

The Shifting Profile of First-Time Homebuyers: 1997-2017

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Introduction

Who are recent first-time homebuyers? What kinds of homes do they buy? And have the answers to these questions changed over time in response to demographic and economic shifts? These questions garner substantial media attention, but the availability of nationally representative data on the demographic and socioeconomic characteristics of first-time homebuyers and the physical attributes of their homes is limited. The goal of this paper is therefore to release nationally representative estimates of the volume and characteristics of first-time homebuyers using data derived from the biennial American Housing Survey (AHS), the most comprehensive national housing survey in the United States.¹

This paper describes trends in first-time homebuyer volumes and in selected characteristics using the AHS for 1997-2017. This discussion is supplemented by a detailed set of appendix tables that contain a broader set of homebuyer and housing unit characteristics for first-time homebuyers, as well as similar estimates for repeat homebuyers, all homebuyers, all homeowners, and all households. These tables contain estimates of first-time and repeat homebuyer characteristics that are not available in other published tables, providing a unique resource for readers seeking information about the characteristics of first-time and repeat homebuyers.

Data and Methods

This paper examines trends in the annual volume and characteristics of first-time homebuyers using the 1997-2017 American Housing Surveys (AHS). The estimates rely on the public use file of the AHS for the survey years from 1997-2013. For 2015 and 2017, the estimates rely on the restricted internal data because the American Housing Survey underwent a redesign in 2015 that led to the temporary

¹ The American Housing Survey is sponsored by the Department of Housing and Urban Development (HUD) and conducted by the US Census Bureau.

withholding of certain variables from the public use data file, including the variables necessary to identify recent first-time homebuyers.²

The 2015 redesign also included drawing a new sample of housing units for the AHS panel.³ This change to the survey design requires care when comparing estimates across 2013 and 2015. Conversely, AHS sample and survey consistency from 1997-2013 and 2015-2017 permit reliable analysis of trends in first-time homebuyer characteristics across other periods. This paper therefore describes contemporary first-time homebuyer characteristics using the 2017 AHS, but focuses its discussion of trends over time on the 1997-2013 AHS surveys.

Data Advantages and Limitations

AHS data offers several advantages for assessing how first-time homebuying trends have shifted over time. First, the AHS's nationally representative sample allows for the construction of annual volumes of first-time buyers in the United States. And second, the survey's collection of extensive household-level data provides detailed insight about first-time buyers' demographic characteristics and the physical attributes of their homes.

At the same time, the AHS's biennial survey cycle means that even the most recent data can be 2-4 years out of date. Additionally, the initial removal of the first-time buyer variable and the year of home purchase variable from the public dataset during the 2015 re-design restricted first-time buyer data to internal datasets accessible only with special clearance.

² The authors are grateful to HUD for its assistance in producing special tabulations of the internal AHS data for 2015 and 2017.

³ Describing the full implications of the 2015 survey redesign is beyond the scope of this paper. However, one notable change is that the weighted age distribution of householders in the AHS shifted between the 2013 and the 2015 surveys. In particular, the share of all households under age 35 fell from 21 percent in the 2013 survey to 18 percent in 2015, compared to variation of less than one percentage point between 1997 and 2013.

Definitions

The analysis first identifies “recent homebuyers,” who are defined as households that purchased their current home during the year preceding the survey year. For example, respondents to the 2017 AHS that reported purchasing their homes in 2016 are considered “recent homebuyers.” This definition allows the recent homebuyer estimates in this paper to describe annual volumes over the course of a full calendar year.⁴

Recent homebuyers are then separated into “first-time homebuyers” or “repeat homebuyers” based on whether the respondent has ever owned a home before.⁵ Respondents are classified as first-time homebuyers if they have never previously owned a home and as repeat homebuyers if they have owned a home at any previous point in their lives. Combining these definitions, “recent first-time homebuyers” are therefore households that purchased their first home during the year preceding the survey year. Because this paper and the associated appendix tables focus on recent homebuyers (and do not discuss non-recent homebuyers), it uses the term first-time homebuyer interchangeably with recent first-time homebuyer. In all instances, the term first-time homebuyer refers to recent first-time homebuyers.

⁴ This definition may slightly underestimate the annual volume of first-time homebuyers to the extent that first-time homebuyers sell or lose their homes in the months before the next survey is conducted.

⁵ For years 1997-2013, “first-time homebuyers” are homeowners that responded “no” to the question “Have you ever owned a home before?” For 2015 and 2017, “first-time homebuyers” are homeowners that responded “yes” to the question “Is this the first home you have ever owned?” This is a more restrictive definition than the one used by some mortgage institutions, which can include buyers that previously owned a home. For example, FHA defines a first-time homebuyer (FTHB) as an individual that has had no ownership in a principal residence during the 3-year period ending on the date of purchase (closing date) of the property.

Volume and Rate of First-Time Homebuying

Overall Volume and Rate of First-Time Homebuying

Using this paper’s definition of first-time homebuyers, the 2017 AHS suggests that first-time homebuyers purchased approximately 1.8 million housing units throughout the United States in 2016.⁶ These 1.8 million recent first-time homebuyers represented approximately 1.5 percent of US households that year. This first-time homebuying “rate” offers a supplemental measure to the traditional measure of first-time homebuying as a share of all home purchases—i.e., in 2017 first-time homebuyers accounted for 38.5 percent of home purchases with repeat homebuyers accounting for the remainder. Because the latter measure reflects a share of home purchase transactions, it is sensitive to changes in the overall volume of home purchases and the relative volumes of first-time and repeat home purchases. In contrast, the rate of first-time homebuying describes the volume of first-time buying relative to the overall number of households, providing a measure that reflects the frequency of homeownership entry among US households.⁷

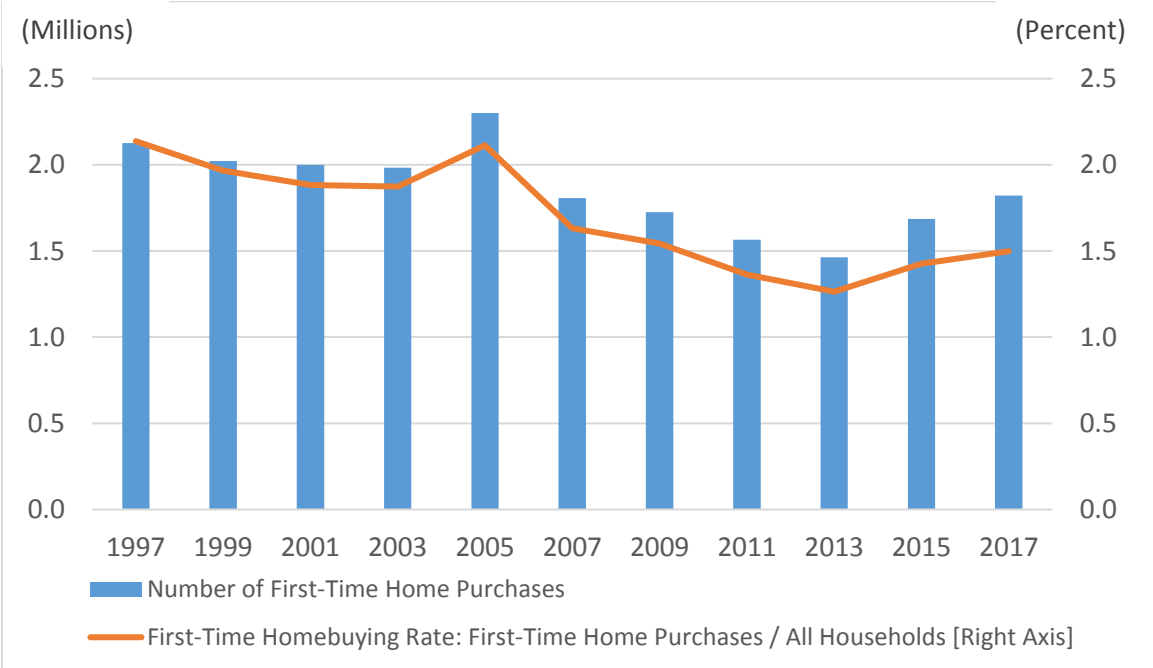
Figure 1 illustrates the extent to which annual first-time homebuying activity declined during the first decade of the 21st century. Indeed, the drop-off in first-time homebuying from 1997-2013 was not contained to the crisis period, but instead appears to represent the continuation of a longer trend. Except for a brief spike in 2005, recent first-time homebuying activity followed a steady pattern of year-over-year loss from 1997 through 2013, falling from 2.13 million households (or 2.1 percent of all US households) in 1997 to 1.98 million households (1.9 percent) in 2003 and to just 1.46 million households

⁶ Estimates of first-time and repeat home purchases in this paper exclude respondents that did not respond to the question inquiring about previous homeownership, which includes 2.1-6.7 percent of recent buyers depending on the survey year. See Appendix Table T1.

