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**MODULE 1**

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# Soaring Housing Demand Despite Lagging Population Growth in California

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## **Abstract**

This research brief addresses the overall question of how is it that housing demand is so strong at a time when population growth is so minimal? Our research points to the arrival of the large Millennial generation, whose members delayed their household formation and home buying but are now a driving force. (Later briefs address the strong impact of shortages when confronted by this rising demand.) We first conduct a close examination of the ripples in California's age structure, across which the Millennial wave can be traced. Next, we calculate linkage estimates between population growth by age group and the demand for housing. We find that the active force of entry into the housing market is concentrated in the very narrow age band where Millennials are now located. Finally, we address the popular narrative of California "exodus" and how the accelerating outmigration of the last few years differs by age, race, and educational attainment. Most importantly we examine how outmigration reflects differences among owners and renters. Today's outmigration in 2019 is less than back in 2006, but homeowners are a dominant factor in both eras. A broad story of California change can be read from these data, integrating demographic change, housing needs and demand, and the continuing struggles of young people in California. These forces of change deserve to be explored in more depth with more specific data, but the broad sketch presented here offers an accessible overview.

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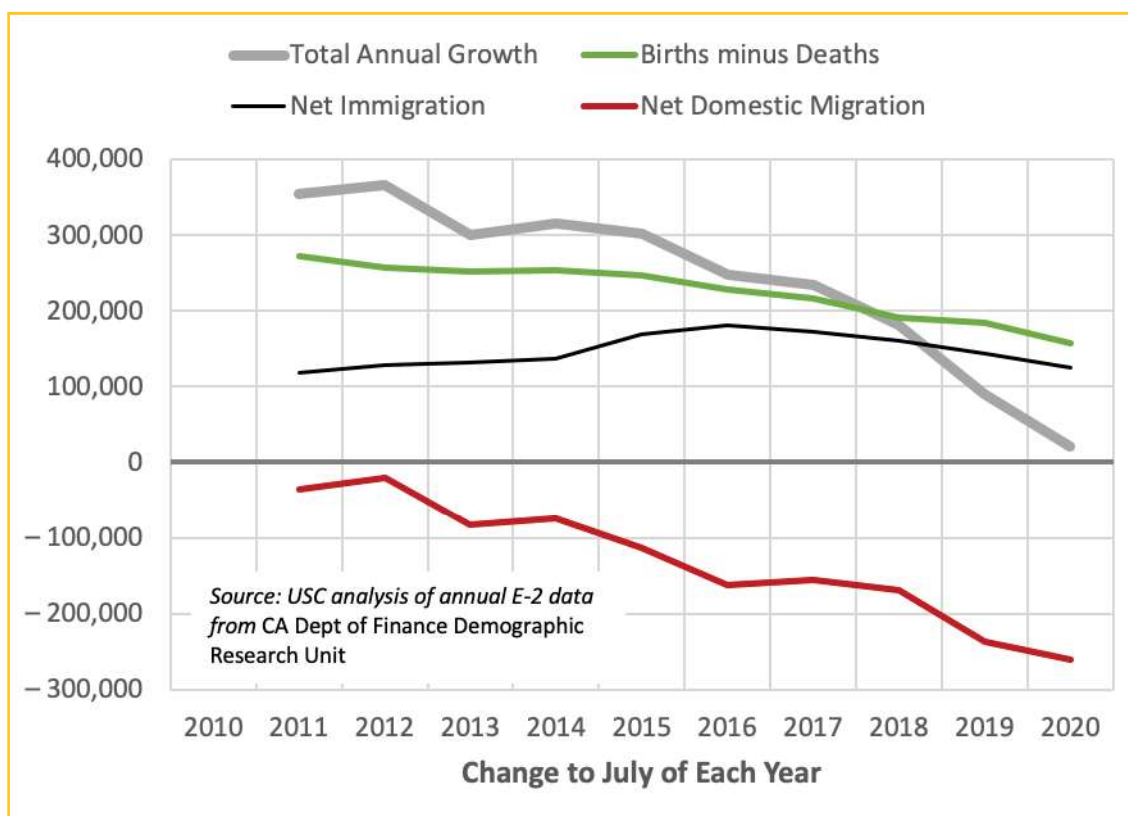
## INTRODUCTION

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Acute housing shortages have been estimated for California in recent years, reaching as high as Governor Newsom's ambitious target of 3.5 million units, or the Department of Housing and Community Development's policy target of 2.8 million units, a figure resembling earlier USC estimates,<sup>1</sup> that is roughly three times the size of that from the last cycle of housing need determination. At the same time, demand for home purchases has far outrun the available inventory, with multiple competing offers for every home that is offered for sale, even in times of recession, unlike previous property booms.

A puzzle is how this evidence of soaring housing needs and surging home buying demand can occur at the same time that population growth in California has fallen near zero. Prior to the pandemic, growth was already on a steep downward trajectory, since 2017 or earlier (Exhibit 1). All components of population growth have declined in concert. Births declined while deaths rose, producing a 38% decline in natural

**Exhibit 1. Annual Population Growth and Components of Change in California**



increase, while the positive growth from immigration began to lag as well. Domestic migration (to and from other states) fell most precipitously. In total, through July 1 of 2020, the state had eked out the slimmest amount of population growth, 21 thousand, far short of the 300 thousand annual growth that prevailed before 2016. Subsequent estimates reported by the same agency for the full calendar year of 2020 found growth had dipped negative by 182 thousand.<sup>2</sup> The general expectation of demographers is that California will rebound in population growth after recovery from the pandemic, but the current projected outlook is for population growth to remain growing very slowly from its current 39.95 million in July 2021. This could average 211 thousand additions per year through July 2030, a growth level barely two-thirds of that prior to 2017.<sup>3</sup> To underscore the long-term magnitude of this population slowdown, projections

<sup>1</sup> Dowell Myers, JungHo Park, and Janet Li (2018) How Much Added Housing is Really Needed in California? <https://cpb-us-e1.wpmucdn.com/sites.usc.edu/dist/6/210/files/2017/02/HRB-I-How-Much-Added-Housing-is-Really-Needed-in-California-lokfauc.pdf>

<sup>2</sup> The press release issued May 7, 2021 by the California Department of Finance announced: "California's population dipped by 182,083 residents last year, bringing the state's total to 39,466,855 people as of January 1, 2021."

