



Trending in 2017: The Selectivity of Growth

By Lynn Wombold, Kyle R. Cassal, and Sangita Vashi

July 2017

Copyright © 2017 Esri

All rights reserved.

Printed in the United States of America.

The information contained in this document is the exclusive property of Esri. This work is protected under United States copyright law and other international copyright treaties and conventions. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except as expressly permitted in writing by Esri. All requests should be sent to Attention: Contracts and Legal Services Manager, Esri, 380 New York Street, Redlands, CA 92373-8100 USA.

The information contained in this document is subject to change without notice.

Esri, the Esri globe logo, The Science of Where, esri.com, and @esri.com are trademarks, service marks, or registered marks of Esri in the United States, the European Community, or certain other jurisdictions. Other companies and products or services mentioned herein may be trademarks, service marks, or registered marks of their respective mark owners.

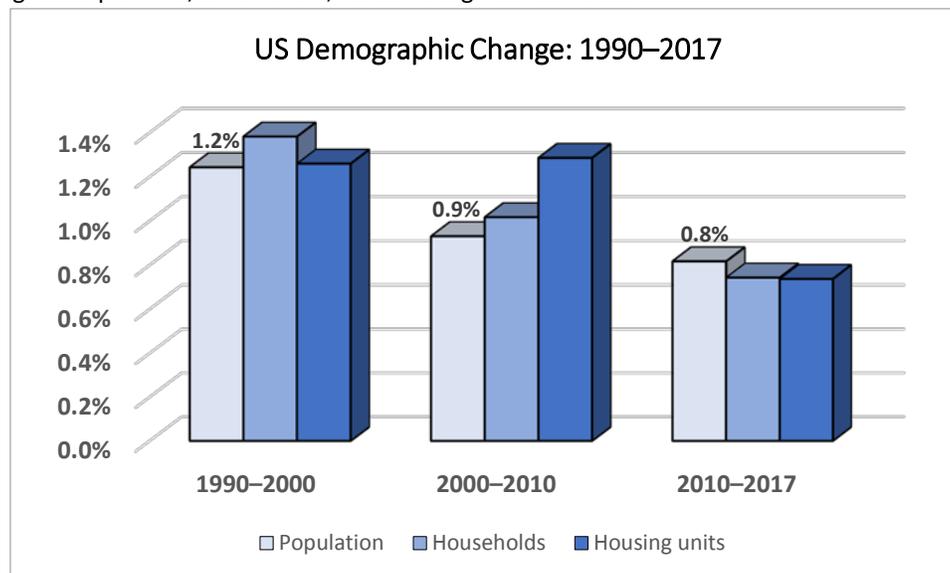
Trending in 2017: The Selectivity of Growth

Introduction

Most of the US population was born after World War II and raised in an era of growth and expansion.¹ From the baby boom and the suburban sprawl of the 1950s to Millennials and the ongoing development of technology, the norm has been growth. When experience is defined by expansion, expectations follow. However, growth is neither guaranteed nor sustainable indefinitely. Populations age, economies mature, and change decelerates. Today, a more measured pace of change does not preclude growth but does render it more selective. The key is knowing where to look.

Demographic change is rarely random. Anticipating growth entails an understanding of the trends, past and present. Chart 1 shows two key changes: the slowing rate of population growth and the shifting relationship among population, households, and housing units. The pace of population growth is a continuing trend line. The shifts in the relationship of these universes can provide a key to changes in the trend lines.

Chart 1. Change in Population, Households, and Housing Units: 1990–2017



From 1990 to 2000, households increased faster than the population. Average household size was dropping due to the decrease in births and the increase in single-person households. The effect was increased pressure on the housing market to keep up with demand.

Housing growth caught up after 2000. Increased pressure from the Millennials' coming of age was amplified by economic changes at the beginning of the decade—the dot-com bust, the ensuing recession, and an extended period of low interest rates—which also encouraged real estate investors. Housing demand increased; so did home value. In the end, it proved to be too much of a good thing, and

¹ By age, 90 percent of the US population in 2017 was born after 1945.

the housing market collapsed. The economic fallout included the Great Recession, an immediate increase in vacant homes, and slower change in the housing inventory.

