

In this Brief:

We describe recent household trends using data from the U.S. Census Bureau's American Community Survey. We also provide household projections for the State of Texas and its counties from 2010 to 2050. Our findings show

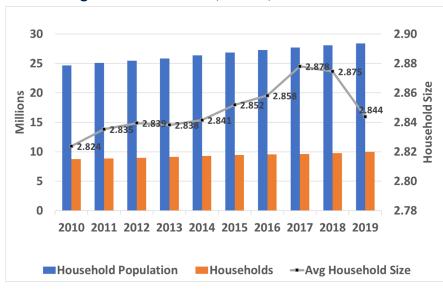
- The number of households in Texas grows as the population in Texas grows.
- Average household size has increased since 2010 but dropped back in the last couple of years.
- The overall homeownership has declined and it occurs at every income level even as the median household income has increased during the same period.
- Homeownership rates vary by race/ ethnicity, with ownership rate among NH Blacks only 57% that of NH Whites and the gap appears to be widening.
- Household sizes differs among Texas counties. Households are on average bigger in urban counties and growing bigger.
- Homeownership decreases for most Texas counties although some suburban ring counties have seen growths.
- We project that both owner and renter households will continue to grow.

Texas Household Trends and Projections, 2010-2050

Over the last decade Texas population has been growing and so has the number of households. The number of households in Texas has grown from 8.739 million to 9.985 million, or by about fourteen percent, between 2010 and 2019, according to the Census Bureau's 1-Year American Community Survey (ACS). Understanding household characteristics is important to researchers, businesses, policy makes as well as the general public who need these data to make information driven decisions in their work and life. Monitoring the changing household patterns also helps planners and policy makers gauge current and future housing and infrastructure needs.

In this brief, we describe some of the household characteristics in Texas and their changes in the last decade and examine regional differences. In the end, we present our household projections for Texas and its counties, in light of the recent household trends.

Figure 1: Household Population, Number of Households, and Average Household Size, Texas, 2010 -2019



Source: U.S. Census Bureau, American Community Survey 1-Year PUMS File, 2010-2019

The number of households grows in Texas as the population grows. Household size has increased for most of the decade but has declined in the last couple of years.

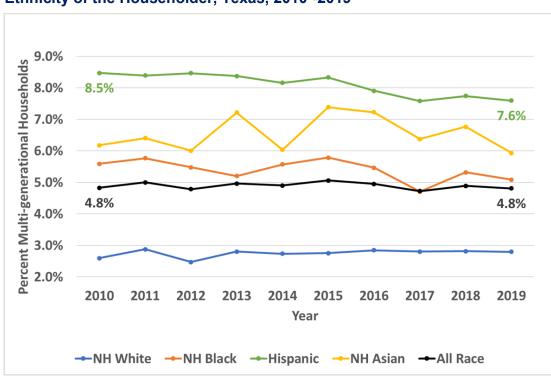
Of the 29 million Texans, about 98% live in a household in 2019, with the rest living in group quarters. Between 2010 and 2017, household population has grown at a faster pace than the number of households, resulting in an increase of the household size, from 2.82 to 2.88. A report from the Pew Research

Center^I reveals a similar pattern during the same period in the US, the first time after decades of slow and steady decrease in household size. However, as Figure 1 shows, household size in Texas has declined in the last couple years, returning to almost the same level as what was observed earlier in the decade.

Some researchers attribute the increase in the household size to the increase in the share of multigenerational households.

Figure 2 shows the trend of the share of multigeneral households in Texas by race/

Figure 2: Percentage Share of Multi-generational Households by Race/ Ethnicity of the Householder, Texas, 2010 -2019



Source: U.S. Census Bureau, American Community Survey 1-Year PUMS File, 2010-2019

ethnicity of the householder. Among households with a Non-Hispanic (NH) White householder, the share of multigenerational households is the lowest compared to the other groups. Hispanic households are far more likely to be multigenerational, followed by the NH Asian and the NH Black. Notably, the share of multigenerational households among Hispanics has decreased from

Household terms defined by the U.S. Census Bureau

Household: A household consists of all the people who occupy a housing unit, related or non-related.

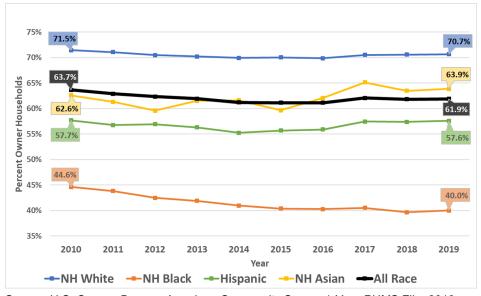
Householder: The householder refers to the person in whose name the housing unit is owned or rented. The youngest age of an householder in most census surveys is 15.