⁷ However, comparing the number of first-time home purchases to the number of *households* is sensitive to changes in household formation rates. Similarly, longer-term shifts in the rate measure may also reflect changes in the age distribution as the aging of the large baby boom generation substantially increases the share of US households age 65 and over. Figure 1 therefore presents both the rate and number of first-time homebuyers, showing that the overall trends are present in both measures.

(1.3 percent) in 2013. This dip throughout the early 2000s relative to the 1990s may be driven, at least in part, by cohort effects. The members of the small Gen X cohort were of prime first-time homebuying age during the early 2000s, when first time home purchase activity declined, while the large Baby Boomer cohort completed its prime homebuying years during the mid- to late-1990s, when first-time buying levels were high. Although first-time homebuying activity rebounded to 1.82 million households (1.5 percent) in 2017, perhaps due in part to the aging of the large Millennial cohort, these estimates remain well below the levels prior to 2007. Indeed, had the rate of first-time homebuying held at the 1997 level, an additional 775,000 households would have made a first-time home purchase in 2017.

Figure 1: Number of First-Time Home Purchases and First-Time Homebuying Rate by Year



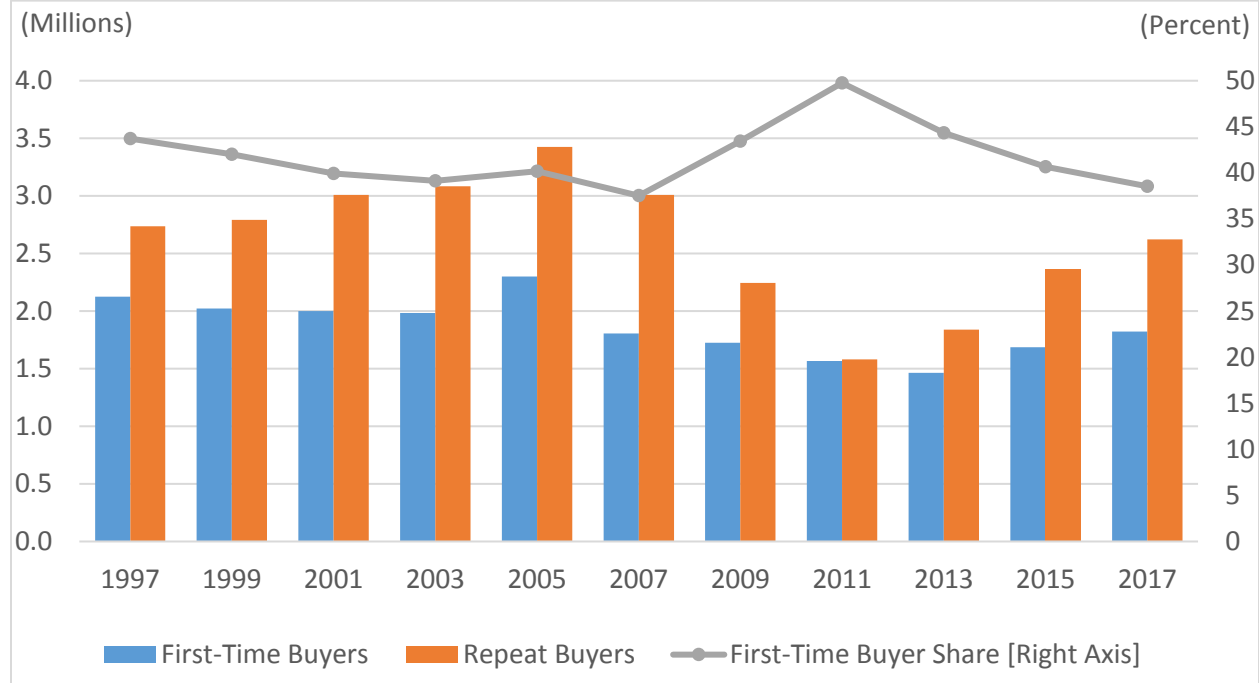
*Note: Years correspond to the AHS survey year. First-time buyer counts and shares exclude recent buyers that did not provide a response to the previous homeownership question.
Source: Tabulations of US Census Bureau, 1997-2017 American Housing Surveys.*

As a share of all home purchases, first-time buyers accounted for 43.7 percent in 1997 and 38.5 percent in 2017. However, this share oscillated substantially during the interim years between 1997 and 2017, bottoming out at 37.5 in 2007 and reaching a peak of 49.8 percent in 2011. Comparing these

estimates with the volumes of first-time home purchases reaffirms that the two measures should be viewed as supplementary to one another, each providing insight into different trends (Figure 2). For example, while the first-time buyer share of home purchases in 1997 and 2013 are roughly the same, the volume of first-time buyers is substantially different, falling from 2.13 million in 1997 to 1.46 million in 2013. This decline isn't apparent from the share measure because repeat buyer activity fell at a similar rate, producing a first-time buyer share in 2013 that roughly equaled that in 1997, despite much weaker housing market conditions overall. Similarly, measuring first-time and repeat buyer volumes reveals that the remarkably high first-time buyer share registered in 2011 resulted not from a particularly active year for first-time buyers, but rather from a historically low number of repeat buyers that year. Recent first-time buyer activity was in fact near a historic low in 2011, likely kept slightly above its 2013 trough only by the bolstering force of the federal First-Time Homebuyer Tax Credit, which ended in 2010.⁸

⁸The First-Time Homebuyer Tax Credits were created by the federal stimulus bills passed in the wake of the foreclosure crisis, with different stimulus bills offering slightly different tax credit incentives to homebuyers. For additional information, see Keightley (2009).

Figure 2: Comparison of First-Time and Repeat Homebuyer Volumes to the First-Time Homebuyer Share of Home Purchases



Note: Years correspond to the AHS survey year. First-time and repeat buyer counts and first-time buyer shares exclude recent buyers that did not provide a response to the previous homeownership question.

Source: Tabulations of US Census Bureau and HUD, 1997-2017 American Housing Surveys.

Variation in First-Time Homebuying Rates by Age and Race/Ethnicity

First-time and repeat homebuying rates vary substantially across age and racial/ethnic groups (Figure 3).