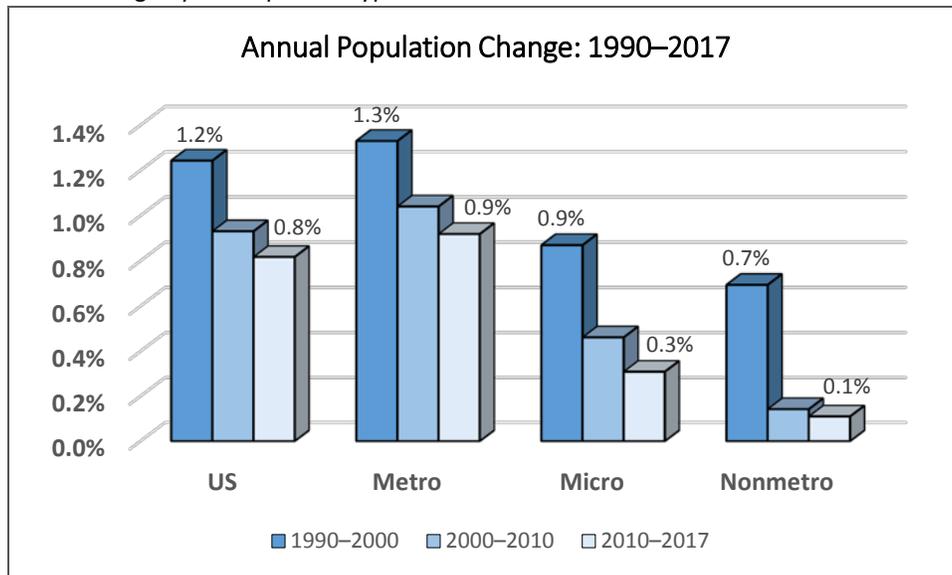
Today, population growth exceeds the change in households or housing units. The pace of household growth slowed to 0.7 percent annually when the decline in average household size reversed. From 2000 to 2010, household size decreased in more than 80 percent of the counties. Since 2010, household size has *increased* in more than half of the counties. Although births are decreasing, the average number of people living in a household is not. Families include more multigenerational households; nonfamily households include more roommates. Nationally, the housing inventory is just keeping pace with the change in total households.

The Selectivity of Growth

Is the slowing of growth at the US level typical—or an average of extremes? Identifying the selectivity of growth begins with *where*. Where is the growth? The simplest way to identify the pattern of change is to compare metropolitan with micropolitan and nonmetropolitan areas. Metros and micros comprise Core Based Statistical Areas that are defined by their urban centers and socioeconomic ties to surrounding areas. These areas share an identity: an economy that distinguishes them from nonmetropolitan counties.²

Chart 2 illustrates the declining rates of population growth among all types of areas but highlights the predominance of metropolitan areas. Since 2010, metropolitan areas have garnered 96 percent of US population growth, which is an increase from 90 percent, from 1990 to 2000. At the same time, the growth accorded to micropolitan and nonmetropolitan areas has dropped sharply.³

Chart 2. Population Change by Metropolitan Type



² The metropolitan and micropolitan areas represent the 2015 inventory of Core Based Statistical Areas.

³ Micropolitan areas were not defined until 2003; however, the correspondence to the counties that make up today's micropolitan areas enables an estimation of change prior to 2003.

It's not just population growth that's declining; it's population *change*. Population losses are also smaller now. Only 10 percent of metro areas are losing population, but the average annual loss since 2010 is less than 25 percent of the loss in the previous decade. Among micro and nonmetro areas, current losses are 60 percent of the previous decade's loss. All the components of population change are smaller. Natural increase is reduced by fewer births and more deaths. Immigration was increasing after the recession but decreased from 2015 to 2016.⁴ Since immigration is susceptible to economic and policy changes, it's likely to decrease again. And fewer people are moving. Population change is contracting; expect that to continue.

Given the diminution of growth potential, areas that are experiencing above-average growth must have a draw, an attraction for newcomers or in-migrants. Understanding the selectivity of growth must include the *why*: Why are the growing areas attracting population? Their characteristics offer diverse appeals to different populations. The traditional draw is jobs, especially well-paying jobs, which are attractive to Millennials and some of Generation X. Location appeals more to the Baby Boomers who are moving into retirement. And housing affordability affects all generations, whether in or out of the labor force.

