

HOUSING DEMAND

DEMOGRAPHICS AND THE NUMBERS BEHIND THE
COMING MULTI-MILLION INCREASE IN HOUSEHOLDS

AN MBA RESEARCH REPORT

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Table of Contents

- Executive Summary 3
- Housing Demand. 6
 - Demographics Is Destiny 6
 - Groups Act Differently 7
 - 35 Is the New 25 8
 - Implications. 9
 - Scenario 1: Homeownership Rates Flat 11
 - Scenario 2: Homeownership Rates Adjust 12
- Bottom Line. 16
- Technical Appendix 17

Table of Figures

- Figure 1: More Young and Old, Fewer Middle-aged 7
- Figure 2: Growing Older. 8
- Figure 3: Education — Higher Levels of Education, Especially Among Women 8
- Figure 4: Birth Rate (Births per 1,000 Women). 8
- Figure 5: Household Demand — Changing Demographics Alone Beget 10
 - 1.4 Million Additional Households per Year
- Figure 6: household Demand — Changing Demographics Coupled with 10
 - Trends and Economy Beget 1.6 Million Additional Households per Year:
 - Projected Changes in Households, by Age 2014-2024
- Figure 7: Homeownership Demand — Changing Headship Rates Means More Owner Households: . 11
 - Projected Changes in Owner-Occupier Households, by Age 2014-2024
- Figure 8: Renter Demand — Changing Headship Rates Means More Renters. 12
- Figure 9: Homeownership Demand — Reversion to Homeownership 12
 - Nets 1.3 Million Owner Households per Year
- Figure 10: Renter Demand — Reversion to Homeownership Cuts 13
 - Renter Growth to 318k per Year
- Figure 11: Forecast Summary — Homeowners and Renters 14
- Figure 12: Single-family / Multifamily — Multifamily / Single-family Split Relatively Stable 14

Executive Summary

Household formation has been depressed in recent years by a long, jobless recovery. This study, utilizing a comprehensive analysis of data from 1976-2014, a period encompassing several market and housing cycles, provides a projection of much stronger housing demand over the next decade. Favorable economic and demographic trends will combine to create strong growth in both owner and rental housing markets. The precise mix will depend on the degree to which consumer choices, the relative cost of owning vs. renting and government policy's impact on access to credit favor one or the other.

By 2024, demographic and economic changes will bring what could be one of the largest expansions in the history of the U.S. housing market — 15.9 million additional households. The growth will be driven by increases in the numbers of households headed by those age 60 and older and age 45 and younger and will be mitigated by declines among households age 45 to 60. Growth among older households will continue to be primarily among Non-Hispanic Whites, as will the declines among households age 45 to 60. Minorities will drive growth among Millennial households and will positively impact demand among every age cohort.

For decades, the homeownership rate in the US hovered between 64 and 65 percent. We judge large swings in how people choose to occupy housing to be unlikely. Households will compare the costs and benefits of owning and of renting, while housing developers and investors will respond to price and rent signals — each mechanism providing a release valve when pressure builds in a particular market. In addition, an aging population should gradually increase demand for homeownership, partially offsetting the influence of a more racially and ethnically diverse population on homeownership rates.

We evaluate two alternative scenarios with respect to the path of the homeownership rate, but regardless of the mix, demand for all types of housing will be strong. One aspect of this discussion that is often ignored, that we highlight, is that homeownership rates will likely be impacted largely by shifts in demand between single-family ownership and single-family rentership.

Among the Findings:

The Census Bureau projects that compared to 2014, 2024 will see:

- 20 million more people age 60 and over than there are today (as Baby Boomers age),
- 4 million fewer people age 45 to 59 (as the large Baby Boomer cohorts are replaced by smaller Generation X cohorts) and
- 8 million more people age 18 to 44 (as smaller Generation X cohorts are replaced by larger Millennial cohorts).

Impact of Demographics Alone on Housing Demand

- Even if sex-, age- and race-specific household formation rates remain at low 2014 levels, over the next decade, these demographic changes alone should account for 13.9 million additional households in the United States.
- + Household growth will be led by 5.5 million additional Hispanic households, 3.4 million additional non-Hispanic White households, 2.4 million additional Black households, 1.8 million additional Asian households and 730,000 additional other households.

- + Growth will be driven by Baby Boomers, with 12.3 million more households age 60 and over in 2024 than there are today.
- + Millennials will also be a key component of growth raising the ranks of households age 18 to 44 by 4.1 million.
- + Generation X's relatively small size means that — absent any change in headship rates (that is, the number of households per person) — there will be 2.5 million fewer households age 45 to 59 than there are today.



- + Adding Long-term Societal Trends and End of Recession

In addition to the demographic changes above, a variety of both long-term societal trends and more transitory economic impacts also affect the degree to which individuals form new households. Adjusting demographic-specific headship rates from the 2014 levels to account for these long-term social and economic trends suggests even more robust housing demand over the next decade.

- The U.S. will see 15.9 million additional households over the next decade — two million more than if headship rates remained at their 2014 levels.

- Household growth will include:
 - + 5.7 million more Hispanic households in 2024 than in 2014,
 - + 5.0 million more non-Hispanic White households,
 - + 2.4 million more Black households,
 - + 1.9 million more Asian households and
 - + 890,000 more other households.
- Growth will be driven by Baby Boomers, with 12.9 million more households age 60 and over in 2024 than there are today. Millennials will also be a key component of growth raising the ranks of households age 18 to 44 by 5.1 million. Generation X's relatively small size means that there will be 2.1 million fewer households age 45 to 59 than there are today.
- Averaging 1.6 million additional households per year, housing market growth over the next decade would be among the strongest the U.S. has ever seen.

Homeownership

- Given the current level and ongoing trend in relative costs of owning versus renting, it is unlikely that the homeownership rate will fall much further, and it is likely to rise. There is little to suggest that the recent declines in homeownership rates will permanently depress ownership among different cohorts as they age. And there is little to suggest that the recession-induced rates of decline will carry forward to further depress homeownership going forward.
- If age- and race-specific homeownership rates remain at (low) 2014 levels:
 - + The U.S. will see 10.3 million additional owner households and 5.6 million new renter households over the next ten years.
 - + Both owner and renter household growth will be driven by the Baby Boomers, although Millennials will play a more significant role in renter growth.

- + Among homeowners, the number of new minority owner households will be one-third higher than the number of new non-Hispanic White households. Among renters, non-Hispanic Whites will account for just twelve percent of the overall growth.
- + The aggregate homeownership rate will grow modestly, to just below 64.8 percent.
- Homeownership rates have closely followed the ups and downs of the economy, mortgage markets and federal policies that promote and restrict homeownership. To the degree the housing market in 2024 is stronger than in 2014, homeownership rates should respond.
- If, with the end of the recession and a healing of the housing market, homeownership rates revert to their long term averages (which are neither the highs that were seen in 2005 and 2006, nor the lows of today.):
 - + The U.S. will see 12.7 million additional owner households and 3.1 million new renter households over the next ten years.



- + As with the first scenario, both owner and renter household growth will be driven by the Baby Boomers. In this scenario Millennials play a far smaller role in renter demand as more are drawn into homeownership than in the other scenario.
- + Among homeowners, the number of new minority owner households will be more than one-third higher than the number of new non-Hispanic White households. Among renters, the number of non-Hispanic White renters will decline.
- + Boosted by the aging of the population and rising headship rates, the aggregate homeownership rate will rebound to 66.5 percent.

Housing Demand

Three tectonic forces will shape the American housing market over the next decade. The first is the ever-changing demographic make-up of the United States. The second is a series of long-term societal trends that — over time — are delaying the start of many key life stages. The third is the fading of the economic hang-over from the Great Recession. When added together, these forces augur increasing numbers of households and what may be one of the largest increases in housing demand the country has seen.