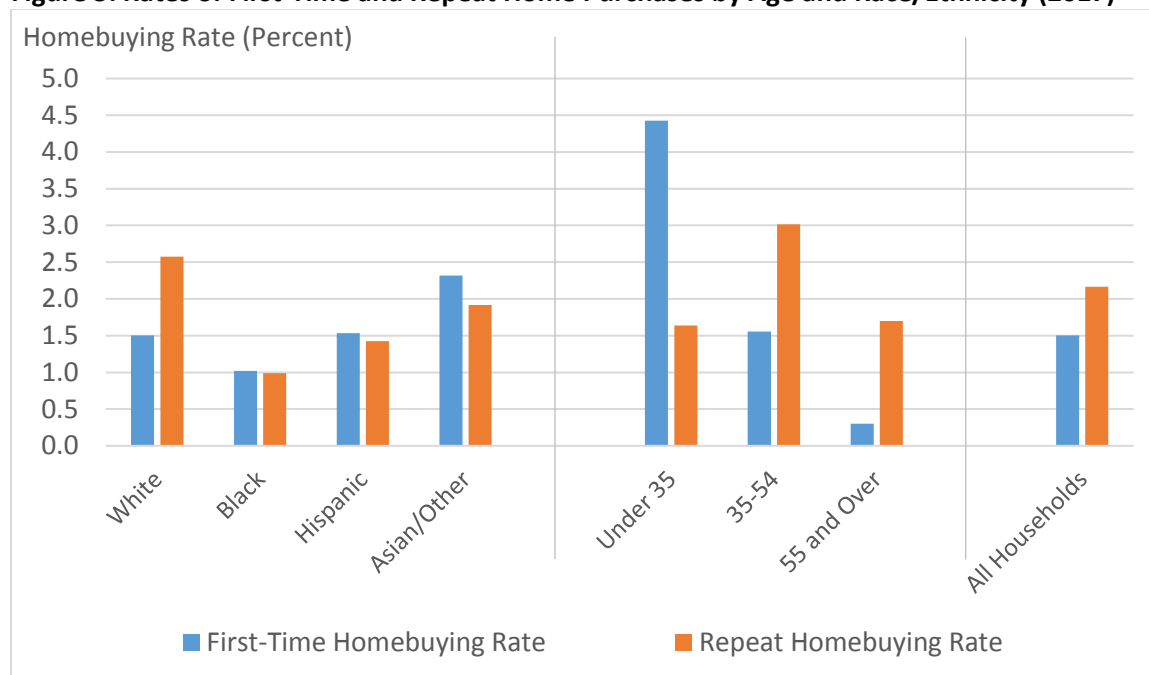
Younger households have substantially higher rates of annual first-time homebuying than do middle-aged and older groups. According to 2017 AHS data, 44 out of every 1000 households under age 35 (4.4 percent) had made a first-time home purchase in the prior year. For middle-aged buyers aged 35-54, the rate falls to 1.6 percent, and declines farther to just 0.3 percent for older households aged 55 and over.

In contrast, the rate of repeat homebuying is highest among middle-aged households at 3.0 percent, with lower rates among both households under age 35 (1.6 percent) and households aged 55 and over (1.7 percent).

By racial/ethnic group, the first-time buying rate in 2017 was highest among households that are headed by an individual who is Asian, multiracial, or of some other race group (2.3 percent), followed by

Hispanics (1.5 percent), whites (1.5 percent), and African Americans (1.0 percent). Meanwhile, the repeat homebuying rate is highest among whites (2.6 percent) and lowest among African Americans (just 1.0 percent), while Hispanics and Asians make repeat home purchases at more moderate rates of 1.4 percent and 1.9 percent, respectively. While these homebuying rates are the product of a range of social and economic factors, differences in the age distributions of these groups may contribute to the observed differences in first-time homebuying rates. Specifically, the first-time homebuying rates of Hispanic and Asian households may be bolstered by these groups' higher shares of households in young age groups, when first-time homebuying is most common, whereas the first-time homebuying rates of white and black households may be dampened by their relatively larger shares of older households.

Figure 3: Rates of First-Time and Repeat Home Purchases by Age and Race/Ethnicity (2017)



Notes: The homebuying rate is defined as the ratio of the number of first-time/repeat home purchases to the total number of households. White, black, and Asian/other households are non-Hispanic. Hispanics may be of any race. Asians are grouped with all other race groups (including multiracial) to increase sample size. Totals exclude the 2% of recent buyers that did not provide a response to the previous homeownership question.

Source: Tabulations of US Census Bureau and HUD, 2017 American Housing Survey, Internal Use File.

Changes Over Time in the Characteristics of First-Time Homebuyers: 1997-2017

In examining changes across time, the AHS redesign and new sample in 2015 limits inference about the extent of changes between 2013 and 2015. However, AHS sample and survey consistency from 1997-2013 and 2015-2017 permits reliable analysis of trends in first-time homebuyer characteristics across these other periods. The figures and appendix tables therefore present the estimates for the full period from 1997-2017, but the discussion of trends focuses on the period from 1997-2013.

Age

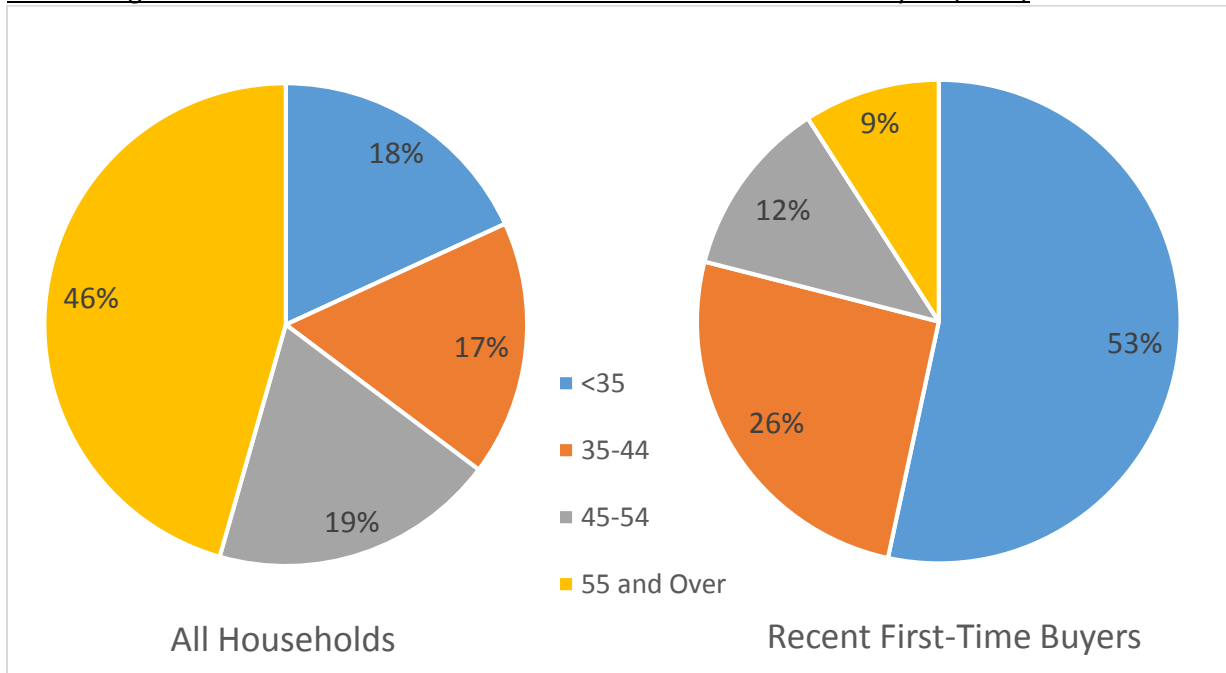
The age distribution of first-time homebuyers skews younger than that of all households in the AHS, demonstrating the correlation between entry into homeownership and younger stages of life when it is most common for individuals to partner up and begin having children (Figure 4). In 2017, the median age of recent first-time buyers was 34, compared to 52 for all householders (including both owners and renters). Households headed by a person under age 35 comprise a majority of first-time buyers (53 percent), with 25-34 year olds accounting for 46 percent of all buyers, and households under age 25 contributing another 7 percent. Households headed by a person aged 35-54 represent a somewhat smaller share of first-time buyers—38 percent—and households aged 55 and over are the smallest group, at 9 percent. In contrast, among all households, the relative sizes of these three age groups are reversed. Older households (aged 55 and over) comprise the largest group, representing fully 46 percent of all households. The under-35 group accounts for the smallest share of all households (18 percent), and 35 to 54-year-olds fill out the remaining 36 percent of US households.

