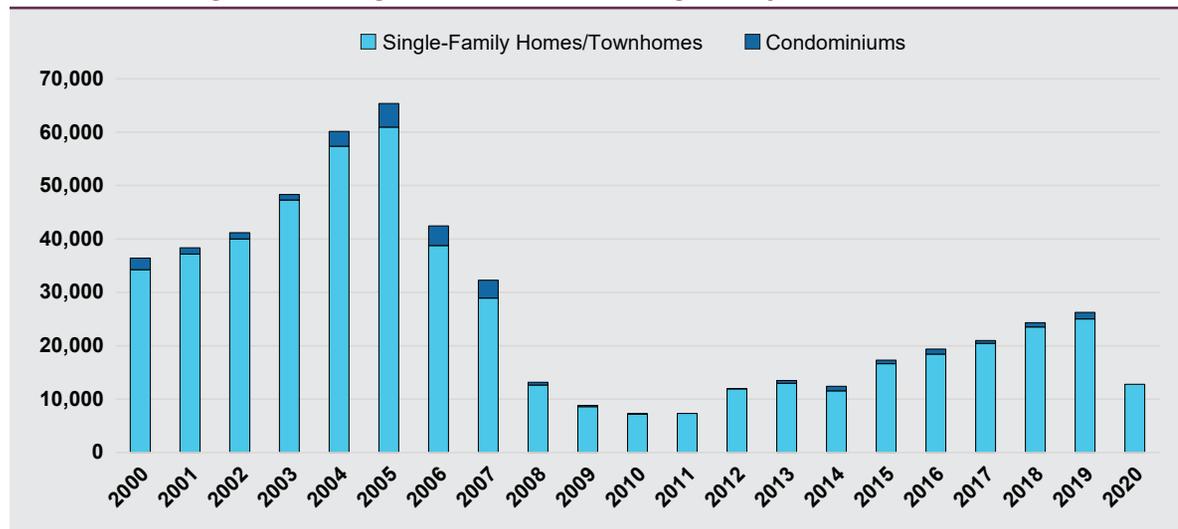
Home sales construction activity, as measured by the number of single-family homes, townhomes, and condominiums permitted, began to increase in 2012 after reaching lows from 2008 through 2011 (Figure 11). During the 12 months ending June 2020, 27,200 for-sale homes were permitted, up 9 percent from the same period a year prior (preliminary data). Building activity is below the peak levels from 2003 through 2005, when an

Figure 10. Rate of Seriously Delinquent Mortgages and REO Status in the Phoenix HMA and the Nation



REO = real estate owned.
Source: CoreLogic, Inc.

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



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



average of 57,950 sales units were permitted annually. The significant buildup 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 31 percent annually from 2008 through 2011. Although construction activity began to increase steadily in 2012, construction activity remained low at an average of 12,600 homes during the 2012-through-2014 period. As economic conditions continued to improve, sales market conditions moved towards balance, and from 2015 through 2019, permitting of for-sale units expanded to an average of 21,650 homes permitted annually.

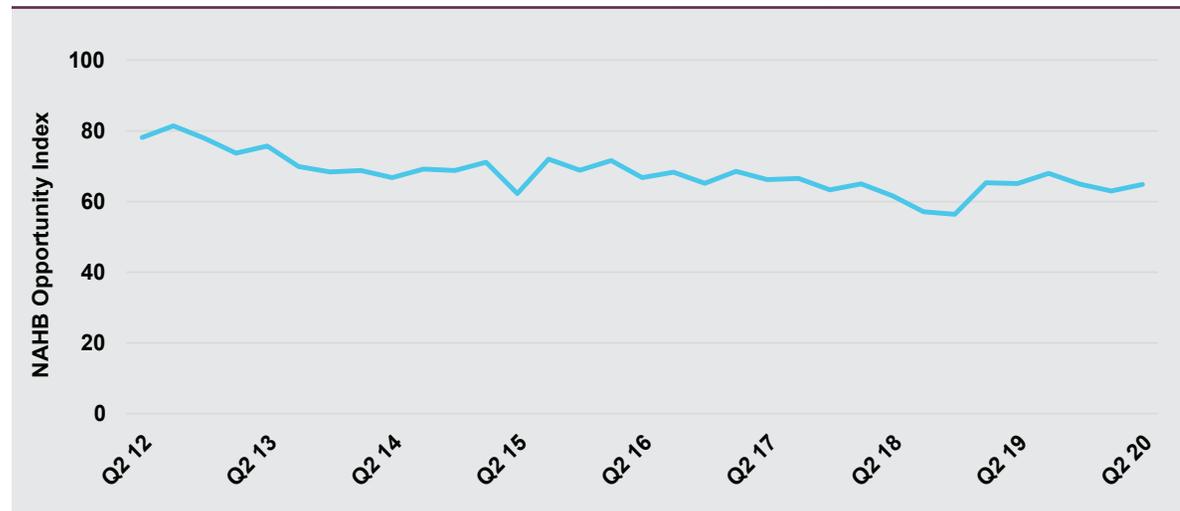
Most new single-family development currently underway is located in cities with an already high concentration of single-family housing and a supply of developable land, including Glendale, Chandler, Surprise, and northern Phoenix. At least three large single-family developments underway have plans to add more than 2,000 homes, including the Union Park at Norterra master-planned community in north Phoenix. The first phase of construction was recently completed, with 205 single-family homes and 113 townhomes ranging in size from 1,954 to 4,115 square feet and prices starting in the low \$300,000s. The master-planned community will eventually include a mix of 1,100 single-family and 1,100 multifamily homes, a hotel, office space, a K-8 elementary school, and

