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As we mark the 30th anniversary of the State of the Nation's Housing series, this year's report presents an opportunity to reflect on how housing market conditions in the United States have evolved over the decades. In addition to our usual look at current trends, the analysis examines how some of today's conditions echo the past and are a yardstick for the progress we as a nation have and have not made in fulfilling the promise of a decent, affordable home for all.

THE PERSISTENCE OF HOUSING CHALLENGES

As the inaugural State of the Nation's Housing report noted, the majority of Americans were well housed in 1988, and a number of metrics point to improving conditions since then. More than 40 million units have been built over the past three decades, accommodating 27 million new households, replacing older homes, and improving the quality of the nation's stock. The typical home today is larger and more likely to have air conditioning, multiple bathrooms, and other amenities. Structurally inadequate housing was rare 30 years ago and even rarer now.

Nevertheless, several challenges highlighted in the Joint Center's first report persist today. In the 1980s, high mortgage interest rates put the cost of homeownership out of reach for many. With fewer young adults buying homes, demand for rental housing remained high—as did rents despite a boom in multifamily construction. Rapid losses of low-cost rentals forced millions more lower-income households to spend outsized shares of their incomes on housing. Despite their growing numbers, only about one in four very low-income renters benefited from subsidies to close the gap between market rents and what they could afford to pay.

Homeownership rates among young adults today are even lower than in 1988, and the share of cost-burdened renters is significantly higher. Soaring housing costs are largely to blame, with the national median rent rising 20 percent faster than overall inflation in 1990–2016 and the median home price 41 percent faster. Although better housing quality accounts for some of this increase, sharply higher costs for building materials and labor, coupled with limited productivity gains in the homebuilding industry, have made housing construction considerably more expensive. Land prices have also skyrocketed as population growth in metro areas has intensified demand for well-located sites. In addition, new regulatory barriers have also served to limit the supply of land available for homes and increased the time, complexity, and risks of housing development.

Along with soaring housing costs, weak income growth among low- and moderate-income households has also contributed to affordability pressures. The real median income of households in the bottom quartile increased only 3 percent between 1988 and 2016, while the median income among young adults in the key

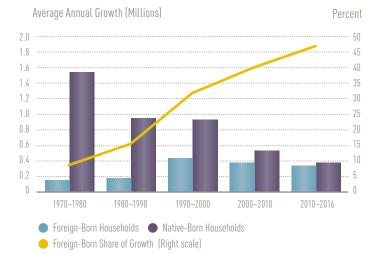
25–34 year-old age group was up just 5 percent. Meanwhile, gross domestic product per capita, a measure of total economic gains, increased some 52 percent in 1988–2017. If incomes had kept pace more broadly with the economy's growth over the past 30 years, they would have easily matched the rise in housing costs—underscoring how income inequality has helped to fuel today's housing affordability challenges.

DEMOGRAPHICS LIFTING HOUSEHOLD GROWTH

The size and age structure of the adult population, together with the rates at which people form households, determine how much new housing is needed to meet increased demand. In 2016, the Joint Center projected robust growth of 13.6 million households over the next decade, assuming a pickup in household formations among the millennial generation (born 1985–2004), longer periods of independent living among the baby-boom generation (born 1946–1964), and moderate growth in foreign immigration. However, based on the Census Bureau's new, lower population estimates and additional declines in household formation rates among young adults, the latest Joint Center projections put household growth in 2017–2027 significantly lower at 12.0 million. This total is more in line with the 1.1 million average annual increase over the last three years.

Most of this new outlook reflects lower net foreign immigration and higher mortality rates among native-born whites. In combination, these changes mean slower growth in the number of older white households as well as of Hispanic and Asian households of most ages. Although lower than the 1.3 million per year previously projected, net immigration is still expected to average 1.0 million annually over

Immigration Has Become an Increasingly Important Source of Household Growth



Source: JCHS tabulations of US Census Bureau, 1970–2000 Decennial Censuses, and 2000–2016 American Community Survey 1-Year Estimates.

the next decade as growth of the native-born population continues to slow. As a result, immigrants will increasingly drive household growth, especially after 2025 when native-born population growth decelerates further. As it is, the foreign-born share of household growth has already climbed from 15 percent in the 1980s to 32 percent in the 1990s and to nearly half so far this decade (Figure 1).

Relatively low headship rates among millennials also contribute to lower projected household growth. Despite the recent pickup in incomes, adults under age 35 are still not forming households at rates as high as previous generations at that age. This suggests that other forces are at play, including higher rates of college and graduate school attendance and lower rates of marriage and childbearing. High housing costs may also be a factor, given the smaller share of young adults heading up households in expensive housing markets. Indeed, just 31 percent of adults aged 25–29 head their own households in the nation's 25 least affordable metros (measured by the share of renters with cost burdens), compared with 41 percent in the 25 most affordable metros.

Because of their sheer numbers, however, millennials have still helped to boost household growth. With the leading edge of this large generation now in its early 30s, adults under age 35 formed 10.5 million new households in 2012–2017, 1.5 million more than in the previous five-year period. Given that millennials born at the peak are now in their late 20s and the youngest are just 13, this generation will continue to lift household growth for years to come.

The overall aging of the US population has important implications for housing markets, with 65–74 year olds now the fastest-growing age group. Since older adults generally live in established households and strongly prefer to remain in their homes as they age, they have not historically added significantly to new housing demand. But given the size of the baby-boom generation, households headed by persons age 65 and over will continue to grow at an unprecedented pace in the next decade, increasing the presence of older households in both the homeowner and rental markets.

Since older households own many of the nation's existing homes, they will also drive strong growth in spending on improvements and repairs—and, increasingly, home modifications that ensure their ability to age safely in place. For the millions of older owners with limited incomes and wealth, however, these expenditures may present a financial challenge. And whether they own or rent, the growing population of older adults will require better access to transportation and support services, adding to the pressures on local governments to expand the supply of good-quality, affordable, and accessible housing.

DEMAND SHIFT FROM RENTING TO OWNING

After a decade of soaring rental demand, US households are edging their way back into the homebuyer market. Growth in the number of renter households slowed from 850,000 annually on average in 2005–2015 to just 220,000 in 2015–2017, while the number of owner

households rose 710,000 annually on average in the past two years. This reversal lifted the national homeownership rate to 63.9 percent last year, with gains spread across most age, race, and ethnic groups. While too early to tell whether this is the start of a rebound, the homeownership rate appears to have at least stabilized.

If today's national homeownership rate is the new normal, it is settling close to the 64 percent that prevailed just before the housing boom and bust started in 1994. Even so, the current homeownership rate for adults aged 25-34 is 4.2 percentage points lower than in 1994 and 6.3 percentage points lower than in 1987 (Figure 2). The differences for the 35-44 year-old age group are even larger, with the current rate down 5.5 percentage points from 1994 and 8.2 percentage points from 1987. Households 65 and over are the only age group with higher homeownership rates today, up 3.3 percentage points from 1987. In fact, the only reason the national rate is near the 1994 level is because older adults now make up such a large share of households.

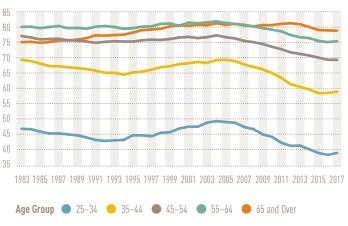
Although the changes in homeownership by race and ethnicity are mostly positive, black households are the one group that has made no appreciable progress (Figure 3). Compared with 1994, black homeownership rates have increased just 0.3 percentage point while white rates have risen 2.2 percentage points, widening the black-white gap to 29.2 percentage points. This disparity is even more troubling given that the gap was 23.5 percentage points in 1983, when the black homeownership rate was 2.6 percentage points higher than today. Although rates for both Hispanics and Asians have risen somewhat since 1994, the disparities with white rates are still substantial at 26.1 percentage points and 16.5 percentage points, respectively.

The choice between owning and renting depends on a variety of factors, including relative costs, expected length of stay, tolerance for financial risk, and the perceived benefits of each option. As such, there is no "ideal" homeownership rate. But the wide gap in white-minority homeownership rates conflicts with evidence from consumer surveys that renters of all races and ethnicities want to own homes in the future. Given both the desire to own and the ability of many renters to sustain homeownership, restricted homebuying opportunities for minorities should be a critical public concern.

Regardless of race or ethnicity, though, the latest runup in house prices has made homeownership more difficult to attain. In 1988, when the first State of the Nation's Housing report highlighted historically high homeownership costs, the national home price-to-income ratio was 3.2, with just one metro posting a ratio above 6.0. In 2017, the national price-to-income ratio stood at 4.2, and 22 metros had ratios above 6.0. So far, however, low interest rates have kept the median monthly payments on a modest home relatively affordable—in fact \$250 lower in real terms than in 1988. However, the ongoing rise in both interest rates and home prices may change this. In addition, higher prices mean higher downpayments and closing costs, an even more difficult hurdle than monthly payments for many first-time homebuyers.

Homeownership Rates for Both Young Adults...

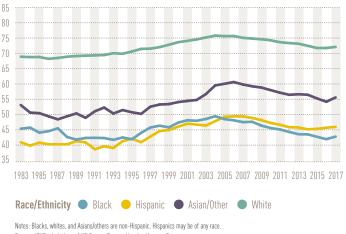
Homeownership Rate (Percent)



Source: JCHS tabulations of US Census Bureau, Housing Vacancy Surveys

...and Black Households Are Near 30-Year Lows

Homeownership Rate (Percent)



Source: JCHS tabulations of US Census Bureau, Housing Vacancy Surveys

CONTINUING CONSTRAINTS IN THE SINGLE-FAMILY MARKET

Supplies of existing single-family homes for sale remain extremely tight. In fact, both key measures of inventories are at their lowest levels since the National Association of Realtors began its tracking in 1982 (Figure 4). In 2017, the supply of for-sale homes averaged only 3.9 months—well below the 6 months considered a balanced market. Zillow puts supply even lower at just 3 months, with inventories in roughly a third of 93 metros under 2 months.

Lower-cost homes are especially scarce. Virtually all of the 88 metros with data available had more homes for sale in the top third of the market by price than in the bottom third. In 46 of these metros, more than half of the available supply was at the high end. The largest imbalances were in moderately sized, moderately priced, and fast-growing metros such as Boise, Charlotte, Des Moines, and Durham, where about 65 percent of existing homes for sale were at the upper end of the market.

Why inventories are so tight is not entirely clear. CoreLogic data show that the number of owners underwater on their mortgages shrank from more than 12.1 million in 2011 to 2.5 million in 2017, so negative equity should no longer be a significant drag on sales. Still, conversion of 3.9 million single-family homes to rentals in 2006–2016 could be constraining the number of entry-level homes on the market. The ongoing decline in residential mobility rates may also play a role, with fewer households putting their homes up for sale each year.

Another factor is the low level of single-family construction. Despite six consecutive years of increases, single-family starts stood at just 849,000 units in 2017, well below the long-run annual average of 1.1 million. Indeed, only 610,000 single-family homes were added to the stock annually in 2008–2017. Limited new construction may hold back existing home sales by reducing the tradeup options for current owners, deterring them from putting their own homes on the market.

The slow growth in single-family construction reflects in part homebuilder caution following the dramatic housing bust. But risk aversion aside, a significant constraint on new residential construction may be the dwindling supply of buildable lots. According to Metrostudy data, the inventory of vacant lots in the 98 metro areas tracked fell 36 percent in 2008–2017. Indeed, 21 of the nation's 25 largest metros reported inventories that would support less than 24 months of residential construction.

Along with limited land, respondents to builder surveys cite rising input costs as adding to the difficulty of constructing entry-level homes. As a result, the share of smaller homes (under 1,800 square feet) built each year fell from 50 percent in 1988 to 36 percent in 2000 to 22 percent in 2017. Of this latest drop, 9 percentage points occurred in 2010–2013 alone.

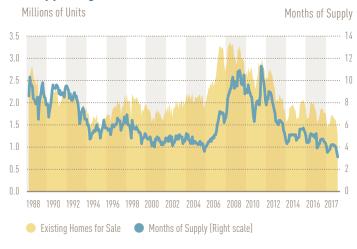
MULTIFAMILY CONSTRUCTION LEVELING OFF

Unlike single-family homebuilding, multifamily construction ramped up quickly after the crash as rental demand surged. From a low of 109,000 units in 2009, construction of multifamily units peaked at 397,000 starts in 2015 and accounted for more than half the gains in housing starts over that period. However, the multifamily construction wave is now moderating, with starts down 1 percent in 2016 and 10 percent in 2017.

This slowdown comes in response to both weaker overall rental demand and increasing slack at the upper end of the market. The

FIGURE 4

Inventories of Single-Family Homes for Sale Dropped Again in 2017



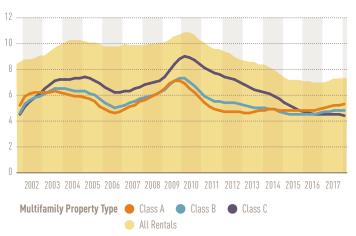
Note: Months of supply measures how long it would take the number of homes on the market to sell at the current rate, where 6 months is typically considered a balanced market.

Source: JCHS tabulations of National Association of Realtors (NAR), Existing Home Sales.

FIGURE 5

The Recent Rental Market Easing Is Largely at the High End

Vacancy Rate (Percent)



Notes: Vacancy rates are smoothed 4-quarter trailing averages. The vacancy rate for all rental units includes single-family rentals and is from the HVS. Vacancy rates for Class A, B, and C units are from RealPage, and refer to professionally managed apartments.

Source: JCHS tabulations of US Census Bureau, Housing Vacancy Surveys, and RealPage data.

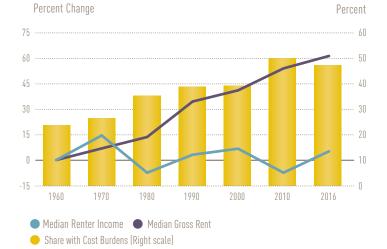
Census Bureau reports that the national rental vacancy rate rose last year for the first time since 2009, ticking up from 6.9 percent to 7.2 percent. Most of the easing is among high-end (Class A) rentals, although vacancies in middle-market (Class B) apartment properties were up slightly as well **(Figure 5).** In 2013, units renting for \$1,000 or more had the lowest vacancy rate of all rentals, while units renting for less than \$600 had the highest rate. The situation has now reversed, with vacancies at 6.8 percent in the low-cost market and 7.7 percent in the high-cost market.

The recent strength of rental construction has done little to address the shortage of lowest-cost units. Between 2006 and 2016, the total number of occupied rentals was up by 21 percent, but the number renting for under \$650 in real terms fell by 5 percent. Over this same period, the lowest-cost rental stock shrank by more than 10 percent in 153 of the nation's 381 metros and by more than 20 percent in 89 metros. These losses indicate that older rental units have not filtered down to more affordable levels in many parts of the country.

AFFORDABILITY PRESSURES EASE, BUT REMAIN WIDESPREAD

At last measure in 2016, some 38.1 million households spent more than 30 percent of their incomes on housing (the standard definition of cost burdened). While down by 800,000 from 2015 and by 4.6 million from the peak in 2010, the number of cost-burdened households was still some 6.5 million higher in 2016 than in 2001.

The Sharp Divergence in Housing Costs and Incomes Has Fueled a Long-Term Increase in Cost-Burdened Renters



Note: Rents and incomes are adjusted for inflation using the CPI-U for all items.

Source: JCHS tabulations of US Census Bureau, 1960–1990 Decennial Censuses, and 2000–2016 American Community Surveys.

All of the drop in cost-burdened households is among homeowners, whose numbers fell by 5.5 million in 2010–2016. The pickup in income growth and the low interest rate environment no doubt helped, but this improvement also reflects the fact that millions of distressed owners lost their homes to foreclosure during the housing crisis and, more recently, that lenders have imposed stricter payment-to-income requirements for new buyers. Moreover, the number (4.1 million) and share (84 percent) of cost-burdened homeowners earning under \$15,000 was unchanged over this period. Nearly half of burdened owners at this income level are age 65 and over, and of that group, three-quarters are single-person households.

The improvements in affordability for renters are much more modest. Although the share of cost-burdened renters retreated from a peak of 51 percent in 2011 to 47 percent in 2016, strong growth in renters overall meant that the number with burdens continued to rise through 2014. Their numbers did drop by 500,000 in 2014–2016, but the previous increase of 6.5 million in 2001–2014 dwarfed this progress. In addition, more than half of the growth in cost-burdened renters since 2001 was among households paying more than half their incomes for housing. Indeed, the number of severely burdened renters rose by 3.6 million between 2001 and 2016.

Housing affordability problems are part of a longer-term trend that was evident well before publication of the first State of the Nation's Housing report. The cost-burdened share of renters doubled from 23.8 percent in the 1960s to 47.5 percent in 2016 as housing costs and household incomes steadily diverged, with the largest increases occurring in the 2000s. Adjusting for inflation, the median rent payment rose 61 percent between 1960 and 2016 while the median renter income grew only 5 percent (Figure 6). The pattern for homeowners is similar, with the median home value increasing 112 percent and the median owner income rising only 50 percent.