DEMOGRAPHICS IS DESTINY

Much of today's housing demand was set in motion when American soldiers returned home from World War II in the 1940s and set about re-establishing their lives, one child at a time. According to the National Center for Health Statistics, the birth rate jumped 30 percent between 1945 and 1947: from 20.4 to 26.6 births per 1,000 of population. The resulting Baby Boom has been a central part of American society ever since, and perhaps nowhere as much as in the housing markets.

The Boomers also had children of their own. By 1980, the unofficial delivery of the Millennial generation, the birth rate in the United States had dropped to just 15.9 births per 1,000 of population. But the size of the Baby Boom generation meant that even that low birth rate produced a large number of children. Over the next decade the number of registered births grew by 15 percent, from 3.6 million in 1980 to 4.2 million in 1990.

Squeezed between these two high-profile groups, and sometimes lost in the discussion, is Generation X. As the trough between these two other population peaks, Generation X's significance is usually measured by how they differ from Baby Boomers and how Millennials differ from them. In many ways, Generation X is the Fifth Business¹ in this story, and as such Gen X sets up the Boomers and the Millennials for the roles they fill.

¹ In his book of the same name, writer Robertson Davies defines Fifth Business as, "Those roles which, being neither those of Hero nor Heroine, Confidante nor Villain, but which were nonetheless essential to bring about the Recognition or the denouement, were called the Fifth Business in drama and opera companies organized according to the old style; the player who acted these parts was often referred to as Fifth Business."

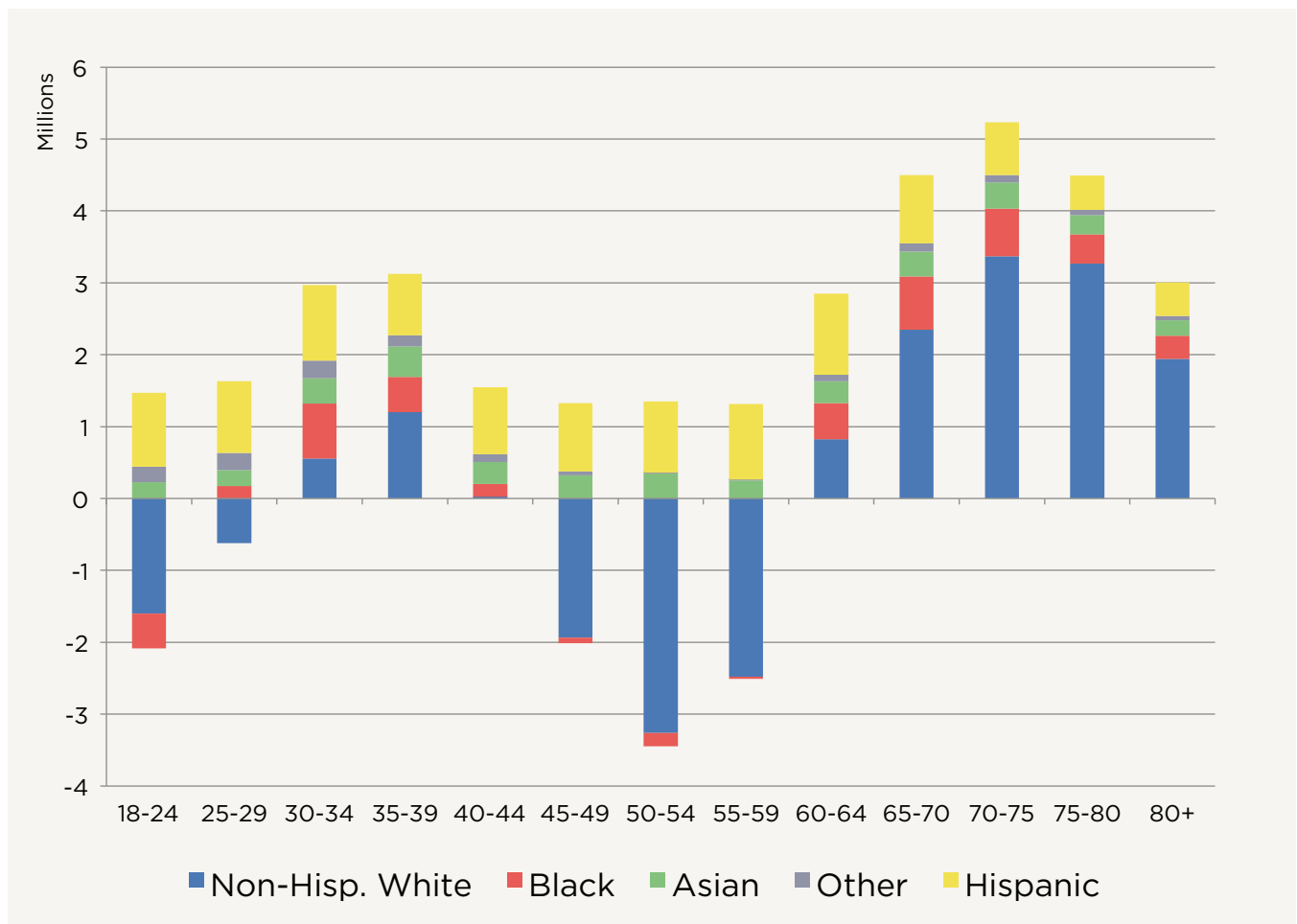
The Boomer-GenXer-Millennial dynamic is reshaping America.

The Census Bureau projects that compared to 2014, 2024 will see:

- 20 million more people age 60 and over than there are today (as Baby Boomers age),
- 4 million fewer people age 45 to 59 (as the large Baby Boomer cohorts are replaced by smaller Gen-X cohorts) and
- 8 million more people age 18 to 44 (as smaller Gen-X cohorts are replaced by larger Millennial cohorts).

But it isn't just the size of the cohorts that is bringing change. Each successive group is more racially and ethnically diverse than the previous one. The growth seen among the Baby Boomer cohort is predominantly non-Hispanic White. The greater diversity of Gen-X means that the decline in population between Boomers and Gen-Xers is driven by losses in the non-Hispanic White population, offset by growth among Asians and Hispanics. And the growth that comes with the Millennials is greater among minorities than among non-Hispanic Whites.

FIGURE 1: MORE YOUNG AND OLD, FEWER MIDDLE-AGED: PROJECTED CHANGES IN POPULATION, BY AGE 2014-2024



GROUPS ACT DIFFERENTLY

If people of different ages, races and ethnic groups all acted in similar ways, the demographic changes facing the country would be far less impactful. But they do not.

Changes in age distribution translate directly into changes in housing demand. As people age, they become a great deal more likely to own their home and less likely to rent it. In March of 2014, 80 percent of households headed by someone age 25 or less rented their home. The share of households renting falls to:

- 66 percent of those age 25 to 29,
- 53 percent of those age 30 to 34,
- 44 percent of those age 35 to 39,
- 36 percent of those age 40 to 44,
- 30 percent of those age 45 to 49 and
- 27 percent of those age 50 to 54.