a retail corridor when it is completely built out. The Sterling Grove development in Surprise is also underway with plans for 2,207 homes when construction is complete. Currently, 320 homes have been completed, and of those, almost 40 percent of homes have already been sold. Prices start in the mid-\$300,000s.

Housing Affordability

Homeownership in the Phoenix HMA had become increasingly unaffordable since 2012 when the economy was expanding, and there were still many distressed homes on the market that sold at a discount. The excess inventory has since been absorbed, and growing demand from in-migrants has put upward pressure on sales prices. The National Association of Home Builders (NAHB)/Wells Fargo Housing Opportunity Index (HOI) for the Phoenix HMA, which represents the share of homes sold that would have been affordable to a family earning the median income, was 64.8 during the second quarter of 2020, down slightly from 65.1 a year ago and down from 78.1 during the second quarter of 2012 (Figure 12). Housing affordability in the Phoenix metropolitan area is greater than approximately 43 percent of all 234 ranked metropolitan areas in the nation.

Figure 12. Phoenix HMA Housing Opportunity Index



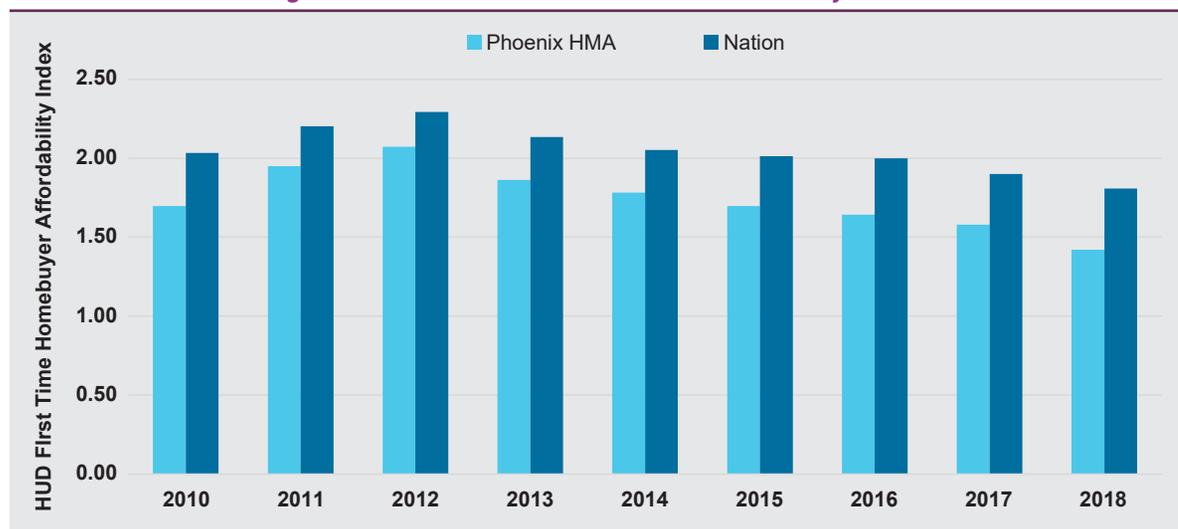
NAHB = National Association of Home Builders. Q2 = second quarter.
Sources: NAHB; Wells Fargo



While the sales market remains affordable, the affordability has declined for all potential homebuyers, including first-time homebuyers. The HUD First-Time Homebuyer Affordability Index measures the median household income for householders ages 25 to 44 years old, relative to the income needed to purchase the 25th percentile-priced home. The index has declined every year since reaching a peak of 2.07 in 2012. The median income for householders ages 25 to 44 years old has been more than high enough to afford the 25th-percentile-priced home in all years since 2010, but home prices have increased at a faster rate than median incomes since 2012. During 2018, the index was 1.42, down from 1.58 in 2017, reflecting a 9-percent year-over-year increase in the 25th-percentile-priced home to \$189,400 but only a 4-percent gain in the median income of householders ages 25 to 44 years (Figure 13). Nationwide, the index also declined from 1.90 in 2017 to 1.81 in 2018, but the national index has also remained above 1.00 every year during the past decade.