Metropolitan areas dominate not only population but also employment and job growth. Metros include 86 percent of the US population and 87 percent of the employment in 2017. The advantage of size claimed 93 percent of all job growth for metros from 2010 to 2017. Unemployment rates, however, appear impervious to the size of the employment base. Unemployment was lowest among metros in 2000 but highest in 2010—one of the few times that size was not an advantage. Today, the rates of unemployment vary little by metropolitan status. The similarity is conspicuous.

Table 1. Employment, Change, and Unemployment by Metro Status

	Metropolitan	Micropolitan	Nonmetropolitan
2017 Employment	134,386,700	12,504,100	7,961,900
% of total	87%	8%	5%
Employment 2010–17	14,543,700	787,000	365,500
Employment 2000–10	9,434,500	-25,100	-147,700
2017 Unemployment %	5.4%	5.6%	5.4%
2010 Unemployment %	10.8%	10.7%	10.2%
2000 Unemployment %	5.3%	5.7%	6.0%

Labor force participation rates are less equitable by size, and more age dependent.⁵ Metropolitan areas have consistently higher participation rates than micro or nonmetro areas; they also have the youngest population, with a median age of 37.7 years. Micropolitan and nonmetropolitan areas have median ages

⁴ The latest estimates of immigration available are the 2016 population estimates from the Census Bureau, CO-EST2016-Alldata.txt.

⁵ Civilian labor force participation rates represent the ratio of civilian employment plus unemployment to the total population aged 16 years and older.

older than 40 years, which are reflected in lower labor force participation rates. To keep the focus on employment, the employment-to-population ratio is also useful.⁶ The pattern is the same as the labor force rates: highest in metro areas, lowest in nonmetro areas. The differences among the areas have narrowed a bit since 2000, although the disparity remains. Neither labor force rates nor employment-to-population ratios have recovered to 2000 levels. The job losses due to the Great Recession have been reversed, but attrition from retirement has begun. Baby Boomers are older now, aged 53–71 years, and retiring from the labor force. Table 2 displays civilian labor force participation rates and employment-to-population ratios by year and metropolitan status.

Table 2. Labor Force Participation and Employment Ratios by Metro Status

	Metropolitan	Micropolitan	Nonmetropolitan
Median Age	37.7	40.2	43.4
Labor Force Participation			
2017 LABF Rate	63.5%	58.1%	55.1%
2010 LABF Rate	65.0%	59.8%	56.9%
2000 LABF Rate	64.0%	60.7%	57.6%
Employment/Population Ratio			
2017 E/P Ratio	60.0	54.9	52.2
2010 E/P Ratio	58.0	53.4	51.1
2000 E/P Ratio	60.5	57.3	54.1

If jobs are important, then higher-paying jobs offer a stronger attraction to the population in the workforce. Metropolitan areas also exceed micropolitan or nonmetropolitan areas in household income. In 2017, median household income in metros is 38 percent higher than the nonmetro counties. The disparity in *average* household income is even greater—\$84,300 compared to \$57,700.

Table 3. Median Household Income by Metro Status

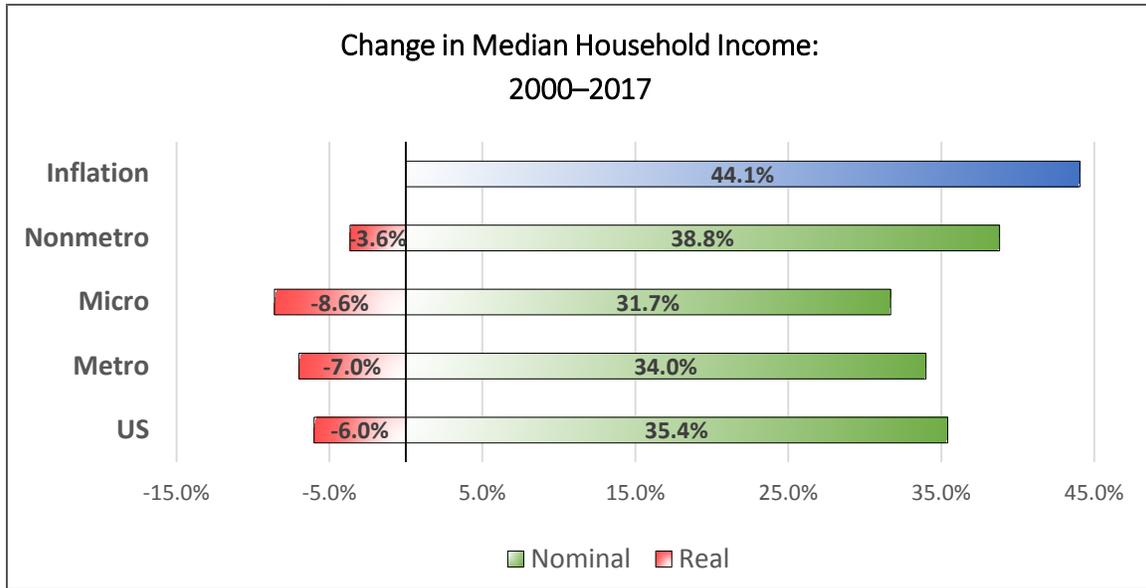
Median Household Income	Metropolitan	Micropolitan	Nonmetropolitan
2017	\$58,500	\$45,600	\$42,500
2000	\$43,700	\$34,600	\$30,600
2000–2017 % Change	34%	31.7%	38.8%