Household size: The total number of people living in a housing unit.

Group quarters: Group quarters are places where people live or stay in a group living arrangement. These places are owned or managed by an entity or organization that provides residents with housing and/or services. Some examples include college/university student housing, skilled nursing facilities, military barracks and correctional facilities.

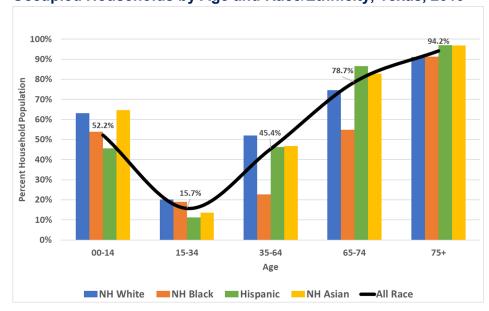
Multigenerational households: Multigenerational households are those containing three or more generations.

Figure 3: Percentage of Owner Households by Race/Ethnicity of the Householder 15 and Over, Texas, 2010 - 2019



Source: U.S. Census Bureau, American Community Survey 1-Year PUMS File, 2010-2019

Figure 4: Percentage of Household Population Living in Owner Occupied Households by Age and Race/Ethnicity, Texas, 2019



Source: U.S. Census Bureau, American Community Survey 1-Year PUMS File, 2019

8.5% in 2010 to 7.6% in 2019, while there are no trends among other race/ethnicity groups.

With more multigenerational households among the Hispanic households, the increased share of the Hispanic households may lead to the increase of the total number of multigenerational households. However, the decreasing share of multigenerational households among the Hispanic households may have canceled out the increasing trend, resulting in the unchanged share of multigenerational households (4.8%) among all households between 2010 and 2019.

If current trends persist, we may see a continued decline in household size, departing from the trend observed earlier in the decade

Homeownership has declined since 2010 among all households. However, this drop has been more significant among NH Black households compared to other race/ethnicity groups.

How does the Texas Demographic Center group population with different race/ethnicity?

In most of the Texas Demographic Center's recent analyses, we use the U.S. Census Bureau's race/ethnicity definition to group the population into five mutually exclusive race/ethnicity categories, non-Hispanic Whites, non-Hispanic Blacks, Hispanics, non-Hispanic Asians, and non-Hispanic Others. The non-Hispanic Other group is a residual group that consists mostly of the Pacific Islanders, the Native Americans, some other race and two or more races who are not Hispanic. In this analysis, we only show results for the four major race/ethnicity groups. Visit https://www.census.gov/glossary for more information on how race/ethnicity information is collected and reported by the Census Bureau.

There are two types of households by tenure, owner occupied and renter occupied. Among the 9.985 million households in Texas in 2019, 6.18 million, or 61.9%, are owner occupied. Figure 3 shows that between 2010 and 2019, the percent of households in owner occupied housing units has decreased slowly

but steadily, from 63.7% to 61.9%. Similar trends have also been observed nationally^{II}.

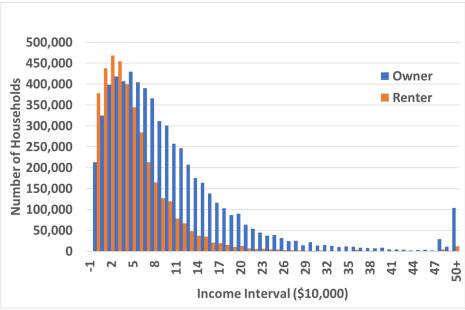
Figure 3 also suggests that disparities in homeownership exist among different race/ethnicity groups. Ownership rates are the highest among NH Whites, followed by NH Asians, Hispanics and NH Blacks. The ownership rate among NH Black households (40%) is much lower than that of NH Whites (70.7%) in 2019. Over time, ownership rates are generally stable within each race/ ethnicity group, except for NH Blacks. Not only do they have the lowest homeownership rate, they also have experienced a decrease, dropping from 44.6% to 40% between 2010 and 2019.

These trends suggest that the recent decline in the overall homeownership in Texas is partly due to the increased share of minority (such as the Hispanic) householders who historically have lower homeownership rates and partly due to the decreased ownership within the race/ethnicity (such as the NH Black) group.