As a result of rising sales prices in the Phoenix HMA, homeownership for heads of household aged 25 to 44 years—a prime age cohort for first-time homebuyers—has declined. From 2000 to 2010, the homeownership rate in the HMA declined by 2.6 percentage points as a result of the financial and housing crisis of the late 2000s. Overall homeownership declined by a smaller 0.9-percentage point from 2010 to 2019 with

Figure 13. Phoenix HMA HUD First Time Homebuyer Index



Sources: American Community Survey, 1-year data; Federal Housing Finance Agency; and Metrostudy, A Hanley Wood Company

the strong economic expansion, but homeownership continued to decline significantly for the younger cohort of householders. From 2010 to 2019, the homeownership rate declined 4.9 and 3.6 percentage points for heads of household aged 25 to 34 and 35 to 44 years, respectively, smaller than the respective declines of 5.1 and 7.3 percentage points during the 2000 to 2010 period, but still elevated from overall homeownership trends (Table 7). Nationwide, homeownership declined by 1.1 percentage points during the 2000-to-2010 period, compared with a 1.2-percentage point decline during the 2010-to-2017 period. For

Table 7. Homeownership Rates by Age of Householder in the Phoenix HMA and the Nation

	Phoenix HMA			Nation		
	2000	2010	2019	2000	2010	2019
Householder Age 25 to 34 Years	49.6	44.5	39.5	45.6	42.0	38.5
Householder Age 35 to 44 Years	68.8	61.5	57.8	66.2	62.3	58.3
Total Households	68.0	65.4	64.6	66.2	65.1	64.1

Sources: 2000 and 2010 Decennial Census; 2019 American Community Survey, 1-year estimates



heads of household ages 35 to 44 years, the national homeownership rate declined by 3.9 percentage points in the 2000-to-2010 period and by 4.8 percentage points during the 2010-to-2017 period.

Forecast

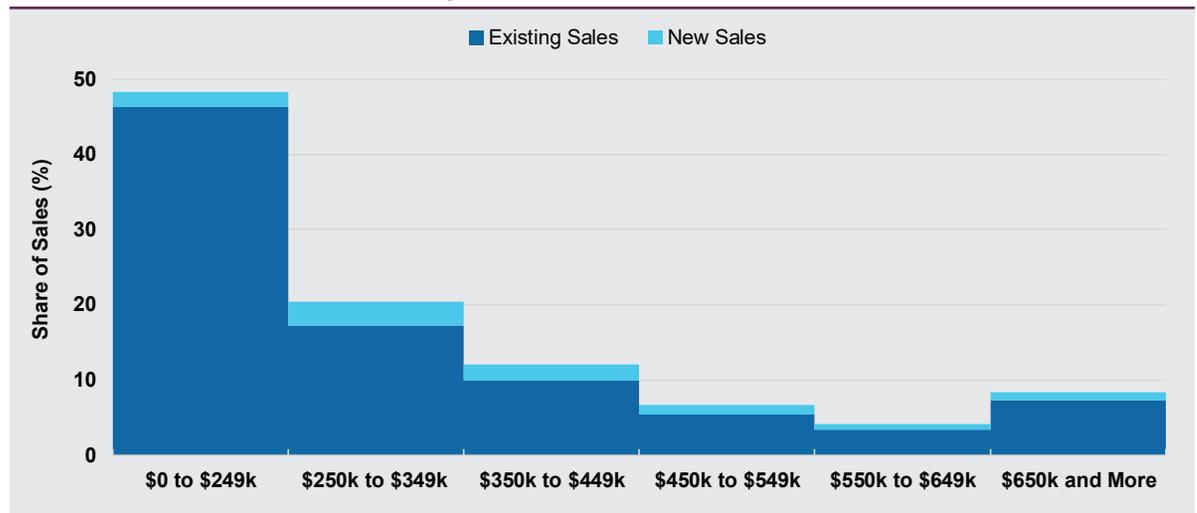
During the next 3 years, demand is expected for 58,650 new sales units in the Phoenix HMA, with demand highest in the first year of the forecast as the COVID-19 pandemic shifts preferences away from dense housing (Table 8). The 8,450 homes currently under construction will meet a portion of the demand. Homes in the lowest price ranges, below \$350,000, are expected to account for the greatest portion of demand (Figure 14 shows home sales by price ranges for the 12 months ending June 2020).

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

Sales Units	
Demand	58,650 Units
Under Construction	8,450 Units

Note: The forecast period is from the current date (July 1, 2020) to July 1, 2023.
Source: Estimates by the analyst

Figure 14. Share of Overall Sales by Price Range During the 12 Months Ending June 2020 in the Phoenix HMA



Note: New and existing sales include single-family homes, townhomes, and condominium units.
Source: Metrostudy, A Hanley Wood Company



Rental Market

Rental Market Conditions: Balanced

Average apartment rent growth has accelerated since 2014, with the apartment vacancy rate fluctuating between 5 and 7 percent, indicating balanced conditions in the apartment market.