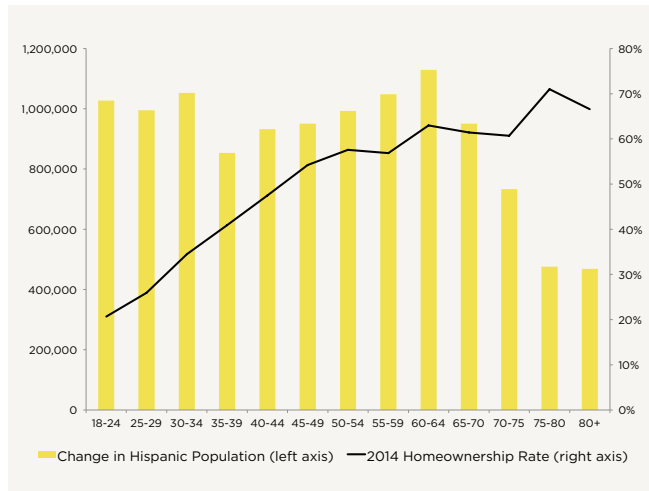
It isn't surprising that in the early 1970s, when a large share of the Baby Boomers hit their mid-20s — prime renting years — the U.S. saw the largest multifamily construction boom in its history. Then, in the late 1970s, when rising numbers of Baby Boomers hit their 30s — prime home buying years — the U.S. saw the largest single-family construction boom of any time until the mid-2000s.

But age isn't the only factor at play. For a host of reasons, people and households of different races and ethnicities interact with the housing market in markedly different ways. In 2014 the homeownership rate was:

- 73 percent for non-Hispanic Whites
- 46 percent for Hispanics
- 44 percent for Blacks
- 59 percent for Asians
- 54 percent for householders of another race.

Putting these changes together creates some counterintuitive results. One might think, for example, that with lower homeownership rates than the population as a whole, the strong population growth among Hispanics will push the aggregate homeownership rate down. In fact, two-thirds of the projected growth in population among Hispanics is for those age 40 and over, where the homeownership rate is greater than the current average rate of 46 percent. All else being equal, the result will be a natural, demographics-induced increase in the homeownership rate among Hispanics.

FIGURE 2: GROWING OLDER: PROJECTED CHANGES IN HISPANIC POPULATION, BY AGE 2014-2024



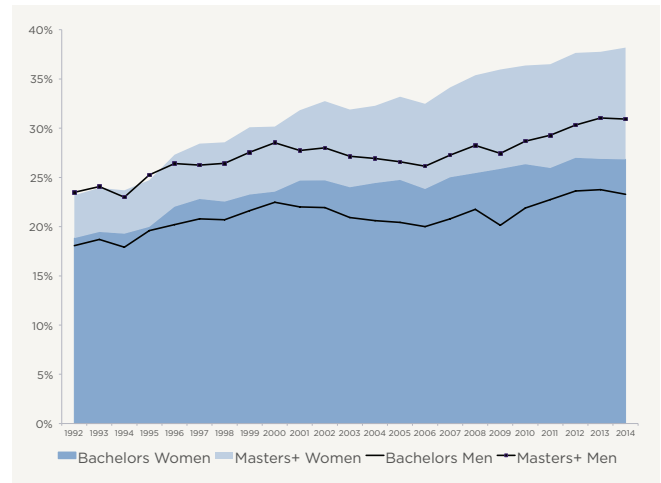
Age- and race/ethnicity-specific analysis and projections are necessary to fully understand how the market is likely to evolve. The bottom line is that changing demographics in-and-of-themselves are a key driver of many of the changes we have seen, and will see, in housing and other markets.

35 IS THE NEW 25

The challenge in forecasting is not just that generational shifts are so large. It is also that general societal trends and the Great Recession have changed the trajectory of many of the key life stages.

In 1992, just less than one-in-five (19 percent) women age 25 to 32 had earned a bachelor's degree, and one-in-twenty-five women (4 percent) had earned a master's degree or more. By 2014, one-in-four (27 percent) had earned bachelor's degrees and one-in-nine (11 percent) had a master's or more.

FIGURE 3: EDUCATION — HIGHER LEVELS OF EDUCATION, ESPECIALLY AMONG WOMEN: PERCENT OF WOMEN AND MEN WITH BACHELOR'S AND HIGHER DEGREES, AGE 25-32

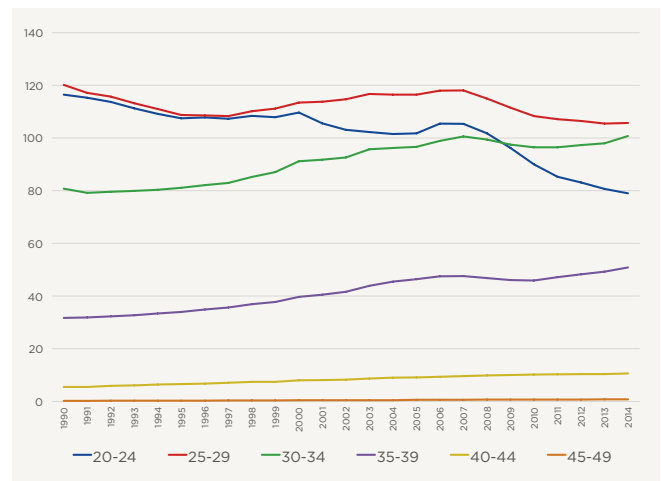


The share of men earning college degrees has increased too - from 18 percent having a bachelor's degree in 1992 to 23 percent in 2014, and 5 percent having a master's degree in 1992 to 8 percent in 2014. But not only has women's educational attainment grown more quickly, a greater share of young women now have degrees than do young men.

The extra years being put into education are impacting subsequent life decisions as well. In 1990, 57 percent of the population age 25 to 32 was married (down from 73 percent in 1976), compared to only 40 percent of that age group by 2014.

With these delays, childbearing is being put off as well. The birth rate (births per 1,000 women) for women age 20 to 24 has dropped from 117 in 1990 to 79 in 2014, and the birth rate for women age 25 to 29 has fallen from 120 to 106.

FIGURE 4: BIRTH RATE (BIRTHS PER 1,000 WOMEN)



But families are not being put off entirely. The birth rate for women age 30 to 34 has risen from 81 per 1,000 women in 1990 to 101 in 2014, and the birth rate for women 35 to 39 has increased 60 percent, from 32 to 51. Nearly 50% of households age 35-39 have two or more children and 20% have one child (while just 30% have none). Led by both ongoing social trends and the hangover from the recession, Millennials are getting a later start on families than did earlier generations. For many Millennials, it appears that 35 is the new 25.

IMPLICATIONS

With the U.S. population growing by 24 million in the next ten years, demand for all types of housing will increase. Demographic changes in-and-of themselves are the most significant driver of coming changes, but other factors will also play significant roles.

To better understand how these changes may play out, MBA modeled how housing demand will change as a result of:

1. Demographic changes that are already underway,
2. Changes in household formation resulting from long-term societal trends and the hangover from the Great Recession and
3. Potential changes in the balance of households owning and renting.

To understand the implications of changing demographics, we forecast the number of households, using the Census Bureau's population projections and existing (2014) age-, sex- and race/ethnicity-specific headship rates, which are at extremely low levels relative to the last twenty years. In essence, this scenario assumes that demographics alone, and neither long-term societal trends nor economic recovery, will have further impacts on the rate at which individuals form new households.

To understand the implications of changes in household formation, the age-, sex- and race/ethnicity-specific headship rates are adjusted to account for long-term trends as well as the impacts of economic conditions, especially the Great Recession. There are significant differences in headship rates by race and by age. A variety of both long-term societal trends and more transitory economic impacts also affect the degree to which individuals form new households. For example, a long-term downward trend in headship rates for Hispanics has recently slowed, while a similar trend among younger age groups appears to be continuing. Layered on top of these are the effects of the recent recession, which reduced headship overall. All of these trends are built into the analysis.

To understand the implications of potential changes in the balance between owning and renting, current age- and race-specific homeownership rates are compared to long-term historical averages. By applying long-term age-, and race/ethnicity-specific average homeownership rates, this analysis reverses — over a ten year period — some of the negative impacts of the housing bust and Great Recession but keeps those rates well below their mid-2000 peaks.

A technical appendix provides greater detail about the forecasting methods.