POLICY CHALLENGES

Expanding the supply of lower-cost housing would help relieve the cost burdens of some households of modest means, but subsidies are the only way to close the affordability gap for the nation's lowest-income families and individuals. Even so, increases in federal rental assistance have lagged far behind growth in the number of renters with very low incomes, the group typically eligible for subsidies. Between 1987 and 2015, the number of very low-income renters grew by 6 million while the number assisted rose only 950,000, reducing the share with assistance from 29 percent to 25 percent (Figure 7).

The two main rental assistance programs are housing choice vouchers administered by the Department of Housing and Urban Development and low-income housing tax credits (LIHTC) administered by the Treasury Department. Between 2000 and 2017, the number of vouchers in use only edged up from 1.8 million to 2.2 million, as funding increases fell short of the higher costs per voucher caused by a widening gap between renter incomes and fair market

rents (FMRs). Meanwhile, the number of LIHTC-funded units available for occupancy grew steadily from 880,000 in 2000 to about 2.5 million in 2017.

Although last year's Tax Cuts and Jobs Act reduced corporate tax rates and therefore the value of investments in LIHTC properties, higher annual allocations under this year's federal budget offset a fraction of the falloff in value. The budget also provides developers greater flexibility in setting rents, which will help to expand support for households with a broader range of incomes. But with the affordability periods of more than a million subsidized units expiring over the next decade and the growing shortfall in low-cost housing, the current rate of LIHTC production of about 80,000 units per year falls well short of need.

For their part, many state and local governments are finding new ways to leverage and supplement federal funds to spur development of below-market-rate housing. These strategies include raising new revenues through bond issuances, real estate transfer taxes, and linkage fees, as well as using their regulatory powers to either incentivize or mandate inclusion of affordable units in new market-rate developments. However, state and local initiatives are generally modest in scale.

Programs supporting homeownership are also limited in scope. Research has consistently found that the largest barrier for first-time buyers is insufficient savings to meet downpayment requirements and other upfront costs. Federal downpayment assistance

FIGURE 7

Despite a Sharp Rise in Income-Eligible Households, the Number of Renters with Housing Assistance Has Been Essentially Flat for Two Decades

Share (Percent)

Very Low-Income Renter Households (Millions)



Assisted UnassistedShare Assisted (Right scale)

Notes: Very low-income renter households earn 50% or less of area median income. Assisted households may receive assistance from state and local as well as federal programs.

Source: JCHS tabulations of US Department of Housing and Urban Development (HUD), Worst Case Housing Needs Report to Congress.

programs, however, serve less than 50,000 households annually. Mortgage revenue bond programs, administered by state housing finance agencies, also provide below-market-rate loans to lower-income households, but support only a limited number of buyers each year.

Expanding homeownership opportunities for young adults and minorities will thus require broader and better-targeted policies to encourage saving and provide financial assistance as necessary. Counseling programs would also help potential buyers navigate the homebuying process and fulfill the ongoing requirements of homeownership.

THE OUTLOOK

By many metrics, the housing market is on sound footing. With the economy near full employment, household incomes are increasing and boosting housing demand. On the supply side, a decade of historically low single-family construction has left room for expansion of this important sector of the economy. Although multifamily construction appears to be slowing, vacancy rates are still low enough to support additional rentals. In fact, to the extent that growth in supply outpaces demand, a slowdown in rent growth should help to ease affordability concerns.

Indeed, the cumulative effect of strong growth in housing costs and modest gains in household incomes has left nearly half of today's renters with cost burdens, including a quarter with severe burdens. The rising cost of homes for sale also raises downpayment and closing costs, making it more difficult for individuals and families to make the transition to owning.

National efforts are necessary to close the affordability gap. Housing policymakers have many opportunities to address the cost side of the equation, including the increasing size and quality of homes; lack of productivity improvements in the residential construction sector; escalating costs of labor, building materials, and land; and barriers created by a complex and restrictive regulatory system. However, tackling this broad mix of conditions will require collaboration of the public, private, and nonprofit sectors in a comprehensive strategy that fosters innovation in the design, construction, financing, and regulation of housing.

But even if successful, these efforts will not produce decent, affordable homes for the millions of households that simply cannot pay enough to cover the costs of producing that housing. For these families and individuals, there will always be a need for public subsidies. The federal government's failure to respond adequately to this large and growing challenge puts millions of households at risk of housing instability and the threats it poses to basic health and safety. Many state and local governments are doing their part to expand assistance, but a more robust federal response is essential to any meaningful progress in combatting the nation's housing affordability crisis.



New construction, home sales, and housing prices ticked up modestly in 2017, but a slowdown in the multifamily sector and the rising costs of residential construction are preventing a stronger upturn in housing markets. Intense competition for the historically low supply of existing homes on the market has pushed up home prices in most metros, raising further concerns about affordability.

MODEST GROWTH IN NEW CONSTRUCTION

Although marking the eighth year of growth, total housing starts only edged up from 1.17 million units in 2016 to 1.20 million in 2017. In percentage terms, last year's increase was the smallest annual gain since the recession. Even so, single-family homebuilding continued to strengthen in 2017, rising 8.6 percent to 848,900 units (Figure 8). Starts rose across the country, with the largest increase in the West (14 percent), followed by the Midwest and South (8 percent), and then the Northeast (3 percent). At the current pace of growth, however, single-family starts would not regain their 2000 level of 1.23 million units until 2022.

Meanwhile, multifamily starts declined 9.7 percent to 354,100 units last year, but were still slightly above the 342,000 annual average in 1997–2006. Multifamily activity fell the most in the Midwest (20 percent) and the least in the West (2 percent). Nevertheless, the multifamily pipeline remains strong. Completions were up by more than 11 percent in 2017, to 357,600 units—the highest level since the 1980s. In addition, 604,000 multifamily units were under construction last year, slightly below the 2016 level but otherwise higher than at any point since the early 1970s.

The modest growth in new construction helped to increase real residential fixed investment (RFI) for the sixth straight year, lifting the total from \$721 billion in 2016 to nearly \$748 billion in 2017. This increase also reflects the ongoing strength of homeowner improvement and repair spending, estimated at \$315 billion last year. Indeed, 2017 was the tenth consecutive year that homeowner outlays exceeded spending on single-family construction.

Still, the 3.7 percent increase in RFI last year was the smallest annual gain since the recovery began in 2011. As a result, the sector contributed just 0.07 percentage point of the 2.3 percent real growth in gross domestic product (GDP) in 2017. As a share of the economy, RFI alone accounted for 3.9 percent of GDP. Adding in spending on housing services and furnishings, the combined housing-related share of GDP totaled 18.2 percent last year.

GEOGRAPHIC DISTRIBUTION OF NEW HOUSING

Housing permits rose from 1.21 million in 2016 to 1.28 million units in 2017, with 61 of the nation's 100 largest metro areas reporting increases. Single-family permitting was up in 78 of these markets, while multifamily permitting increased in only 48. The largest numbers of permits were issued in Dallas (62,500), New York (50,600), Houston (42,400), Atlanta (33,800), and Los Angeles (31,100).

New construction remained strong in the core counties of large metro areas, with 437,700 permits issued in 2017—about a third of the nationwide total. Permitting in these counties rose at a double-digit pace in 2010–2015, declined in 2016, but then grew 4.9 percent in 2017. As a result, residential construction in core counties was 28 percent above levels averaged in the 1990s and nearly on par with those in the 2000s, reflecting significant increases in multifamily activity since 2010 (Figure 9).

Permitting outside of the core counties of large metros is still below the 1990s average, down 16 percent in the non-core counties of large

FIGURE 8

Most Housing Market Indicators Remained Positive in 2017

			Percent	Change			
	2016	2017	2015-16	2016-17			
Residential Construction (Thousands of units)							
Total Starts	1,174	1,203	5.6	2.5			
Single-Family	782	849	9.4	8.6			
Multifamily	392	354	-1.3	-9.7			
Total Completions	1,060	1,153	9.5	8.8			
Single-Family	738	795	14.0	7.7			
Multifamily	321	358	0.3	11.3			
Home Sales (Thousands)							
New Single-Family	561	613	12.0	9.3			
All Existing	5,450	5,510	3.8	1.1			
Median Sales Price (Thousands of dollars)							
New Single-Family	314.4	324.0	3.3	3.1			
All Existing	238.8	247.2	3.8	3.5			
Existing Home Inventory							
Homes for Sale (Thousands)	1,650	1,460	-6.3	-11.5			
Months of Supply	4.4	3.9	-8.3	-11.4			
Construction Spending (Billions of dollars)							
Residential Fixed Investment	720.9	747.6	8.0	3.7			

Notes: Components may not add to totals due to rounding. Dollar values are adjusted for inflation using the CPI-U for all items. Residential fixed investment includes spending on new housing construction and homeowner improvements, plus broker commissions on home sales. Sources: US Census Bureau, New Residential Construction and New Residential Sales; NAR, Existing Home Sales; Bureau of Economic Analysis, National Income and Product Accounts.

metros and 6 percent in all other metro areas. Construction is even further below average levels from the 2000s, with permitting down 23 percent in non-core counties and 24 percent in other metros. Single-family permitting, which remained low across the board in 2017, accounted for an important share of activity outside of core areas. Last year, permits for single-family homes contributed just 43 percent of total permits issued in core counties, but 73–75 percent of permits in non-core counties and other metro areas.

Given the recent uptick in single-family homebuilding and the moderation in multifamily permitting, new construction has increased more rapidly outside central counties. In 2014–2017, residential permitting rose 18 percent in core counties, but fully 25 percent in non-core counties and 26 percent in other metro areas.

ADDITIONS TO THE MODERATE-COST SUPPLY

In the aftermath of the recession, developers targeted the high end of the single-family market by building larger homes. Indeed, the typical size of newly constructed single-family housing reached an all-time high of 2,466 square feet in 2015.

But with many buyers looking for more moderate-cost homes, new construction is beginning to add to the supply of smaller homes (Figure 10). Completions of single-family homes under 1,800 square feet were up 20 percent in 2016, outpacing the 12 percent increase in larger homes. Shipments of manufactured housing also rose 15 percent for the second straight year in 2017, but completions of multifamily condominiums declined 15 percent.

Nonetheless, entry-level housing still accounts for a small share of new construction. Only 163,000 small single-family homes were completed in 2016, or 22 percent of single-family construction—down significantly from the 33 percent share averaged in 1999–2007. Moreover, manufactured home shipments totaled just 93,000 units in 2017, far below the 291,000 annual average in the 1990s and even the 137,000 annual average in the 2000s.

Modest-sized homes are considerably more affordable for first-time and middle-market buyers. According to the Survey of Construction, the median price for a small home sold in 2016 was \$191,700. The average sales price for a new manufactured home in 2017 was even lower, at \$72,000. By comparison, the median price for all other single-family homes was \$324,700 in 2016.

With few additions of smaller units, most modestly priced homes are found in the existing housing stock. Indeed, small homes make up nearly half of single-family homes. In 2015, there were 37.3 million single-family homes under 1,800 square feet. The stock of small homes is generally older, with nearly two-thirds (65 percent) built before 1980 compared with 43 percent of larger homes.

Manufactured housing is prevalent primarily in the South, where some 58 percent of the 6.6 million units nationwide are located. Another 21 percent are in the West, 14 percent in the Midwest, and

just 7 percent in the Northeast. Nearly two-thirds of manufactured housing shipments between 2009 and 2017 were also to the South.

As a result, manufactured homes make up 9 percent of the total housing stock in the South, with especially large shares in South Carolina (16 percent) and in West Virginia and Mississippi (14 percent each). While the share in other regions is only 4 percent, a few states also have high concentrations of manufactured housing, including New Mexico (17 percent) and Wyoming (13 percent). Manufactured housing also provides 14 percent of homes in non-metro communities, more than double the share in the country as a whole.

IMPEDIMENTS TO HOMEBUILDING

Four main constraints stand in the way of a stronger upturn in housing construction. First is the shortage of skilled workers. In a 2017 survey of homebuilders, 82 percent of respondents cited the cost and availability of labor as a significant problem. Unemployment in the construction industry fell to 6 percent last year, while inflation-adjusted construction wages and benefits were up 7 percent from 2001—somewhat less than the 9 percent increase for all private industry workers. These pay raises have not been sufficient to attract new workers, and the number of job openings in the construction industry approached 200,000 by the end of 2017—the highest level in a decade.

Second, the cost of building materials has risen. The Bureau of Labor Statistics reports that the prices of raw and manufactured goods used as inputs for residential construction increased 4 percent last year, with the price of softwood lumber alone up 13 per-

cent. However, input price increases vary with building cycles and their growth over longer time periods has been more moderate.

Third, developed land has become scarcer. Metrostudy data for 98 metro areas indicate that the number of vacant developed lots declined from 1.26 million in 2008 to just 802,000 in 2017. As measured by months of supply (where 24–36 months is considered a balanced market), the inventory shrank in 73 of those 98 markets in 2016–2017. The shortage of land for new housing is especially acute in the Western metros of San Francisco (9 months), San Diego (10 months), Seattle (10 months), Los Angeles (12 months), and Las Vegas (13 months). In contrast, developed land is more readily available in many Southern and Midwestern markets, like Chicago (62 months), Atlanta (44 months), and Minneapolis (28 months).

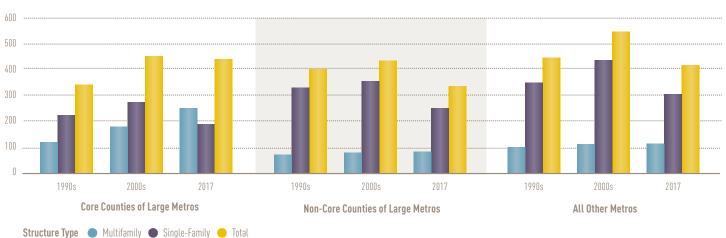
Finally, local zoning and other land use regulations can reduce the amount of new construction by constraining the type and density of new housing allowed. Local governments also add to costs by delaying approvals and charging sizable fees. For example, a 2015 Duncan Associates survey of 271 communities found that the average impact fee for construction of a moderate-sized single-family home was \$11,900, with charges ranging as high as \$31,800 on average in California. While new residential developments should contribute to the costs of providing infrastructure and public services, high fees make it even more challenging to provide housing.

All of these impediments push up the costs of residential construction. Setting aside the cost of land and development, RSMeans estimates that building an economy-quality, 1,200 square-foot home would cost \$141,300 in 2018, assuming prevailing wages and a 15

FIGURE 9

High Levels of Multifamily Construction Have Boosted Development in Core Counties of Large Metros

Average Annual Housing Permits Issued (Thousands)



Notes: Large metro areas have populations over 1 million. Core counties of large metro areas contain either the largest city or any city with 250,000 residents. Non-core counties are all other counties in large metro areas. Source: JCHS tabulations of US Census Bureau. Building Permits Surveys.

percent contractor fee. While on par with 2017, this represents a 12 percent jump from 2014 after adjusting for inflation.

Modular housing, constructed in factory conditions before being transported and assembled on site, could provide at least part of the answer. Including the value of land, the median price for a new modular unit was \$217,200 in 2016—nearly \$90,000 less than for a new site-built home. To date, however, homebuilders have been slow to adopt this innovation, with only 15,000 modular homes added in 2016. Indeed, modular housing has never accounted for more than 4 percent of single-family construction in the United States. By comparison, modular housing accounts for 9 percent of new homes in Germany, 12–16 percent in Japan, and 20 percent in the Netherlands.

PERSISTENTLY LOW INVENTORIES AND SLOWING SALES

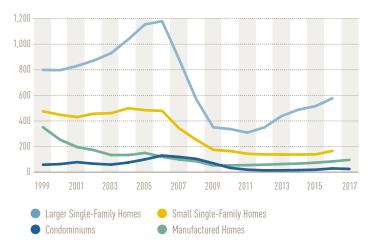
The National Association of Realtors reports that the number of homes on the market fell from 1.65 million in 2016 to 1.46 million in 2017. The single-family inventory alone shrank 11 percent, from 1.45 million to 1.29 million. In December 2017, for-sale inventories were at their lowest levels since at least 1999 for all homes and since 1982 for single-family homes. Meanwhile, the for-sale vacancy rate fell to 1.5 percent in the first quarter of 2018, matching the lowest readings since 1994.

Supplies were tight nearly everywhere (Figure 11). Of the 93 large metros tracked by Zillow, only one had a for-sale inventory of

FIGURE 10

Although Increasing Somewhat, Construction of Modest-Sized Housing Remains Limited

Units Added (Thousands)



Notes: Small single-family homes are under 1,800 sq. ft., and larger single-family homes are 1,800 sq. ft. and over. Condominiums are multifarmily units built for sale. Manufactured homes are manufactured housing shipments. Single-family completions by home size for 2017 were unavailable at time of publication.

Source: JCHS tabulations of US Census Bureau, New Residential Construction and Manufactured Housing Surveys.

more than 6.0 months in 2017. Markets in many Western metros were especially hot, with supplies of less than a month in both San Francisco and San Jose. Home sales in Salt Lake City, Seattle, and Stockton also closely tracked the number of homes on the market. At the other extreme, the metros with the largest inventories of available homes were Bridgeport (6.9 months), El Paso (5.6 months), New Haven (5.3 months), Virginia Beach (4.8 months), and Scranton (4.8 months).

Constrained by limited inventory, growth in home sales slowed from 4.5 percent in 2016 to only 1.9 percent in 2017, to a total of 6.1 million units. Although increasing for the third consecutive year, existing home sales led the slowdown with just 1.1 percent growth, to 5.5 million units. The only appreciable upticks in sales (2–3 percent) were in the South and West.