Current Conditions and Recent Trends

Rental housing market conditions in the Phoenix HMA are balanced, with an estimated overall rental vacancy rate of 6.5 percent, down from the 13.8-percent rate in April 2010 (Table 9). Apartment vacancy rates rose precipitously during the Great Recession in the late 2000s. The significant single-family rental inventory from the elevated number of distressed properties purchased by investors shifted renters away from apartments. During the second quarter of 2006, the apartment vacancy rate was 7.2 percent and rose every year to a high of 13.5 percent during the second quarter of 2009 (*Apartment Insights*). During this period, average apartment rent growth was slow, averaging 1 percent annually (Figure 15).

A significant drop in new apartment construction from 2009 through 2011 allowed for the absorption of vacant apartment units, and the apartment vacancy rate declined to 9.5 percent

Table 9. Rental and Apartment Market Quick Facts in the Phoenix HMA

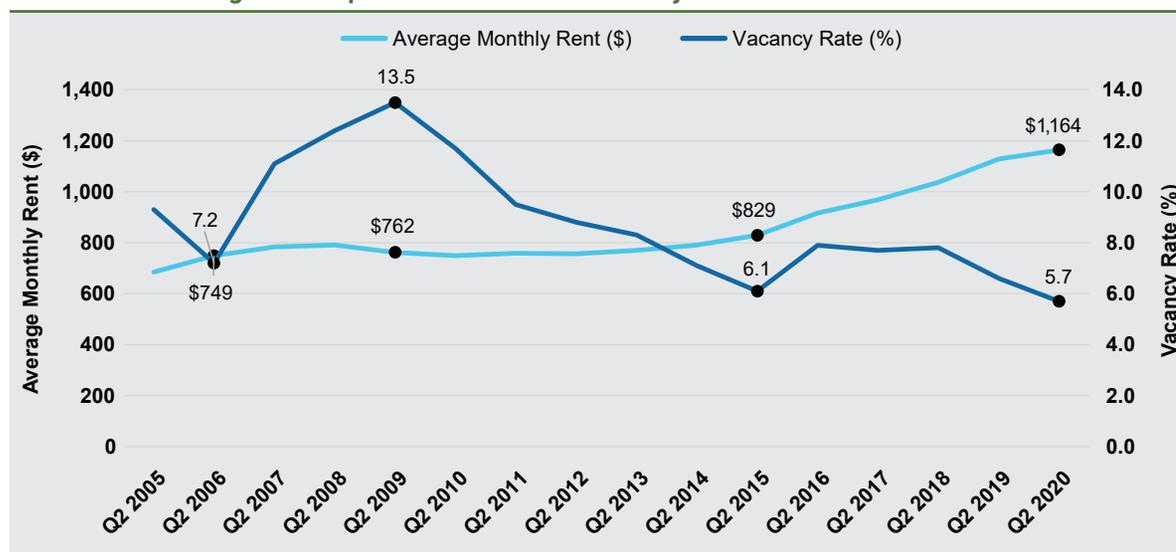
Rental Market Quick Facts	2010 (%)	Current (%)	
	Rental Vacancy Rate	13.8	6.5
Occupied Rental Units by Structure			
	Single-Family Attached & Detached	40.9	35.7
	Multifamily (2–4 Units)	10.5	11.7
	Multifamily (5+ Units)	45.3	49.1
	Other (Including Mobile Homes)	3.2	3.4
Apartment Market Quick Facts	Current	YoY Change	
	Apartment Vacancy Rate	5.7	0.0
	Average Rent	\$1,200	4.3
	Studio	\$892	5.6
	One-Bedroom	\$1,279	-1.0
	Two-Bedroom	\$1,341	3.7
Three-Bedroom	\$1,659	3.6	

YoY= year-over-year.

Notes: The current date is July 1, 2020. Percentages may not add to 100 due to rounding.

Sources: 2010 and 2019 American Community Surveys, 1-year data; Reis, Inc.

Figure 15. Apartment Rents and Vacancy Rates in the Phoenix HMA



Q2 = second quarter.

Source: *Apartment Insights*



by the second quarter of 2011. Meanwhile, average annual rent growth remained negligible. The apartment vacancy rate continued to decline every year subsequently, to a rate of 6.1 percent in 2015, even as apartment construction activity picked up. Employment and income growth supported significant net in-migration, population growth, and renter household formation. However, during this period, apartment rent growth was still slow, averaging 2 percent annually.