The resulting picture is one of significant housing demand over the next ten years — between 13.9 and 15.9 million additional households. The different scenarios also paint different pictures for how that demand may vary for rented and for owned housing (growth varies from 8.9 million to 12.7 million owner households and 3.1 million to 5.6 million renter households) and by race/ethnicity.

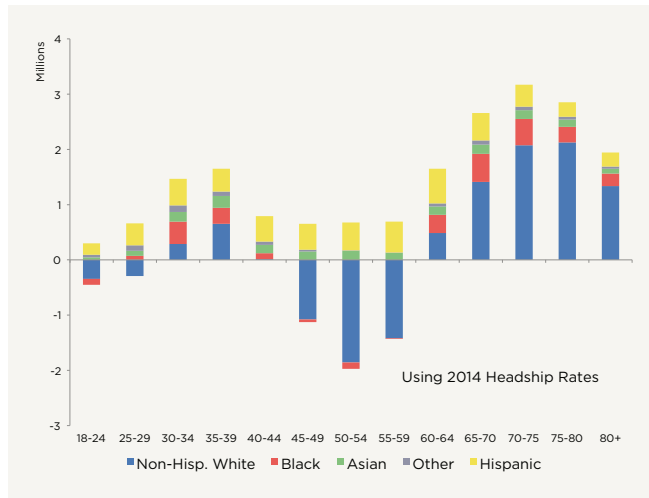
Demographic Changes Alone

Over the next decade, demographic changes alone should account for 13.9 million additional households in the United States (see Figure 5). Even if sex-, age- and race-specific household formation rates remain at low 2014 levels, demographic changes alone will mean an additional 5.5 million Hispanic households, 3.4 million non-Hispanic White households, 2.4 million more Black households, 1.8 million more Asian households and 730,000 more other households.

Growth will be driven by Baby Boomers, with 12.3 million more households age 60 and over in 2024 than there are today. Millennials will also be a key component of growth raising the ranks of households age 18 to 44 by 4.1 million. Generation X's relatively small size means that — absent any change in headship rates — there will be 2.5 million fewer households age 45 to 59 than there are today.

The changes are not just by age and by race. There are significant differences within ages between races. For example, the 1.3 million household decline among those age 50 to 54 includes a 1.9 million household decline among non-Hispanic White households and a 500,000 increase among Hispanic households.

FIGURE 5: HOUSEHOLD DEMAND — CHANGING DEMOGRAPHICS ALONE
 BEGET 1.4 MILLION ADDITIONAL HOUSEHOLDS PER YEAR:
 PROJECTED CHANGES IN HOUSEHOLDS, BY AGE 2014-2024



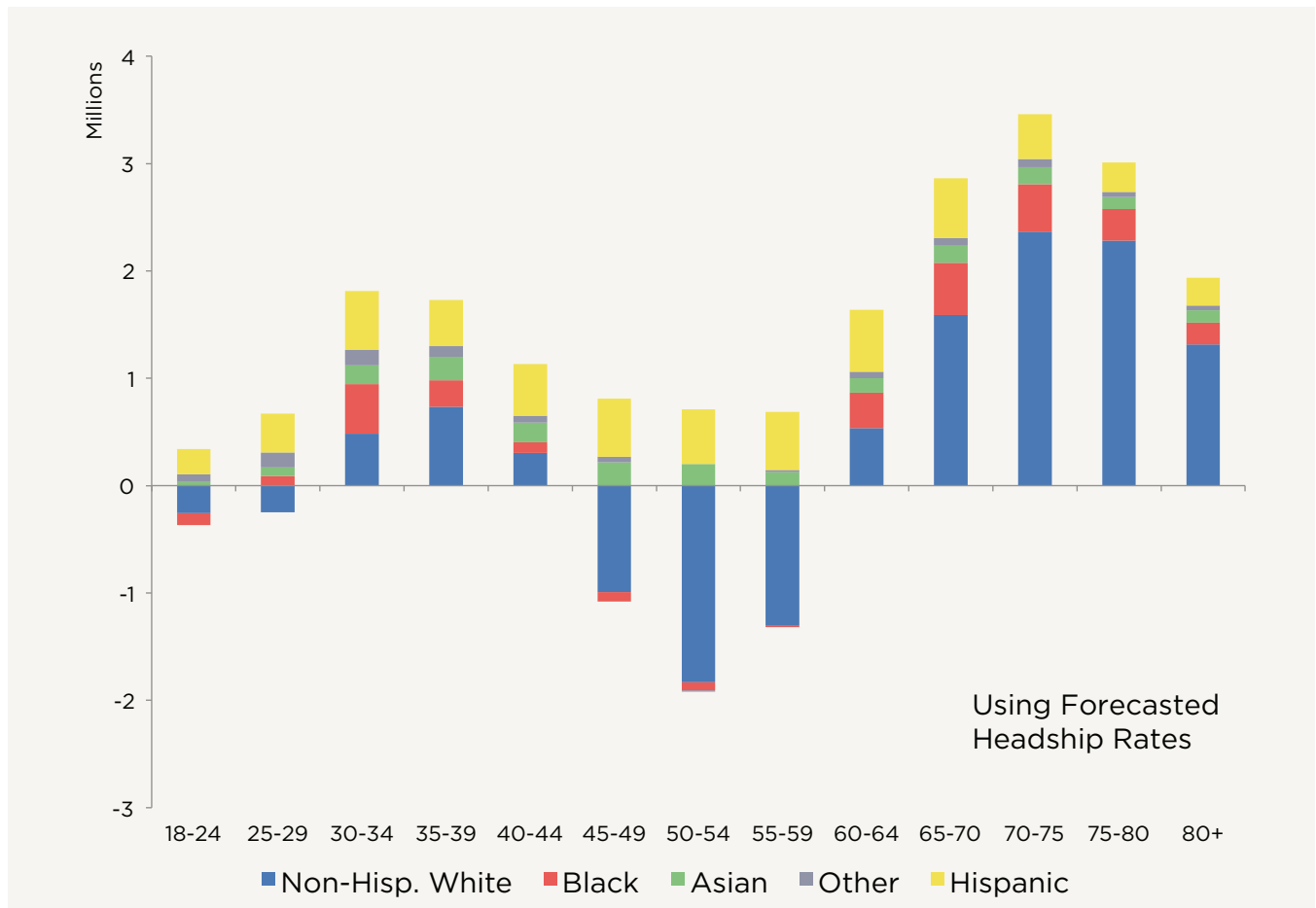
Household Growth Accounting for Long-term Societal Trends and Economic Hangover

As mentioned above, there are significant differences in headship rates by sex, race and age. A variety of both long-term societal trends and more transitory economic impacts also affect the degree to which individuals form new households. Adjusting demographic-specific headship rates from the 2014 levels to account for these long-term social and economic trends suggests even more robust housing demand over the next decade. (Figure 6.)

If headship rates adjust and demographics changes continue, the U.S. will see 15.9 million additional households over the next decade — two million more than if headship rates remained at their 2014 levels.

Household growth will be led by 5.7 million more Hispanic households in 2024 than in 2014, 5.0 million more non-Hispanic White households, 2.4 million more Black households, 1.9 million more Asian households and 890,000 more other households.

FIGURE 6: HOUSEHOLD DEMAND — CHANGING DEMOGRAPHICS COUPLED WITH TRENDS AND ECONOMY BEGET
 1.6 MILLION ADDITIONAL HOUSEHOLDS PER YEAR: PROJECTED CHANGES IN HOUSEHOLDS, BY AGE 2014-2024



Growth will be driven by Baby Boomers, with 12.9 million more households age 60 and over in 2024 than there are today. Millennials will also be a key component of growth raising the ranks of households age 18 to 44 by 5.1 million. Generation X's relatively small size means that there will be 2.1 million fewer households age 45 to 59 than there are today.

