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THE NEW DEMOGRAPHICS OF HOUSING

By

George S. Masnick

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The New Demographics of Housing

[2nd DRAFT]

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Introduction

Significant demographic changes are shaping housing consumption as the United States has entered the 21st century. The rapid increase of minorities (many of them recent immigrants) in both cities and suburbs of the nation's largest metropolitan areas, the aging of the baby boom generation through mid-life into old age, the declining share of married couple households and households with children, and the continuing redistribution of population within the U.S. from the Northeast and Midwest to the South and West, from older metropolitan areas to newer, from central cities to edge cities, suburbs and exurbs, all will influence tomorrow's housing trends. Important economic changes are also embedded in our shifting demographic landscape, including new patterns of work – what we do, when and where we work (and when we don't), how much we are paid, how we supplement and package our income sources, and when and how we retire – also impact housing consumption. This dynamic geographic redistribution, shifting household and family composition, job and labor force restructuring, population aging, and racial reconfiguration are inextricably linked to each other and to housing trends for the new century.

As these changes have been taking place in the demography, sociology, and the economy of the United States, new housing construction has boomed in recent years. Much attention is directed at the number, location and characteristics of new housing. However, a strong case can be made that new construction is not reflective of the housing needs of the majority of new and future households. It is the existing housing stock that, by default, must meet the bulk of our future housing needs. The way that the occupancy of this existing stock turns over, and how this stock is reconfigured to accommodate our changing households will determine most of the housing consumption changes in the decades immediately ahead.

The theme of this volume is how trends associated with the new globalized “high-tech” economy that is emerging in the U.S. have affected housing consumption in those areas where the high-tech economy boomed in the mid-to-late 1990s. Several papers have sought to identify specific metropolitan economies having greater dependence on high-tech employment and then examine their recent housing consumption patterns vs. those in metropolitan economies less identified as high-tech. An implicit theme is that the future will include many more metropolitan locations with new economy engines of economic growth. The demographic trends we have singled out, however, are already pervasive across the country, affecting both new and old economy locales. The “new demography” is the context within which the new economy has emerged and will continue to develop.

The goal of this paper is to provide an anchor of understanding around several broad themes in the literature on housing demography. This understanding is both substantive and methodological. Methodologically we emphasize the unique perspective that decomposing growth into its component factors provides, and the insights that cohort analysis offers to better understand minorities' roles in the shifting demand for housing. Substantively we devote most of our attention to the growing influence of minorities in

sustaining housing demand both in the recent past and in the near-term future. Because of the immigrant influence on minority household growth, this dimension of the new demography of housing might very well be viewed as simply one facet of economic globalization as it affects the U.S. Perhaps not co-incidentally, the high-tech boom in such places as greater San Francisco, Seattle, New York and Washington, D.C. has taken place in areas of significant influence from immigration.

Because this paper deals with broad themes, there is not enough space to go into many of the sub-themes in much, or sometimes any, detail. For example, considerable attention is given to minority household and housing trends, but less attention is focused on the foreign born component of minority trends although these have been extremely important. We discuss the significance of changing patterns of marriage, divorce and remarriage on household composition overall, but do not delve into the important differences that exist by race and Hispanic origin. It is not that these sub-themes are any less important. In fact, it is often quite to the contrary. It is simply that their significance is often in their nuances, and their exposition deserves more space than we have been allotted.

Regional Population Redistribution

A persistent late 20th century demographic trend has been the shift in population from the Northeast and Midwest to the South and West (Figure 1). Each broad region of the country has been gaining total population, but the South and West have been increasing considerably faster than the national average rate in recent decades (McArdle, 1999). There are several reasons why this has been the case. The Northeast and Midwest have been net exporters of domestic migrants (Figures 2a and 2b), primarily to the South. When combined with slower growth from natural increase in the Northeast and Midwest because of lower fertility and older age structures, these regions lag in overall population growth (Table 1).

The South has significant growth from both natural increase and from foreign immigration, in addition to its growth from net domestic migration (Figure 2c). Numerical population growth in the South was the largest of any region of the country this past decade.

Even higher natural increase and growth from foreign immigration have catapulted the West to the fastest growing region of the country (in terms of rate of growth) in spite of almost no net domestic migration gain during the 1990s (Figure 2d and Table 1). Foreign immigration to the West has been half again as large as that to the Northeast and South and four times as large as that to the Midwest. The West's population has a young age structure, and its above average fertility accounts for its high rate of natural increase. During the late 1980s the West surpassed the Northeast in total population, and is on track to soon surpass the Midwest.