Since 2015, the apartment vacancy rate has fluctuated with the amount of newly constructed apartment units added to the rental inventory but has most recently declined to a rate of 5.7 percent during the second quarter of 2020. Average apartment rents have increased significantly during this period, at an average rate of 7 percent annually, because new apartment construction has been primarily of luxury units. During the second quarter of 2020, average rents by unit type were \$892 for studio units, \$1,279 for one-bedroom units, \$1,341 for two-bedroom units, and \$1,659 for three-bedroom units.

Market Conditions by Geography

During the latter part of the 2010s, new apartment construction activity tended to be luxury units with amenities geared towards young professionals and concentrated in urban downtown areas. While average rents were higher in these locations, areas such as Tempe, Scottsdale, and downtown Phoenix, apartment vacancies tend to be higher and average rent growth slower because of the continual introduction of new competitive supply. Of the 31 *Apartment Insights*-defined market areas (hereafter, market areas) in the Phoenix HMA, the average apartment rent was among the highest in the Central City/Sky Harbor (in the city of Phoenix), North Scottsdale/Fountain Hills, and South Tempe market areas at \$1,469, \$1,387 and \$1,235, respectively. However, rent growth was also slowest, with a 2-percent decline in the Central City/Sky Harbor market area and a 1-percent increase in both the North Scottsdale/Fountain Hills and South Tempe market areas. During the second quarter of 2020, the apartment vacancy rate was generally above 5.5 percent in the urban market areas, ranging from 6.0 percent in the North

Central Phoenix/Alhambra market area to 9.1 percent in the South Paradise Valley market area (located between the cities of Phoenix and Scottsdale).

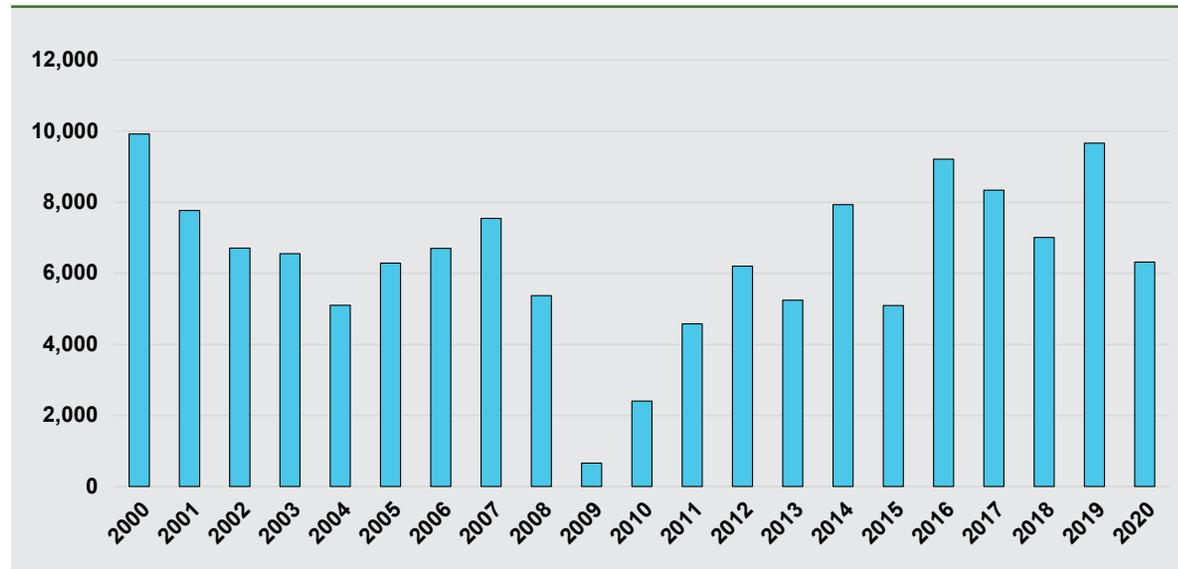
In suburban areas with a greater proportion of single-family units that draw in families, such as Chandler, Gilbert, and Peoria, apartment construction has been limited, and apartments are generally older with fewer amenities. Monthly apartment rents in these areas are generally below the HMA-wide average of \$1,200. During the second quarter of 2020, apartment rents were \$830 in the West Central Phoenix market area and around \$945 in both the Maryvale/Estrella and Glendale market areas. Given the limited inventory of apartment units in these same areas, however, rents have increased the fastest in these same areas, with year-over-year rent growth of 11, 8, and 8 percent, respectively. Simultaneously, apartment vacancy rates remained low at 4.1, 4.9, and 4.4 percent in the West Central Phoenix, Maryvale/Estrella, and Glendale market areas, respectively. In 2019, single-family homes accounted for 36 percent of the total occupied rental inventory in the Phoenix HMA, down from 41 percent in 2010 (2010 and 2019 1-year ACS).