In contrast, new home sales rose 9.3 percent from 2016, to 613,000 units. This was the sixth straight year of growth from the five-decade low of 306,000 units in 2011. More than half (55 percent) of new home sales were in the South, and about a quarter were in the West. Of the remaining sales, 12 percent were in the Midwest and only 7 percent in the Northeast.

CONTINUED CLIMB IN HOME PRICES

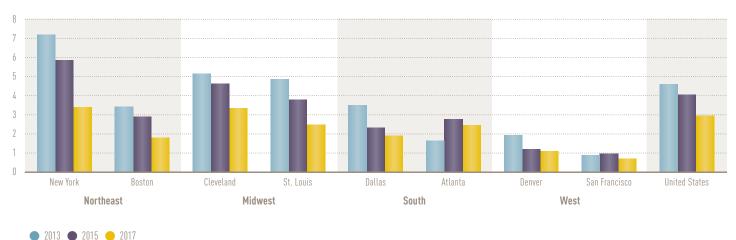
Nominal home prices rose 6.2 percent over the course of 2017, even faster than the 5.3 percent increase in 2016. In real terms, home price appreciation was a strong 4.6 percent. As a result, the median price of an existing home rose from \$237,387 in 2016 to \$238,800 in 2017.

Recent home price trends vary sharply across the country. JCHS analysis of the FHFA All-Transactions Index indicates that nominal home prices in 13 of the nation's 100 largest metro areas rose more than 10 percent last year. The biggest increases were in the West, especially the Seattle (14 percent), Las Vegas (14 percent), and Salt Lake City (10 percent) metro areas. Appreciation also hit double digits in Dallas, Grand Rapids, Nashville, and Orlando. In contrast, home prices fell slightly in McAllen and were essentially flat in Bridgeport, Hartford, and New Haven.

By the end of 2017, nominal home prices in 59 of the nation's 100 largest markets exceeded their pre-crisis peaks. Prices were furthest above peak in metros that experienced only a modest downturn after the crash and then a surge in appreciation, such as Denver (62 percent above peak), Austin (58 percent), Dallas (55 percent), and Houston (44 percent). Other metros with above-peak home prices had posted less of a drop but also a milder rebound. In Albany, for example, home prices fell just 6 percent during the housing crisis, then climbed 10 percent through 2017 to stand 3 percent above the previous peak. Similar trends are evident in Little Rock, Oklahoma City, and Tulsa. In still other metros, home prices rebounded sharply from a severe drop. Los Angeles is one example, where nominal home prices fell by 36 percent after the crash, but now exceed the previous peak by 3 percent.

Inventories of Homes for Sale Continue to Shrink in Markets Across the Country

Months of Supply



Notes: Homes for sale include both new and existing units. Months of supply measure how long it would take homes on the market to sell at the current rate, where 6 months is generally considered a balanced market. Source: JCHS tabulations of Zillow data.

Home prices in markets that experienced the worst boom-bust cycles are lagging the most relative to past peaks. In the most extreme example, prices in Las Vegas plummeted 61 percent and more than doubled since, but still stand 22 percent below peak. Bakersfield, Cape Coral, and Fresno underwent similarly severe cycles, leaving home prices at least 20 percent below peak.

Measured in real terms, home price increases since 2000 have been especially steep in the nation's 10 highest-cost metros (including Boston, New York, San Francisco, and Seattle), where appreciation was an astounding 67 percent (Figure 12). In contrast, prices in the 10 lowest-cost metros (including Dayton, El Paso, Memphis, and Syracuse) were up just 3 percent in real terms over this period.

Real home prices in non-metro areas also climbed by a relatively strong 18 percent in 2000–2017. The largest increases were in the non-metro areas of North Dakota (85 percent), Hawaii (69 percent), Montana (52 percent), and South Dakota (45 percent). Moreover, in 19 of the 47 states with non-metro counties, home price appreciation in those areas outpaced statewide increases. Over this period, non-metro home prices declined in only four states—Michigan (down 6 percent), Ohio (6 percent), Connecticut (2 percent), and Indiana (2 percent).

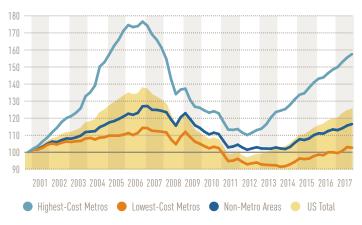
GROWING CONCERNS ABOUT AFFORDABILITY

Rising prices have made homes less affordable, particularly at the low end of the market. In 2017, real home prices for the lowest-cost homes (selling for 75 percent or less of the median sales price)

FIGURE 12

Real Home Prices Have Risen in Most Markets Since 2000, But Especially in Highest-Cost Metros

Home Price Index



Notes: Prices are adjusted for inflation using the CPI-U for all items less shelter. Non-metro prices are weighted averages of all state non-metro prices, with each state's value weighted by the share of detached single-family housing units in non-metro areas. Highest- (lowest-) cost metros are the 10 metros with the highest (lowest) median home values in 2017 from Zillow.

Source: JCHS tabulations of the FHFA All-Transactions House Price Index.

were up 6.9 percent—more than twice the 3.3 percent increase in prices for highest-cost homes (selling for at least 125 percent of the median). Between 2000 and 2017, real prices for the nation's lowest-cost units soared nearly 80 percent, compared with 28 percent for highest-cost units.

The runup in prices is most dramatic in the neighborhoods of the nation's highest-cost metro areas. In markets where the median home value was above \$250,000 in 2017, home prices appreciated 69 percent on average in lowest-cost neighborhoods and 45 percent in highest-cost neighborhoods in 2012–2017. Although prices in these lowest-cost neighborhoods had dropped sharply after the housing crash, the real median home value ballooned from about \$179,000 in 2012 to \$297,000 by the end of 2017.

Meanwhile, increases in the median sales price of existing homes have outstripped growth in median household income for six years. As a result, the price of a typical existing home sold in 2017 was more than four times the median income. Among the 100 largest metros, 33 had price-to-income ratios above 4.0, including five with ratios above 8.0 (Figure 13).

Topping the list is San Jose, where the median sales price was 10.0 times the median household income, followed closely by Los Angeles (9.5 times), Honolulu (9.2 times), San Francisco (8.9 times), and San Diego (8.1 times). On the flip side, price-to-income ratios

were below 3.0 in 25 metro areas last year, including Pittsburgh, Rochester, Syracuse, Toledo, and Wichita. By comparison, nearly three-quarters of large metro areas had price-to-income ratios below 3.0 in 1988, while only 14 metros had ratios over 4.0.

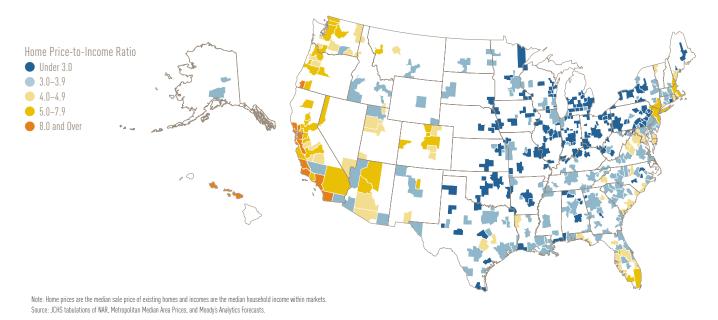
THE OUTLOOK

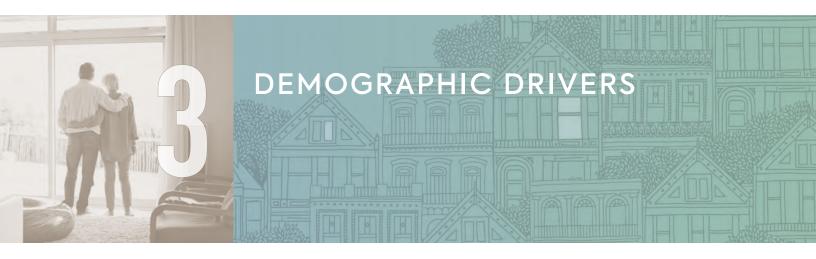
The housing sector faces significant challenges in the short term. Labor shortages, rising materials costs, limited land availability, and land-use regulations are all holding down growth in new residential construction. Meanwhile, inventories of existing homes for sale are at all-time lows, pushing up prices and making homebuying more difficult, especially for low- and moderate-income households.

Over the medium and longer terms, however, demographic forces will support a pickup in housing construction. The latest Census Bureau projections indicate that the population of 30–44 year olds, the age group most likely to buy new homes, will increase by 8.5 million over the next decade. Of course, the housing preferences of millennials, as well as the decisions that baby boomers make about aging in place, will determine the types and locations of homes demanded. The critical question, however, is whether the homebuilding industry can supply, and local regulations allow, enough new housing to meet the need for homes affordable to a broad range of households.

FIGURE 13

Median Home Prices in Most Western Metros Are Five Times Greater than Incomes





With its oldest members now in their late 20s and early 30s, the millennial generation is forming new households in greater numbers and moving to different states in search of opportunity. At the same time, nearly 10,000 baby boomers turn 65 every day, raising the average age of US households. Although wealth is growing, homeowners and those at the top have captured most of the gains, and millions of households have little or no wealth. Going forward, immigration will become an increasingly large, albeit unpredictable, source of population growth and therefore housing demand.

MILLENNIALS PROPPING UP HOUSEHOLD GROWTH

The latest Census Bureau data point to moderate household growth in 2017. The Housing Vacancy Survey, the most consistent source of estimates, puts the increase at 930,000 households, in line with growth in 2016 and well above the annual average in 2006–2011. All three major Census Bureau surveys show that household growth has picked up over the past three years, with increases ranging from 800,000 to 1.1 million annually—above post-recession lows but short of the 1.35 million annual average in 2000–2006.

The millennial generation is driving much of the rebound in household growth, forming an average of 2.1 million net new households annually in 2012–2017. The acceleration of household growth largely reflects the sheer number of millennials moving into the age groups most likely to head their own households (**Figure 14**). For example, when members at the peak of this large generation were aged 20–24 in 2011, only one in four headed an independent household. At ages 25–29 in 2016, that share increased to 42 percent. By the time they reach the ages of 30–34 in 2021, half of this group will likely head households.

Even so, millennials are not forming households at the same rates as past generations at the same ages. In fact, household headship rates among young adults are still declining, albeit more slowly than after the recession. Indeed, 26 percent of adults aged 25–34 were living with parents or other relatives in 2017, while 9 percent were doubling up with non-family members—both shares all-time highs. Still, population growth among young adults has outweighed relatively low headship rates, lifting new household formations and overall household growth.

The aging of the US population has also boosted the number of older households because the baby-boom generation is so much larger than the preceding generation. Eight years after the oldest baby boomers hit 65, younger members of that generation are now turning 65 at a rate of 3.6 million a year. In the past 10 years alone, the number of older households grew by over 7 million, rising from one in five households to one in four. By 2035, one out of every three households will be at least 65 years old.

The Millennial Population Is Moving into the Ages When They Are More Likely to Head Households



Source: JCHS tabulations of US Census Bureau, Population Estimates and 2017 Population Projections

THE IMPORTANCE OF IMMIGRATION TO HOUSING

As a major source of adult population growth, immigration has driven a significant share of US household growth over the past three decades. According to Census Bureau data, the number of foreignborn households more than doubled from 7.7 million in 1990 to 17.8 million in 2016, accounting for more than a third of the growth in households over that time. American Community Survey estimates show that the foreign-born share of household growth was even higher in 2006–2016, at 41 percent.

Immigrants have a sizable presence in housing markets, making up 20 percent of renter households and 12 percent of homeowners. While adding to housing demand during expansions, immigrants also bolster demand during downtums. For example, 1.5 million foreignborn households joined the ranks of homeowners in 2006–2016, offsetting the 1.1 million drop in native-born homeowners. Similarly, immigrants buoyed the weak rental market in the late 1990s and early 2000s, adding 1.8 million new renter households at a time when the number of native-born renters declined by 0.6 million.

Immigrants have also helped to stabilize both urban and rural communities that would have otherwise lost population. For example, Philadelphia is among the 47 metro areas where international immigration fully offset domestic outmigration between 2010 and 2017. Also during this period, 3.8 million international immigrants moved to the core counties of the nation's largest metros, compared with a 1.2 million net loss to domestic migration. Another 250,000 international migrants moved to rural counties, helping to replace some of the 800,000 residents lost to outmigration.

Immigrants will become an even larger source of US population growth in the future as natural increase among the nativeborn population slows (Figure 15). Indeed, even given the Census Bureau's new, lower projections of net immigration, the immigrant share of population growth will increase from 42 percent in 2018 to 67 percent in 2040. As the foreign-born share of population growth rises, so, too, will their share of household growth.

INCOMES RISING BUT DISPARITIES REMAIN

The recent acceleration in income growth is likely to increase housing demand because higher incomes enable individuals to form new households and existing households to buy homes or make other housing-related purchases. Although flat at \$25,300 in 2016, real per capita incomes were up 6.5 percent over the previous two years and 7.5 percent over the previous three. Per capita income growth in 2013–2016 was especially strong among the age groups most likely to head new households, with median incomes up 12.0 percent among 25–34 year olds and up 11.5 percent among 35–44 year olds (Figure 16).

At last measure, real median household income grew 3.8 percent in 2015–2016 to a record \$59,000. Income gains across all age groups helped to offset previous declines, although to varying degrees. Increases among households in the 25–34 and 35–44 year-old age groups were especially large, boosting incomes 3–4 percent above previous peaks. In contrast, median incomes of households aged 45–54 and 55–64 were only back to 2006 levels.

Meanwhile, income growth among older households has been on a steady upward trend. Between 2006 and 2016, the median income for 65–74 year-old households rose 22 percent while that for the 75-and-over age group climbed 15 percent. Indeed, the real incomes of households in these two older age groups were 38 percent and 32 percent higher than those for same-age households in 1988.

Despite substantial gains at the low end of the income spectrum, the gap between rich and poor has widened. Average incomes for households in the bottom income quintile rose sharply in 2015–2016 but, at just \$12,900 in inflation-adjusted terms, were still 5 percent below the previous peak in 2006 and 9 percent below the level in 2000. Meanwhile, average real incomes for households in the top quintile stood at \$213,500 in 2016, up 7 percent from the previous peak and 8 percent from the level in 2000. As a result, the average income of households in the top quintile was 16.6 times higher than the average income of households in the bottom quintile in 2016, compared with 14.0 times in 2000.

Black-white and Hispanic-white income gaps also remain sizable. In 2016, the median income for black households (\$39,000) was 40 percent below the \$65,000 median for white households, while that for Hispanic households (\$47,800) was 27 percent below. These disparities are only slightly smaller than 30 years ago, when the black-white income gap was 44 percent and the Hispanic-white gap was 33 percent.

INCREASING INEQUALITY OF WEALTH

The 2016 Survey of Consumer Finances reports that real median household wealth rose 16 percent between 2013 and 2016, with homeowners reaping most of the increase. Strong growth in home equity lifted the median wealth of homeowners from \$201,600 to \$231,400, while the real median wealth of renter households dropped from \$5,600 to \$5,000. With these changes, the median net wealth of homeowner households was 46 times that of renter households. Even among renters in the top income quartile of all households, median wealth (\$116,900) was well below that of owners (\$710,000).

In addition, the median wealth of white households in 2016 (\$162,800) was ten times higher than that of black households (\$16,300) and eight times higher than that of Hispanic households (\$21,400). Low minority homeownership rates are a factor, but the median net wealth of white homeowners was also roughly 2.5 times that of black and Hispanic owners. Moreover, home equity makes up a much larger share of household wealth for the average minority homeowner, accounting for 56 percent among blacks, 65 percent among Hispanics, and 49 percent among all other minorities. By comparison, the share among white homeowners is just 38 percent.

Despite recent gains, the net wealth of younger households remains well below historical levels. Indeed, the median wealth of 25–34 year olds rose 19 percent in 2013–2016, to \$17,600—still 39 percent lower than in 1995. Similarly, the median net wealth of 35–44 year olds was up by 23 percent, to \$59,700, but still lagged the 1995 level by 27 percent. Even among the 45–54 year-old age group, median net wealth of \$124,040 was still 15 percent lower than in 1995. Higher student loan debt and lower homeownership rates among households in these age groups account for much of these disparities.

In sharp contrast, the median wealth of households age 65 and over was \$239,100 in 2016, fully 51 percent above the level in 1995. This increase has occurred despite a 19 percentage-point jump in the share of older owners carrying mortgage debt over this period, to 41 percent. In addition, the median amount of mortgage debt among these older owners was \$72,000, more than double the inflationadjusted average of \$28,200 in 1995.

Notably, households in the top income quartile posted the largest increase in net wealth in 2013–2016, up 28 percent to a record high of \$621,100. The median net wealth of households in the bottom income quartile, however, rose a modest 7 percent over this period to stand 43 percent below its 2007 peak. Indeed, top quartile households received outsized shares of the income and wealth generated by economic growth over the past three decades (Figure 17). Measured from 1989, \$50 trillion of the \$54 trillion gains in real household net worth went to the top 20 percent of households, while some \$23.6 trillion went to the wealthiest 1 percent.