The median age of first-time homebuyers shifted modestly downward and then upward over the past two decades. It inched downward from 32 in 1997 to 30 in 2009 before climbing back to 31 in 2013, 33 in 2015, and 34 in 2017. Meanwhile, the age distribution of first-time homebuyers doesn't show consistent or dramatic trends. The largest change is a decline of 5 percentage points in the share

of buyers aged 35-54 between 1997 and 2013, which likely reflects broader population dynamics as the baby boom generation left this age group and was replaced by the smaller Gen X generation. Relatedly, the aging of the baby boom generation pushed the share of first-time homebuyers in the age 55 and over group from 5 percent in 1997 to 7 percent in 2013 and from 7 percent in 2015 to 9 percent in 2017.

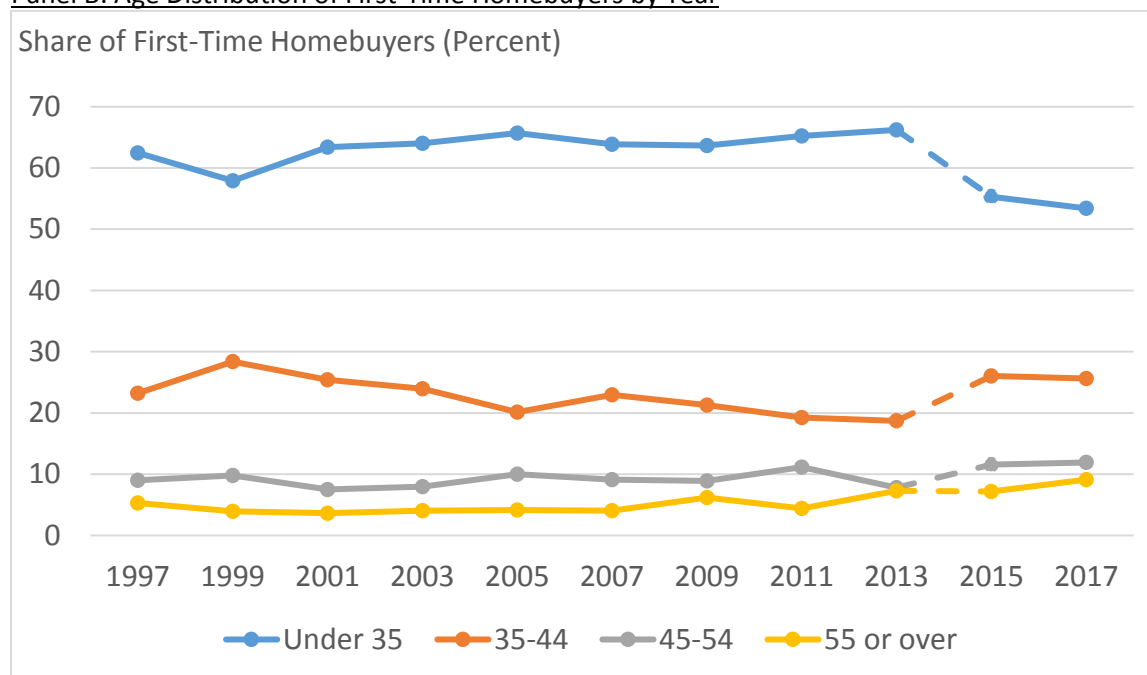
Figure 4: Age of Recent First-Time Homebuyers

Panel A: Age Distribution of All Households and Recent First-Time Homebuyers (2017)



Source: Tabulations of US Census Bureau and HUD, 2017 American Housing Survey, Internal Use File.

Panel B: Age Distribution of First-Time Homebuyers by Year



Note: The dashed line between 2013-2015 corresponds to an AHS survey re-design and re-drawing of a new sample, which may in part drive changes observed between 2013 and 2015.

Source: Tabulations of US Census Bureau and HUD, 1997-2017 American Housing Surveys.

Race and Ethnicity

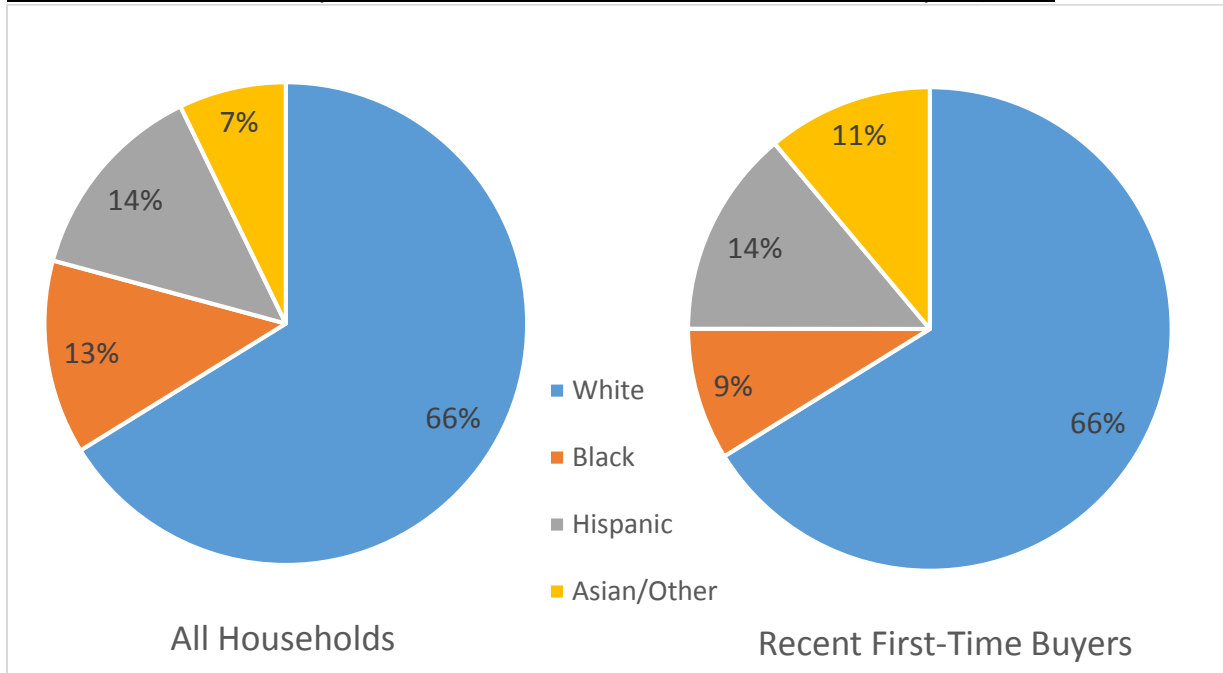
Compared with all households, the racial and ethnic mix of first-time homebuyers contains a lower share of black households and a higher share of Asian households. In 2017, black households accounted for 9 percent of first-time homebuyers but 13 percent of all US households. In contrast, Asian, multiracial, and other race households accounted for 11 percent of first-time homebuyers, compared to 7 percent of all US households. White households accounted for 66 percent of both first-time homebuyers and all US households in 2017, and Hispanics accounted for 14 percent of both first-time homebuyers and all US households in 2017 (Figure 5).

Tracking changes in the distribution of first-time homebuyers by race and ethnicity over time is limited by the amount of noise in the data, with the overall trends often falling within the survey-to-survey variation in the estimates. The most notable exception is that the share of first-time homebuyers that are Asian, multiracial, or of some other race increased over time from 5 percent in 1997 to 9

percent in 2013. This increase appears to be offset by declines in the white share (from 71 percent in 1997 to 69 percent in 2013) and the black share (from 14 percent in 1997 to 9 percent in 2013).