The type of households people live in varies by age and race/ethnicity (Figure 4 on Page

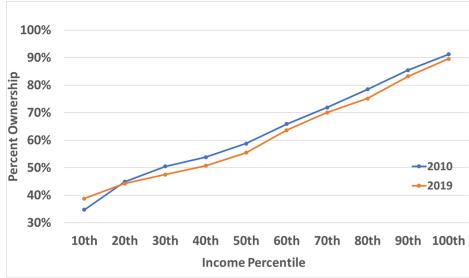
3). As expected, people are least likely to live in an owner-occupied household (15.7%), as they transition from adolescence to adulthood, between ages 15 and 34. More than half of the children under 15 live in owner-occupied housing units, and the likelihood of living in an owner-occupied housing unit goes up by age

Figure 5: Household Income Distribution for Renters and Owners, Texas, 2019



Source: U.S. Census Bureau, American Community Survey 1-Year PUMS File, 2019

Figure 6: Ownership Rate by Household Income Percentile, Texas, 2010 - 2019



Source: U.S. Census Bureau, American Community Survey 1-Year PUMS File, 2010 and 2019

from the lowest point of adolescence. Among people 75 and older living in a household, the majority (94.7%) live in an owner-occupied housing unit. While Hispanic children are least likely to live in an owner household, NH Blacks are by far more likely to live in a renter household during most of their adulthood between ages 35 and 74.

The decline of home ownership has not been accompanied by a decrease in income or a change in income distribution.

Figure 5 (on page 4) shows the household income distribution of the renter and the owner households in 2019. While the whole income distribution is heavily clustered to the left, the lower income side, it's even more so for the renters. There are more renters than owners at every income interval up to 40,000 dollars. The relationship then reverses, and as household income increases, so does the proportion of owner households. The median income for the renter households is \$43,436 in 2019, only slightly higher than half of that for the owner households (\$81,923).

Due to the positive relationship between

Table 1: Average Household Size in Texas Counties by Urban-Rural Status, 2010 and 2019

County Type (# of Counties)					
	Avg House- hold Size 2010	Avg House- hold Size 2019			
Metro (82)	2.80	2.87			
Urban (123)	2.66	2.74			
Rural (49)	2.53	2.55			
State of Texas	2.78	2.85			

Source: 2010, 2019 ACS-5 Year data, and 2013 USDA Rural-Urban Continuum Codes: https://www.ers.usda.gov/webdocs/ DataFiles/53251/ruralurbancodes2013.xls?v=1095.8 household income and home ownership, one may attribute the recent decline in homeownership in the U.S. and in Texas to affordability issues. Our examination of the household income data between 2010 and 2019 does not support this hypothesis.

Median household income has increased between 2010 and 2019, even after adjusting for inflation, from \$56,834 to \$63,942. A previous TDC report also suggests that the percentage of households bearing housing cost burden has been declining since 2010^{III}.

Figure 6 (on page 4) compares ownership rates at every 10th percentile along the income distributions between 2010 and 2019. Except for at the lowest income level on the chart, the 10th percentile, ownership has declined at every decile of the income distribution. In other words, ownership has not only reduced for low-income households but for the higher-income households as well.

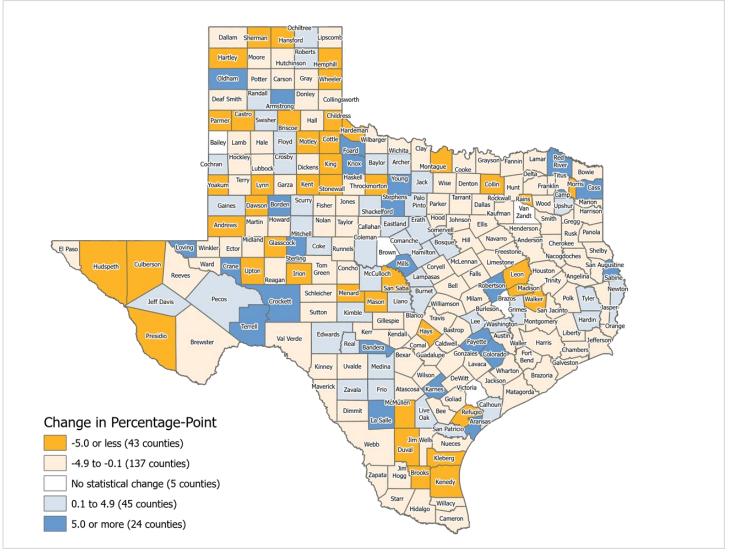
Our examination of the changes in the median income, the housing cost burden and the income distribution of the owners and renters suggest that the decline in homeownership is likely due to reasons other than affordability issues.