Because of the relative recent stability of the three components of population growth in each region, we fully expect the broad regional growth trends of the past decade to continue. Future growth differences will be primarily in the details of the intra-regional growth patterns, depending upon which particular states and which counties jump to the lead and which lag behind. For example, the West's low overall net domestic migration conceals large differences among states in the region. High net domestic out migration from California during the 1990s translated into large in-migration flows to many other states in the West, but these flows have been quite unstable and are difficult to predict for the future. For example, from the middle to the end of the 1990s, annual net domestic out migration from California had fallen from over 450,000 to fewer than 90,000, and great uncertainty exists about its likely future trend. Similar uncertainty exists about the regional influences of shifting net domestic migration components in other mega-states like Texas and Florida.

One might argue that fewer and fewer places will have any inherent locational advantage in the new economy of the sustained magnitude that ruled when natural resource extraction, agriculture, and heavy manufacturing defined economic growth at various periods in our history. In tomorrow's economy, space to grow, affordable housing, low taxes, a young and educated labor force, and natural amenities may be what attract high-tech employers. To be sure, new high-tech innovations might still take place primarily where first class research universities have developed a synergy with public and private sector capital investment (Castells and Hall, 1994). The implementation of developed technologies, however, should find a broader geographic base in which to spread. Some of the places that have led the high-tech boom over the past decade, like Boston, San Francisco and Seattle, may soon lose their competitive advantage, if they have not already done so. Exactly which will be the new "hot" places a decade or two out are hard to predict. It is unlikely, however, that the broad regional population growth patterns we have identified will deviate much from that of the recent past no matter which new metropolitan areas boom.

Our Changing Racial/Hispanic Composition

The U.S. population has entered a historical period where an increasing share of population growth is contributed by minorities. Between 1990 and 2000, total population growth was 13 percent¹, non-Hispanic white growth was 5 percent, and minority growth was 37 percent. According to the latest Census Bureau population projections, over the next twenty years non-Hispanic whites will increase by an average of only 2.5 percent per decade, while all other groups will grow by an average of 29 percent per decade, dropping the share non-Hispanic whites in the overall population from about 70 percent to 64 percent (U.S. Census Bureau, 2000).

¹ This growth rate derived by comparing census counts unadjusted for changes in undercount. Lower estimated undercount rates in 2000 thus raise the growth rate slightly.

A growing share minority is taking place in virtually every state in the nation (Table 2). In a dozen or so large states the minority ascendancy in growth rates is even more striking. New York and New Jersey in the East, Illinois in the Midwest, Georgia, Florida and Texas in the South, and half the states in the West (including California) all have been adding minority population shares at above the national average rate. Minority populations are increasing more rapidly because of high levels of foreign immigration, because of higher than average minority fertility, and because of younger minority age structures favoring births over deaths. Non-Hispanic whites, on the other hand, have low levels of net immigration, below replacement levels of fertility, and an older age structure where births and deaths are in closer balance.

Nowhere has the influence of minority population growth been felt more strongly than in the core cities of the nation's largest metropolitan areas (Table 3). Even by 1990, 17 of the core cities of the 50 metropolitan areas with a million or more population had become greater than 50 percent minority. By 2000, 27 of these 50 core cities had surpassed the 50 percent minority mark. Minority populations in these cities continue to expand by virtue of their high natural increase and foreign immigration. Racial turnover is occurring in many of these cities despite increasing minority out migration to the suburbs (see below).

Non-Hispanic whites living in these large cities have especially low rates of natural increase because of very low urban fertility and older age structures that produce substantial deaths. More importantly, net non-Hispanic white migration out of these core cities has remained high, and takes place without the benefit of significant non-Hispanic white foreign replacements in most cases.² Consequently, 35 of the core cities in the nation's 50 largest metropolitan areas lost non-Hispanic white population between 1990 and 2000 (Figure 3).

All of the core cities with positive white growth were either in the South or West. Many of these cities grew in part by annexation of adjacent areas with high percentages white population. In contrast, fully 48 of these 50 core cities experienced positive minority growth. In half of the 35 cities with white losses, minority gains were sufficient to keep the cities from losing population overall.

These differences in components of population growth between whites and minorities have resulted in rapid racial/Hispanic origin turnover in our metropolitan centers. Minority population growth has become critical to sustain housing markets, employment bases, school enrollments, and commerce in almost every large core metropolitan city. Most large cities, especially those in the Northeast and Midwest, remain dependent upon minority natural increase, and on immigration from abroad, to offset ongoing domestic out migration and to prevent overall net population loss.