Averaging 1.6 million additional households per year, housing market growth over the next decade would be among the strongest the U.S. has ever seen.

Changes in Owning and Renting

To better understand how demand for owner- and renter-occupied housing may change in the coming decade, we apply recent and long-term age- and race/ethnicity-specific average homeownership rates to the household forecast. For this analysis, we use our preferred household forecasting method which incorporates long-term social and economic trends.

There is little to suggest that the recent declines in homeownership rates will permanently depress ownership among different cohorts as they age. And there is little to suggest that the recession-induced rates of decline will carry forward to further depress homeownership going forward. Rather, homeownership rates have closely followed the ups and downs of the economy, mortgage markets and federal policies that promote and restrict homeownership. To the degree the housing market in 2024 is stronger than in 2014, one would expect homeownership rates to respond. Similarly, should federal housing policy return to promoting homeownership, one would expect the homeownership rate to respond.

This analysis includes two scenarios. In scenario 1, current (2014) age- and race/ethnicity-specific homeownership rates are used. This can be seen as a “status-quo” scenario, in which demographic forces play out and promote household formation, but age- and race/ethnicity homeownership rates remain at their depressed levels.

In the second scenario, age- and race/ethnicity-specific homeownership rates revert — over a ten year period — to their long-term average, thus reversing some of the negative impacts of the housing bust and Great Recession. Even with a modest rise, the assumed rates remain well below their mid-2000 peaks. This is, we believe, a more likely scenario that accounts for the severe impacts of the Great Recession and natural market recovery from it.

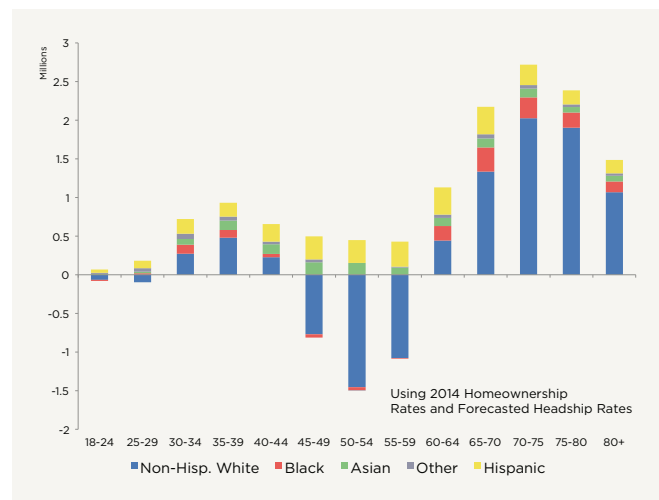
SCENARIO 1: HOMEOWNERSHIP RATES FLAT

If age- and race-specific homeownership rates remain at 2014 levels, the U.S. will see 10.3 million additional owner households and 5.6 million new renter households over the next ten years. Both owner and renter household growth will be driven by the Baby Boomers, although Millennials will play a more significant role in renter growth. Among homeowners, the number of new minority owner households will be one-third higher than the number of new non-Hispanic White households. Among renters, non-Hispanic Whites will account for just twelve percent of the overall growth.

Implications for Homeowner Demand

Under this scenario, Baby Boomers continue to drive home-ownership growth — with 9.9 million more owner households in 2024 headed by someone 60 or older than there are today. Generation X will account for 2.0 million fewer owner households headed by someone age 45 to 59 than did Baby Boomers. And the Millennials, as more enter prime home buying age, will boost homeownership among 18 to 44 year olds by 2.4 million households.

FIGURE 7: HOMEOWNERSHIP DEMAND — CHANGING HEADSHIP RATES MEANS MORE OWNER HOUSEHOLDS: PROJECTED CHANGES IN OWNER-OCCUPIER HOUSEHOLDS, BY AGE 2014-2024



This scenario, in which today's homeownership rates are used, projects 4.3 million new non-Hispanic White owner households and 6 million additional minority owner households, including 3 million additional Hispanic owner households, 1.3 million additional Black owner householders, 1.2 million additional Asian owner households and 500,000 additional owner households not otherwise classified as Hispanic or of a single race.

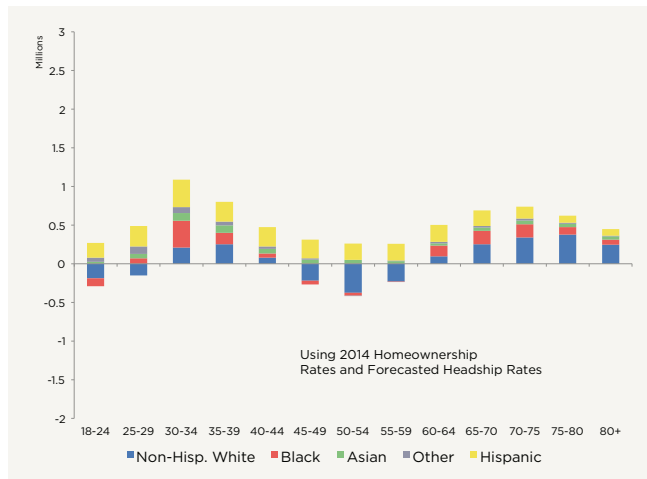
The number of homeowners will grow by 13 percent between 2014 and 2024 and become more diverse.

Implications for Renter Demand

Demand for rental housing will be affected in many of the same ways.

Factoring in both demographic changes and changes to headship rates but holding age- and race/ethnicity-specific homeownership rates at 2014 levels, there will be 5.6 million additional renter-occupied households in 2024. The Baby Boomers will be a major part of that growth — with 3.0 million more renter households in 2024 headed by someone 60 or older than there are today. But, given the higher rentership rates among younger households, the impact from Millennials will be considerable, bringing a total of 2.7 million additional renter households headed by someone age 18 to 44. The smaller size of Generation X means the number of renter households age 45 to 60 will decline by 100,000.

FIGURE 8: RENTER DEMAND — CHANGING HEADSHIP RATES MEANS MORE RENTERS: PROJECTED CHANGES IN RENTER HOUSEHOLDS, BY AGE 2014–2024



This scenario projects 2.7 million new Hispanic renter households, 1.1 million additional Black renter householders, 700,000 additional non-Hispanic White renter households, 700,000 additional Asian renter households and 400,000 additional renter households.

In total, the number of renter households will grow by 13 percent between 2014 and 2024 and become more diverse.

SCENARIO 2: HOMEOWNERSHIP RATES ADJUST

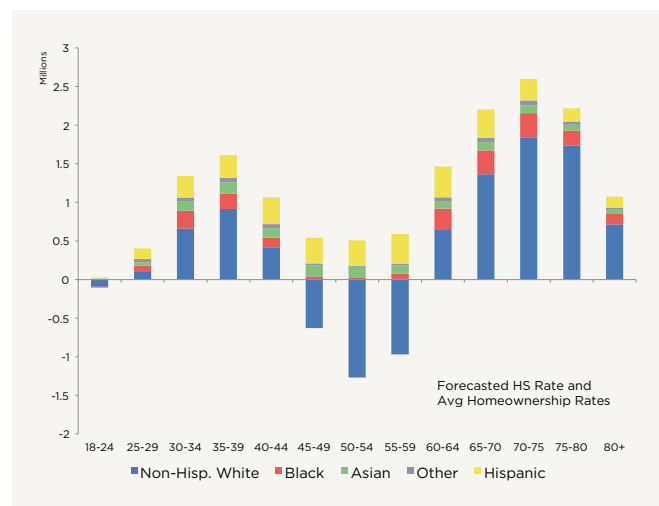
The second homeownership scenario, like the first scenario, accounts for demographic changes and changes in the headship rates. In addition, this scenario assumes that — with the end of the recession and a healing of the housing market — homeownership rates revert to their long term averages. These averages are neither the highs that were seen in 2005 and 2006, nor the lows of today.