<sup>3</sup> "Report P-1A: Total Estimated and Projected Population for California: July 1, 2010 to 2060," prepared July 2021, California Department of Finance.

prepared by the Department of Finance in 2007, just prior to the Great Recession, anticipated the state's total population would reach 50 million by 2042. Under the latest projections, the state's population will only reach 43.55 million by that year, a state that is 13% smaller than previously expected at mid-century.

The puzzle of how low population growth can coexist with high housing needs cannot be dismissed as an idle question. Raising this question certainly should not be seen as an attack on the notion of housing shortages in California or on the accuracy of estimated housing needs. We have already addressed our growing concern about shortages in a series of recent studies. The fact of the matter is that total population growth is not key to generating excess demand unless that growth is concentrated in the age groups of the 20s and 30s, as will be demonstrated.

Explanations that fail to connect housing shortages and population trends risk failure at persuading policy makers and achieving solutions. In this report, we delve below the surface of total population to look at some detailed linkages and drivers of shortage. The foremost risk to any solution, of course, is that inadequate explanations can lead to incorrect diagnoses, which can frustrate successful remedies. In addition, solutions framed in terms of population dynamics also may contain another advantage for breaking the political gridlock. Population-based assessments offer a fresh perspective that could help with buy-in from fellow population members, the voters, who are key residents and decision makers.

This report examines the detailed connections between population and housing occupancy. We examine the outmigration trends in more detail, finding that the net-migration depends mainly on variation in rates of out-migration, with a much steadier rate of attraction of in-migrants to the state. That out-migration (or "exodus") appears much stronger during times of economic prosperity than recession. Jobs may be ample, but housing prices also are much higher in boom times, and the analysis to be presented suggests a particular relationship to homeownership changes.

Also to be examined closely are the housing growth trends within the California population, even if it were to stay constant in size. The lifecycle aging within the whole of the California population is placing ever greater strain on the available housing supply. How zero population growth can have that effect is explained most simply as the traditional pattern of lifecycle progress in the housing market, with young adults creating greater demand as they grow older and leave behind their prior lives as dependent children or students and roommates. Older adults also generate greater demand per capita even as they advance into their elderly years. Thus, the maturing of the California population is a major factor in increased housing demand. This is particularly evident in the case of the large Millennial generation that is rapidly moving into established adult roles and struggling to find suitable housing not already occupied by longer established generations.

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## **POPULATION AGE WAVES CRASH INTO THE HOUSING MARKET**

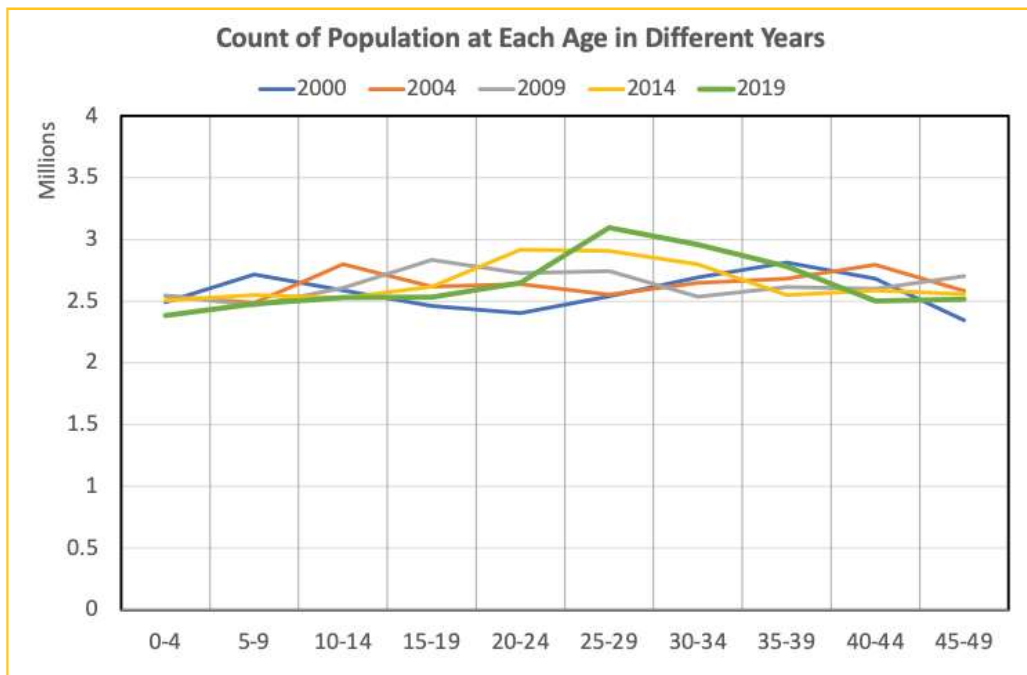
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Even with zero population growth, it is possible for housing demand to increase substantially over the years. That might occur if in Year 0 much of the population consisted of children, and in Year +20, more of the population were adults. Even among adults, however, all ages are not equal and older ages typically consume more housing. In a later section, we demonstrate exactly how much difference aging makes to housing demand. In the short term, even where age groups are generally the same size, small systematic differences can generate considerable power when sustained over time. The natural analogy in California is the force rendered by the 3-foot wave height of an ocean swell when it meets a rising seabed and breaks onshore. In the case of housing, the "rising seabed" is presented by a housing supply insufficient to accommodate the incoming population wave.

Until presented with an obstacle, the ripples on the surface may be less visible. Consider the population portrait for California of changes among ages younger than 50, observed in 2000 and at regular intervals afterward (Exhibit 2). Very little change is apparent, as the ages ripple up and down. Overall, the population size is remarkably constant, with just over 2.5 million people in every 5-year bracket and little change between 2000 and later years. Yet, on close inspection, we can discern a downturn in the number of children, reflecting the fertility downturn noted above. And we also might note that the age profile for 2019 slopes upward from these children, reaching a distinct peak at age 25-29. The absolute largest "peak Millennial" cohort was born in 1990 in both California and the U.S. and so was age 29 in 2019. The astute observer may be able to make out this peak Millennial across each of the age cross-sections in Exhibit 2. In