GROWTH IN LOW-WEALTH HOUSEHOLDS

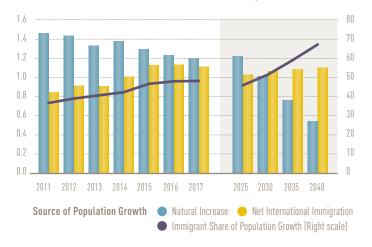
With so much wealth accruing to so few, the number of US households with little or no wealth is on the increase. After a modest rise

FIGURE 15

With the Native-Born Population Increasing More Slowly, Immigration Will Be the Main Driver of Housing Demand

Population Growth (Millions)

Share of Population Growth (Percent)



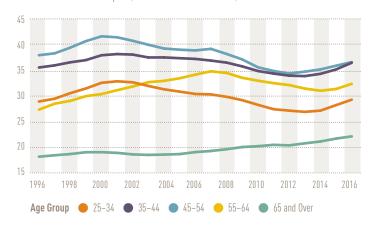
Note: Natural increase is the number of births minus deaths in the resident population.

Source: JCHS tabulations of US Census Bureau, Population Estimates and 2017 Population Projections.

FIGURE 16

Real Incomes Are Rising for All Age Groups, But Most Rapidly for Younger Adults

Median Income Per Capita (Thousands of 2016 dollars)



Note: Incomes are adjusted for inflation using the CPI-U for all items and based on 3-year moving averages. Source: JCHS tabulations of US Census Bureau, Current Population Surveys.

in the 1990s and early 2000s, the number of households with less than \$20,000 in wealth jumped during the last recession from 30.8 million in 2007 to 37.6 million in 2010. In 2016, after several years of economic recovery, 38.5 million households (31 percent of households) had net wealth of less than \$20,000, and 14.4 million of this group (11 percent of all households) had zero or negative wealth.

Minorities made up half of the nation's low-wealth households in 2016, up from 39 percent in 1995. They also accounted for more than three-quarters of the growth in low-wealth households between 1995 and 2016. Indeed, as the number of minority households increased over this long span, the shares with low wealth remained consistently high at 52 percent for blacks, 49 percent for Hispanics, and 30 percent for Asians and other minorities. Meanwhile, the share among whites also remained steady at a relatively low 22 percent.

The numbers of working-aged households with little or no wealth are rising, particularly among adults approaching retirement—the time of life when wealth traditionally peaks. The number of 45-54 year olds with less than \$20,000 in net wealth doubled from 3 million in 1995 to 6 million in 2016, while the number of 55-64 year olds with low wealth climbed from 2 million to 5 million. While population growth within these age groups accounts for some of this increase, the likelihood of having low wealth also increased. For example, the share of low-wealth households aged 45-54 rose from 17 percent to 26 percent over this period, while that of households aged 55-64 rose from 16 percent to 21 percent. Although the share did not increase, population growth alone pushed up the number of low-wealth households age 65 and over from 10 million in 1995 to 15 million in 2016. As younger cohorts move into this age group, however, they will drive up both the number and share of retirementage households with little financial cushion.

With rising numbers of households with low incomes and little wealth, more people are living in poverty. Between 2000 and 2016, the population with below-poverty-level incomes grew by 28 percent (12.8 million). At the same time, the number of poor people living in high-poverty census tracts (with poverty rates of 20 percent or higher) rose by 41 percent or some 10 million. As a result, the

share of the nation's poor people living in high-poverty neighborhoods increased from 43 percent in 2000 to over half in 2016. The number of high-poverty census tracts in the United States also grew 53 percent from 13,400 to 20,600 over this period.

Regardless of income, though, disproportionately large shares of minorities live in high-poverty areas, including 51 percent of blacks and 44 percent of Hispanics. The shares for whites (17 percent) and for the population as a whole (26 percent) are much more modest. After factoring in income, the share of the poor black population living in high-poverty neighborhoods is 72 percent while that of the poor Hispanic population is 65 percent, compared with just 36 percent of the poor white population. It is noteworthy, however, that the number of poor whites living in high-poverty neighborhoods rose 53 percent in 2000–2016, outpacing increases among other groups.

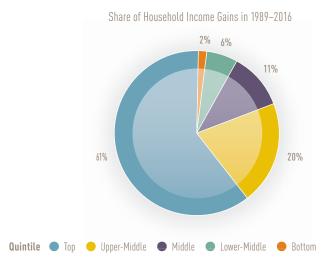
HISTORIC LOW IN RESIDENTIAL MOBILITY

The rate at which US households change residences has been declining for many years. According to the Current Population Survey, 11 percent of the population in 2017 moved to different homes within the preceding 12 months, down from 12 percent five years earlier and 13 percent in 2007. The American Community Survey also reported a 2 percentage-point decline in the mobility rate from 2006 to 2016.

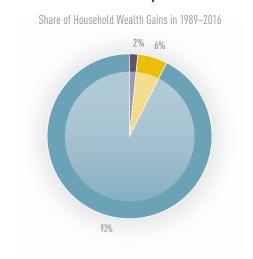
Given that older adults are less likely to move than younger adults, the overall aging of the population has played a role in this slow-down. But household mobility rates for all age groups have fallen since 1996, with the largest decline among younger households **(Figure 18).** Indeed, the mobility rate for 20–24 year olds dropped from 34 percent in 1996 to 24 percent in 2017. Other declines range from 3 percentage points for households aged 30–34 to just 1 per-

FIGURE 17

Most Gains in Income and Wealth Over the Past Three Decades Have Gone to the Top Fifth of Households

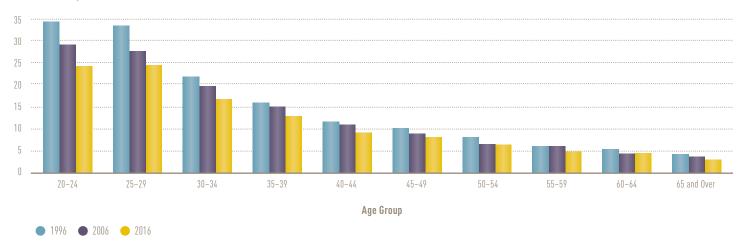


Notes: Quintiles are five equal groups of households ranked by income and wealth. Shares may not sum to 100% due to rounding.
Source: JCHS tabulations of Federal Reserve Board, Surveys of Consumer Finances, and US Census Bureau, Current Population Surveys.



Young Adults Are Far Less Likely to Move than in the Past

Share of People that Moved in the Previous Year (Percent)



Note: Mobility rates are for all individuals at least a year old, living in households, and reporting a local, interstate, or international move Source: JCHS tabulations of US Census Bureau, Current Population Surveys.

centage point for households 65 and over. But given the size of the 65-and-over age group, even this modest drop translates to significantly fewer residential moves.

Although renters traditionally move more often than owners, their mobility rate has also dropped sharply, offsetting the impact of higher rentership rates. As a result, even though the number of people living in rental housing rose from 72.5 million in 1996 to 83.2 million in 2017, the number of renter-movers declined from 24.2 million to 17.9 million. The lower mobility rate among renters thus contributed 3.4 percentage points of the 5.3 percentage point decline in overall residential mobility.

Several social, economic, and demographic trends may explain the decline in residential mobility. The increased tendency for adult children to live with their parents, for example, results in lower mobility rates not only for those young adults, but also for their parents who might otherwise move to smaller homes or to retirement communities. Rising student loan debt may also play a role both by making it harder for young adults to afford to live independently and by making the transition from renting to owning more difficult.

In addition, lower-cost rentals are increasingly scarce in many areas, making tenants reluctant to move even if the units are no longer suitable. Growth in two-earner households may also limit the ability or willingness to move. Finally, many of the growing number of older households are staying in their homes longer than previous generations at their ages, rather than downsizing or moving to rentals.

SPEEDUP IN DOMESTIC MIGRATION

A slowdown in local moves drove almost all of the decline in residential mobility between 2006 and 2016, accounting for 3.0 million

of the 3.2 million drop in annual moves. Meanwhile, interstate migration—which has important impacts on housing demand in markets that migrants both move to and leave—appears to have stabilized. Both the American Community Survey and the Current Population Survey report the share of people migrating between states in 2016 rate was roughly the same as in 2008.

Interstate migration has even picked up over the past several years in some areas, particularly in the West. For example, Washington has attracted more residents from out of state and lost fewer to other areas, lifting net domestic inflows from 14,000 in 2012 to 64,600 in 2016. The annual net increase in Oregon also jumped from 11,700 to 38,000 over this period, due largely to in-migration from other states.

Resuming past trends, total net domestic migration to the Southeastern states of Florida, Georgia, and the Carolinas rebounded from a low of 86,000 in 2009 to 317,000 in 2017. Meanwhile, domestic outflows from the Northeast and Midwest continued to increase in 2017. The three states with the largest net domestic outflows—California, Illinois, and New York—lost 443,000 residents to domestic migration in 2017, more than double the 207,000 net losses in 2011.

Across age groups, interstate migration appears to have settled near the lows reached in 2010, with slight increases among millennials and baby boomers. The rate of domestic migration among 25–34 year olds rose modestly from 3.7 percent in 2010 to 4.0 percent in 2016, lifting the number of state-to-state movers from 1.5 million to 1.7 million. The number of domestic migrants in the 65-and-over age group rose even more, from 390,000 to 600,000, not only because of strong population growth within this age group, but also because of an increase in their rates of migration.

A diverse group of states is gaining large numbers of millennials, including Colorado, Georgia, Maine, Minnesota, New Hampshire, Oregon, Texas, and Washington (Figure 19). Other states are drawing individuals across the age spectrum, including Arizona, Florida, Idaho, Montana, Nevada, North Carolina, Tennessee, and Utah.

At the county level, recent flows of domestic migrants are in keeping with long-term trends of urbanization and suburbanization. As a group, core counties of large metros consistently lost domestic migrants on net from 2010 to 2017, as did non-metro (rural) counties. At the same time, non-core counties of large metros, as well as counties in medium-sized metros, continued to draw domestic migrants on net.

THE OUTLOOK

Although the pace of household growth in 2017 still lagged long-term average rates, the outlook remains largely positive. With incomes and wealth rising, the growth and aging of the US population is expected to drive up household growth and therefore the demand for housing. Assuming that the current economic expansion continues, state-to-state migration should increase further, bringing new housing demand to different parts of the country.

However, future population growth—and therefore the outlook for housing demand—depends largely on the pace of immigration. According to the Census Bureau's latest population projections, immigration's contribution to annual population growth is expected to increase from roughly half to two-thirds by 2040, due mainly to slower growth of the native-born population. These projections assume average annual immigration of just 1.04 million through 2035, on par with the pace in 2013–2016 but significantly lower than the 1.32 million annual average from the Bureau's previous projection.

The latest JCHS household growth projections, which incorporate the Census Bureau's new population projections and two more years of data, put the increase in households at 12.0 million in 2017–2027, with a slowdown to 9.9 million in 2027–2037. These numbers are significantly lower than previously projected, not only because of lower expected immigration, but also because of higher expected mortality rates among the older native-born population. The largest reductions in projected growth are therefore among middle-aged Hispanic households and older white households. Nevertheless, household growth of 1.2 million per year in 2017–2027 is in line with the pace averaged over the last three years.

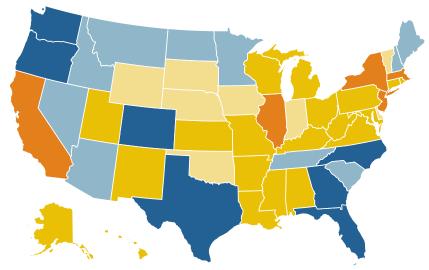
While future immigration levels remain uncertain, there is no doubt that the number of older adults will reach an unprecedented high over the next two decades. With this growth will come different demands, challenges, and stresses on the housing stock. It is equally certain that millennials—the largest and most diverse, but also so far the least mobile, lowest-wealth, and least likely to own generation ever—will have a growing impact on both the rental and entry-level homeownership markets over the next decade.

FIGURE 19

States in the Sunbelt and Pacific Northwest Are Attracting Millennials from Other Parts of the Country

Average Annual Net Domestic Migration of 26–34 Year Olds. 2012–2016

- Inflow of 5,000 or More (Up to 36,600)
- Inflow of Less than 5,000
- No Change (+/- 500)
- Outflow of Less than 5,000
- Outflow of 5,000 or More (Up to 33,900)



Note: The 2012–2016 average excludes 2015 due to data quality issues.
Source: JCHS tabulations of Internal Revenue Service, Statistics of Income Migration Data.



The national homeownership rate ticked up in 2017 for the first time in 13 years, buoyed by growth in the number of homeowner households. Despite the ongoing rise in home prices, low interest rates have helped to keep monthly housing costs relatively affordable for new homeowners. Still, the upward climb of interest rates, limited inventory of homes for sale, widespread increases in student loan debt, and insufficient savings for downpayments raise important concerns about the ability of many potential buyers to access homeownership.

HOMEOWNERSHIP AT A TURNING POINT

After more than a decade of decline, the national homeownership rate reached a floor in the second quarter of 2016 (Figure 20). From a 50-year low of 62.9 percent, the rate moved up to 64.2 percent by the fourth quarter of 2017—in line with rates in the late 1980s and mid-1990s—and held there through the first quarter of 2018. While it is too early to tell if this marks the beginning of a significant rebound, the recent upturn suggests that the homeownership rate has at least stabilized

A jump in the number of homeowners drove the increase. After declining by an average of 154,000 households annually from 2007 to 2015, the number of homeowners rose by 320,000 in 2016 and then soared to 1.1 million in 2017—the first year since 2005 that annual growth exceeded the 1.0 million mark. As a result, the total number of homeowner households hit an all-time high of 76.2 million last year.

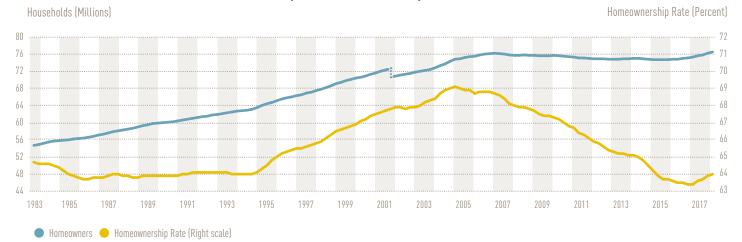
The shrinking foreclosure inventory explains part of the stabilization in homeownership. According to Mortgage Bankers Association data, the share of loans in foreclosure peaked in the fourth quarter of 2010 at 4.6 percent (2.0 million). At the end of 2017, that share had retreated to just 1.2 percent (461,300), in line with pre-crash levels. Meanwhile, CoreLogic reports that the share of mortgaged residential properties with negative equity had receded to 4.9 percent at the end of last year, down sharply from 26.0 percent at the end of 2009.

LONG-TERM HOMEOWNERSHIP TRENDS

While most demographic groups shared in the recent gains, homeownership trends by race/ethnicity and age have diverged sharply over the past 30 years. The homeownership rate among Asians increased 7.1 percentage points between 1987 and 2017, to 55.8 percent, the rate for Hispanics increased 5.7 percentage points, to 46.2 percent, and the rate for whites increased 3.6 percentage points, to 72.3 percent.

In contrast, black households lost ground over this period, with their homeownership rate of 43.1 percent in 2017 standing 2.7 percentage

After Years of Decline, the Homeownership Rate Has Turned Up



Notes: Data are 4-quarter moving averages through the first quarter of 2018. Break in the homeowner series in 2001–2002 is due to rebenchmarking. Source: JCHS tabulations of US Census Bureau, Housing Vacancy Surveys.

points below the 1987 level. Moreover, the black homeownership rate is also 6.6 percentage points below its mid-2000s peak, considerably more than the 5.0 percentage point difference for Asians, 3.4 percentage point difference for Hispanics, and 3.7 percentage point difference for whites. Taken together, these trends mean that while the Hispanic-white and Asian-white homeownership gaps have narrowed somewhat over the past three decades, the black-white gap has widened substantially.

Meanwhile, households age 65 and over are the only age group that had higher homeownership rates in 2017 than in 1987, with a gain of 3.3 percentage points bumping their rate up to 78.7 percent. Indeed, the fact that the national rate is now within 0.1 percentage point of its 1987 level reflects the surge in the number of older homeowners. Homeownership rates for all other age groups fell markedly over this period. The rate for 35–44 year olds dropped the most, down 8.3 percentage points to 59.0 percent. The rate for 25–34 year olds also stood at only 39.2 percent last year—well below the 45.5 percent posted 30 years earlier. However, these younger households saw a 0.6 percentage point increase in 2017— the largest homeownership gain of any age group.

CHANGING HOMEOWNER DEMOGRAPHICS

Like the US population overall, homeowners are aging. JCHS analysis of Decennial Census and American Community Survey data shows that the median age of homeowners increased from 50 in 1990 to 56 in 2016, while that of all households rose from 45 to 52. Strikingly, the numbers of homeowners in all five-year age groups under 45 were lower in 2016 than in 1990, while the numbers in all

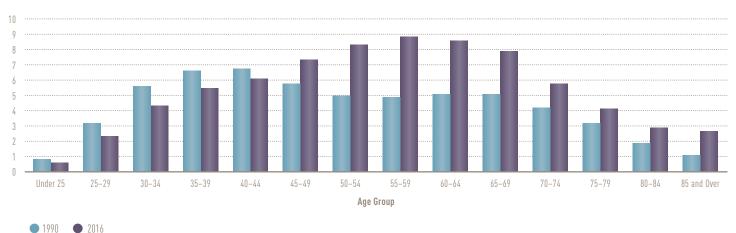
age groups over 45 were higher **(Figure 21).** The fastest growth has been among households in their pre-retirement years (50s and 60s). Between 1990 and 2016, the aging of the baby boomers pushed up the number of homeowners in their 50s by 75 percent and the number in their 60s by 63 percent. In combination with lower homeownership rates among younger households, these trends mean that the share of homeowners aged 65 and over increased from one in four in 1990 to one in three in 2016.