Since 2000, all areas appear to benefit from increases in household income of 30 to 40 percent. But the growth occurred over 17 years. And it's nominal. What does that mean?

⁶ The employment-to-population ratio displays civilian employment relative to the total population aged 16 years and older.

It means that the rate of growth in household income has not kept pace with inflation, which rose 44 percent over the same period. In chart 3, nominal growth is shown in green; real income change, in red. There is growth; it's just not enough to exceed the impact of inflation. Real change in median household income remains negative.

Chart 3. Real versus Nominal Change in Median Household Income



The traditional draws for in-migration—jobs and prosperity—favor metropolitan areas. How common are these traits among the fastest-growing areas today? Ranked by average annual population growth from 2010 to 2017, the top five metro areas are shown with select characteristics in table 4. Only one of the metros, Austin-Round Rock, Texas, has an above-average employment-to-population ratio in 2017. Only two of the metros have a median household income that exceeds the US value of \$56,100.

Table 4. Top Five Metropolitan Areas Ranked by Population Growth

Metropolitan Area	Population 2010–2017		Employment/Population Ratio	2017 Household Income		2017 Median Age
	Rate	Rank*		Median	Rank	
US	0.8%	...	59.1	\$56,100	...	38.2
The Villages, FL	4.1%	1	23.7	\$49,100	246	62.4
St. George, UT	2.8%	2	52.0	\$55,000	123	33.9
Myrtle Beach, SC-NC	2.7%	3	54.1	\$47,100	281	44.8
Midland, TX	2.7%	4	53.9	\$60,500	66	34.6
Austin-Round Rock, TX	2.7%	5	65.5	\$65,500	32	34.0

*There are 382 metropolitan areas, based on 2015 definitions.

Three of the fastest-growing metros offer a distinct location advantage in lieu of the traditional attractions to in-migrants. The fastest-growing metro, The Villages in Florida, has a median income that ranks 246 and an employment-to-population ratio that is less than half the national average. The Villages is a retirement community, as shown by a median age of 62.4 years. The median age of the Myrtle Beach metro, 44.8 years, also flags the presence of a retired population.

These top five metros illustrate both the attraction of jobs to Millennials and the appeal of location to Baby Boom retirees. Assessing the potential impact of these disparate trends requires one more variable—the housing market, especially housing affordability.

Housing Affordability

Rates of growth for the housing inventory commonly exceed the pace of population or household change, especially when average household size is in decline. Vacancies are necessary to enable turnover and change in the housing market. However, the decade from 2000 to 2010 marked a boom period for the US housing inventory, with a growth rate of 1.3 percent annually, compared to a population growth rate of 0.9 percent annually. Housing demand increased with the double-digit rise in home value for many markets. The construction industry responded with more development; the banking industry responded with creative financing. As a result, the expansion of the housing inventory exceeded the growth in households or population, and the increase in home value surpassed income growth for many home buyers.