Figure 5: Race/Ethnicity of Recent First-Time Homebuyers

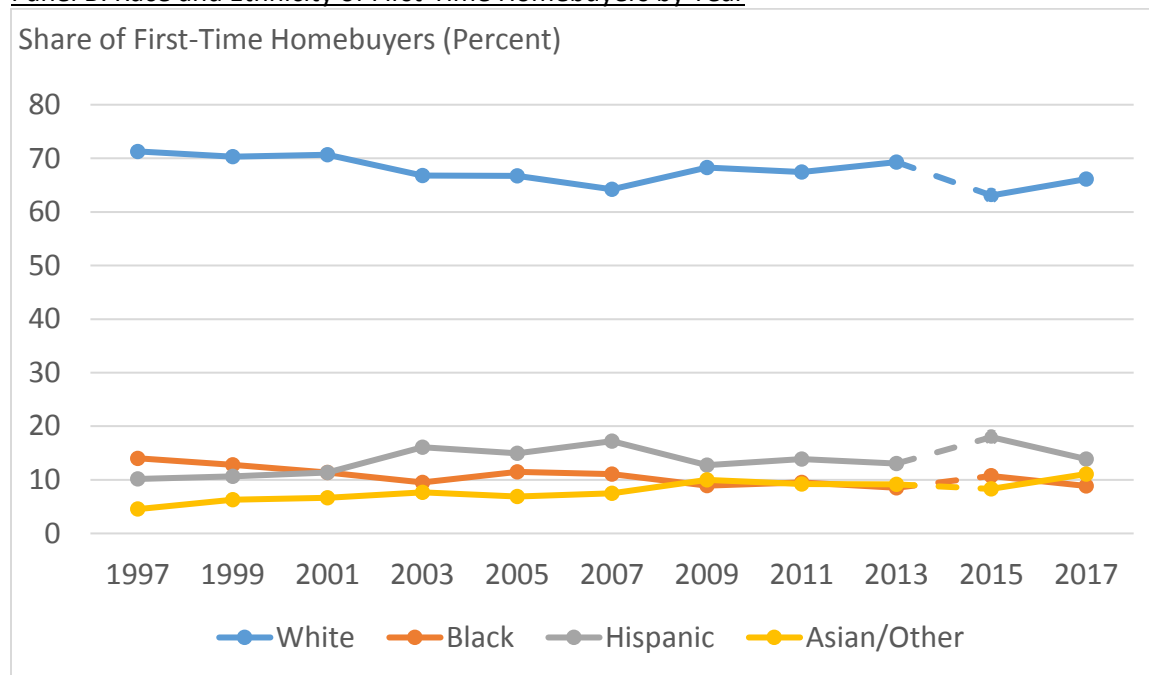
Panel A: Race and Ethnicity of All Households and Recent First-Time Homebuyers (2017)



Notes: White, black, and Asian/other households are non-Hispanic. Hispanics may be of any race. Asians are grouped with all other race groups (including multiracial) to increase sample size.

Source: Tabulations of US Census Bureau and HUD, 2017 American Housing Survey, Internal Use File.

Panel B: Race and Ethnicity of First-Time Homebuyers by Year



Notes: White, black, and Asian/other households are non-Hispanic. Hispanics may be of any race. Asians are grouped with all other race groups (including multiracial) to increase sample size.

Source: Tabulations of US Census Bureau and HUD, 1997-2017 American Housing Surveys.

Marital Status

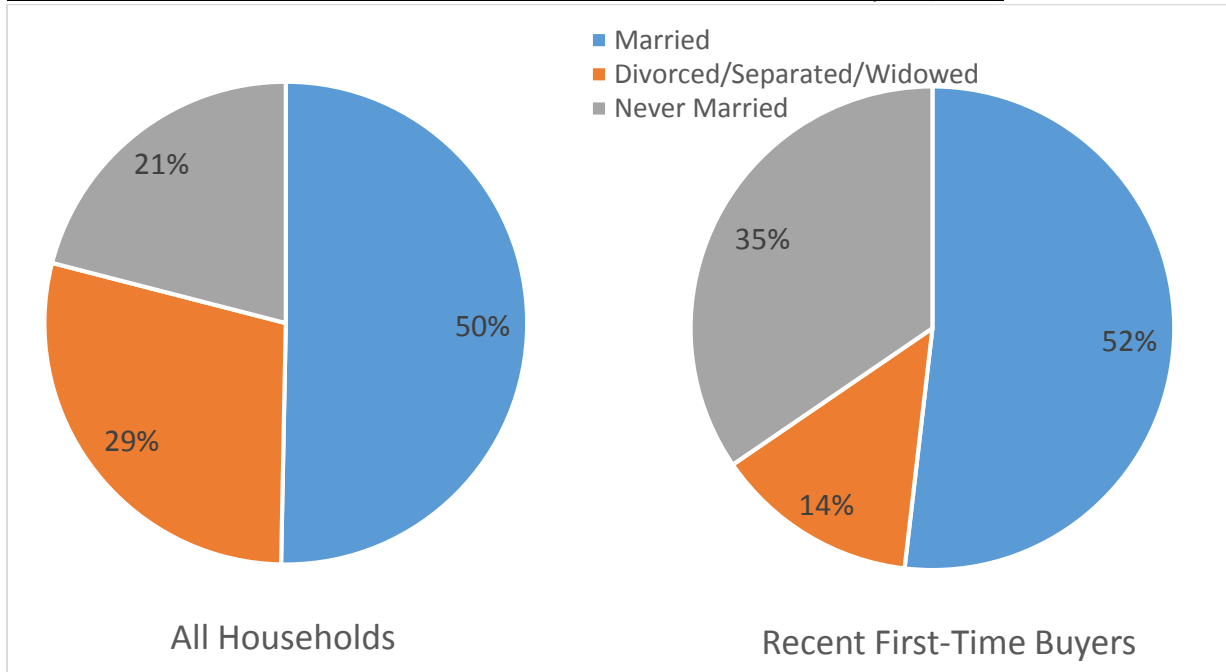
While homeownership entry is often associated with marriage and the start of a family, first-time homebuyers' characteristics exhibit a broader set of marital statuses. Just over half of recent first-time homebuyers in 2017 were married, but 35 percent of first-time homebuyers reported being never-married, 11 percent were divorced or separated, and 3 percent were widowed (Figure 6).

Tracking these figures over time reveals a clear shift from married households to never-married households. The married share of first-time homebuyers declined from 61 percent in 1997 to 46 percent in 2013. This decline is offset by an increase in the never-married share from 23 percent in 1997 to 41 percent in 2013. Over the same period, the share of first-time homebuyers that reported being divorced, separated, or widowed hovered between 13-15 percent in all years. Because the trends in marital status are not mirrored by similarly large shifts in the age distribution, it is unlikely that they are driven by demographic shifts like delays in marriage and childbirth. Instead, this shift may reflect

broader shifts in households' approach to homeownership, such as an increased willingness to purchase homes individually or with unmarried partners.