A 2014 AARP survey indicates that 88 percent of today's age 65 and over adults want to remain in their homes as they age. The growing number and share of older homeowners are therefore likely to have at least two important consequences for the housing market. First, assuming that the baby boomers follow through on their intentions to age in place, the inventory of houses for sale will depend even more heavily on additions to supply over the next two decades. Second, aging-related difficulty with activities of daily living may prompt many older homeowners to modify their homes to improve accessibility, generating sizable growth in the remodeling market.

In addition to being older, US homeowners are also more diverse. Between 1990 and 2016, the share of white owners fell from 86.4 percent to 76.7 percent. Over this period, the number of Asian owners rose roughly 250 percent (3.3 million) and the number of Hispanic owners rose nearly 200 percent (4.6 million). The number of black homeowners increased by a much more modest 39 percent (1.6 million), but still outpaced the 13 percent increase in white homeowners (6.7 million). Hispanic households thus accounted for 28 percent of homeowner growth in 1990–2016, Asians for 20 per-

With the Aging of the Baby Boomers, Homeowners Are Much Older Today than in 1990

Homeowner Households (Millions)



Source: JCHS tabulations of US Census Bureau, 1990 Decennial Census and 2016 American Community Survey 1-Year Estimates.

cent, and blacks for 10 percent. Although their numbers are rising much more slowly, white households still contributed 41 percent of the total growth in homeowners between 1990 and 2016.

A growing number and share of homes are owned by immigrants. Indeed, the number of foreign-born homeowners more than doubled to 9.1 million in 1990–2016. As a result, the share of homeowners born outside the US jumped from 7 percent to 12 percent. The 5.0 million foreign-born homeowners added over this period accounted for nearly a third (31 percent) of total homeowner growth, underscoring the important role that immigration plays in the homeownership market.

RISING PRICES BUT RELATIVE AFFORDABILITY

Continuing a steady upward climb, the nominal median sales price of existing homes increased from \$233,800 in 2016 to \$247,200 in 2017. Although higher prices mean larger downpayments, the recent uptick in incomes and persistently low interest rates have kept monthly payments affordable (Figure 22). In fact, the monthly payment for the median single-family home purchased in 2017, assuming a 30-year loan with a 3.5 percent downpayment at the average interest rate, totaled \$1,620 in real terms—slightly below the \$1,650 averaged in the 30 years from 1987 to 2016, but more than \$900 below the real median in 1981 when interest rates were at an all-time high.

However, interest rates on 30-year loans are on the rise, moving up from 3.65 percent on average in 2016 to 3.99 percent in 2017, and then to 4.47 percent in April 2018. In combination with higher

prices, last year's increase pushed up monthly payments on the median-priced home by about \$100 in 2016–2017. If interest rates rise by a full percentage point over the course of 2018, to 4.99 percent, monthly payments would increase by \$142, to \$1,761, even if home prices stay constant. But if interest rates climb to 4.99 percent and home prices also rise at the same rate as in 2017, the median monthly mortgage payment would increase by \$220, to \$1,839.

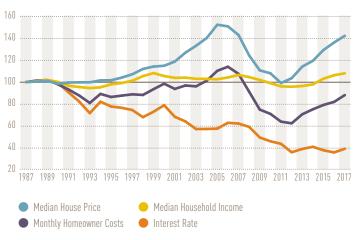
While still relatively affordable in the nation as a whole, homeownership in some metros remains far out of reach for the typical household (Figure 23). In the high-cost Los Angeles market, for example, a household with the area median income would be able to afford the monthly mortgage payments on only 11 percent of recently sold homes. And because these homes include studio apartments and other small units suitable for only one or two people, the affordable options for families are even more limited. By contrast, even a low-income (bottom-quartile) household in Pittsburgh would be able to afford 26 percent of recently sold homes. Such dramatic differences in affordability contribute to large disparities in homeownership across metro areas. Of the nation's 50 largest metros, Pittsburgh has the highest homeownership rate of 70 percent, while Los Angeles has the lowest rate of 48 percent.

SHRINKING OPPORTUNITIES TO REFINANCE

The drop in mortgage interest rates from above 10 percent in 1988 to below 4 percent in 2012 provided a strong incentive for homeowners to lower their long-term housing costs by refinancing. For example, a homebuyer who purchased a median-priced home in 2002 with a 30-year mortgage, an interest rate of 6.54 percent, and a downpay-

Low Interest Rates Have Offset Rising Prices, Keeping Monthly Costs Down

Index



Notes: House prices, household income, and monthly homeowner costs are adjusted for inflation using the CPI-U for all items less shelter. Monthly homeowner costs assume a 3.5% downpayment on a median-priced, existing single-family home (including condos and co-ops) with property taxes of 1.15%, property insurance of 0.35%, and mortgage insurance of 0.85%.

Sources: JCHS tabulations of NAR, Existing Home Sales; US Census Bureau, American Community Surveys; Moody's Analytics Forecasts; Freddie Mac, Primary Mortgage Market Survey (PMMS).

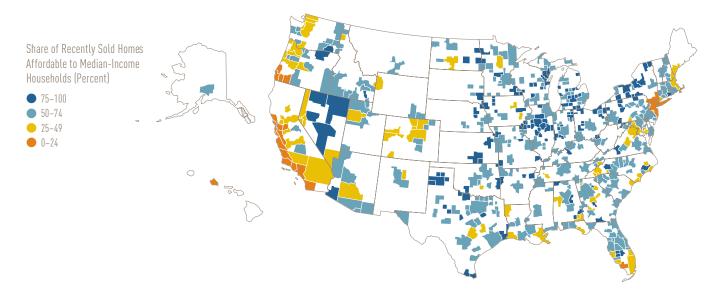
ment of 3.5 percent, would have had a monthly mortgage payment of \$1,769. Refinancing in 2012 at the average interest rate of 3.66 percent, however, would have reduced that payment to \$1,332 assuming a 20-year fixed-rate mortgage or to \$1,098 assuming a 30-year loan. As a result of this refinancing opportunity, only 15 percent of homeowners in 2016 held mortgages originated in 2007 or earlier, and many of those with older loans had only small balances or already had low interest rates.

But not all potential refinancers were able to take advantage of historically low interest rates. Whether because of negative equity, lack of knowledge of refinancing options, or other barriers, nearly 3.3 million (5 percent) of homeowners in 2016 still had pre-2008 loans with interest rates of at least 5 percent and balances of at least \$50,000. According to JCHS analysis of the Survey of Consumer Finances, this group includes 9 percent of black homeowners, 7 percent of Hispanic homeowners, and 6 percent of Asian homeowners, compared with just 3 percent of white homeowners. Moreover, another 8 percent of homeowners in 2016 had mortgages originated in 2008 or later with interest rates of at least 5 percent and balances of at least \$50,000.

For both groups of homeowners with relatively high-rate loans, the window to secure a lower-cost mortgage is closing. As noted earlier, the average interest rate charged on a 30-year fixed-rate

FIGURE 23

The Affordability of Monthly Homeowner Payments Varies Widely Across Metros



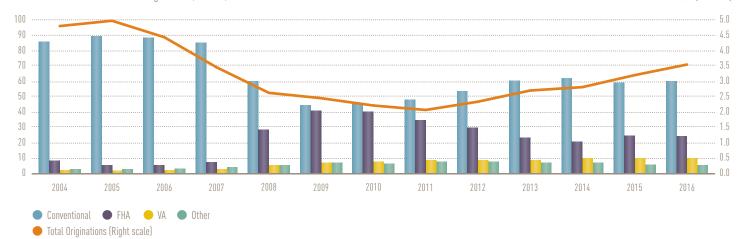
Notes: Median incomes are estimated at the core-based statistical area (CBSA) level. Recently sold homes are defined as homes with owners that moved within the 12 months prior to the survey date. Monthly payments assume a 3.5% downpayment and property taxes of 1.15%, property insurance of 0.35%, and mortgage insurance of 0.85%. Affordable payments are defined as requiring less than 31% of monthly household income. Only CBSAs with at least 30 home sales in the past year are shown.

Source: JCHS tabulations of US Census Bureau, 2016 American Community Survey 1-Year Estimates, and Freddie Mac, PMMS.

FHA and VA Shares Remain Stable as Purchase Originations Increase







Notes: Conventional includes loans that are not guaranteed or insured by FHA, VA, or another government agency. Many of these loans meet the standards for purchase on the secondary market by Fannie Mae or Freddie Mac. Other includes Farm Service Agency, Rural Housing Service, and manufactured housing loans.

Source: JCHS tabulations of Home Mortgage Disclosure Act data

loan hit 4.47 percent in April 2018 and is likely to move higher if the economy remains strong enough for the Federal Reserve to carry out its expected rate hikes.

At the same time, it is important to note that some 28 percent of homeowners had mortgages with fixed interest rates of 4 percent or lower in 2016. To the extent that interest rates increase significantly, this group may have an incentive to stay in their current homes, further limiting the for-sale housing inventory.

STABLE BUT TIGHT CREDIT CONDITIONS

Even as home prices and home purchase loan originations have risen, the credit environment for potential homebuyers has been essentially unchanged over the past four years. The Federal Reserve Bank of New York reports that the median credit score for new mortgage originations was 755 in the fourth quarter of 2017, and has remained between 750 and 765 since late 2013. However, this range is significantly higher than the 720 averaged in 1999–2006. The 10th percentile credit score was 645, and has held within the 640–660 range since 2013. In addition, the National Association of Realtors indicates that the median downpayment stayed at 10 percent of the purchase price over this period, with the median amount paid by first-time buyers closer to 5 percent.

The current credit environment reflects changes in the lending standards imposed after the foreclosure crisis. These stricter standards have helped to reduce the share of outstanding mortgage loans that are 90 or more days delinquent from a high of 4.5 percent in

2010 to just 1.4 percent in 2017, according to the Mortgage Bankers Association National Delinquency Survey. This is approaching the 0.8 percent share averaged in 2000–2002. Moreover, the number of foreclosure starts stood at 93,000 in the fourth quarter of 2017, even lower than the 135,000 averaged in 2000–2002.

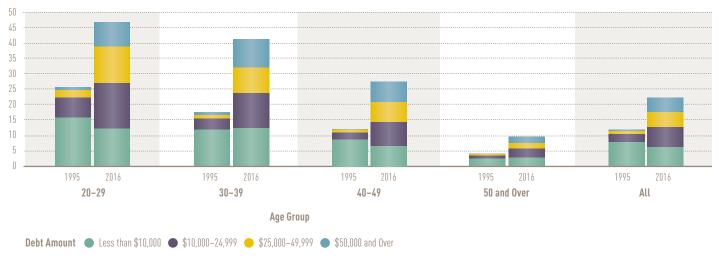
The FHA and VA shares of home purchase loan originations have also leveled out in recent years following a significant jump during the foreclosure crisis **(Figure 24).** Indeed, even as the number of 1–4 unit, first-lien, owner-occupied mortgage originations rose from 2.7 million in 2013 to 3.5 million in 2016, the FHA share remained near 20–25 percent. While down sharply from the high of 41 percent in 2009, the FHA share is still well above the 6 percent low in 2005. The VA share held at 10 percent in 2016, up from 2 percent in 2005. Meanwhile, the conventional share of originations stayed close to 60 percent.

FINANCIAL OBSTACLES TO HOMEOWNERSHIP

Since the housing crash of the mid-2000s, much debate has focused on whether US households have lost their appetite for homeownership. However, survey evidence points to continued strong interest in homeowning. The 2018 Survey of Consumer Expectations found that 67 percent of renters would prefer or strongly prefer to own homes assuming they had the financial resources to do so. Only 19 percent would prefer or strongly prefer to rent. Moreover, 61 percent of renters think buying a home in their ZIP code today is a somewhat or very good investment, and just 12 percent believe it is a somewhat or very bad investment.

Growing Shares of All Households Face Larger Amounts of Student Loan Debt

Share of Households with Student Loan Debt (Percent)



Note: Dollar values are adjusted for inflation using the CPI-U for all items.

Source: JCHS tabulations of Federal Reserve Board, Survey of Consumer Finances.

But many potential homebuyers think they will face financial and other barriers to homeownership. The same survey indicates that 68 percent of renter respondents believe it would be very or somewhat difficult to obtain a home mortgage due to their credit histories. In contrast, 17 percent think it would be very or somewhat easy to qualify for a loan.

Even if they can secure a mortgage, renters must also be able to afford the downpayment and closing costs. The Survey of Consumer Finances shows that the median net worth of renters was just \$5,000 in 2016, about the same in real terms as in both 1995 and 2007. Moreover, fewer than one in three renters had more than \$10,000 in financial assets, and only 21 percent had more than \$25,000. As a result, only a small share would be able to cover even a 3.5 percent downpayment and 2 percent closing costs on a median-priced home, which amounted to \$13,596 in 2016.

Student loan debt may also prevent many would-be buyers from purchasing homes. The share of US households with outstanding student loans nearly doubled from 12 percent in 1995 to 22 percent in 2016 (Figure 25). The increase among renters aged 20–39 was particularly sharp, with a jump from 24 percent to 42 percent. Moreover, the amount of debt they carry has also soared, with 18 percent of renters in that age group owing \$25,000 or more and 9 percent owing \$50,000 or more. The median young renter with student debt thus faced a monthly payment of \$170 in 2016, but 15 percent had monthly payments exceeding \$500. For potential homebuyers, these payments can limit their ability to save for a downpayment, reduce their purchasing power if their total debt-to-income ratios exceed lender limits, and impair access to credit if they are delinquent.

THE OUTLOOK

Sustained growth in the economy has shrunk the foreclosure backlog and bolstered demand for homeownership in recent years, halting the slide in the national homeownership rate. However, with the economic expansion now in its tenth year, continued growth is not assured.

While the aging of the millennial generation will lift the number of households in the prime homebuying years of 25–34 over the next decade, a number of conditions—including rising home prices, affordability challenges, and the limited inventory of homes for sale—currently constrain access to homeownership. Additional interest rate increases would only worsen the affordability pressures facing potential homebuyers.

Political uncertainty also clouds the outlook for homeownership. Following the recent tax bill, the Joint Committee on Taxation projected that the number of filers claiming the mortgage interest deduction will decline by more than half, from 32.3 million in 2017 to 13.8 million in 2018. Similarly, the number of filers who itemize is projected to fall from 46.5 million to 18.0 million, primarily due to the increase in the standard deduction. While reduced deductibility of mortgage interest and property tax payments may erode some of the incentive for homeownership, particularly in areas with high home prices and high property tax rates, the full implications for home prices and demand will be unknown for some time. In addition, proposals to modernize the Community Reinvestment Act, recent efforts to revise Dodd-Frank regulations, and the prospect of GSE reform bring even more uncertainty to the housing finance system.



There are signs that the rental market is cooling, although primarily at the upper end. The number of multifamily starts declined slightly over the past year, and expanding supplies of new luxury apartments pushed up vacancy rates, helping to slow rent growth. Although the number of high-income renters is still growing, lower rentership rates among key groups—particularly younger households—may indicate a turn toward homeownership. Meanwhile, the supply of rentals affordable to the nation's lowestincome households continues to shrink.

SLOWDOWN IN RENTAL DEMAND

As measured by the Housing Vacancy Survey, the number of renter households declined in the second half of 2017, producing a net loss for the year of more than 180,000 households and marking the first period of contraction since 2004 (Figure 26). While their precise estimates differ, the latest American Community Survey and Current Population Survey also show a substantial slowdown in renter growth.

This signals a noteworthy shift away from strong growth in renting. The share of US households that rent their housing fell slightly from 36.6 percent in 2016 to 36.1 percent in 2017, and the first-quarter estimate for 2018 suggests that the decline continued. The largest drop was among households under age 35. Indeed, the number of younger renter households fell by 224,000, reducing the renter share in this age group by 0.8 percentage point, to 64.7 percent. The renter share of households between the ages of 35 and 64 also decreased slightly last year. Meanwhile, the renter share of households age 65 and over did not change, but their numbers climbed by 230,000 last year as growth in the older population picked up steam.

Changes in rentership rates also differ across household types. The renter share of married-couple households held steady at about 20 percent in 2017—up from 16 percent a decade ago though still below the 21 percent rate averaged in the 1980s and early 1990s. Renter shares of unrelated adults living together also remained at nearly 62 percent last year, significantly higher than in 2005 when the rate bottomed out at 57 percent.

The share of single-person households that rent their housing was also unchanged last year, although their overall numbers increased. The renter share of women under age 35 living alone, however, fell by more than 2 percentage points to 80.5 percent. In addition, the renter share of "other family" households (family members with no spouse present) slipped more than a percentage point to 50.6 percent.

While stable in most of the 75 metro areas surveyed by the Census Bureau, renter shares in several of the more affordable markets of the South fell in 2016–2017, including the Columbia (SC), Nashville,

and Virginia Beach metros. Meanwhile, rentership rates in most large, high-cost metros such as Miami, New York City, and San Francisco remained elevated, with no sign of significant change.