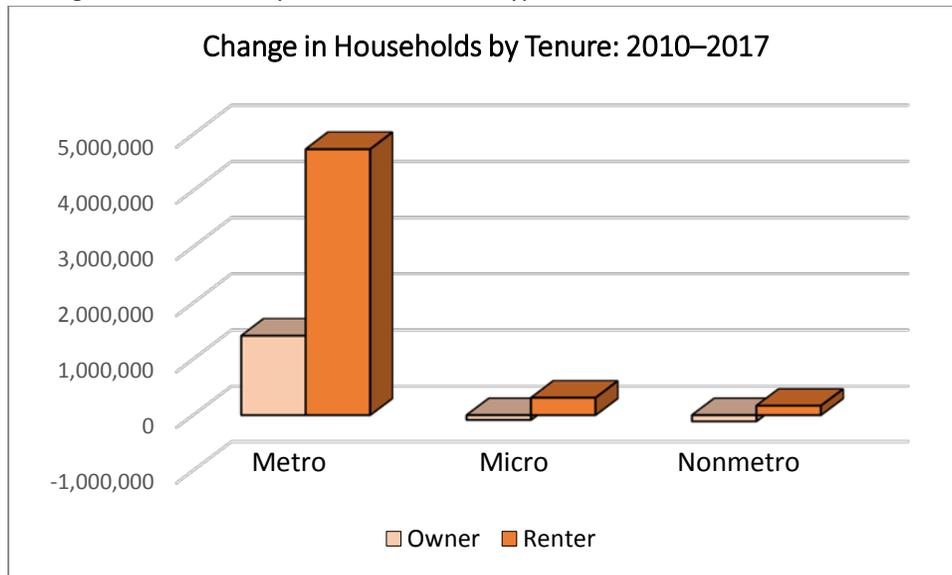
Lack of balance in growth highlighted the vulnerability of the trends, but it was the combined effect on housing affordability, or the lack thereof, that presaged trouble in the housing market. The market collapsed when interest rates increased and the ability to pay decreased. Foreclosures were rampant; housing construction slowed. When the ensuing recession ended, there was surplus housing inventory and low demand. That didn't last, nor was it expected to. All other things being equal, an increase in demand was expected from the Millennials who were reaching the age of household formation. Theoretically, the expected increase in housing demand would not be a problem with a surplus inventory.

The increase in demand was also slow to materialize. The implosion of the housing market did not exactly encourage new home buyers. Interest rates have been low, but credit has also been tighter since the recession. The most eligible first home buyers, college-educated Millennials, are also strapped by student loans, with an average debt of \$22,135 for graduates aged 20–29 years and \$34,033 for graduates who are 30–39 years old.⁷ While demand has been subdued, the surplus housing inventory has been quietly reduced. After the recession checked the stock market, investors found opportunity in real estate and the supply of foreclosed and unsold homes. Homes that were intended for owner occupancy could be purchased at fire sale prices and converted to rentals.

The immediate effect of low demand and decreasing supply is evident in tenure. Renters represent 77 percent of the increase in metropolitan households—and all the household growth in micropolitan and nonmetropolitan areas since 2010 (chart 4).

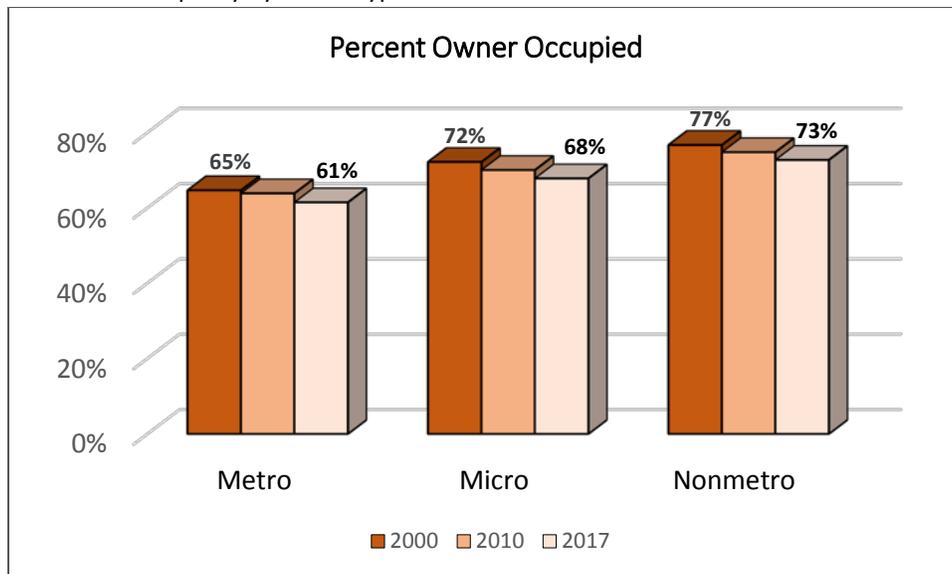
⁷ CNBC report of a study by the Federal Reserve Board of Governors, June 14, 2017: <http://www.cnbc.com/2017/06/14/heres-how-much-the-average-american-in-their-20s-has-in-student-debt.html>