Average household size and homeownership rates vary across Texas counties.

We use the ACS 5-Year Summary File to look at county differences. During the period of 2015-2019, the average household size in Texas is 2.85, which is larger than the household size at the nation level (2.61). However, the average household size covers a wide range across all the counties in Texas, ranging from the largest of 3.92 in Starr County to the smallest of 1.95 in Coke County.

We use the USDA Rural-Urban

Figure 7: Percentage-Point Differences Between 2006-2010 and 2015-2019 in County Homeonwnership Rates, Texas



Source: U.S. Census Bureau, American Community Survey 5 -Year Summary File, 2006-2010 and 2015-2019; Texas Demographic Center, Vintage 2108 Population Projections

Continuum Codes^{IV} and group the counties into three categories. On average, the 82 Texas Metro counties have the largest household size (2.87) and the 49 Rural counties the smallest (2.55), with the remaining 123 Urban counties falling in between (see Table 1). Thus, average household size appears to increase with urbanization.

Between 2006-2010 and 2015-2019, average household size in Texas increases from 2.78 to 2.85. The decrease in the average

household size in the last couple years described in the previous section has not been reflected in the data with the 5-year average. Although not all counties have an increased average household size, metro and urban counties have experienced larger increase than the rural counties.

As the homeownership rate decreases in Texas as a whole, the same trend has been observed for many Texas counties. The Texas county map (on page 6) shows the change in

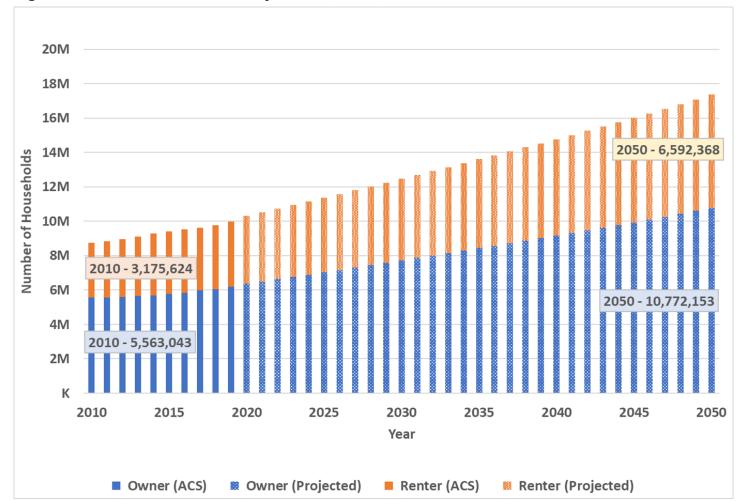


Figure 8: Number of Households by Tenure, Texas, 2010 - 2050

Source: U.S. Census Bureau, American Community Survey 1-Year PUMS File, 2010 - 2019; Texas Demographic Center, Vintage 2108 Population Projections

percentage points of homeownership rates for all the Texas counties. Consistent with the state trend, most counties have declines in the percent of owner households between 2006-2010 and 2015-2019. Among them, most (137) have declines in homeownership between 0.1 to 4.9 percentage points. Some counties in the Panhandle, in West Texas and the Lower Rio Grande Valley areas have seen homeownership decline by more than 5 percentage points. Counties that have seen an increase in the homeownership rate are often those surrounding the big metropolitan areas.

TDC projects that households will continue to grow at a fast pace in Texas.

As shown from the analyses above, population changes and population characteristics are the most important predictors of household trends. While the average household size and the ownership rate may change during different periods, they are relatively stable within each age, sex, and race/ethnicity group over time. We utilize the TDC population projections and the latest ACS data to project household patterns and changes into the future.

In the current household projection, we project the number of households by tenure in Texas and its 254 counties from 2010 to 2050.