Rental Construction Activity

In response to soft apartment market conditions after the Great Recession, builders drastically scaled back the level of rental home construction, as measured by the number of rental units permitted. In 2009 and 2010, rental permitting activity reached lows of only 660 and 2,400 units, respectively. However, as economic growth rebounded and net in-migration resumed, permitting activity rose to an average of 5,800 units annually from 2011 through 2015.

Builders have continued to increase rental home construction, averaging 8,550 units permitted annually from 2016 through 2019. Faster rent growth and increased apartment absorption have incentivized high levels of construction activity and kept the overall rental market balanced. During the 12 months ending June 2020, approximately 11,400 rental units were permitted, a 51-percent increase from the 7,500 units permitted during the previous 12 months (preliminary data). By comparison, an average of 6,875 units were permitted annually from 2000 through 2008 (Figure 16).



Figure 16. Average Annual Rental Permitting Activity in the Phoenix HMA

Notes: Includes apartments and units intended for rental occupancy. Data for 2020 are through June 2020.

Sources: U.S. Census Bureau, Building Permits Survey; 2000 through 2019—final data and estimates by the analyst; 2020—preliminary data and estimates by the analyst

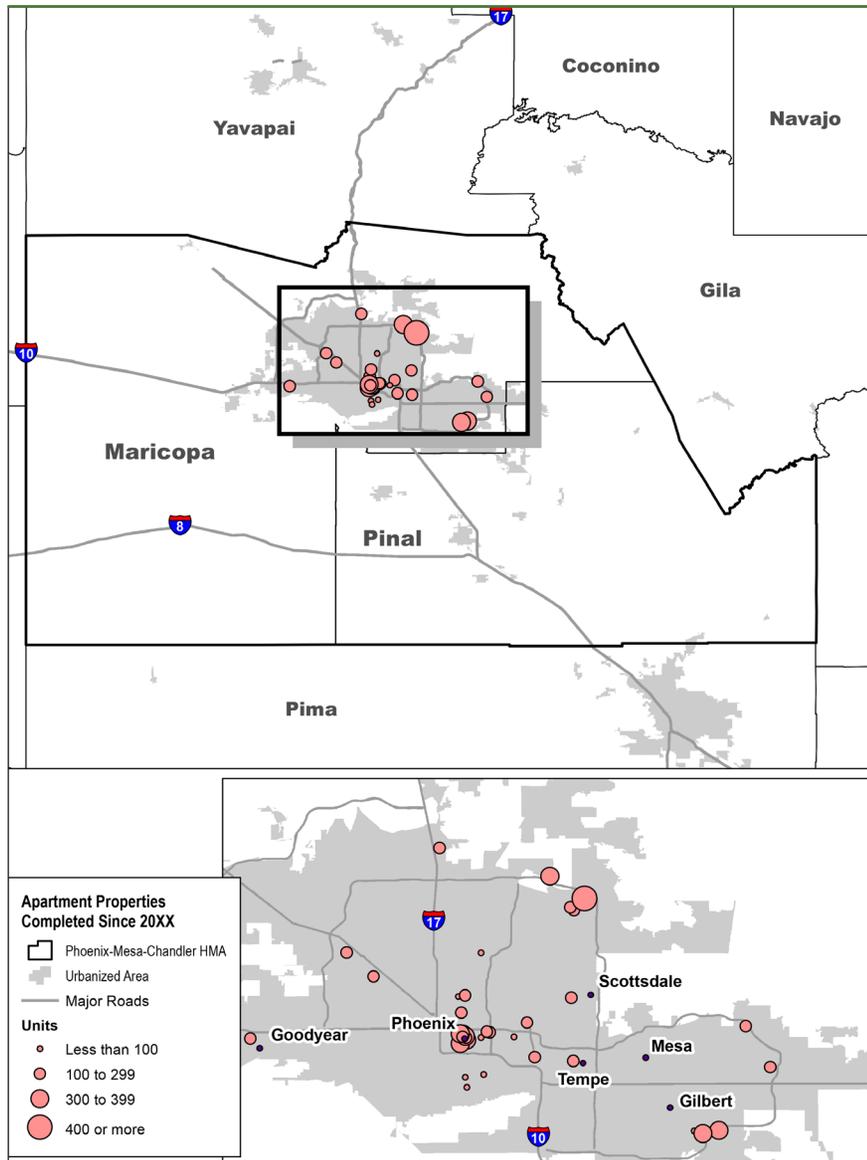
Developments currently underway are all concentrated in six cities: Phoenix, Scottsdale, Gilbert, Tempe, Mesa, and Goodyear (Map 3). However, units currently underway in the city of Phoenix account for the overwhelming majority of development within the HMA, with 58 percent of all units under construction located in the city. The largest development underway is the San Artes Apartments in north Scottsdale. The 552-unit apartment complex sits on a 34-acre parcel, and more than a quarter of the total land will be open space. Construction is expected to be complete by 2022, and unit sizes will start at 641 square feet for one-bedroom units, 893 square feet for two-bedroom units, and 1,201 square feet for three-bedroom units. In addition, the 379-unit Adeline Luxury Living in downtown Phoenix broke ground in January 2020. The luxury high-rise complex will add a new 25-story tower to the Collier Center, a nearly 600,000 square-foot mixed-use center, adjacent to Talking Stick Resort Arena, Chase Field, and the Phoenix Convention Center. Construction is expected to be complete by late 2020 or early 2021 on the 75 studio, 179 one-bedroom, and 125 two-bedroom units.