Chart 4. Total Change in Households by Tenure and Metro Type: 2010–2017



The share of owner-occupied households peaked just before the recession, then declined. In 2017, the rate of homeownership is still lower than it was seven years ago (chart 5). Metropolitan areas have a lower share of owner-occupied households than micros or nonmetro areas. Their population is younger, more mobile, and more inclined to rent than own. However, the share of owner-occupied units has decreased for all areas.

Chart 5. Percent Owner Occupancy by Metro Type: 2000–2017



Although the ratio of owner to renter households has dropped, the majority still favors owner occupancy. The recession did not dissipate the dream of owning a home but just delayed it a bit. With the more robust rise in income recently and increasing rents, more householders are looking to buy a home. Interest rates remain low, but the Federal Reserve Board wants to continue raising the rates.

Given the sensitivity of housing affordability to interest rates, demand has picked up in advance of further rate increases. Housing supply, especially moderately priced starter homes, is not keeping pace.

Bargain shopping by real estate investors depleted the recession surplus, and the construction industry is struggling with increased costs for labor, land, and building materials. To meet the current demand for new housing, the industry needs hundreds of thousands of construction workers. Many workers left the industry after the recession and have not returned.⁸ "The ratio of construction job openings to hiring, as measured by the Department of Labor, is at its highest level since 2007".⁹ Labor and land are in short supply, and the cost of construction materials continues to climb. The full impact of the increased Canadian softwood tariffs has yet to be realized.

Construction is slowly responding with more entry-level offerings aimed directly at the Millennial market.¹⁰ While the development of new homes remains slow, demand is increasing. Mortgages for first-time buyers have been slowly increasing since 2014.¹¹ This year is still looking up (3 percent in May 2017 relative to May 2016, according to a recently released survey).¹² The changing balance between housing supply and demand pushes home prices higher. The longer-term effect of demand increasing faster than supply is evident in housing affordability.

The lack of synchronicity in supply and demand is also evident in the gap between home value and income trends. Change in the previous decade, 2000–2010, does represent an average of highs and lows—growth prior to the recession and the subsequent losses—rather than a consistent pattern of change. However, the comparison to current change, 2010–2017, reveals the tenuous outlook for current trends. Once again, home value is appreciating faster than the growth in household income. Among metro and nonmetro areas, the gap is wider today than it was 10 years ago.

Table 5. Annual Change in Median Household Income and Median Home Value by Metro Status: 2000–2017

Annual Change	Medians	Metropolitan	Micropolitan	Nonmetropolitan
2000–2010	HH Income	2.1%	1.8%	2.2%
	Home Value	3.5%	3.7%	3.4%
2010–2017	HH Income	1.2%	1.4%	1.5%
	Home Value	3.9%	2.6%	3.2%

To illustrate the disparities that are impacting housing affordability, the following map shows the percentage of median household income that it would take to buy a home priced at the median value at

⁸ <http://www.housingwire.com/articles/40056-experts-weigh-in-positive-jobs-report-fails-to-fix-whats-wrong-with-housing>