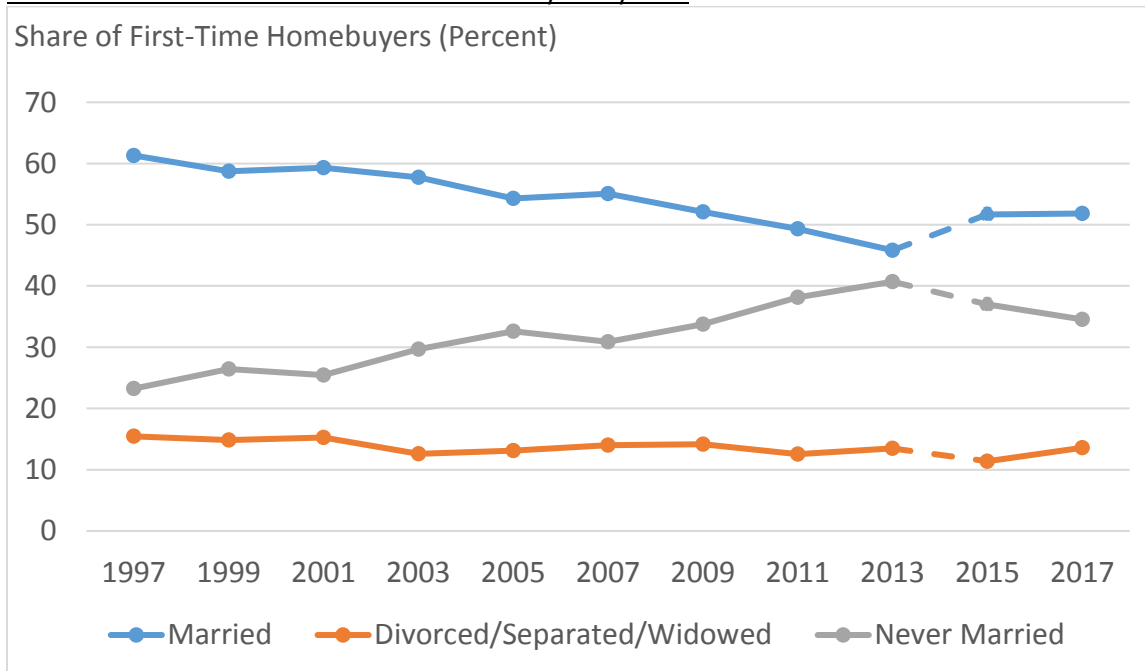
Figure 6: Marital Status of Recent First-Time Homebuyers

Panel A: Marital Status of All Households and Recent First-Time Homebuyers (2017)



Source: Tabulations of US Census Bureau and HUD, 2017 American Housing Survey, Internal Use File.

Panel B: Marital Status of First-Time Homebuyers by Year

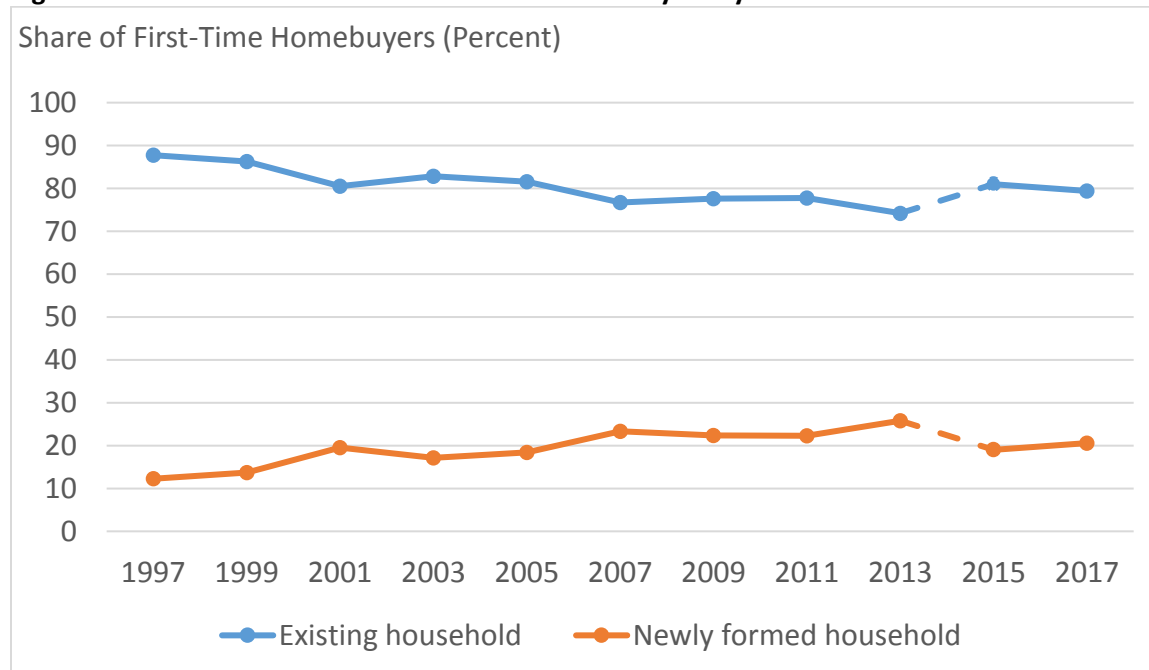


Source: Tabulations of US Census Bureau and HUD, 1997-2017 American Housing Surveys.

Household Formation

Changes over time in first-time homebuyers' formation of new households also show a clear trend. In 2017, 79 percent of first-time homebuyers were existing households. Conversely, 21 percent of first-time homebuyers formed a new household at the time of home purchase, including 12 percent that previously lived with a homeowner and 8 percent that previously lived with a renter.⁹ The share of first-time buyers that were newly formed households increased markedly from 12 percent in 1997 to 26 percent in 2013, suggesting that more first-time homebuyers than in the past are simultaneously experiencing major changes in their household composition (Figure 7). This trend is consistent with the rise in adult children living with their parents to save money, so some portion of this increase may reflect an increase in homebuyers moving directly from their parents' house into an owned home. However, other explanations are possible as well.

Figure 7: Household Formation of First-Time Homebuyers by Year



Source: Tabulations of US Census Bureau and HUD, 1997-2017 American Housing Surveys.

⁹Existing households include respondents who indicate that the “previous unit was owned or rented by someone who moved here.” New households include respondents who indicate that the previous unit was owned or rented by someone else who did not move to the current household.

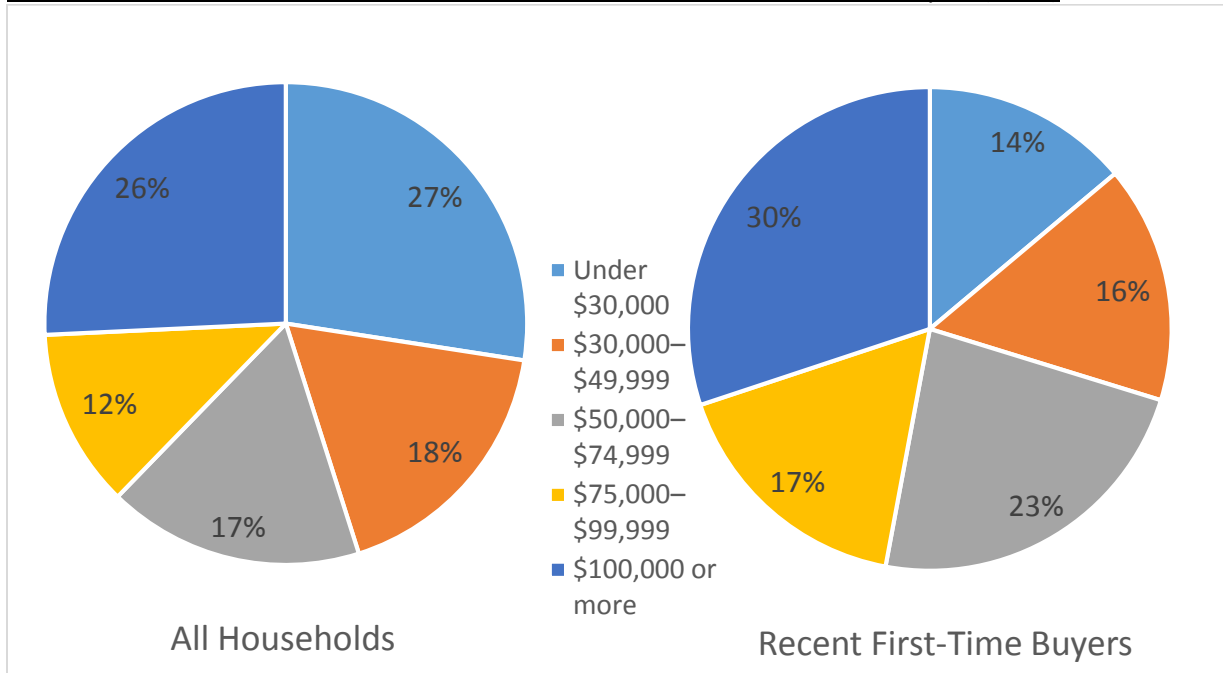
Household Income and Home Price

First-time homebuyers in 2017 reported widely varying levels of income, although the median of \$70,600 was well above the median of \$55,200 for the broader set of US households. Nearly 14 percent of first-time homebuyers had income below \$30,000, 16 percent had income of \$30,000-\$49,999, 40 percent had income of \$50,000-\$99,999, and 30 percent had income of \$100,000 or more. This distribution is somewhat higher than the overall income distribution among US households, which includes nearly double the share of households with incomes below \$30,000 (Figure 8).