Under these conditions, the U.S. will see 15.9 million additional households — 12.7 million owner households (versus 10.3 million in scenario 1) and 3.1 million renter households (versus 5.6 million in scenario 1) — over the next ten years. As with the baseline, both owner and renter household growth will be driven by the Baby Boomers. In this scenario Millennials play a far smaller role in renter demand as more are drawn into homeownership than in the other scenario. Among homeowners, the number of new minority owner households will be more than one-third higher than the number of new non-Hispanic White households. Among renters, the number of non-Hispanic White renters will decline.

Implications for Homeowner Demand

Under this scenario, Baby Boomers continue to drive home-ownership growth — with 9.6 million more owner households in 2024 headed by someone 60 or older than there are today. Generation X will account for 1.2 million fewer owner households headed by someone age 45 to 59 than did Baby Boomers. And the Millennials, as more enter prime home buying age, will boost homeownership among 18 to 44 year olds by 4.3 million households.

FIGURE 9: HOMEOWNERSHIP DEMAND — REVERSION TO HOMEOWNERSHIP NETS 1.3 MILLION OWNER HOUSEHOLDS PER YEAR: PROJECTED CHANGES IN OWNER-OCCUPIER HOUSEHOLDS BY AGE, 2014–2024



This scenario projects 5.4 million new non-Hispanic White owner households and 7.3 million additional minority owner households, including 3.5 million additional owner households headed by an Hispanic, 2.0 million additional Black owner householders, 1.3 million additional Asian headed owner households and 500,000 additional owner households.

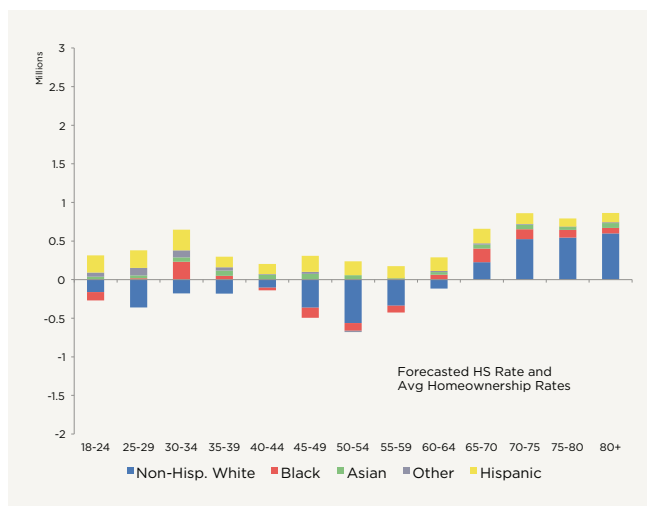
The number of homeowners will grow by 16 percent between 2014 and 2024 and become more diverse.

Implications for Renter Demand

A reversion of homeownership rates to longer-term averages significantly reduces rental demand from the other scenario, but still sees overall market growth.

Factoring in demographic changes and changes to headship and homeownership rates, there will be 3.1 million additional renter-occupied households in 2024. The Baby Boomers will drive that growth — with 3.3 million more renter households in 2024 headed by someone 60 or older than there are today. But, given the assumption of a reversion to higher homeownership rates, the impact from Millennials will be far less significant than in the previous scenario, bringing a total of just 700,000 additional renter households headed by someone age 18 to 44. The smaller size of Generation X, coupled with higher homeownership, means the number of renter households age 45 to 60 will decline by 900,000.

FIGURE 10: RENTER DEMAND — REVERSION TO HOMEOWNERSHIP CUTS RENTER GROWTH TO 318K PER YEAR: PROJECTED CHANGES IN RENTER HOUSEHOLDS, BY AGE 2014-2024



This scenario projects 2.3 million new Hispanic renter households, 700,000 additional Asian headed renter households, 400,000 additional Black renter householders and 400,000 additional other renter households. The number of non-Hispanic White renter households will decline by 500,000.

In total, the number of renter households will grow by 7.4 percent between 2014 and 2024 and become more diverse.

Across both scenarios we see growing overall housing demand. Depending on the scenario, owner housing demand could rise by 13 to 16 percent and rental demand by 7 to 13 percent. The growth of the Millennials into prime home-buying ages will be a dominant factor affecting homeownership rates going forward.

Implications for the Homeownership Rate

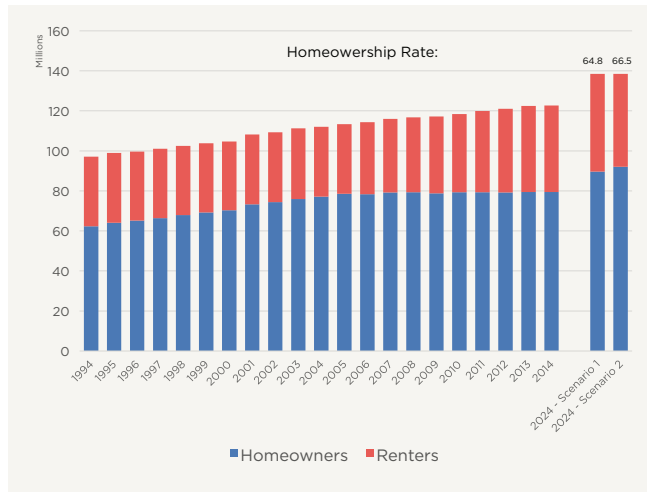
Changes in the overall U.S. homeownership rate are an amalgam of changes in the population and how that population chooses to consume housing. The aggregate homeownership rate rose from below 64 percent in the late 1980s to more than 69 percent in the mid-2000s before dropping to below 64 percent again in 2015.

Under both of the scenarios presented above, homeownership rates have “bottomed-out,” with one scenario projecting rates stay relatively close to today’s low levels and another projecting they climb above 66 percent by 2024.

In scenario 1, two major housing-related demographic forces will effectively net each other out with regard to the aggregate homeownership rate. The first force is the aging of the population — with increasing numbers of people moving into higher-ownership age groups. The second is the increased diversity of the population — with a smaller share of overall population being (higher-ownership) non-Hispanic Whites. The effects of this can be seen in the fact that while Hispanics generally have lower homeownership rates than non-Hispanic Whites, Hispanics will also be increasingly moving into age groups with higher homeownership rates. As a result, even though the age-specific homeownership rates for Hispanics are held constant in this model, the aggregate homeownership rate for Hispanics increases a few percentage points.

Should age- and race-specific home-ownership rates remain at their 2014 levels, but headship rates adjust, the aggregate homeownership rate will grow modestly, to just below 64.8 percent.