Housing Affordability: Rental

Rental housing is relatively affordable in the Phoenix HMA, and while renter household income and gross rents have grown at slightly differing rates since 2010, rental affordability has remained fairly stable. During 2019, the median gross monthly rent in the HMA rose 6.4 percent, matched by an increase in the median household income for renter households of 6.3 percent. As a result, the HUD Rental Affordability Index, a measure of median renter household income relative to qualifying income for the median-priced rental unit, has remained close to 100 (Figure 17). By comparison, nationwide, the median gross monthly rent rose 3.7 percent while the median household income for renter households rose 4.8 percent in 2019.

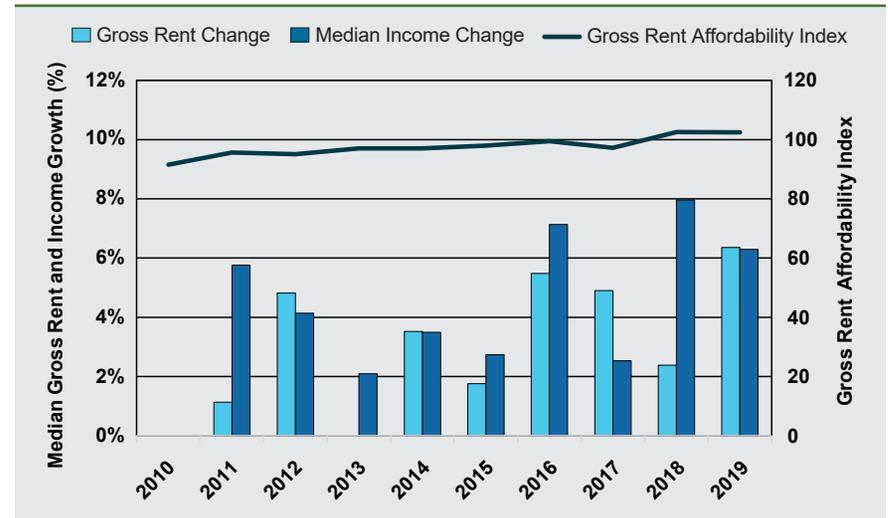
Similar to foreclosure moratoriums introduced to protect homeowners during the COVID-19 pandemic-related business closures, a federal ban on residential evictions is in place until January 2021. While the rental market remains balanced and the overall rental market is generally affordable, 35 percent of households in the HMA reported being housing-insecure (U.S. Census Bureau Household Pulse Survey, collected between May 28, 2020, to June 2, 2020). Housing insecurity means that a household has either missed their rent or mortgage payment in the last month or the household believes they will not be

Map 3: Projects Underway in the Phoenix HMA



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

Figure 17. Phoenix HMA Gross Rent Affordability Index



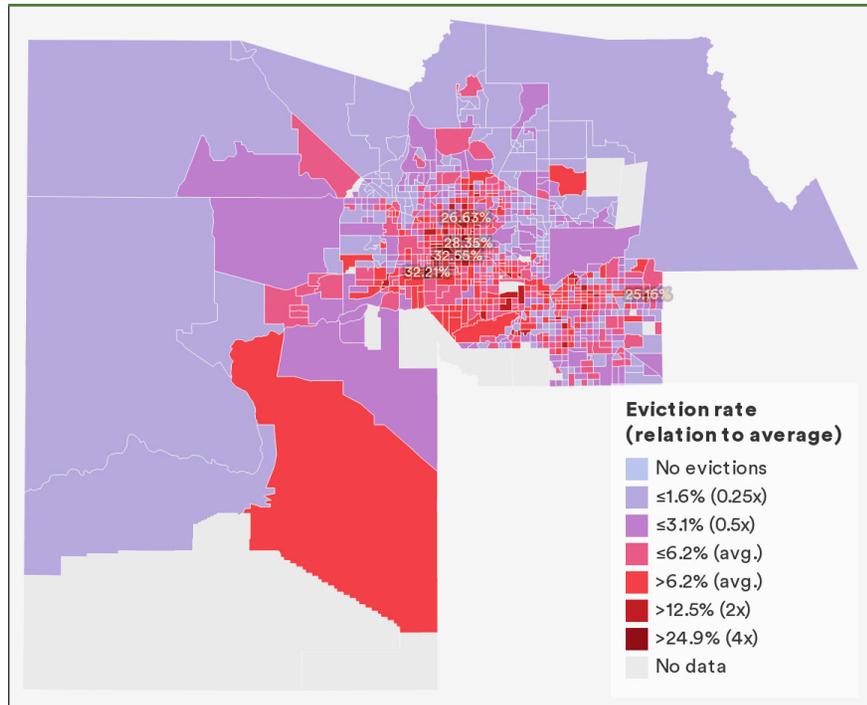
MSA = metropolitan statistical area.
 Notes: Rental affordability is for the larger Phoenix-Mesa-Chandler MSA. The Gross Rent Affordability Index differs from the HUD Rental Affordability Index published on the U.S. Housing Market Conditions website in that it is based on combined rent and utilities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