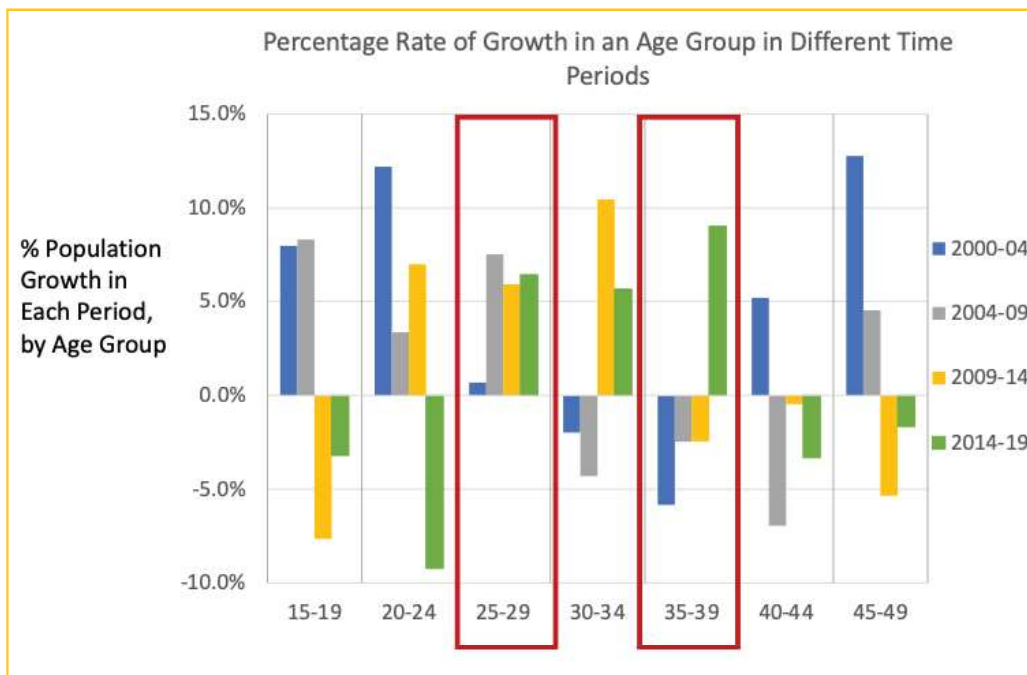
hindsight, it is easy to see it coming as a ripple on the surface (and to foresee where it is going in the next 5 and 10 years), but urban observers, even the proclaimed experts, were blind-sided when the Millennials first landed in urban neighborhoods during the Great Recession (Myers 2016).

**Exhibit 2. Age Ripples on the Surface of Total Population**



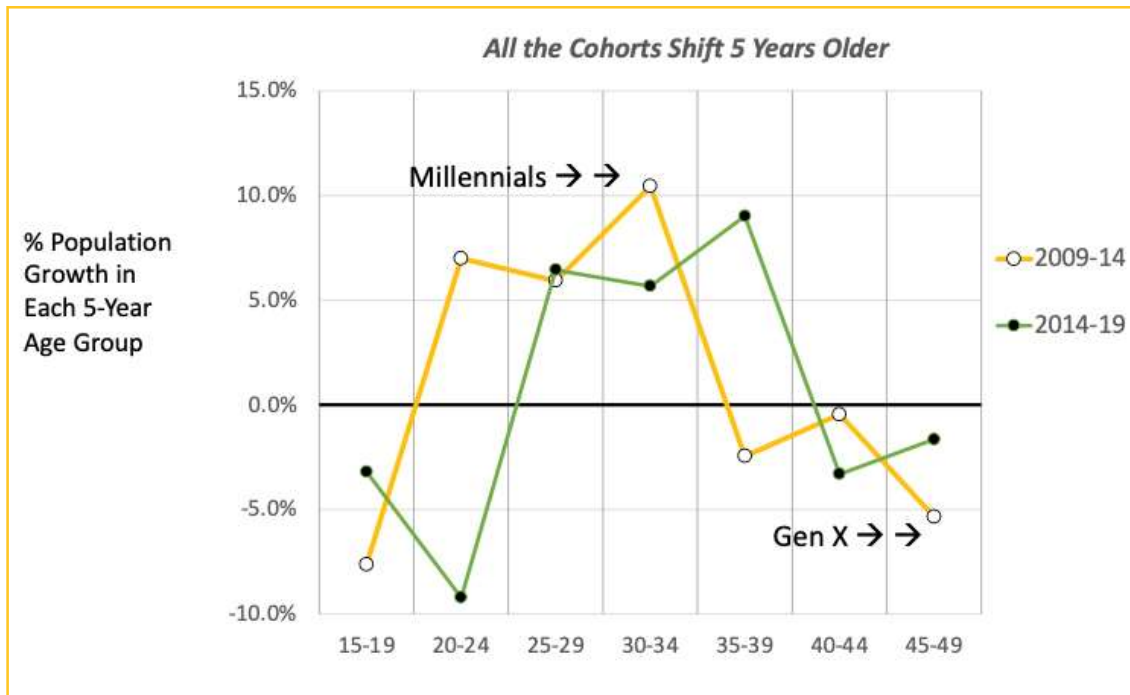
A better measure for these ripples is the percentage change in each age group that is recorded over a series of time points (Exhibit 3). At first glance, what is displayed seems to just bob up and down, but if we focus specifically on age 45-49 a clear trend appears. Growth has slowed dramatically since 2000. What had been a more than 12-percent growth in the early 2000s reverses to a greater than 5-percent decline in just 10 years. This marks the transition from the tail end of the baby boom generation before it aged onward and the onset of the under-sized Generation X. Or, at age 35-39, we find three periods of decline due to Generation X that are finally relieved by 9-percent growth, just in the most recent time period. This reflects the arrival of the leading edge of the large Millennial generation. We can trace the Millennial arrival five years earlier at age 30-34 and, at 25-29, for a full 15 years.