INCOMES STILL LOW DESPITE GROWTH IN HIGHER-INCOME RENTERS

The number of higher-income renter households grew again in 2017. The number of renters with incomes above \$100,000 rose nearly 5 percent last year, bringing the cumulative increase in 2012–2017 to about 2.6 million. Growth among households earning between \$50,000 and \$99,999 was similarly strong. Meanwhile, rentership rates for both of these income groups hit all-time highs of 19 percent and 33 percent, respectively, last year.

But even though higher-income households accounted for the vast majority of renter growth over the past five years, renters overall still have disproportionately low incomes. Fully two-thirds of renter households earned less than \$60,000 in real terms in 2017, and about one-third earned less than \$25,000—slightly below the 36 percent share averaged in the 1980s and 1990s. By comparison, only 41 percent of owners earned less than \$60,000 last year, and 14 percent earned less than \$25,000. Of all households earning less than \$25,000, fully 56 percent rent their homes. This share is well above the low of 51 percent posted in 2005 and on par with the average posted in the late 1980s and early 1990s.

While low-income renter households live in communities of all types, they increasingly reside in suburban locations. According to the latest five-year American Community Survey, 7.0 million renters with incomes under \$25,000 lived in moderate- and low-density

Source: JCHS tabulations of US Census Bureau, Housing Vacancy Surveys.

census tracts of metro areas in 2016—up from just 4.5 million in 2000. With this increase, the number of low-income renters living in the these tracts exceeds the 6.3 million living in the highest-density tracts. Meanwhile, nearly half (48 percent) of the more than 5 million renters living in micropolitan and rural areas also had incomes under \$25,000 in 2016.

As the real cost of housing continues to climb, renters increasingly double up with relatives or friends to make ends meet. According to Current Population Survey data, the share of renter households composed of unmarried adults living together (related or otherwise) rose from 14 percent in 1987 to 20 percent in 2017. The number of these households doubled from 4.6 million to 9.2 million over this period, with an average of 1.8 working adults per household. Some 14 percent of these households now include three or more working adults, up from 11 percent in 1987.

CONCENTRATION OF THE NEW RENTAL SUPPLY

Although conversions of single-family homes added significantly to the rental stock right after the housing crash, multifamily construction ramped up quickly to become the main source of additional supply. Indeed, the number of multifamily units now under construction is at a high not seen since the early 1970s. Of the 378,000 new rental units completed in 2017, some 336,000 were in multifamily buildings and about 42,000 were single-family homes built for the rental market. At 11 percent, the single-family share of new rentals is about twice the 5 percent share reported in 1988.

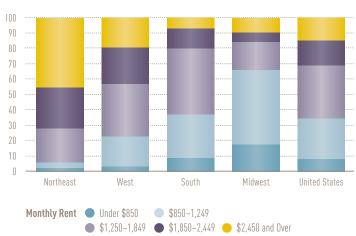
According to the Survey of Market Absorption, 97 percent of newly completed market-rate apartments (255,600 units) were located in metropolitan areas in 2016, and nearly two-thirds of those units were in the principal cities of those areas. The recent building cycle increased the geographic concentration of multifamily rental construction, with the share of multifamily permits issued in core counties of large metros increasing from 43 percent on average in 1980–2009 to 53 percent in 2010–2017. Between 2016 and 2017, however, permitting was up only 2 percent in core counties of large metros and declined slightly in the non-core counties of those same metros. In contrast, multifamily permitting in smaller metro and non-metro areas was up 4 percent.

New multifamily apartments are increasingly likely to be in large buildings with many amenities. The Survey of Construction indicates that nearly half of the rentals completed in 2016 were in buildings with 50 or more units, compared with just 13 percent in 1999. Most other new units were in buildings with at least five apartments. In addition, 86 percent of new apartments in 2016 were in properties with swimming pools, up from 69 percent in 1990. Some 89 percent of new units in 2016 also had in-unit laundry services, significantly higher than the 61 percent share of existing units with this amenity.

Both rising construction costs and added amenities have pushed up asking rents. The nominal asking rent for new apartments increased

New Rental Construction in the Northeast and West Remains Concentrated at the Upper End

Share of Apartments Completed in 2016 (Percent)

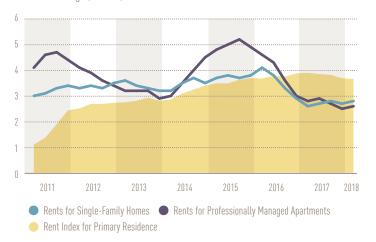


Note: Data include privately financed, unsubsidized, unfurnished rental apartments in buildings with five units or more Source: JCHS tabulations of US Census Bureau, Survey of Market Absorption.

FIGURE 28

Rent Increases Continue to Moderate

Annual Change (Percent)



Note: The 2018 change in single-family rents is based on first quarter data only.

Source: JCHS tabulations of US Bureau of Labor Statistics, RealPage, and CoreLogic data.

29 percent from \$1,090 in 2012 to \$1,408 in 2016, and then rose by 10 percent to \$1,550 in 2017. Asking rents were highest in the Northeast, where 45 percent of new units were priced at or above \$2,450 in 2016 (Figure 27). In the West, 19 percent of new units were also priced at the high end. In contrast, more than a third of new units in the South and two-thirds of new units in the Midwest had asking rents under \$1,250 per month. Even in these areas, however,

average rents for new units in certain major metros (including Chicago, Miami, and Washington, DC) were \$2,000 or higher.

EASING AT THE HIGH END

The national vacancy rate for all rental units averaged 7.2 percent in the year ending in the first quarter of 2018, up 0.3 percentage point from a year earlier. But the rate for rental units built since 2010, as measured by the Housing Vacancy Survey, hit 21 percent in 2017. While not unprecedented compared with the rates for similarly new units in 2007 and 2008, this high vacancy rate far exceeds the 15 percent reported a year earlier.

Evidence from the Survey of Market Absorption supports this softening in the market, with the share of new units rented within six months shrinking from 82 percent on average in 2013–2014 to just 76 percent in 2017. The share of new apartments rented within three months dropped even further, from 63 percent to 55 percent—only slightly above absorption rates at the depth of the Great Recession.

The vacancy rate for professionally managed apartments averaged 4.8 percent in the year ending in the first quarter of 2018, essentially unchanged from a year earlier. However, in about half of the 150 markets it tracks, RealPage reports higher first-quarter vacancy rates in the Class A segment, which includes new and other high-quality units. Metros with the largest increases in Class A vacancies were primarily in the Midwest and South, including Cincinnati, Chicago, Indianapolis, Milwaukee, and Nashville. But several metros in the West—such as Albuquerque, Honolulu, and Seattle—also posted higher Class A vacancy rates. Half of the same 150 markets also saw rising vacancies in the Class B segment, while 40 percent reported increases in the Class C segment.

Nevertheless, rental markets remain extremely tight at the lower end. At just 4.4 percent on average over the past four quarters, vacancy rates in the Class C segment remain lower than in any year since 2001. Indeed, in 45 of the 150 markets tracked by RealPage, Class C vacancy rates were at or below 3.0 percent in early 2018. In addition, Housing Vacancy Survey data indicate that the vacancy rate for all multifamily and single-family rentals priced under \$600 declined again to 6.8 percent in 2017, while that for units priced above \$1,000 increased slightly to 7.5 percent.

COOLDOWN IN RENT GROWTH

The Consumer Price Index for rent of primary residence posted a year-over-year increase of 3.7 percent in April 2018 **(Figure 28).** While still rapid, this marks a slight deceleration from 3.9 percent in late 2007. With rental completions slightly outpacing demand, rent growth for professionally managed apartments also slowed from 2.8 percent in the first quarter of 2017 to 2.6 percent in the first quarter of 2018. Rents were up the most in the West (3.4 percent), essentially matched the general inflation rate in the Midwest and South (2.1 and 2.3 percent, respectively), and rose the least in the Northeast (1.8 percent).

Among the 150 apartment markets tracked by RealPage, eight reported a year-over-year decline in nominal rents in the first quarter of 2018. Increases in another 59 (including Miami, New York, Philadelphia, Portland, San Francisco, and Washington, DC) were under the 2.2 percent rate of general inflation. As might be expected, rent growth was generally slowest in markets where new apartments outnumbered new renters on net, such as Austin, Dallas, Nashville, Raleigh, and Seattle. In contrast, nominal rents in a few large markets—including Jacksonville, Las Vegas, Orlando, and Sacramento—were rising at more than a 5 percent annual rate in early 2018. Reno and Santa Rosa were at the top of the list with rent growth approaching 10 percent.

CoreLogic data indicate that rent increases for single-family homes also slowed from 4.0 percent in early 2016 to 2.6 percent in January 2017, and held at or below 2.8 percent through February 2018. Single-family homes remain an important niche in the rental market, typically offering a more suburban environment and lower rents per square foot than apartments in multifamily buildings. After several years of larger declines, vacancy rates in this segment edged down by only 0.1 percentage point in 2016–2017 to 6.1 percent.

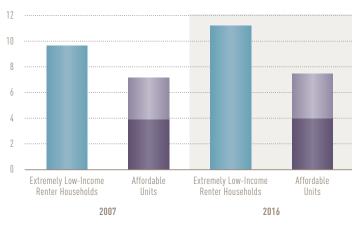
SHORTFALL IN LOW-COST RENTALS

The nation's supply of low-cost rental housing shrank significantly after the Great Recession and has remained essentially unchanged since 2015. A National Low Income Housing Coalition study found that for every 100 extremely low-income renters, only 35 rental

FIGURE 29

Lowest-Income Renters Increasingly Outnumber the Supply of Units They Can Afford

Millions



Available
 Unavailable

Notes: Extremely low-income renter households earn no more than 30% of area median income. Affordability is defined as paying no more than 30% of income for rent and utilities after adjusting for household size. Unavailable units are affordable but occupied by higher-income renters.

Source: JCHS tabulations of National Low Income Housing Coalition, The Gap: A Shortage of Affordable Homes 2018.

units were affordable and available in 2016—a nationwide shortfall of more than 7.2 million units **(Figure 29).** Conditions for very low-income renter households were little better, with 56 affordable and available rentals per 100 households.

According to the same study, extremely low-income renters far outnumber the units they can afford in all of the nation's 50 largest metros. The lack of housing is most acute in the Western and Southern metros of Dallas, Houston, Las Vegas, Los Angeles, Orlando, and Sacramento, where fewer than 20 affordable units were available for every 100 lowest-income households in 2016. But even in metros with larger supplies of affordable housing, the shortfall is severe. For example, three of the 50 largest metros—Boston, Louisville, and Providence—had no more than 47 units available for every 100 extremely low-income renter households.

Ongoing losses of low-cost units have fueled this scarcity. According to Census Bureau data, more than 2.5 million units priced below \$800 in real terms—affordable to households earning up to \$32,000 per year—were lost on net between 1990 and 2016 **(Figure 30).** Although adding new supply at the upper end should, in theory, cause older housing to filter down the rent scale, this process has not produced an adequate supply of rentals at the low end.

Markets are also failing to produce new units with rents that many households can pay. Only 31 percent of renters could afford (at 30 percent of income) the \$1,550 median asking rent for a new apartment in 2017. By comparison, 41 percent of renters could afford the \$1,064 real median asking rent for new units in 1990.

Changes to the low-cost stock are also a contributing factor. A Hudson Institute analysis found that about 60 percent of low-cost units in 1985 were lost from the stock by 2013 through a combination of permanent removals (27 percent), conversions to other uses (18 percent), and upgrading to higher rents (12 percent). Moreover, just under a third of affordable rentals in 2013 had been low-cost units in 1985, underscoring the importance of affordable housing preservation. Preservation efforts are particularly critical in gentrifying neighborhoods, where owners often invest in capital improvements with the intention of raising rents.

RENTAL PROPERTY PRICES AT ALL-TIME HIGH

With vacancy rates rising and rent increases slowing, growth in rental property revenues also cooled throughout 2016–2017. The National Council of Real Estate Investment Fiduciaries reports that net operating income for investment-grade multifamily properties grew 3.4 percent annually as of the first quarter of 2018—down from a high of more than 10 percent in 2015. In addition, the annual rate of return on rental property investments, which also exceeded 10 percent from 2010 to 2015, slid in 2016–2017 to settle at 6.4 percent in early 2018.

Even so, rental property prices and sales remain strong. Real Capital Analytics (RCA), which tracks prices for rental properties and portfolios of at least \$2.5 million, reports that nominal apart-

ment property prices rose at an 11 percent annual rate in the first quarter of 2018—little changed from the 12 percent rate averaged in 2014–2017. As a result, apartment prices now stand 30 percent above the mid-2000s peak in real terms.

At the same time, slowing rent growth and rising vacancy rates in high-end rentals have helped to reduce apartment property pricing in certain submarkets. Real prices were down 4 percent in Palm Beach County, 5 percent in Manhattan, and 8 percent in San Francisco proper in the first quarter of 2018 from a year earlier. Real price declines in the 0.5–1.5 percent range also occurred in Chicago, Jacksonville, parts of downtown Los Angeles, and the San Francisco metro area as a whole.

Nevertheless, prices continued to rise sharply for certain types of properties (Figure 31). For the first time in five years, the largest price increases for multifamily properties in 2017 were in neighborhoods characterized as "car-dependent" suburbs (up 8.6 percent), and "somewhat walkable" suburbs, where some errands can be done on foot (up 9.4 percent). Real prices for garden-style properties—typically located in suburban communities—also increased by 8.7 percent in the first quarter of 2018, outpacing the 5.4 percent increase for mid- and high-rise properties.

Both investors and lenders, however, have become more cautious. The Federal Reserve's survey of senior loan officers indicates that a modest net fraction (5.6 percent) of domestic banks tightened their standards for loans secured by multifamily residential structures for the eleventh consecutive quarter. And for the sixth consecutive quarter, a somewhat larger share (10.0 percent) reported weaker demand for such loans. Even so, credit risk remains low. The delinquency rate for FDIC-insured multifamily-backed loans was just 0.15 percent in late 2017. In other evidence of market health, preliminary estimates from the MBA's quarterly survey of originations show a 14 percent year-over-year increase in the dollar volume of multifamily property loans at the end of 2017.

THE OUTLOOK

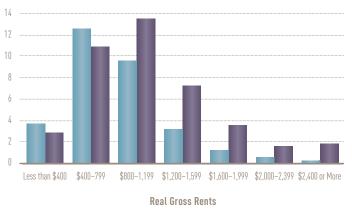
While rent growth continues to outpace inflation, the uptick in vacancy rates over the past year—particularly among new units—signals a subtle shift in rental market conditions. Although still high by historical standards, rentership rates have fallen among key groups. Increasing softness, particularly at the high end, has led many to suggest that multifamily markets are in store for a slowdown.

The longer-term picture for rental housing demand is positive as increasing numbers of the large millennial generation form new households and more older households switch from owning to renting. There is also tremendous pent-up demand for affordable rental housing, not only among the nation's 15.5 million very low- and extremely low-income households, but also among households with more means but are struggling with cost burdens. Conditions at the low end of the market should therefore remain exceptionally tight in the face of strong demand and diminishing supply.

FIGURE 30

The National Rental Housing Stock Continues to Shift to Higher-Cost Units

Number of Occupied Units (Millions)



19902016

Notes: Rent cutoffs are adjusted for inflation using the CPI-U for all items less shelter. Data exclude households paying no cash rent. Source: JCHS tabulations of US Census Bureau, Decennial Census and 2016 American Community Survey 1-Year Estimates.

FIGURE 31

Apartment Properties Continue to Appreciate More Rapidly than Single-Family Homes

Index



Note: Index values are adjusted for inflation using the CPI-U for all items. RCA indices are based on apartment prices for properties and portfolios of \$2.5 million and greater. Garden [mid-/high-rise] apartments have three floors or less (four floors or more). Source: LCHS tabulations of Real Capital Analytics, Commercial Property Price Indices, and the S&P CoreLogic Case-Shiller US National Home Price Index.



More than 38 million US households have housing cost burdens, leaving little income left to pay for food, healthcare, and other basic necessities. As it is, federal housing assistance reaches only a fraction of the large and growing number of low-income households in need. Between the shortage of subsidized housing and the ongoing losses of low-cost rentals through market forces, low-income households have increasingly few housing options. Meanwhile, the rising incidence and intensity of natural disasters pose new threats to the housing stocks of entire communities.

RENTERS STILL WIDELY COST BURDENED

Nearly one-third of all US households paid more than 30 percent of their incomes for housing in 2016. For renters alone, however, the cost-burdened share is 47 percent (Figure 32). And of the 20.8 million renter households with burdens, some 11.0 million pay more than half their incomes for housing and are severely burdened. Although the share of cost-burdened owners is considerably lower at 23 percent, their numbers still total 17.3 million and include 7.5 million with severe burdens

In a mark of progress, the overall number of cost-burdened households fell by 4.6 million between 2010 and 2016. Much of this improvement, however, reflects a 3.8 million decline in the number of cost-burdened owners with incomes above \$45,000. With this drop, the share of owners with cost burdens fell from a peak of 30 percent in 2010 to 23 percent in 2016—just under the share posted in 2001. In contrast, the share of cost-burdened renters has hardly receded from its 51 percent peak in 2011 and remains well above its 41 percent share in 2001.