able to pay in the current month. From 2014 to 2018, the overall eviction rate for Maricopa County, the principal county of the Phoenix HMA, was 6.2 percent, although for some census tracts, the rate ranged between 20 and 30 percent (New America, Map 4). Evictions account for over 90 percent of the overall loss of housing by households in the county. By comparison, the national average eviction rate was 2.6 percent between 2014 and 2016.

Forecast

During the 3-year forecast period, demand is expected for 18,800 new rental units (Table 10). The 8,725 units currently under construction are expected to meet a portion of demand. Rental demand is expected to be slowest during the first year of the forecast period and gradually increase as the economy continues to rebound from COVID-19 shutdowns.

Map 4: Eviction Rate by Census Tract, Maricopa County (2014–2018 Average)



Note: New America—Future of Property Rights (via DataKind).
Source: Maricopa County Justice Courts

Table 10. Demand for New Rental Units in the Phoenix HMA During the Forecast Period

Rental Units	
Demand	18,800 Units
Under Construction	8,725 Units

Note: The forecast period is from the current date (July 1, 2020) to July 1, 2023.
Source: Estimates by the analyst

Terminology Definitions and Notes

A. Definitions

Cost Burdened	Spending more than 30 percent of household income on housing costs.
Demand	The demand estimates in the analysis are not a forecast of building activity. They estimate 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.
Distressed Home Sales	Includes real estate owned and short sales.
Forecast Period	7/1/2020–7/1/2023—Estimates by the analyst.
Home Sales/ Home Sales Prices	Includes single-family home, townhome, and condominium sales.
Mortgage Forbearance	Mortgage forbearance occurs when the mortgage servicer or lender allows the mortgagee to pause or reduce mortgage payments for a limited period of time.
Net Natural Change	Resident births minus resident deaths.



Other Vacant Units	In this analysis conducted by the U.S. Department of Housing and Urban Development (HUD), other vacant units include all vacant units that are not available for sale or for rent. Therefore, the term includes units rented or sold but not occupied; held for seasonal, recreational, or occasional use; used by migrant workers; and the category specified as “other” vacant by the Census Bureau.
Pending Sales	A sale where an offer has been accepted, but the transaction has not closed yet.
Rental Housing Market/Rental Vacancy Rate	Includes apartments and other rental units, such as single-family, multifamily, and mobile homes.
Residential Units Permitted	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, through diligent fieldwork, the analyst estimates this additional construction activity. Some of these estimates are included in the discussions of single-family and multifamily building permits.
Seriously Delinquent Mortgages	Mortgages 90+ days delinquent or in foreclosure.

B. Notes on Geography

1.	The metropolitan statistical area definition noted in this report is based on the delineations established by the Office of Management and Budget (OMB) in the OMB Bulletin dated March 2020.
2.	Urbanized areas are defined using the U.S. Census Bureau 2010 Census Urban and Rural Classification and the Urban Area Criteria.



3.	The census tracts referenced in this report are from the 2010 Census.
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C. Additional Notes

1.	The national HUD First-Time Homebuyer Index is a weighted average of each metropolitan area index, weighted by the total number of sales.
2.	This analysis has been prepared for the assistance and guidance of HUD in its operations. The factual information, findings, and conclusions may also be useful to builders, mortgagees, and others concerned with local housing market conditions and trends. The analysis does not purport to determine the acceptability of any mortgage insurance proposals that may be under consideration by the Department.
3.	The factual framework for this analysis follows the guidelines and methods developed by the Economic and Market Analysis Division within HUD. The analysis and findings are as thorough and current as possible based on information available on the as-of date from local and national sources. As such, findings or conclusions may be modified by subsequent developments. HUD expresses its appreciation to those industry sources and state and local government officials who provided data and information on local economic and housing market conditions.

D. Photo/Map Credits

Cover Photo	iStock
Map 2	2008–2012 and 2013–2018 American Community Survey, 5-year data
Map 3	McGraw-Hill Construction Pipeline database, with adjustments by the analyst
Map 4	NewAmerica–Future of Property Rights (via Data Kind), Source: Maricopa County Justice Courts



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