**Exhibit 3. Growth Rates in 5-Year Age Groups Observed Since 2000**

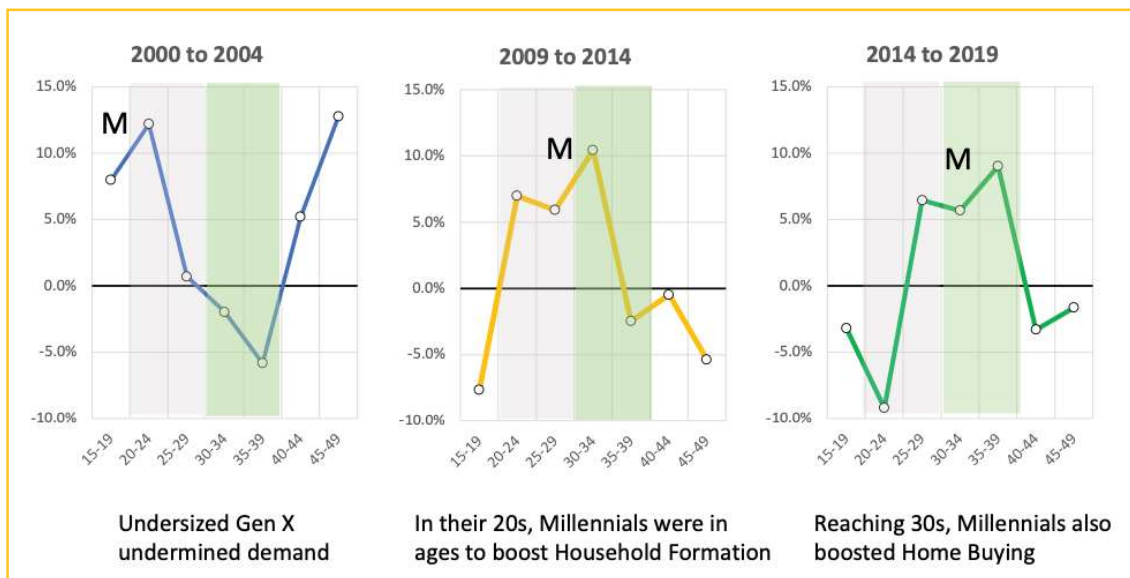


To better highlight this transition between Generation X and the Millennials, Exhibit 4 traces the growth wave for 5 years' time across all the age groups. We can see how the Millennials just advanced 5 years older while the Generation X downturn moved deeper into their 50s. But Generation X had a prime role in the housing market back in the period of 2000 to 2004, shown in Exhibit 5. That was the time of a finance-induced home buying boom that resulted in the "housing bubble." What is remarkable is that this boom transpired even while the number of potential home buyers in their 30s was declining. Ultimately, the lack of real buyers was too much to sustain. In this early period the leading edge of the Millennials (marked "M") was only age 20-24 (Exhibit 5). That meant they largely escaped the later wave of foreclosures, the brunt of which was taken by members of Generation X who were the "right age" to buy homes at the wrong time in history. After 2009, the Millennials advanced into prime ages for rental household formation and increasingly into prime home buying ages.

**Exhibit 4. How the Aging of Millennials Replaces Smaller Gen X in Age Brackets That Are Key for Swelling Housing Demand**



**Exhibit 5. The Most Recent Positioning of Population Growth by Age Group Is Strongest for Household Formation and Entry into Homeownership**



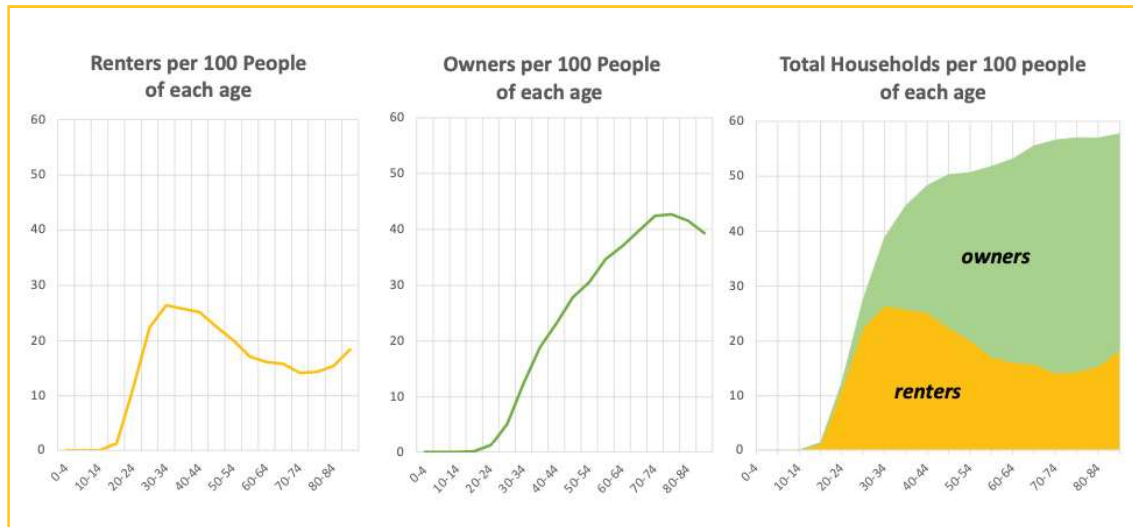


## DETAILED LINKAGE OF POPULATION AND HOUSING REVEALS MILLENNIAL FORCE

Formal identification of the “right age” to form households or buy homes relies on calculating ratios of housing activity to population in each age group.<sup>4</sup> Headship rates specify how many people in an age group are designated the householder reference person for every 100 people in the age group. In addition, these householders can be subdivided into renters and homeowners. Although the traditional homeownership rate measures the share of households that are owner-occupied, that leaves out the variable factor of household formation. Accordingly, we prefer to measure per capita homeownership, i.e., the share of people who are owner householders. We also measure per capita rentership in parallel fashion, and these two rates can be summed to equal total household formation.

Collectively, these lifecycle rates of housing demand afford a precise measurement of how many households are formed at each age, whether as renters or owners (Exhibit 6). Renting rises sharply after the age of 20, and it peaks in California at age 30-34 (25-29 in the U.S.), after which it slowly declines while more renters transition into homeownership. Homeownership rises more gradually and continues to rise even past age 70. Combined together, we see the total volume of households formed per 100 people at each age. It deserves noting that the upturn in headship very late in life reflects mortality of spouses, which leaves single survivors as the sole person who could be the householder.

**Exhibit 6. Lifecycle Rates of Housing Demand in California: Sharp Rises in Young Ages**  
(calculated as the current residential status of population in 2018)



The above is a conventional display of housing demand. Most of these homes are long occupied and so the rates do not reflect new formation of households. Applying cohort techniques, we have estimated the gains in new formations at each age observed in the 5 years between 2013 and 2018 (Exhibit 7). Here we see how narrow an age range is responsible for true additions of households during the housing lifecycle. Over three-quarters (76.9%) of the maximum rental households are formed just between ages 20 and 29. Homeowning is gained over a more extended period, with only 41.2% of eventual lifecycle homeownership in California accomplished before the age of 40.