This income distribution has remained relatively constant over time (in real terms). Panel B of Figure 8 displays the share of first-time homebuyers in each income category in 1997-2017, showing that the income distribution doesn't exhibit clear trends. The possible exception is a compression of the income distribution during the recession years from 2009-2013, with fewer first-time homebuyers appearing in both the lowest- and highest-income categories.

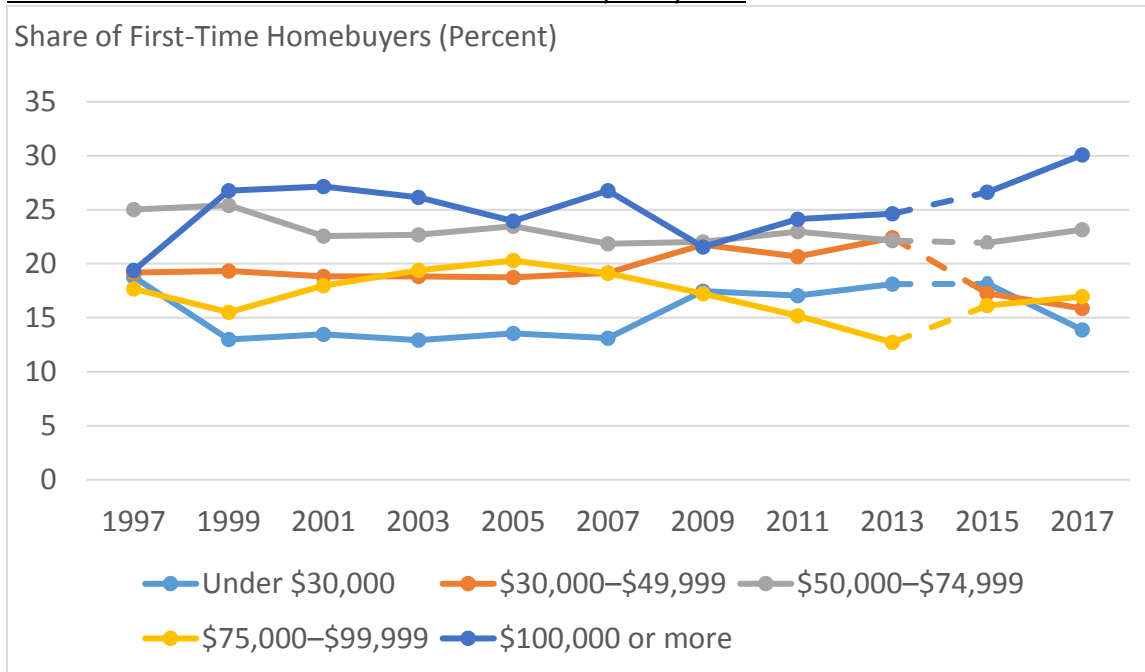
In contrast, the inflation-adjusted home purchase prices displayed in Panel C of Figure 8 show a consistent decrease in the share of first-time homebuyers purchasing homes for less than \$100,000 and a clear increase in the share purchasing homes for \$300,000 or more—with the exception of a temporary reversal in both trends during the recession period, when home values declined throughout many areas of the United States. In 2017, 21 percent of first-time homebuyers purchased homes for less than \$100,000, 36 percent paid \$100,000-\$199,999, 22 percent paid \$200,000-299,999, and 21 percent paid \$300,000 or more.

Figure 8: Household Income and Home Purchase Price among First-Time Homebuyers
Panel A: Household Income of All Households and Recent First-Time Homebuyers (2017)



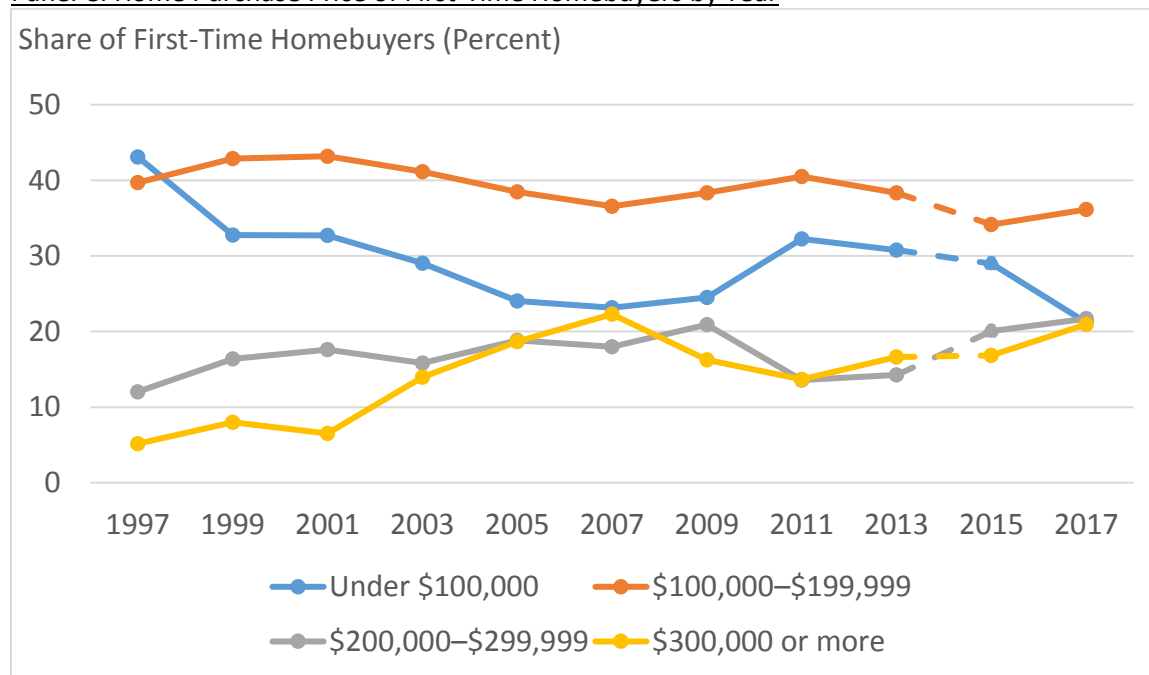
Source: Tabulations of US Census Bureau and HUD, 2017 American Housing Survey, Internal Use File.

Panel B: Household Income of First-Time Homebuyers by Year



Source: Tabulations of US Census Bureau and HUD, 1997-2017 American Housing Surveys.

Panel C: Home Purchase Price of First-Time Homebuyers by Year



Source: Tabulations of US Census Bureau and HUD, 1997-2017 American Housing Surveys.