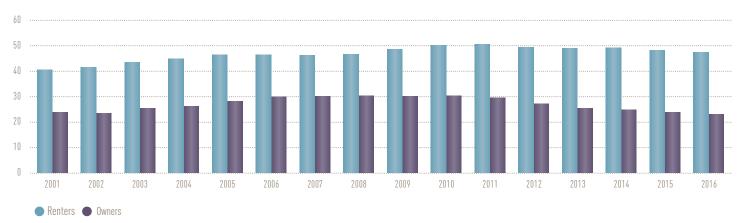
Whether they own or rent, most low-income households pay outsized shares of income for housing. Fully 80 percent of renters earning less than \$30,000 were cost burdened in 2016, including 55 percent with severe burdens. Owners earning less than \$30,000 also have a high cost-burden rate of 63 percent, with 42 percent severely burdened. Among low-income owners with mortgages, a staggering 93 percent are cost burdened.

Of all the household types, single-parent families are the most likely to be cost burdened. Indeed, more than half of these households (53 percent) pay at least 30 percent of income for housing, reflecting the absence of multiple earners and the need for larger units. By comparison, less than a fifth (18 percent) of married households without children are cost burdened.

Age is also related to cost burdens. At one end of the spectrum, some 44 percent of households under age 30 are cost burdened. Most of these households have low incomes and are single-person or single-parent renters. At the other end, 54 percent of households age 65 and over that rent and 43 percent of owners still paying off mortgages are burdened as well.

Nearly Half of Renter Households and a Quarter of Owner Households Are Cost Burdened

Share of Households with Cost Burdens (Percent)



Notes: Cost-burdened households pay more than 30% of income for housing. Households with zero or negative income are assumed to have burdens, while households paying no cash rent are assumed to be without burdens. Source: JCHS tabulations of US Census Bureau, American Community Survey 1-Year Estimates.

Cost-burdened shares are also much higher among black (45 percent) and Hispanic households (43 percent) than among Asian and other minority households (36 percent) or white households (27 percent). Even among households within the same income groups, larger shares of minorities than whites are cost burdened (Figure 33). The cost-burdened rates for black and Hispanic households have also increased more rapidly in recent years than for other groups, rising 3 percentage points in 2001–2016 compared with 1 percentage point for white households and an even smaller uptick for Asian and other minority households.

TRADEOFFS BETWEEN HOUSING AND OTHER NECESSITIES

Households in the bottom income quartile saw their housing costs rise and their incomes fall between 2001 and 2016. As a result, the amount they had left over each month to pay for other basic needs declined from \$730 to just \$590 in real terms over this period. In sharp contrast, households in the highest quartile saw their incomes climb significantly in 2001–2016 while their monthly housing costs increased only \$20, leaving \$10,600 each month for all other expenses.

Lowest-income households with children are especially hard pressed, with just \$490 to spend after paying for housing. By the Economic Policy Institute's measure, families with children that live in even the most affordable metros need at least \$2,700 per month to cover essential non-housing expenses.

According to the latest Consumer Expenditure Survey, severely housing cost-burdened households in the bottom expenditure

quartile spent almost \$650 less on non-housing expenses each month than bottom-quartile households that are not cost burdened. Severely cost-burdened families with children spent \$190 less on food costs than unburdened households (Figure 34). Severely burdened older households in the bottom expenditure quartile spent 70 percent less each month on healthcare costs than otherwise similar households without burdens.

GEOGRAPHIC DISTRIBUTION OF COST BURDENS

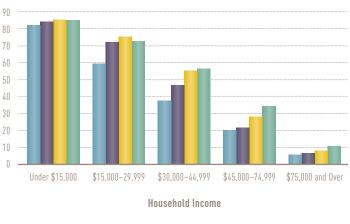
In 2015–2016, the shares of cost-burdened households fell in 44 states across the country, as well as in 79 of the nation's 100 most populous metros. The declines were modest, with shares in 31 metros decreasing by less than 1 percentage point, and largely driven by moderate increases in incomes.

Despite a small decrease, the cost-burdened share of households in California was still 42 percent in 2016, with rates in New York and New Jersey nearly as high at 39 percent. These states are home to 17 of the 25 metros with the highest burden rates in the country. Los Angeles tops the list (47 percent), followed by Miami, Santa Barbara, and Atlantic City. Even in the most affordable states, such as Iowa, South Dakota, and West Virginia, more than a fifth of households were cost burdened.

About a third of the households in metropolitan areas struggle to find affordable housing **(Figure 35).** The nation's 10 largest metros have the highest concentrations of cost-burdened households. In 2016, median housing costs in these areas exceeded \$1,300 per month while median monthly incomes were about \$5,600, leaving

Cost Burdens Are Prevalent Among Low-Income and Minority Households

Share of Households with Cost Burdens (Percent)



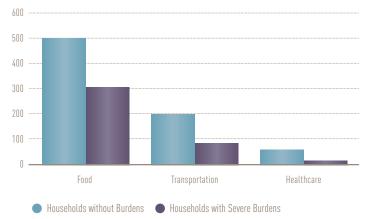
Race/Ethnicity • White • Black • Hispanic • Asian/Other

Notes: Cost-burdened households paymore than 30% of income for housing. Households with zero or negative income are assumed to have burdens, while households paying no cash rent are assumed to be without burdens. Hispanic households may be of any race. White, black, and sain/other households are non-Hispanic. Asian/other includes all other households and those reporting more than one race. Source: JCHS tabulations of US Census Bureau, 2010 American Community Survey 1-Year Estimates.

FIGURE 34

When Burdened with High Housing Costs, Low-Income Households with Children Spend Little on Other Basic Necessities

Average Monthly Expenditures of Low-Income Families with Children (Dollars)



Notes: Low-income households are in the bottom quartile of households ranked by total spending. Households without burdens (with severe burdens) devote 30% or less (more than 50%) of expenditures to housing, including utilities.

Source: JCHS tabulations of US Bureau of Labor Statistics, 2016 Consumer Expenditure Survey.

nearly 40 percent of households cost burdened. By comparison, median housing costs in small metros were about \$700 per month and median monthly incomes about \$3,900, putting the cost-burdened rate at 26 percent.

Rural communities are generally more affordable than metro areas, with median housing costs of \$650 per month. But given relatively low median incomes of \$3,700 per month, a quarter of rural residents are also housing cost burdened. Rural communities in California are the least affordable in the country, with a cost-burdened share of 36 percent.

CURRENT REACH OF FEDERAL RENTAL PROGRAMS

Federal housing assistance is a vital but limited resource that serves just one out of every four very low-income renter households. Of the 4.6 million households that currently receive rental support, the vast majority are older adults, families with children, and households that include a member with disabilities.

In 2017, about half of assisted households (2.2 million) received housing vouchers to use in the private rental market, a decline of 86,000 from 2016. The number of occupied public housing units also fell by nearly 32,000 in 2016–2017, leaving the occupied public housing stock under 1.0 million units for the first time since 1972. However, part of this decline is due to the Rental Assistance Demonstration program, which allows public housing authorities to convert public housing to Section 8 contracts. As a result, project-based rental assistance edged up 39,000 occupied units in 2014–2017, to 1.2 million.

The Low-Income Housing Tax Credit (LIHTC) program is now the largest source of assisted rental housing (Figure 36). Since its inception in 1986, the program has supported the construction, rehabilitation, or acquisition of nearly 2.5 million affordable rentals.

LIMITATIONS OF ASSISTANCE

Allocations for rental assistance have fallen well behind need. HUD's latest Worst Case Housing Needs report indicates that the number of very low-income households with severe cost burdens or living in inadequate or overcrowded conditions rose from 6.0 million in 2005 to 8.3 million in 2015. Over this same period, a \$12 billion total increase in HUD's major rental programs lifted the number of assisted households by just 150,000, to 4.7 million. HUD spending was essentially flat in 2013–2015, even as the number of households with worst-case needs continued to rise. Although the 2018 omnibus spending bill increased HUD funding, renewals of rental assistance contracts consume an increasing portion of its budget, reducing the funds available for other key programs.

For households that qualify for assistance, several obstacles stand in the way of finding affordable housing. First of all, wait times for HUD subsidies averaged 27 months in 2017, ranging from about 18 months for public housing to 32 months for vouchers. Many cities have closed their waiting lists for both of these types of assistance.

For voucher recipients, the challenge is then to find eligible housing in the private market within 60–120 days or surrender their vouchers. Even when given extensions, though, voucher holders may have difficulty renting appropriate housing because landlords in many cities can refuse to accept vouchers. This has contributed ot keeping voucher-use success rates generally low. However, the Poverty & Race Research Action Council reports that 14 states and 63 local governments have now passed ordinances prohibiting source-of-income discrimination, which may help more voucher holders find units.

Finally, if assisted households do find housing, the units may still cost more than 30 percent of income (Figure 37). In the case of LIHTC developments, rents are set to be affordable at certain income levels. As a result, a large share (39 percent) of LIHTC residents are cost burdened. To make their units affordable, 53 percent of LIHTC residents receive an additional form of rental assistance, such as a voucher.

In total, 17 percent of HUD-assisted households are currently cost burdened, but the share among voucher holders is much higher at 31 percent. In part, this is because of low fair market rents (FMRs). Under the voucher program, the subsidy covers the difference between 30 percent of adjusted income and HUD-defined FMRs. If voucher holders live in units that rent for more than the FMR, they must pay more than 30 percent of their incomes.

HUD typically sets FMRs for an entire metropolitan area, in effect reducing the number of units in high-rent neighborhoods available to voucher holders. The Small Area Fair Market Rent rule addresses this issue by assigning FMRs at the ZIP-code level in 24 metropolitan areas. A recent Furman Center study concluded that the rule increases the number of affordable units for voucher holders in higher-rent neighborhoods but decreases the number in lower-rent areas. The study also found that the rule raises the total number of units affordable to youcher holders in all but four of the metros.

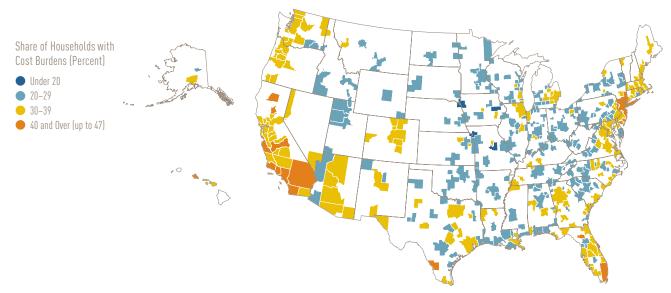
Increasing the number of affordable units in high-rent areas is one way to help voucher holders move to neighborhoods of opportunity. The 2015 Affirmatively Furthering Fair Housing rule also sought to reduce segregation and increase housing choice for households by requiring HUD grantees to develop fair housing goals. Although the current administration has suspended the rule, some communities have nevertheless proceeded with their planning while others, like Kansas City and Philadelphia, have already completed setting their goals and strategies.

THREATS TO THE AFFORDABLE SUPPLY

The National Low Income Housing Coalition reports that the gap between supply and demand for rental units affordable and available to very low-income households is 7.7 million. This shortfall could become much worse given the threats to the affordable supply. Unsubsidized low-rent units are continually lost to upgrading or removal, while subsidized units with expiring contracts are at risk of

FIGURE 35

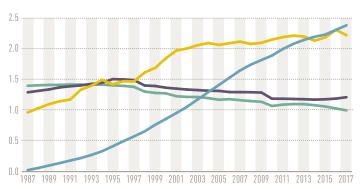
About a Third of All Households in Most Metros Are Cost Burdened



Notes: Cost-burdened households pay more than 30% of income for housing. Households with zero or negative income are assumed to have burdens, while households paying no cash rent are assumed to be without burdens. Source: JCHS tabulations of US Census Bureau, 2016 American Community Survey 1-Year Estimates using the Missouri Census Data Center MABLE/Geocorr14.

The Low-Income Housing Tax Credit Program Has Become the Largest Source of Subsidized Housing

Number of Occupied Units (Millions)



Assistance Program



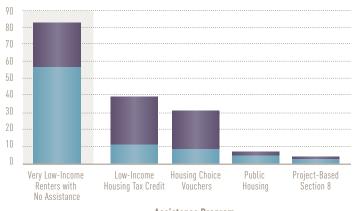
Note: LIHTC occupied units are estimated using the 96% average occupancy rate reported in HUD, Understanding Whom the LIHTC Program Serves. 2017.

Source: JCHS tabulations of HUD, Picture of Subsidized Housing Reports and Low-Income Housing Tax Credit Database: Robert Collinson, Ingrid Gould Ellen, and Jens Ludwig. Low-Income Housing Policy. NBER Working Paper, 2015.

FIGURE 37

Federal Rental Assistance Reduces But Does Not Eliminate Cost Burdens

Share of Renter Households with Cost Burdens (Percent)



Assistance Program

Severely BurdenedModerately Burdened

Notes: Moderately (severely) cost-burdened households pay 30–50% (more than 50%) of income for housing. Households with zero or negative income are assumed to have severe burdens, while households paying no cash rent are assumed to be without burdens. Very low-income renters earn less than 50% of area median income. Voucher holders may live in LHTC units. Source: JCHS tabulations of HUD, 2017 Public Use Microdata Sample, Worst Case Housing Needs Report to Congress, and 2018 Understanding Whom the LHTC Program Serves.

shifting to market rate. Indeed, affordability restrictions on 533,000 LIHTC units, 425,000 project-based Section 8 units, and 142,000 other subsidized units are set to expire within the next 10 years.

In addition, the new tax reform package reduced the corporate tax rate, lowering the value of low-income housing tax credits for investors who use them to reduce their tax liability. As a result, the amount an investor pays for one dollar of tax credits has dropped from over a dollar to about ninety cents. With less investment per dollar of subsidy, affordable housing developers are struggling to make up the difference. Novogradac & Company estimates that the reduced value of credits resulting from tax reform will lead to construction of 232,000 fewer affordable units over the next decade. The 12.5 percent increase in LIHTC allocations for the next four years under the 2018 omnibus spending bill should, however, reduce this loss by about 28,000 units.

UPTURN IN HOMELESSNESS

After declining by 14 percent between 2010 and 2016, the number of people experiencing homelessness increased by 3,800 last year. HUD's Annual Homeless Assessment Report shows that nearly 554,000 people were living in shelters or on the street on a given night in January 2017, while 1.4 million people—including 147,000 families with children—used a shelter at some point over the course of 2016. In addition, the US Department of Education estimates that nearly 1.0 million school children were living with people outside their families in 2015–2016 because of housing loss or economic hardship, and 42,000 were living primarily on the street during the school year.

More than half (56 percent) of the homeless population live in the nation's highest-cost metros. Indeed, the average homelessness rate in metros with median rents in the top quintile is more than double that in all other metros. Moreover, the metros with the largest homeless populations—New York, Los Angeles, San Francisco, and Seattle—are the same high-cost markets where homelessness is increasing (Figure 38).

The reductions in homelessness over the past seven years largely result from targeting two populations in need of intensive support services—veterans and the chronically homeless. These initiatives emphasized additions to the supply of permanent supportive housing and the use of the "housing first" model, which houses people as quickly as possible with as few preconditions as possible. So far, this narrow focus has helped 62 communities across the country end veteran homelessness.

These limited successes do not, however, address the underlying issue of housing affordability. For low-income households, especially those spending a large share of their incomes on housing, an unexpected expense or job loss can lead to eviction. In fact, the vast majority (83 percent) of people experiencing homelessness are not chronically homeless, and many who enter shelters—especially families—come directly from more stable housing situations.

Further progress in reducing homelessness may require new approaches. Some programs use the pay-for-success model to finance interventions, such as rapid rehousing and permanent supportive housing where funding comes from investors. If the program is successful, investors receive a return and local govern-ments save money on services. Another program that may help to prevent homelessness is the City of Stockton's plan to provide a basic income to low-income residents as an offset to rising hous-ing costs.

STATE AND LOCAL GOVERNMENT INITIATIVES

State and local governments are making their own efforts to provide more affordable housing for low- and moderate-income households. According to the National Low Income Housing Coalition database, about 100 state and local programs provide either tenant-based assistance or capital support for affordable rental housing development. For example, Denver has launched a voucher program with public and private funding so that lowerincome households can afford to live in vacant high-rent units. Alternatively, many cities and states provide downpayment assistance to low- and moderate-income homebuyers, often through housing finance agencies.

To leverage funding sources, state and local governments rely on bond issues, tax levies, and housing trust funds to support more below-market-rate housing. Indeed, Seattle has used a combination of bonds and levies to meet its affordable housing goals since 1981. Seattle's 2016 property tax levy will raise \$290 million over seven years, subsidizing 3,000 affordable apartments and providing shortterm assistance for at-risk households.

Regulatory changes are another way that states and localities support affordable and fair housing goals. Inclusionary housing policies, implemented by 886 jurisdictions, require or provide incentives for developers to set aside a percentage or number of units as affordable. Inclusionary zoning has gained traction in recent years in metro areas where rents are rising. For instance, Atlanta recently passed an ordinance requiring that 10-15 percent of units in new housing in certain neighborhoods be affordable to residents making up to 60-80 percent of area median income.