Comparison of California with the United States as a whole reveals just how delayed is housing demand in California (Exhibit 8). Renter formation peaks 5 years earlier (20-24) and at a much higher level in the U.S., while plunging negative at a younger age (30-34). Similarly, ownership attainment soars much higher and by an earlier age. Thereafter, from age 35-39 onward, the United States matches all the later-in-life homeownership gains of California. Thus, California can't even claim that advantage. A great many fewer people ever achieve homeownership.

<sup>4</sup>Every occupied housing unit identifies one household member as the reference person or “householder,” commonly termed the head. In practice, married couples operate as teams, really as co-heads, but only one represents the whole.

**Exhibit 7. Lifecycle Timing of Housing Demand in California, per 100 People of Each Age**  
(calculated as the net change from one age to the next)



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The detailed linkages of population and housing presented in this section identify the concentrated age range in which key housing measures of demand are expressed. The indicators in California are substantially lower than average for the U.S., in part, for reasons of housing shortages. The householder accounting system equates one householder per occupied unit and, crucially, households cannot exceed units. Thus, any limitations on available supply effectively cap the number of households that can be formed, and potential households are always greater or equal to the number of housing units less a normal vacancy rate. The conclusion to this section is that maturation of the large Millennial generation into their 20s and 30s is adding substantial housing demand even if the total population is growing little at all.

**Exhibit 8. Comparing Lifecycle Timing of Housing Demand in California and the U.S.**  
(calculated as the net change from one age to the next)



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## CALIFORNIA “EXODUS” BY RENTERS AND HOMEOWNERS

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The earlier review of population growth trends in California identified the particular importance of domestic outmigration which has increasingly reduced total growth (Exhibit 1). News media and popular discourse in recent years have often referred to a California “exodus,” usually suggesting this as a sign of growing troubles in the state. Most striking was the September 2019 survey finding, produced by the UC-Berkeley Institute for Governmental Studies (IGS), that “fully 52% of the state’s registered voters admit to having given serious (24%) or some (28%) consideration recently to moving out of the state.”<sup>5</sup> A subsequent Spring 2021 survey by UC-San Diego, using the same question wording as Berkeley IGS, found “there appears to be no major movement toward Californians overall planning to leave the state.”<sup>6</sup> Demographic data summarized here reveals actual moving behavior is increasing but at a very low annual level of 2% to 3% out-movement per year from California. However, this movement does bear a striking relationship to trends in homeownership.

In 2018, the Legislative Analyst’s Office (LAO) in the California state government supplied a dispassionate reading on this subject based on statistical analysis.<sup>7</sup> The LAO report showed that from 2007 to 2016, a total of 5 million people had moved into California, while 6 million moved away, a net loss of one million people over 10 years’ time, the equivalent of 2.5% of the population. The LAO also looked at migration data collected by the IRS for tax filers for a longer period, back to 1990, and concluded that this pattern of net outmigration is longstanding and not an indicator of recent exodus spurred by current problems. An important caveat often overlooked is that the analysis pertained only to domestic migration, i.e., state-to-state movers within the United States, not including immigrant arrivals. The California Department of Finance estimates that the gains from international migration substantially exceed the losses from domestic migration, at least until the last few years of reduced immigration.

Two particular threats are posed by loss of population through net outmigration. First, is the potential failure to attract new workers to California to sustain growth in the economy, without which companies would need to relocate to other states, taking their tax contributions and employment opportunities elsewhere. In addition, as noted earlier, the natural increase of births over deaths produces a steady but diminishing flow of young people who are the state’s greatest resource. Now being educated in California schools, the new generation will soon advance into the migration-prone years of early adulthood, coming at risk for outmigration if California does not produce enough jobs and housing to retain them in their 20s and 30s.

### Bringing Housing into Study of California Migration

Analyses conducted in the USC Population Dynamics Research Group have closely studied the interaction of domestic outmigration with other aspects of demographic change in California. A distinctive feature of our research is integrating the housing where people live with the processes of demographic change.<sup>8</sup> The analysis of California migration presented below adds the important feature of housing tenure. For this purpose, we count the movement of households, which usually have either 1 or 2 adults and an average size of 2.9 persons per household. We account for the tenure (owned or rented) of their occupied housing unit and selected characteristics of the household head.

A key finding is that outmigration has increased notably between 2012 and 2019, rising from 174 to 228 thousand, an increase of 31% (Exhibit 9). In the same time frame, the number of in-movers to the state held virtually constant, rising only from 161 to 166 thousand. Accordingly, the gap between the two expanded sharply in recent years, producing a net outmigration in 2019 of 61 thousand compared to just under 13 thousand in 2012, a five-fold increase. However, often overlooked is that, back in 2006, at the peak of economic boom before the Great Recession, the gap of net outmigration was even greater, 84 thousand. Thereafter, outmigration was greatly reduced in the recession and during the lagging years of early recovery.

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5 Mark DiCamillo, Berkeley IGS Poll, Release #2019-08, <https://escholarship.org/uc/item/96j2704t>.

6 Thad Kousser and Cassidy Reller, “Do Californians See their State Moving in the Right Direction, Or Do They See Themselves Moving out of California?” <https://www.universityofcalifornia.edu/sites/default/files/uc-san-diego-california-exodus-report.pdf>