⁹ <http://fortune.com/2016/09/06/housing-construction-worker-shortage/>

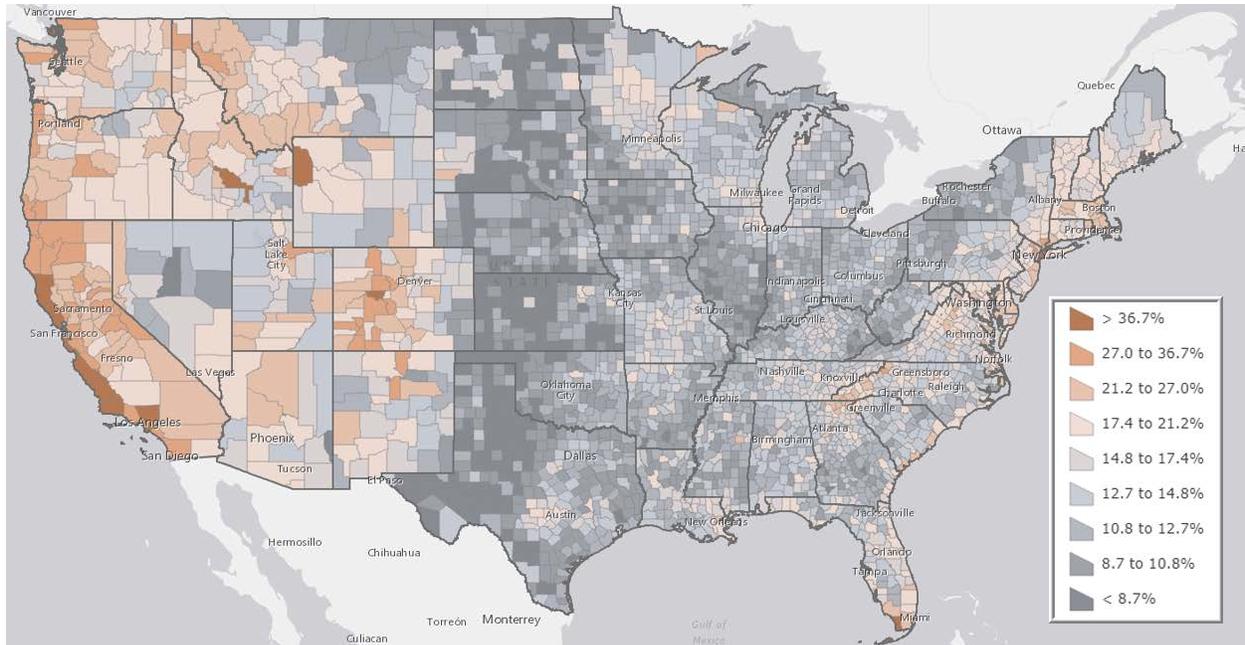
¹⁰ <https://www.wsj.com/articles/the-next-hot-housing-market-starter-homes-1494495003>

¹¹ <http://economistsoutlook.blogs.realtor.org/2017/01/30/first-time-homebuyers-slightly-up-at-32-percent-of-residential-sales-in-2016/>

¹² <https://www.nar.realtor/reports/realtors-confidence-index>

the county level. Assuming a down payment of 20 percent and a 30-year mortgage with a fixed interest rate of 4.2 percent, the share of median household income required ranges from affordable to prohibitive. Gray shades feature the counties with the smallest down payment requirements relative to household income, up to 15 percent. The warmer, rust-colored shades illustrate the increasing proportion of income needed to cover the down payment, ranging to almost 40 percent. Most of the counties offer affordable housing. Counties that offer population and/or employment growth portray a more challenging level of housing affordability.

Map 1. Share of Income to Mortgage



The Outlook

Growth is becoming more selective in the United States—and not without its consequences, like housing affordability. Metropolitan areas attracted 96 percent of population growth and 93 percent of US job growth from 2010 to 2017. Income is another advantage; average household income among metropolitan areas is 40 percent higher than nonmetropolitan counties. Whether the appeal is employment for Millennials or location for retiring Baby Boomers, the attractions offered by metros can be offset by the cost of living.

Metropolitan areas represent the least affordable housing markets.¹³ Their growth includes the demand for housing, which has not kept pace with population growth since 2010. The value of owner-occupied housing also exceeds income growth. In many markets, prospective buyers are continuing to rent due to concerns over affordability. However, demand also increases rent disproportionately. More than a third

¹³ Another view of housing affordability is available from a story map, [Is the American Dream Still Affordable?](#). The map shows Esri's Housing Affordability Index, which accounts for household income and home value, plus costs like interest and taxes, to reflect the financial ability of a typical household to afford an existing home.

of all households are paying more than 30 percent of their income for housing: 26 percent of owners and 52 percent of renters.¹⁴ In the near term, home values and rents are responding to increased demand. Without a concomitant increase in housing supply, the lack of balance in metropolitan housing markets will render the current trends untenable. Metropolitan areas can also outgrow their appeal.

¹⁴ US Census Bureau, 2011–2015 American Community Survey