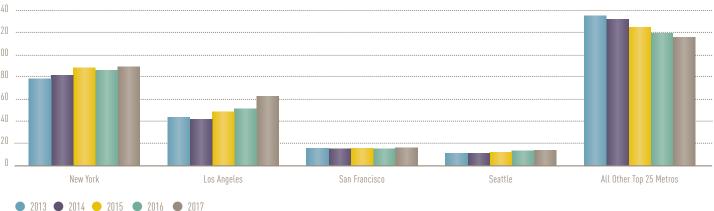
Although some states encourage or require localities to increase the supply of affordable housing, others have preempted local efforts. In Tennessee, a recent state law effectively undermined the Nashville Metropolitan Council's inclusionary ordinance by requiring that the city provide financial incentives to developers that voluntarily include affordable units. Similarly, a Texas law prevents municipalities and counties from enforcing ordinances that ban source-of-income discrimination.

INCREASING LOSSES TO NATURAL DISASTERS

The 16 major disaster events in 2017 caused a record-setting \$306 billion in damages. These events caused destruction of hundreds of thousands of homes and widespread displacement of households across California, Florida, Puerto Rico, and Texas. In Puerto Rico alone, storms destroyed or severely damaged an estimated 472,000 housing units.

In the immediate aftermath of disasters, displaced households need short-term housing. In 2017, the Federal Emergency Management Agency's (FEMA's) Transitional Shelter Assistance program covered

Although Improving in Much of the Country, Homelessness Is Increasing in Several Large, High-Cost Metros Homeless Population (Thousands)



Notes: Homeless population estimates are point-in-time counts conducted one night per year in January. Data include the top 25 largest metro areas by population Source: JCHS tabulations of HUD, Annual Homeless Assessment Reports to Congress.

hotel costs for tens of thousands of displaced households, including 27,000 in Florida after Hurricane Irma and 54,000 in Texas following Hurricane Harvey. In Puerto Rico, the difficulties of rebuilding and finding adequate housing have meant that 9,600 households were still living in transitional shelters three months after Hurricane Maria hit in September 2017.

To support rebuilding, homeowners filed over 140,000 claims in 2017 with the National Flood Insurance Program (NFIP), the primary flood insurance provider. But much of the lost or damaged housing stock was uninsured. Less than 4 percent of the homes in Puerto Rico and only one out of five homes in Texas had flood insurance. FEMA direct assistance filled some of the gaps for households without flood insurance, providing financial help for 1.6 million households.

The rebuilding process has its own challenges. The three states with significant disaster damage last year—California, Florida, and Texas—have large populations of undocumented immigrants, households that are unlikely to apply for assistance in fear of deportation. In Puerto Rico, relief is complicated by the fact that much of the housing stock was built without permits or without regard to building codes.

Recovery will no doubt be long. Congress appropriated \$7.4 billion through the Community Development Block Grant Disaster Recovery program to help communities in Florida, Texas, Puerto Rico, and the US Virgin Islands. Critics, however, claim that the program disproportionately benefits homeowners.

The increased frequency and intensity of natural disasters is the new reality, making mitigation a crucial priority. FEMA allocated a total of \$38.9 million for 156 mitigation projects started in 2017. The National Institute for Building Sciences found that every federally funded dollar spent on mitigation saves six dollars in repair and recovery, while NFIP estimated that its building and floodplain regulations save \$1.9 billion annually. However, the future of NFIP is uncertain, given it has a \$1.4 billion shortfall and is set to expire in July 2018 without another extension from Congress.

State and local building codes also have a role to play by setting resilience standards for new housing in disaster-prone areas. For example, Florida has codes in place requiring that windows, roofs, and other elements be able to withstand hurricane-force winds. Updated flood mapping at the local level, as well as uniform flood

disclosure requirements, would also help both communities and buyers better assess disaster risks.

THE OUTLOOK

Good-quality, safe, and affordable housing is fundamental to personal well-being and security. But for millions of US families and individuals, paying today's high housing costs means sacrificing on food, healthcare, savings, and other essential expenses. Worse still, these cost-burdened households are increasingly concentrated in high-poverty neighborhoods, which further undermines their health, safety, and access to economic opportunity.

In the three decades since the first State of the Nation's Housing report appeared, the number of very low-income families has soared by 6 million, to more than 19 million. At the same time, federally subsidized rental housing has increased by only 950,000 units while the low-cost stock (with rents under \$800 in real terms) has shrunk by some 2.5 million units. As a result, the share of lowest-income households with assistance has fallen from already low levels, and even moderate-income families find it difficult to secure rentals they can afford in the private market. Meanwhile, the severe housing boom and bust has left the shares of young adults who own homes even lower than in 1988 while black households have essentially made no progress.

Without greater federal leadership, reversing or even halting these long-term trends is unlikely. The best place to start is therefore to enhance and expand the housing choice voucher and LIHTC programs—the essential pillars of the federal subsidy system. The HOME and CDBG programs also need additional funding to adequately support the stepped-up efforts of state and local governments to increase the supply of affordable housing.

For their part, state and local jurisdictions also have opportunities to reduce housing costs through regulatory reform. Allowing higher-density development and simpler housing designs, as well as streamlining approval processes, would enable and incentivize builders to supply homes affordable to a broader range of incomes. While current regulations are intended to protect the public interest, concerns for health, safety, and efficiency must be weighed against the need to reduce the costs of housing production. Striking this balance is essential if the nation is to meet its stated goal of a decent home and suitable living environment for all.



ADDITIONAL RESOURCES

Table A-1..... Housing Market Indicators: 1980–2017

Table A-2...... Housing Cost-Burdened Households by Tenure and Income: 2001, 2015, and 2016

The following interactive exhibits, along with an extensive list of Excel tables, are available for download at www.jchs.harvard.edu.

MAPS

Price-to-Income Ratios by Metro Area: 1980-2017

Share of Recently Sold Homes that Are Affordable by Metro Area: 2016

Share of Cost-Burdened Households by Tenure and Metro Area: 2016

Domestic Migration by Age Group and State: 2012-2016

CHARTS

For-Sale Inventory, Home Sales, and Months of Supply by Metro Area: 2010–2017

Cost Burdens by Income and Metro Area: 2016

Supply of Rental Units Affordable to Extremely Low-Income Renters by Metro Area: 2016

Home Price Changes in Metro and Non-Metro Areas: 2000–2017

Rental Housing Units by Real Gross Rent and State: 1990-2016

Housing Market Indicators: 1980-2017

	Permits ¹ (Thousands)			Starts (Thousands)		Size ' (Median sq. ft.)		Median Sales Price of Single-Family Homes (2017 dollars)		
Year	Single-Family	Multifamily	Single-Family ²	Multifamily ²	Manufactured ³	Single-Family	Multifamily	New ⁵	Existing ⁶	
1980	710	480	852	440	222	1,595	915	192,169	184,584	
1981	564	421	705	379	241	1,550	930	185,795	178,311	
1982	546	454	663	400	240	1,520	925	176,029	171,965	
1983	901	704	1,068	635	296	1,565	893	185,317	171,843	
1984	922	759	1,084	665	295	1,605	871	188,499	170,570	
1985	957	777	1,072	669	284	1,605	882	192,041	171,671	
1986	1,078	692	1,179	626	244	1,660	876	205,758	179,498	
1987	1,024	510	1,146	474	233	1,755	920	225,485	184,649	
1988	994	462	1,081	407	218	1,810	940	233,102	184,824	
1989	932	407	1,003	373	198	1,850	940	237,213	186,427	
1990	794	317	895	298	188	1,905	955	230,492	181,605	
1991	754	195	840	174	171	1,890	980	215,965	183,615	
1992	911	184	1,030	170	211	1,920	985	212,274	183,534	
1993	987	213	1,126	162	254	1,945	1,005	214,586	183,628	
1994	1,068	303	1,198	259	304	1,940	1,015	215,018	186,445	
1995	997	335	1,076	278	340	1,920	1,040	215,365	186,306	
1996	1,069	356	1,161	316	363	1,950	1,030	218,718	190,415	
1997	1,062	379	1,134	340	354	1,975	1,050	222,975	195,548	
1998	1,188	425	1,271	346	373	2,000	1,020	229,330	202,963	
1998	1,188	425	1,271	346	373	2,000	1,020	229,330	202,963	
1999	1,247	417	1,302	339	348	2,028	1,041	236,881	206,351	
2000	1,198	394	1,231	338	250	2,057	1,039	240,565	207,838	
2001	1,236	401	1,273	329	193	2,103	1,104	242,490	213,851	
2002	1,333	415	1,359	346	169	2,114	1,070	255,612	226,442	
2003	1,461	428	1,499	349	131	2,137	1,092	259,774	237,549	
2004	1,613	457	1,611	345	131	2,140	1,105	286,774	253,295	
2005	1,682	473	1,716	353	147	2,227	1,143	302,352	274,866	
2006	1,378	461	1,465	336	117	2,248	1,172	299,713	269,802	
2007	980	419	1,046	309	96	2,277	1,197	293,068	257,654	
2008	576	330	622	284	82	2,215	1,122	264,243	223,827	
2009	441	142	445	109	50	2,135	1,113	247,591	196,633	
2010	447	157	471	116	50	2,169	1,110	249,329	194,584	
2011	418	206	431	178	52	2,233	1,124	247,584	181,111	
2012	519	311	535	245	55	2,306	1,098	261,781	189,183	
2013	621	370	618	307	60	2,384	1,059	282,940	207,707	
2014	640	412	648	355	64	2,453	1,073	298,717	216,298	
2015	1,183	487	715	397	71	2,467	1,074	304,258	231,555	
2016	1,207	456	782	392	81	2,422	1,101	314,357	240,517	
2017	1,282	462	849	354	93	2,426	1,094	323,100	248,800	

 $Notes: All \ value \ series \ are \ adjusted \ to \ 2017 \ dollars \ by \ the \ CPI-U \ for \ All \ links \ are \ as \ of \ May \ 2018. \ n/a \ indicates \ data \ not \ available.$

Source

- 1. US Census Bureau, New Privately Owned Housing Units Authorized by Building Permits in Permit-Issuing Places, http://www.census.gov/construction/nrc/xls/permits_cust.xls.
- $2. \ US \ Census \ Bureau, \ New \ Privately \ Owned \ Housing \ Units \ Started, \ https://www.census.gov/construction/nrc/xls/starts_cust.xls.$
- 3. US Census Bureau, Shipments of New Manufactured Homes, https://www.census.gov/data/tables/time-series/econ/mhs/shipments.html and JCHS historical tables.
- $4. \ US \ Census \ Bureau, \ New Privately Owned \ Housing \ Units \ Completed in the United States \ by Intent \ and \ Design, \ http://www.census.gov/construction/nrc/xls/quar_co_purpose_cust.xls.$
- 5. US Census Bureau, Median and Average Sales Price of New One-Family Houses Sold, www.census.gov/construction/nrs/xls/usprice_cust.xls.
- 6. National Association of Realtors® (NAR), Median National Sales Price of Existing Single-Family Homes, obtained from NAR and Economy.com.
- 7. US Census Bureau, Housing Vacancy Survey, https://www.census.gov/housing/hvs/data/ann17ind.html.
- 8. US Census Bureau, Annual Value of Private Construction Put in Place, http://www.census.gov/construction/c30/historical_data.html and JCHS historical tables. Single-family and multifamily are new construction. Owner improvements do not include expenditures on rental, seasonal, and vacant properties.
- $9. \ US \ Census \ Bureau, \ Houses \ Sold \ by \ Region, \ http://www.census.gov/construction/nrs/xls/sold_cust.xls.$
- 10. National Association of Realtors®, Existing Single-Family Home Sales obtained from and annualized by Economy.com, and JCHS historical tables.

Vacancy Rates ⁷ (Percent)			Value Put in Pla (Millions of 2017 d	Home Sales (Thousands)		
For Sale	For Rent	Single-Family	Multifamily	Owner Improvements	New 9	Existing 10
1.4	5.4	157,427	49,702	n/a	545	2,973
1.4	5.0	140,128	47,082	n/a	436	2,419
1.5	5.3	105,318	39,468	n/a	412	1,990
1.5	5.7	178,460	55,243	n/a	623	2,697
1.7	5.9	203,822	66,579	n/a	639	2,829
1.7	6.5	198,989	65,014	n/a	688	3,134
1.6	7.3	232,889	69,416	n/a	750	3,474
1.7	7.7	252,922	54,919	n/a	671	3,436
1.6	7.7	248,835	46,202	n/a	676	3,513
1.8	7.4	239,049	44,090	n/a	650	3,010
1.7	7.2	211,711	36,102	n/a	534	2,917
1.7	7.4	178,939	27,262	n/a	509	2,886
1.5	7.4	213,106	22,877	n/a	610	3,155
1.4	7.3	237,695	18,300	97,147	666	3,429
1.5	7.4	268,456	23,290	106,918	670	3,542
1.5	7.6	246,913	28,773	91,224	667	3,523
1.6	7.8	266,820	31,752	103,705	757	3,795
1.6	7.7	267,538	34,948	101,765	804	3,963
1.7	7.9	299,872	36,954	108,815	886	4,496
1.7	7.9	299,872	36,954	108,815	886	4,496
1.7	8.1	329,333	40,364	110,394	880	4,650
1.6	8.0	337,059	40,226	115,430	877	4,602
1.8	8.4	344,754	41,944	117,678	908	4,732
1.7	8.9	362,283	44,898	133,331	973	4,974
1.8	9.8	413,740	46,781	133,676	1,086	5,444
1.7	10.2	489,925	51,832	149,744	1,203	5,958
1.9	9.8	544,096	59,362	180,441	1,283	6,180
2.4	9.7	505,800	64,202	168,995	1,051	5,677
2.7	9.7	360,789	57,879	159,246	776	4,398
2.8	10.0	211,504	50,478	146,931	485	3,665
2.6	10.6	120,352	32,606	129,853	375	3,870
2.6	10.2	126,540	16,509	129,026	323	3,708
2.5	9.5	117,883	16,386	131,754	306	3,786
2.0	8.7	140,942	24,032	123,054	368	4,128
2.0	8.3	179,684	33,145	127,436	429	4,484
1.9	7.6	200,456	43,025	139,407	437	4,344
1.8	7.1	228,688	54,327	153,560	501	4,646
1.7 1.6	6.9 7.2	247,642	61,806	167,085 190.346	561 613	4,838 4.892
1.0	1.L	264,522	62,703	170,340	013	4,07/

Housing Cost-Burdened Households by Tenure and Income: 2001, 2015 and 2016

Households (Thousands)

	2001				2015			2016				
Tenure and Income	Not Burdened	Moderately Burdened	Severely Burdened	Total	Not Burdened	Moderately Burdened	Severely Burdened	Total	Not Burdened	Moderately Burdened	Severely Burdened	Total
Owners												
Under \$15,000	973	831	2,655	4,459	771	802	3,254	4,827	794	799	3,323	4,916
\$15,000-29,999	4,234	1,797	1,827	7,858	3,948	2,084	2,217	8,249	3,957	1,989	2,092	8,038
\$30,000-44,999	5,664	2,016	991	8,671	5,750	2,307	1,118	9,175	5,770	2,186	1,067	9,023
\$45,000-74,999	12,837	3,262	730	16,830	13,107	2,915	738	16,759	12,976	2,795	730	16,502
\$75,000 and Over	29,523	2,365	281	32,168	33,226	2,114	288	35,628	34,311	2,032	280	36,623
Total	53,231	10,270	6,485	69,986	56,801	10,222	7,615	74,638	57,809	9,802	7,492	75,103
Renters												
Under \$15,000	1,431	915	4,874	7,220	1,511	1,022	6,507	9,041	1,487	1,003	6,340	8,830
\$15,000-29,999	2,343	3,194	2,138	7,675	2,128	3,703	3,543	9,374	2,049	3,474	3,505	9,028
\$30,000-44,999	4,103	2,112	329	6,544	3,749	2,919	825	7,493	3,732	2,918	867	7,517
\$45,000-74,999	7,303	917	103	8,323	7,057	1,799	244	9,101	7,117	1,869	279	9,265
\$75,000 and Over	6,478	197	13	6,688	8,097	445	21	8,562	8,599	497	21	9,117
Total	21,658	7,335	7,457	36,450	22,542	9,889	11,139	43,570	22,984	9,761	11,013	43,758
All Households												
Under \$15,000	2,404	1,745	7,529	11,679	2,282	1,825	9,761	13,868	2,281	1,802	9,663	13,746
\$15,000-29,999	6,577	4,991	3,965	15,533	6,076	5,787	5,760	17,623	6,006	5,463	5,597	17,066
\$30,000-44,999	9,767	4,128	1,320	15,215	9,499	5,226	1,943	16,668	9,502	5,104	1,934	16,540
\$45,000-74,999	20,141	4,179	833	25,152	20,164	4,714	982	25,860	20,093	4,665	1,009	25,767
\$75,000 and Over	36,000	2,562	294	38,856	41,323	2,558	309	44,190	42,911	2,529	302	45,741
Total	74,889	17,605	13,942	106,436	79,344	20,111	18,754	118,208	80,793	19,563	18,505	118,860

Notes: Moderate (severe) burdens are defined as housing costs of more than 30% and up to 50% (more than 50%) of household income. Households with zero or negative income are assumed to be severely burdened, while renters paying no cash rent are assumed to be unburdened. Income cutoffs are adjusted to 2016 dollars by the CPI-U for all Items.

Source: JCHS tabulations of US Census Bureau, American Community Survey 1-Year Estimates.



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