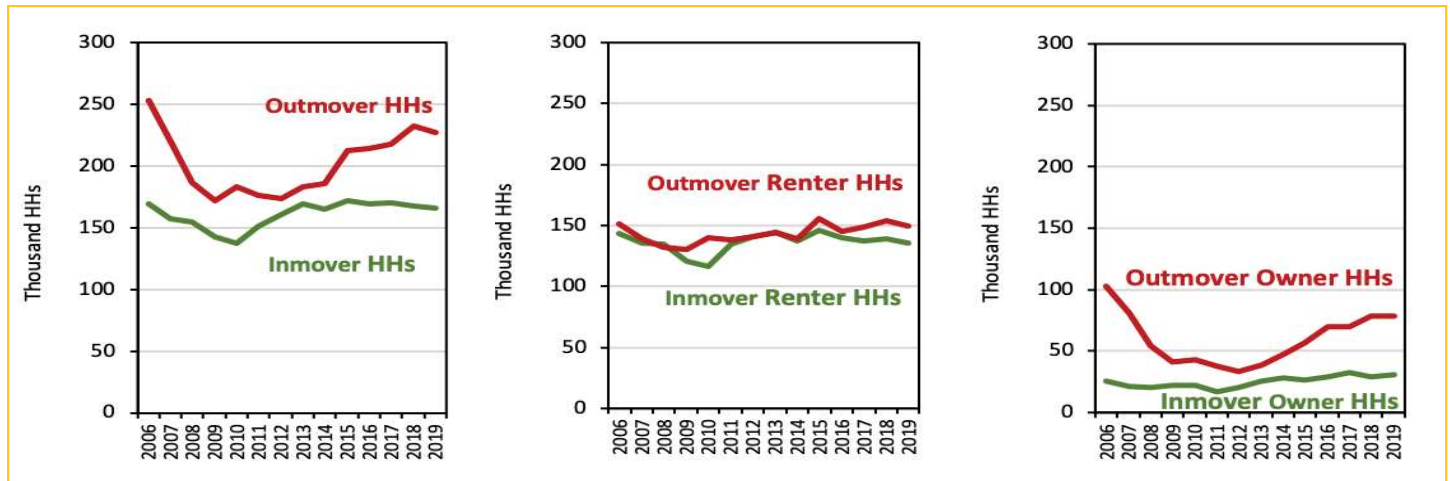
7 Brian Uhler and Justin Garosi, “California Losing Residents Via Domestic Migration,” Legislative Analyst’s Office, State of California, 2018.

8 The collection of housing studies has grown larger than all others on the USC PopDynamics website: <https://sites.usc.edu/popdynamics/>



If we only look at the trends from the beginning of the decade (2010 or 2012), we fail to grasp how migration trends may correspond to economic cycles. The LAO analysis of IRS data found a peak of outmigration occurred during the deep 1990s recession in California, but that was a time of massive job losses, especially great in comparison to the weaker effects in the rest of the U.S. economy. Economic disruptions in the Great Recession, in contrast, were much more equally spread across the states, blunting the advantages of outmigration. An alternative interpretation, developed below, focuses on housing prices, which peaked in California in 2006, far above the rest of the nation (four times Texas), before plunging after the financial crisis and until eventual revival in the housing market after 2014.<sup>9</sup>

**Exhibit 9. Migration to and From California, by Owner and Renter Household Status After the Move, Annual From 2006 to 2019**



The striking contribution of Exhibit 9 is its breakout of migration trends by housing tenure of the households. Among those who rented after their move there is very little difference between the number of in-movers and out-movers, and we also observe no appreciable difference over the economic cycle (save a dip in 2009 and 2010, the deepest years of the recession). Among homeowners, however, the story looks substantially different. While the number of in-mover homeowners remains fairly constant over the years, this is well below the number of out-mover homeowners. In fact, the trend in out-movers is highly variable, with an extraordinary gap opening in boom years compared to 2012.

It bears emphasis: The growing gap between in-movers and out-movers from California depends almost entirely on growing outmigration (so, not due to reluctance of in-movers) and the gap depends solely on growing outmigration among homeowners.<sup>10</sup> The renter segment plays strikingly little role in trends of net migration from California.

### What Demographic Groups Are Most Involved?

Migration trends do not affect the population equally. Previous studies in California have noted that outmigration involves lower-income and lower-skilled residents most of all. Only those with higher income can manage to move here. A 2021 blogpost from the Public Policy Institute of California (PPIC) summarized well the basic patterns: “California lost adults without a college degree, gained those with one,” and “California lost middle- and lower-income adults, gained those with higher income.”<sup>11</sup> Our focus on households allows us to investigate the make-up of rental and owner movers. We will focus on age and race, but also look at the educational profile so important to the state’s economy.

Each of the curves in Exhibit 9 defines the trend over time in the total number of in-movers and out-movers, the gap equalling net change, repeated separately for renters and owners. We can usefully focus on the

<sup>9</sup>A 20-year data compendium graphically compares California and US trends on many indicators: Dowell Myers and JungHo Park (2020), End of Housing and Economic Recovery from the Great Recession: How Good Did it Get by 2019? <https://sites.usc.edu/popdynamics/>

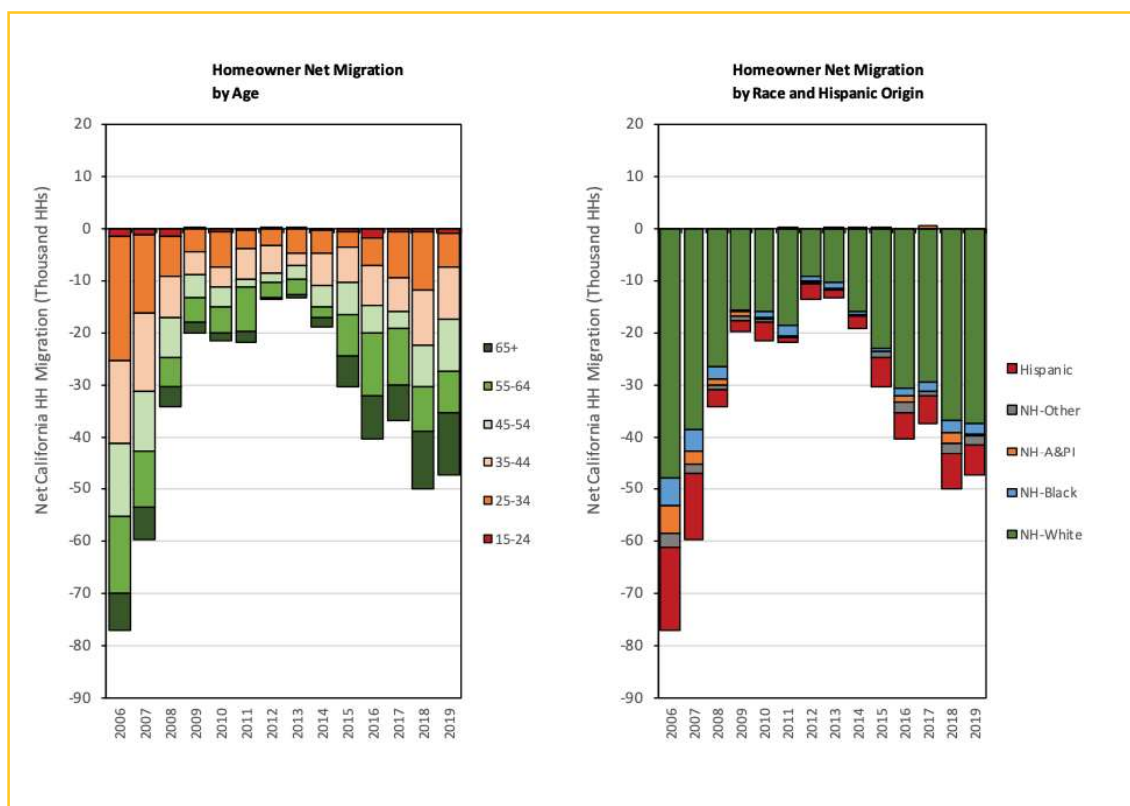
<sup>10</sup> What we cannot identify is the housing tenure of movers before their move. In some cases people owned homes before and after their move, but indirect evidence (as to be discussed) suggests younger adults were more likely to have gained homeownership for the first time after moving.