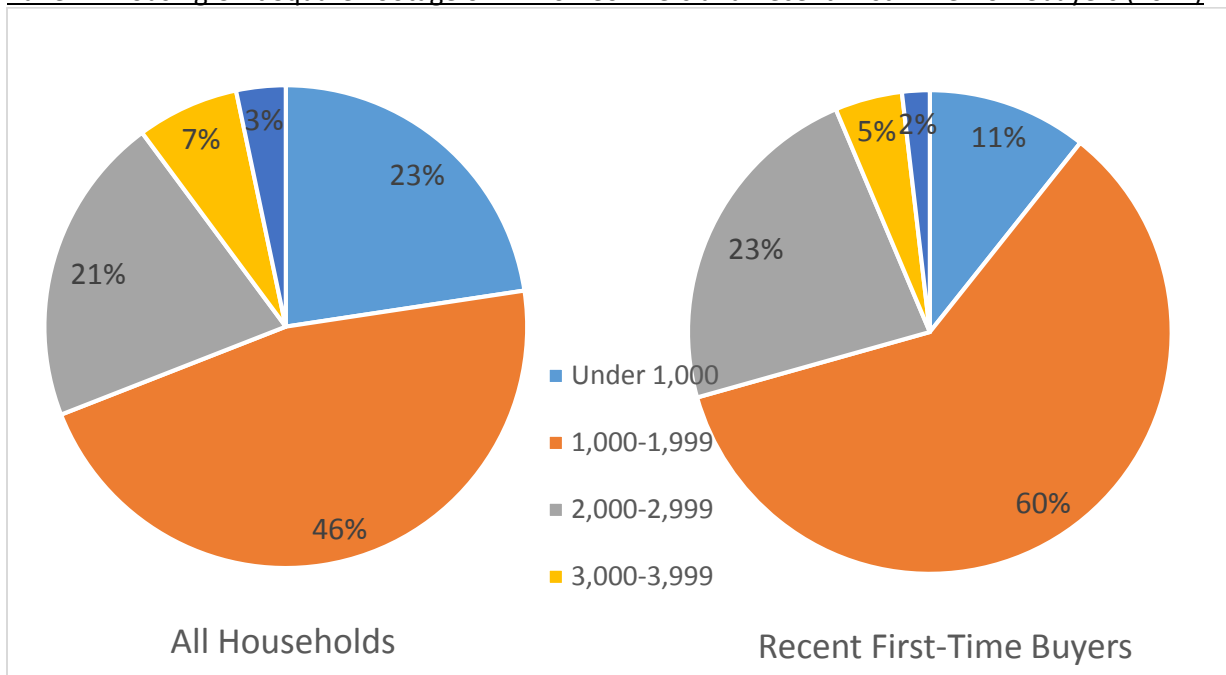
Housing Unit Structure Type and Size

While the units purchased by first-time homebuyers are slightly larger than the overall distribution of housing units in the U.S., more than half of first-time homebuyers purchased homes with less than 2,000 square feet. Eleven percent of first-time homebuyers purchased homes of 1,000 square feet or less, 60 percent bought homes with 1,000-1,999 square feet, and 29 percent bought homes with 3,000 square feet or more (Figure 9). The units purchased by first-time homebuyers also included higher shares of single-family detached homes and of larger homes (with 3 or more bedrooms) than the overall distribution. In 2017, 78 percent of first-time homebuyers purchased single-family detached homes and 78 percent purchased homes with 3 or more bedrooms, compared to 63 percent and 64 percent, respectively, among all housing units in the US.

Moreover, the share of first-time homebuyers purchasing small homes has decreased over time. The share of homes purchased by first-time homebuyers that had less than 1,000 square feet decreased from 19 percent in 1997 to 11 percent in 2013. In contrast, the share of homes with between 1,000 and

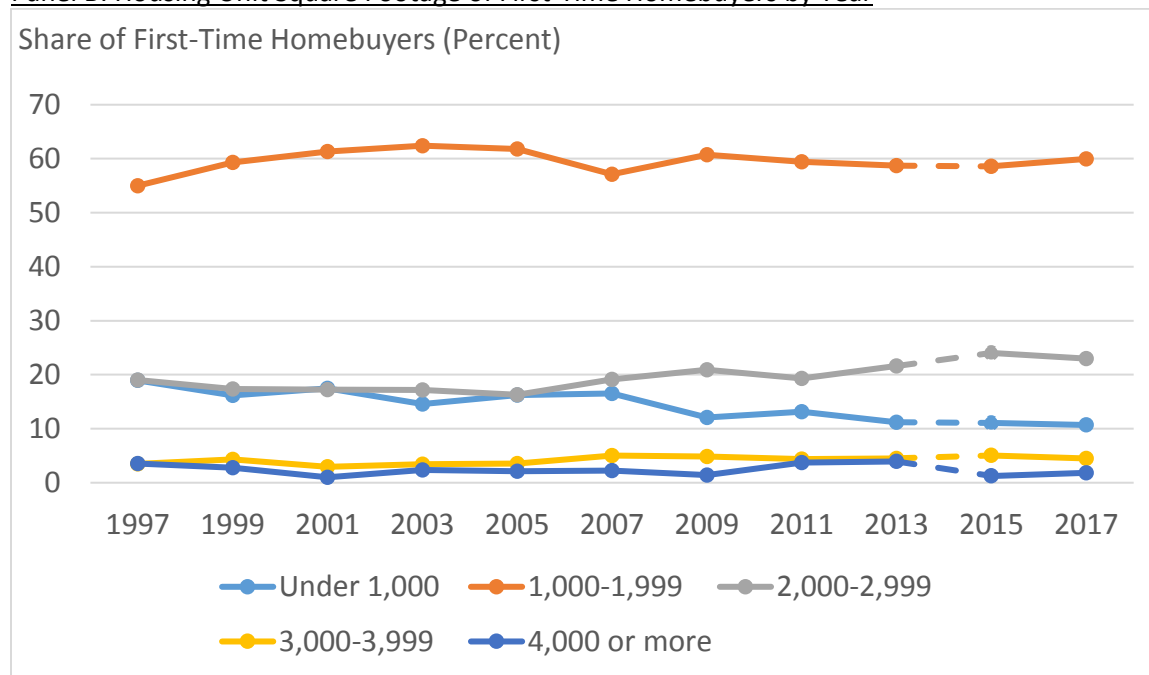
3,000 square feet increased from 74 percent in 1997 to 80 percent in 2013. Similarly, the share of first-time buyers purchasing detached single-family homes rose from 68 percent in 1997 to 75 percent in 2013, and the share purchasing homes with 3 or more bedrooms rose from 69 percent in 1997 to 77 percent in 2013.

Figure 9: Housing Unit Square Footage of Recent First-Time Homebuyers
 Panel A: Housing Unit Square Footage of All Homeowners and Recent First-Time Homebuyers (2017)



Source: Tabulations of US Census Bureau and HUD, 2017 American Housing Survey, Internal Use File.

Panel B: Housing Unit Square Footage of First-Time Homebuyers by Year



Source: Tabulations of US Census Bureau and HUD, 1997-2017 American Housing Surveys.

Conclusion

This paper presents nationally representative estimates of the volume of first-time home purchases, along with selected characteristics of first-time homebuyers, using data from the American Housing Surveys for 1997-2017. The discussion in this paper is supplemented by a detailed set of appendix tables that provide estimates of the household and housing unit characteristics of first-time homebuyers, repeat homebuyers, all recent homebuyers, all homeowners, and all households in the US.

The estimates of first-time homebuying activity show a substantial drop-off in the annual volume and rate of first-time homebuying over the period from 1997-2013. While first-time home purchases subsequently rebounded from 2015-2017, the 2017 estimate remains well below its pre-crisis levels. The forthcoming 2019 AHS is necessary to shed light on whether this rebound has continued and whether current first-time homebuying volumes have returned to their earlier levels. In the interim, the estimates in this paper and the associated appendix tables describe the changing profile of first-time homebuyers from 1997-2017.

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