FIGURE 11: FORECAST SUMMARY — HOMEOWNERS AND RENTERS



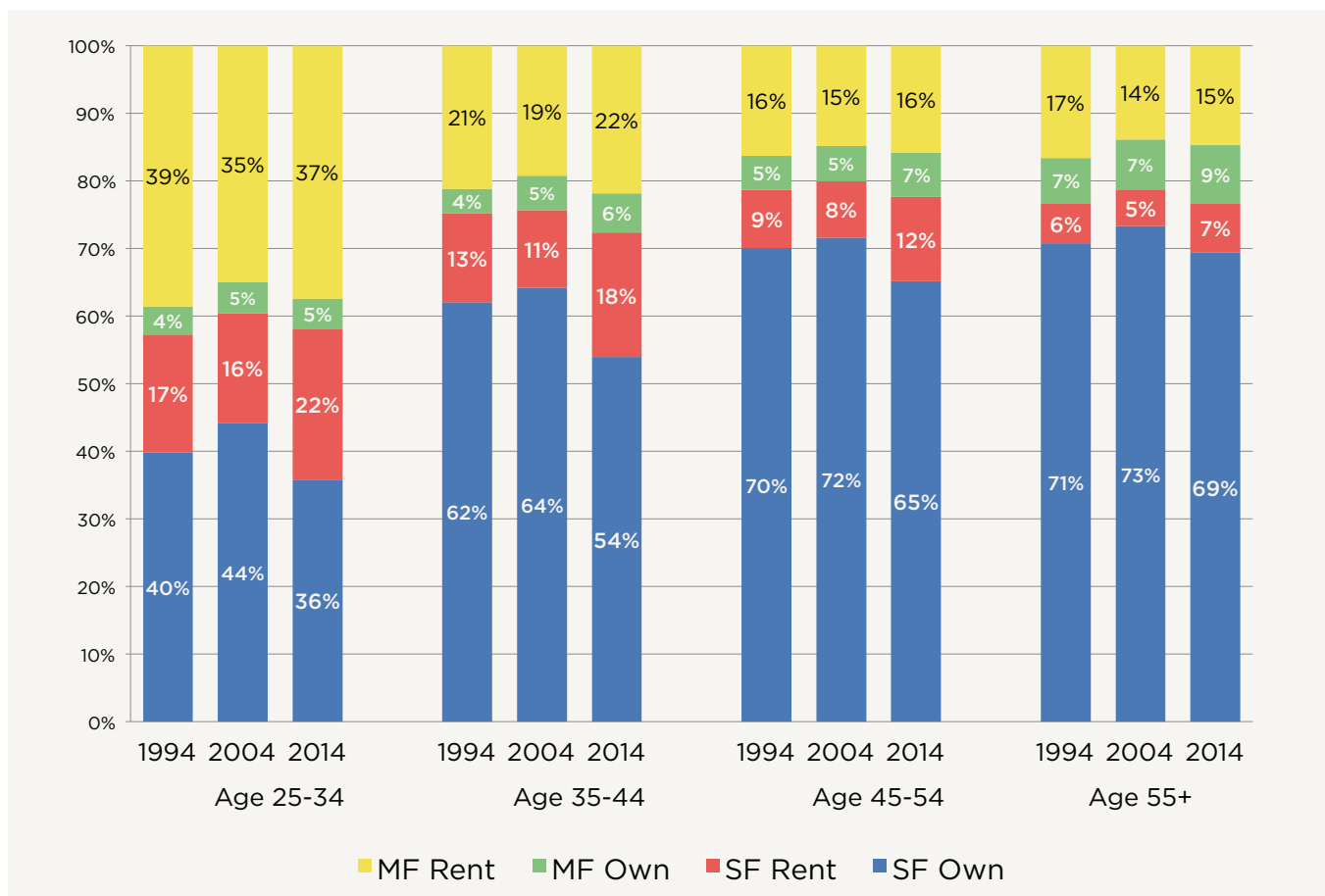
In scenario 2, it should not be surprising that should the age- and race- specific homeownership rates revert to long-term averages, the aggregate home-ownership rate will rise as well. Boosted by the aging of the population and rising headship rates, under the second scenario the aggregate homeownership rate will rebound to 66.5 percent.

Implications for Single-Family Versus Multifamily

When we think of home-ownership, we tend to think of single-family homes. And when we think of rentership, we tend to think of multifamily apartment buildings. The reality is that the housing market is much more nuanced than that, and that changes in ownership and rentership do not translate directly into changes in single-family and multifamily housing demand.

As households age, at the same time they are more likely to be moving from renting to owning, they are also more likely to be moving from multifamily to single-family housing. In 2014, 42 percent of households headed by someone age 25 to 34 lived in multifamily housing (either renting or owning), and 58 percent lived in single-family housing. Among households aged 35-44, the share living in multifamily housing drops to 28 percent and the share in single-family rises to 72 percent.

FIGURE 12: SINGLE-FAMILY / MULTIFAMILY — MULTIFAMILY / SINGLE-FAMILY SPLIT RELATIVELY STABLE: COHORT STRUCTURE / TENURE SHARE





But despite the overall changes in homeownership and rentership rates over the last decade, the share of households in single-family and multifamily units at different ages has remained relatively stable. For example, in 2004 multifamily rentals accounted for 35 percent of all households headed by someone age 25 to 34. In 2014, they accounted for 37 percent.

The most significant changes — within specific age groups — have come between ownership and rentership of single-family homes. In 2004, single-family rentals accounted for 16 percent of all households with an adult age 25 to 34. In 2014, they accounted for 22 percent.

The changes outlined in the scenarios above will flow through to changes in demand for single-family and multifamily housing. The aging of the population, and in particular Millennials, will generally boost demand for single-family housing and slow increases in demand for multifamily. And changes in headship rates will boost demand for both multifamily and single-family. Interestingly, changes in age-specific homeownership rates will affect multifamily housing demand little, and instead will mean greater or lesser shifts in demand between single-family ownership and single-family rentership.

MBA plans to expand its modeling to focus increased attention on this area in the coming months.

Bottom Line

The Great Recession had a clear impact on household formation, and therefore on demand for housing, in ways that should unwind as unemployment continues to decline and real wages rise. Over the next decade demand for housing will grow significantly and warrant housing construction and financing of all kinds — both owner-occupied and renter-occupied, multifamily and single family.

What is less obvious is the impact of such a deep and prolonged recession on households' long-term perspectives and risk tolerances relative to renting and owning — particularly on new-to-the-market Millennials and on Gen-X households, who bore the greatest brunt of the housing crisis. How the homeownership rate will evolve is uncertain, but our research suggests several important factors likely to shape these trends.

For a variety of reasons, households among the Millennial generation are starting families later in life. This will continue to delay their timing with regard to starting new households. We should also expect a delayed, but increasing, interest in homeownership from this group. The aging of the Hispanic population likewise signals an increasing interest in homeownership, and increases in aggregate housing demand will be driven by minorities. The extent to which Millennials and older households switch preferences between owning and renting will predominantly affect the single family ownership and rental market. Most importantly, the next decade will bring strong demand to the U.S. housing markets.



Technical Appendix

ABOUT THE ANALYSIS

MBA's model has three core components:

1. sex-, age- and race/ethnicity-specific population projections,
2. sex-, age- and race/ethnicity-specific household formation rates and
3. sex-, age- and race/ethnicity-specific homeownership rates.

POPULATION PROJECTIONS

MBA relies on the 2014 forecasts from the Census Bureau's Population Projections Program, which produces projections of the United States resident population by age, sex, race, Hispanic origin, and nativity. The 2014 National Projections are based on the July 1, 2013 population estimates, which are based on the 2010 Census. The Census Bureau forecast uses a cohort-component method and is based on assumptions about future births, deaths and net international migration.

HOUSEHOLD FORMATION

For our purposes, the headship rate is calculated as the number of households divided by the adult (18 or older) population. Elsewhere you may see this ratio quoted using the total population in the denominator. A single household includes all persons living in a particular housing unit. The homeownership rate is calculated as the number of owner-occupier households divided by all households.