Table 2: Number of Households by Texas Council of Government Regions, Projection Base Year 2014-2018, and Projection Year 2030

Council of Governments	Households ACS 2014-2018	Households Projection Year 2030	Numeric Change	Percent Change
Panhandle	155,028	175,935	20,907	13.5%
South Plains	155,386	184,561	29,175	18.8%
Nortex	83,087	85,135	2,048	2.5%
North Central Texas	2,577,725	3,448,455	870,730	33.8%
Ark-Tex	104,849	109,965	5,116	4.9%
East Texas	301,679	332,743	31,064	10.3%
West Central Texas	118,342	129,764	11,422	9.7%
Rio Grande	274,924	329,856	54,932	20.0%
Permian Basin	154,810	240,439	85,629	55.3%
Concho Valley	59,703	71,481	11,778	19.7%
Heart of Texas	129,162	138,931	9,769	7.6%
Capital Area	787,497	1,134,833	347,336	44.1%
Brazos Valley	123,789	158,248	34,459	27.8%
Deep East Texas	137,432	140,893	3,461	2.5%
South East Texas	146,376	157,853	11,477	7.8%
Houston-Galveston	2,368,252	3,255,882	887,630	37.5%
Golden Crescent	70,124	81,632	11,508	16.4%
Alamo Area	844,238	1,147,634	303,396	35.9%
South Texas	96,012	118,581	22,569	23.5%
Coastal Bend	206,029	246,182	40,153	19.5%
Lower Rio Grande Valley	363,874	447,183	83,309	22.9%
Texoma	75,556	84,235	8,679	11.5%
Central Texas	166,636	193,112	26,476	15.9%
Middle Rio Grande	52,536	59,520	6,984	13.3%

Source: U.S. Census Bureau, American Community Survey 2014-2018 5-Year Summary File; Texas Demographic Center, Household Projection

We calculate age, race, sex and county specific household rates and ratios from the 2018 5-Year PUMS data, which were the latest ACS data available to us at the time when we produced the projections. We then apply these rates and ratios to the TDC 2018 vintage population projections. We assume that the current rates and ratios will stay the same over the projection period. The use of county and group-specific rates takes into consideration the regional differences as well as the changes in demographic compositions.

Figure 8 (on page 7) shows the current trends from 2010 to 2019 and the projected number of households through 2050 by tenure. Total households will increase from 8.7 million in 2010 to 17.4 million in 2050, of which 6.6 million are expected to be renter households and 10.8 million owner households.

We also produce household projections at the county level. Table 2 summarizes the County projections in 2030 by the Texas Council of Government (COG) Regions. Compared to the 2014-2018 base year period,

all regions will gain more households by 2030. The Houston-Galveston COG and the North Central Texas COG will be adding the greatest number of households, while the Permian Basin COG will grow at the fastest pace, if current trends continue to hold. The areas that will experience the least growth are the Nortex COG and the Deep East Texas COG.

Conclusions

We use ACS 1-Year PUMS data from 2010 to 2019 to study the trends of household characteristics in the State of Texas and have identified two important trends. Household size increases for most parts of the decade but has dropped back in the last couple of years. We also find that the homeownership rate has been declining slowly across all income levels.

We use the ACS 5-Year Summary File to study county and region differences. Household size and ownership trends in most counties are consistent with the state trend, although there are significant rural-urban, regional and county differences.

We utilize our population projections and the information from the ACS data to produce household projections for the State of Texas and its 254 counties. These projections are an important tool for planners and policy makers to gauge future need for housing and infrastructure.

Our projections assume current county and group-specific rates will hold constant throughout the projection period. Changes in policy, the economy, and other social and cultural factors will likely result in changes of these rates. Like all projections, these demographically derived projections are generally more accurate for periods closer to the base period and become less accurate the longer the period of time is from that base period. Users should take into consideration

these assumptions and limitations. The TDC personnel use the most recent data to monitor the emerging trends and will update the projections periodically to reflect these trends.

About This Report

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The Texas Demographic Center produces, interprets, and disseminates demographic information to facilitate data driven decision making for the benefit of Texans.

Endnotes

I. Pew Research Center. "The number of people in the average U.S. household is going up for the first time in over 160 years". https:// www.pewresearch.org/fact-tank/2019/10/01/the -number-of-people-in-the-average-u-shousehold-is-going-up-for-the-first-time-in-over-160-years/

II. U.S. Census Bureau. "Homeownership in the United States: 2005 to 2019". https:// www.census.gov/library/publications/2021/acs/ acsbr-010.html

III. Texas Demographic Center. "Texas's Most Vulnerable Populations". https:// demographics.texas.gov/Resources/ publications/2020/20200918 ACS2019Brief Te xasMostVulnerablePopulations.pdf? dt=20200922

IV. USDA Rural-Urban Continuum Codes. https://www.ers.usda.gov/data-products/ruralurban-continuum-codes.aspx



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