<sup>11</sup>Hans Johnson, “Who’s Leaving California—and Who’s Moving In?” blogpost, Public Policy Institute of California, 2021, <https://www.ppic.org/blog/whos-leaving-california-and-whos-moving-in/>

changes just among homeowners because the trends for renters are so constant over time. And among the homeowners it is the net change that varies most between years (the widening gap between the line for outmovers and inmovers). Let us look at what subgroups in the population account for the net migration of homeowners.

Age of householder is a key indicator of stage in the housing lifecycle (Exhibit 10). Young adults are just launching careers and moving for jobs. At the same time, when they choose a new residence they are striving to move up in housing quality, often transitioning from renting to homeownership. Older adults are pursuing different goals. Most are aging in place, but if they are migrating in or out of California, they are often pursuing homes near family or changing their investment portfolio for retirement. The low degree of outmigration by homeowners in 2012 and 2013 could stem from direct aftermath of the recession, but the lack of retirement age migration between 2009 and 2014 is striking.

**Exhibit 10. Net Migration of Homeowners Out of California, by Age and Race or Hispanic Origin, Annual From 2006 to 2019**



The subsequent escalation among homeowners ages 55 and older beginning in 2015 corresponds with revival of home prices and their upswing in successive years. This suggests more older homeowners were taking advantage of the recovery to cash out their home equity and move to a lower cost state. A parallel shift was evident in 2006 and 2007, also at a moment of peak gains in home appreciation. The LAO study found the major destinations for outmovers were Texas, Arizona, Nevada and Oregon, all states with substantially lower housing prices than California. One could either live in a larger house with more land or invest the net gains in a retirement fund. Among younger adults, on the other hand, the move to other states—and purchase there—suggests that migrants are seizing the opportunity to buy into homeownership, which has eluded so many in California. The large departure of homeowners aged 25-34 in 2006 and 2007 suggests an even stronger shift into homeownership out-of-state than later demonstrated in 2018 and 2019. It is noteworthy that prices in destination states were not as low recently as they were prior to the Great Recession.<sup>12</sup>

<sup>12</sup> California holds a large median price differential over other states and that was higher in 2006 than in 2019 in major destination states: Texas (370% California premium in 2006 vs. 184% in 2019), Oregon (126% vs. 60%), Washington (100% vs. 47%), and Colorado (130% vs. 44%). Only the two closest neighboring states maintained a constant differential: Arizona (127% vs. 122% in 2019) and Nevada (70% vs. 79%). Median house values for all states and years are drawn from the American Community Survey.

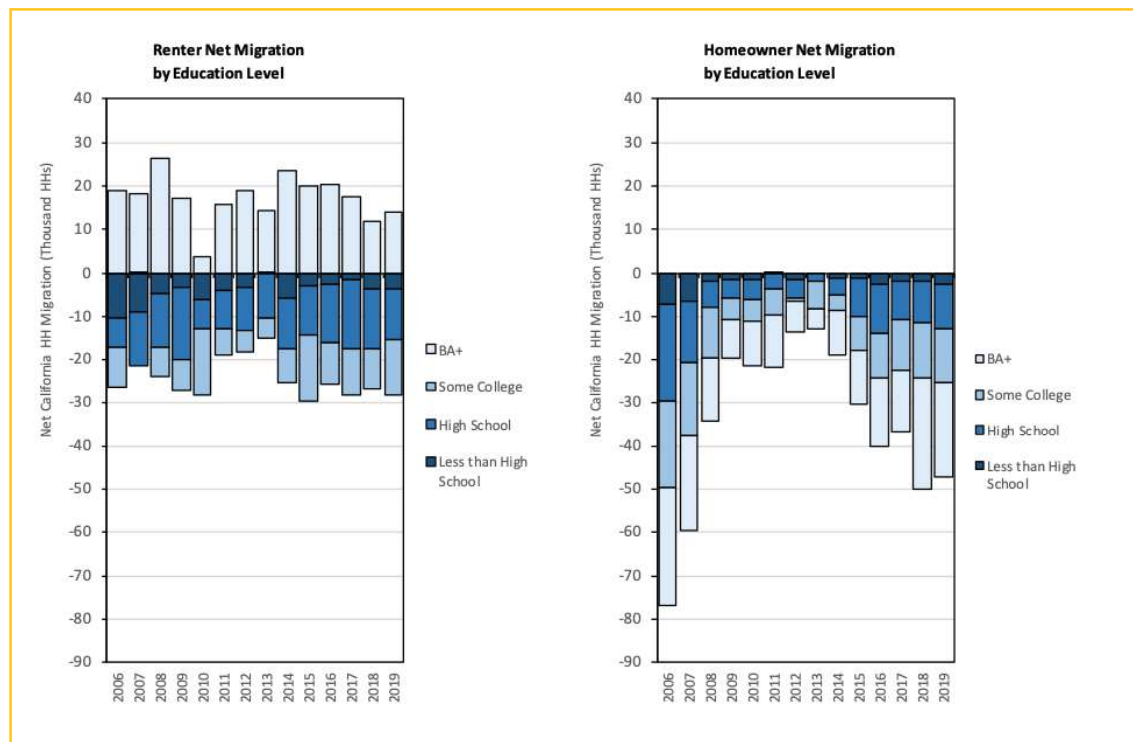
The racial and ethnic profile of the net change in homeowner migrants, also shown in Exhibit 10, is largely comprised of non-Hispanic white households. The only other group of substantial size are the Hispanic homeowners. The large number of outmovers in 2006 and 2007 is striking and substantially greater than the number outmigrating in recent years.<sup>13</sup> These outmigrating homeowners precede the foreclosure crisis that hit the Hispanic community so hard. Moreover, our definition of an outmoving homeowner is that they purchase a home in their new destination. Overall, Hispanic outmovers in those early years were more than twice as numerous as they have been recently.