Our analysis of the headship rate is similar to the one detailed by Andrew Paciorek in a forthcoming paper in Real Estate Economics. The methodology starts from a time-honored tradition in which the historic average headship rate of groups of people according to age, race, ethnicity and sex are used to translate Census population projections into forecasts of the future number of households. In addition, the approach of Paciorek allows for at least three improvements:

1. It allows for a flexible treatment of the characteristics of adults in each household and does not rely on the arbitrary designation of a household head to determine household characteristics with respect to age, race/ethnicity and sex. In our analysis, we choose to incorporate the characteristics of both married partners, or in households without married couples, the characteristics of all adults. Using the married couple household as an example, the characteristics of each partner carry the weight of one-half of the household in our analysis.
2. It accommodates time trends for different groups. This allows us to control for the fact that for a particular age group, the number of persons per household may change over time indicating a behavioral trend in headship rates.
3. The analysis also accounts for economic conditions by incorporating the gap between the unemployment rate and the natural rate of unemployment as a determinant of headship rates. For the purposes of this exercise, short term forecasts of the unemployment gap are taken from MBA's economic forecast and for the balance of the 10 year forecast, the unemployment gap is assumed to go to zero.

We utilize data from 1976–2014 from the Current Population Survey Annual Social and Economic Supplement, also called the March Supplement, to model the headship rates of adults not living in group quarters by age, race, ethnicity and sex.

We conduct the analysis by single year of age and separately by roughly 5 year age groups (18–24, 25–29, 30–34, 35–39, 40–44, 45–49, 50–54, 55–59, 60–64, 65–69, 70–75, 74–79, 80+). Results are substantively the same for these two approaches to age and we report results using the latter. Race and ethnicity are combined into the following mutually exclusive categories: Hispanic, Black non-Hispanic, White non-Hispanic, Asian non-Hispanic and other non-Hispanic (which includes non-Hispanic individuals of a race not listed or non-Hispanic individuals of more than one race).

The specification of the headship rate that is estimated using historical data is:

$$HS_{arst} = \alpha_1 D_a + \alpha_2 D_{ar} + \alpha_3 D_{as} + \beta_1 t + \beta_2 t_{young} + \beta_3 t_{hispanic} + \beta_4 t_{hispanic}^2 + \beta_5 U_t + \beta_6 U_{young,t} + \epsilon_{arst}$$

where HS is the annual headship rate for distinct groups of households by age group (α), race/ethnicity (r) and sex (s) over time. D represent indicators of age group or age group – race/ethnicity combinations (ar) or combinations of age and sex (as). The effect of time (t) is allowed to vary for age groups less than 30 years old (t_{young}) and we include a quadratic function of time for Hispanic groups ($t_{hispanic}$). The resulting error term is denoted (ϵ).

Forecasts are created using the 2014 National Population Projections (adjusted for group quarters population) for the years 2014 to 2024. After controlling for differences in average headship by age, race/ethnicity and sex, the model uncovers four important factors influencing our forecasts:

- The headship rate of non-Hispanic households over 30 has been trending upwards over time. In other words, these households typically have fewer people in them now than thirty years ago.
- Households under 30 have been getting larger over time.
- Since 1976 the Hispanic headship rate has been falling, indicating larger household sizes. However, that downward trend has recently levelled off.
- Household formation among young households is more adversely affected by a larger unemployment gap (capturing weaker economic conditions) than older households.

HOMEOWNERSHIP

We attempt to model the homeownership rates of groups in a similar manner. Using data since 1983, estimations of trends is difficult because of the large boom and bust cycle that this time period captures. On the other hand, the homeownership rates are sensitive to economic, housing and mortgage credit market conditions. Therefore, projections of homeownership are more highly dependent upon the judgement of the forecaster and her assumptions about economic, housing and mortgage market conditions in the future.

Our findings regarding group homeownership rates are similar to those in a recent analysis of individual homeownership outcomes by Gabriel and Rosenthal (2011). They find that both credit availability, economic conditions, demographic changes as well as behavioral changes contributed to the boom and bust in homeownership rates over the last decade. They forecast that the long-run homeownership rates will fall between 64 and 66 percent.

Because homeownership analysis is more complex than our assessment of the headship rate, we simplify our forecasts by utilizing two different assumptions. The point of doing so is to bracket a range of possible homeownership outcomes. First, we utilize the 2014 CPS homeownership rates by group as a conservative estimate of future homeownership rates and apply these to our household forecasts. Then we utilize a long run (1983-2014) average homeownership rate by group, which falls in between the 20 year lows observed in 2014 and the peak rates witnessed in 2005. This provides a more optimistic forecast of homeownership outcomes.

PROJECTED CHANGE IN NUMBER OF HOUSEHOLDS, 2014 TO 2024
NO CHANGE IN SEX-, AGE-, RACE-SPECIFIC HEADSHIP

	NON-HISP. WHITE	BLACK	ASIAN	OTHER	HISPANIC	TOTAL
18-24	(344,549)	(108,530)	46,790	44,137	209,123	(153,030)
25-29	(293,308)	74,398	91,736	96,942	398,341	368,108
30-34	286,587	405,793	173,500	119,982	480,828	1,466,691
35-39	652,387	290,291	213,105	80,817	412,360	1,648,961
40-44	12,381	108,719	148,426	59,839	463,624	792,990
45-49	(1,079,505)	(46,215)	152,927	29,997	469,935	(472,861)
50-54	(1,858,462)	(112,461)	165,300	5,680	504,805	(1,295,138)
55-59	(1,418,867)	(15,103)	125,012	8,590	558,887	(741,480)
60-64	486,889	329,647	150,272	56,630	627,455	1,650,893
65-70	1,410,995	506,855	169,890	73,416	495,405	2,656,560
70-75	2,075,628	475,198	158,664	63,130	396,549	3,169,169
75-80	2,127,888	282,124	127,795	53,276	259,911	2,850,993
80+	1,335,886	225,741	87,051	40,679	252,149	1,941,506
TOTAL	3,393,949	2,416,457	1,810,469	733,115	5,529,371	13,883,363

PROJECTED CHANGE IN NUMBER OF HOUSEHOLDS, 2014 TO 2024
SEX-, AGE-, RACE-SPECIFIC HEADSHIP ADJUSTED TO ACCOUNT FOR LONG-TERM TRENDS AND ECONOMIC HANGOVER

	NON-HISP. WHITE	BLACK	ASIAN	OTHER	HISPANIC	TOTAL
18-24	(255,809)	(113,502)	36,146	67,867	235,176	(30,121)
25-29	(248,975)	88,501	79,165	141,461	360,696	420,848
30-34	483,204	462,472	173,284	146,341	545,394	1,810,695
35-39	734,437	245,772	218,325	99,290	433,025	1,730,849
40-44	306,453	96,193	184,217	65,876	478,088	1,130,826
45-49	(991,952)	(89,494)	216,195	52,796	542,373	(270,083)
50-54	(1,831,422)	(77,365)	202,067	(3,648)	506,748	(1,203,618)
55-59	(1,307,976)	(11,435)	126,850	19,971	541,318	(631,271)
60-64	537,197	329,898	133,033	61,775	573,686	1,635,588
65-70	1,588,834	484,572	159,784	72,979	555,528	2,861,698
70-75	2,366,018	441,179	160,990	72,104	417,333	3,457,623
75-80	2,282,281	292,647	112,588	48,081	272,677	3,008,275
80+	1,313,810	205,218	116,131	41,182	258,518	1,934,859
TOTAL	4,976,101	2,354,656	1,918,774	886,074	5,720,561	15,856,166

About MBA

The Mortgage Bankers Association (MBA) is the national association representing the real estate finance industry, an industry that employs more than 280,000 people in virtually every community in the country. Headquartered in Washington, D.C., the association works to ensure the continued strength of the nation's residential and commercial real estate markets; to expand homeownership and extend access to affordable housing to all Americans. MBA promotes fair and ethical lending practices and fosters professional excellence among real estate finance employees through a wide range of educational programs and a variety of publications. Its membership of over 2,200 companies includes all elements of real estate finance: mortgage companies, mortgage brokers, commercial banks, thrifts, REITs, Wall Street conduits, life insurance companies and others in the mortgage lending field. For additional information, visit MBA's Web site: www.mba.org.