### How Do Higher Educated Movers Fare?

The connection between housing and employment holds particular interest, as highlighted by the PPIC (Johnson 2021). Educational attainment indicates skill-levels of workers and is of vital importance for monitoring the flow of workers into the state’s vaunted high-technology sector. Educational attainment also roughly approximates workers’ expected income bracket over their lifetime and provides a more permanent measure than current income. Nonetheless, educational attainment yields a rather imbalanced picture of spending capacity for housing, because income rises rapidly in early adult ages before leveling off in the 40s and 50s, then falling in their 60s and 70s. Thus, we often find young college graduates living in much less expensive housing than less-educated people who are older (and who secured their homes decades earlier when they were less costly). As a result, the education and age dynamics of migration have intricate relations to the type of housing occupied.

We have not addressed net changes among renters, thus far, save to show in Exhibit 9 how their migration trends were fairly constant over time, unlike for owners. Accordingly, we have not displayed the variation by subgroups among renters. However, in the case of education, there are also important variations among renters between the different education classes (Exhibit 11). The net change of renters in California due to migration into or out of the state is greatly different between the college-educated and less-educated householders. There is a net loss virtually every year between 2006 and 2019 of less-educated householders among both renters and owners. However, the rental sector achieves positive net migration among those with a college degree (BA or higher). In fact, two-thirds of all in-movers to California (and of those that

**Exhibit 11. Net Migration of Renters and Homeowners in California, by Education Level, Annual 2006 to 2019**



<sup>13</sup> The figures graphed for net outmovers are largely identical to the gross number of outmovers, because Hispanic in-movers who purchase in California are so few in number.

landed in rentals) were BA holders, while that education class made up only half of all the outmovers. This difference yields the net change favoring BA holders among renters, who are both younger on average and better able to work in jobs that can support the state's high housing costs.

Among homeowners, in contrast, all education groups exhibit a net outflow. This stems from the fact that interstate movers are much more likely to achieve homeownership if their destination is not California. Lacking survey data about the housing hopes and dreams of these movers, we can only speculate from the data in Exhibit 11. An overarching storyline that emerges begins with a pattern of young and ambitious BA-holders migrating to California and settling in rental units early in their careers. However, as they pass through their early adult life stages, they undergo dramatic changes in family statuses and housing preferences, changing rapidly especially from age 25 to 35, where the large Millennial generation is now positioned. Homeownership is a goal widely stated by young Americans. A majority of renters express hope that they will become homeowners the next time they move (Fannie Mae National Housing Survey). In recent years of the housing price boom, many of these rising early middle-age adults are unable to secure homeownership opportunities and they are forced to leave the state in order to advance in their desired housing careers. See also the age differences in Exhibit 10 above.

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## CONCLUSION

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This research brief has addressed the overall question of why housing demand could be so strong at a time when population growth is so minimal. Indeed, even in the face of the pandemic recession, housing-purchase activity has escalated to levels not seen in more than a decade. Our research points to the “sleeping giant” of the Millennial generation, whose members delayed their household formation and home-buying but are now a driving force. While some might point to record-low mortgage interest rates as a spur, that factor helped escalate purchase prices but was not what got home buyers moving. Other observers have pointed to the abrupt change in housing preferences wrought by the pandemic. Health concerns of living in dense neighborhoods may have spurred a change in locations, emptying out congested urban areas that no longer offered their high-contact entertainment amenities. In addition, the large-scale shift to remote work from home certainly spurred widespread new demand for home offices and Zoom stations where doors could be closed against other household activities. However, underlying it all was a generation that was poised to live a thirty-something lifestyle but had lingered in its old habitat until spurred to suddenly make the leap. The technical analysis behind this lifecycle transition is explained in the first half of the brief.

In the second half, we address the popular narrative of California “exodus” and what it means. Tracked annually from 2006 to 2019, we have shown how the accelerating outmigration of the last few years differs by age, race, educational attainment, and most importantly by housing tenure. In particular, we find the growing net migration is almost entirely due to the outflow of people who become homeowners in their new states of residence. Perhaps of special interest is our comparison of the even greater outmigration of homeowners in 2006, during the boom that preceded the Great Recession, than in 2019, just before onset of the pandemic recession. Much is lacking from our data, but we have squeezed maximum information value from what is publicly available. A broad story of change in California can be read from the data, integrating demographic change, housing needs and demand, and the struggles of young people in California. Hopefully, this linkage of housing and demographics adds new facts and better perspective that can inform public understanding.



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## EXHIBIT LIST

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- Exhibit 1 Annual Population Growth and Components of Change in California
- Exhibit 2 Age Ripples on the Surface of Total Population
- Exhibit 3 Growth Rates in 5-Year Age Groups Observed Since 2000
- Exhibit 4 How the Aging of Millennials Replaces Smaller Gen X in Age Brackets That Are Key for Swelling Housing Demand
- Exhibit 5 The Most Recent Positioning of Population Growth by Age Group Is Strongest for Household Formation and Entry into Homeownership
- Exhibit 6 Lifecycle Rates of Housing Demand in California: Sharp Rises in Young Ages
- Exhibit 7 Lifecycle Timing of Housing Demand in California, per 100 People of Each Age
- Exhibit 8 Comparing Lifecycle Timing of Housing Demand in California and the U.S.
- Exhibit 9 Migration to and From California, by Owner and Renter Household Status After the Move, Annual From 2006 to 2019
- Exhibit 10 Net Migration of Homeowners Out of California, by Age and Race or Hispanic Origin, Annual From 2006 to 2019
- Exhibit 11 Net Migration of Renters and Homeowners in California, by Education Level, Annual from 2006 to 2019

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