A recent Brookings Institution report calculates that minorities were responsible for the bulk of suburban population gains in 65 of the nation's 102 metropolitan areas

² Some cities did receive significant immigration from former Soviet block countries, and continue to do so.

with populations above 500,000 (Frey, 2001). New economy metros dominate the list with the highest suburban minority concentrations, while old economy metros have the least representation of minorities in their suburbs.³ Minority dominance of growth in these suburbs is due to the growing city-suburb migration of minorities as well as increased foreign immigration directly to the suburbs and high suburban natural increase of minorities. Aiding this trend in about two dozen metros was a numerical decline of the non-Hispanic white suburban population, in some cases at levels that exceeded the white losses in their central cities.

Looking into the future we might ask several questions. Will cities that have thus far not attracted much recent international migration, such as Detroit, Pittsburgh, Baltimore and St. Louis, join the ranks of those who have? Will overall immigration levels to the U.S. be sustained at the million or more per year we have experienced this past decade? Or perhaps even increase? Will minority movement to the suburbs soon replace the combination of foreign-born influx and white out migration as the dominant demographic force shaping central city/suburban population growth? Will increasing minority out migration to the edge cities and suburbs produce the same housing market, employment, school enrollment and commercial benefits on the periphery of metropolitan areas that have occurred in the core cities? Will aging baby boomers recognize the need to eventually give up their automobile dependent lifestyles and move back to the city to take advantage of public transportation, close-by shopping and centralized health care? Will smart growth initiatives aimed at curbing sprawl have any impact on the demographic dynamics we have been describing? There are too many unknowns to begin to answer most of these questions with anything but speculation, but the question about city/suburban migration can be given an informed response.

In spite of occasional signs that net out migration from cities might be slowing in certain places, there is little evidence that net suburban-ward migration as a whole is about to turn around. Current data on non-Hispanic white migration patterns between cities and suburbs clearly show almost no evidence of a net “back to the city” movement in any age group (Figure 4a). The data also show that minorities are now an important share of the net out migration streams to the suburbs (Figure 4b). Between 1998 and 1999, roughly about twice as many people moved from cities to suburbs as moved in the opposite direction, and this ratio does not vary terribly much by age group. Overall, the non-Hispanic white gross and net flows are now about twice the levels of the minority.

As minorities grow to become ever-greater shares of the populations of both cities and suburbs, we can perhaps expect increasing parity with whites on the size of gross

³ The top 20 metros with the highest suburban share minority (ranging from 92.2% to 40.2%) include McAllen-Edinburg-Mission (TX), El Paso, Honolulu, Miami, Los Angeles-Long Beach, Jersey City, Albuquerque, Fresno, Riverside-San Bernardino, Bakersfield, Oakland, Ventura, San Jose, San Francisco, Stockton-Lodi, Fort Lauderdale, San Antonio, Washington, DC, Orange County (CA), and San Diego. The twenty with the lowest (ranging from 2.8% to 8.6% minority) include Scranton-Wilkes Barre-Hazleton, Fort Wayne, Knoxville, Syracuse, Youngstown-Warren, Indianapolis, Akron, Milwaukee-Waukesha, Buffalo-Niagra Falls, Albany-Schenectady-Troy, Allentown-Bethlehem-Easton, Toledo, Pittsburgh, Harrisburgh-Lebanon-Carlisle, Rochester, Columbus, Omaha, Springfield (MA), Wichita, and Cincinnati (Frey, 2001)

flows, but there is little to suggest that the net direction of migration is about to turn around. As minority access to suburban housing markets increases, net out migration from core cities should be sustained.

Household Trends

Minority Contribution to Household Growth

Raw population counts have been the first detailed data released from the 2000 census, and it is therefore understandable why population growth trends and differentials have presently captured our imagination. It is the household trends, however, that are more closely linked with housing consumption. We anticipate a great deal of detailed geographic analyses of household and housing trends once the 2000 census data on these variables are released. In the absence of the detailed 2000 census data, however, currently available data sources such as the Current Population Survey and the American Housing Survey best serve a national focus, and it to this level of analysis that our own discussion now shifts.

Just as minorities are largely determining the scope of population growth in many parts of the country, they have been the drivers of recent household growth as well. Non-Hispanic whites accounted for over three-quarters of the total households in 1995, but accounted for less than one third of household growth between 1995 and 2000 (Figure 5a). While accounting for almost 85 percent of owner households in 1995, non-Hispanic whites accounted for only 56 percent of the increase in owner households between 1995 and 2000 (Figure 5b).

It is tempting to link the recent surge in minority household growth, and owner household growth in particular, with economic trends and targeted mortgage lending initiatives during the late 1990s that have benefited both low income households and minorities.⁴ As an explanation of minority strength in market share, the economic and public policy trends of the late 1990s tell only part of the story, and perhaps not the most important part. Rather, it is basic demographics that have largely determined the differences in owner and renter household growth between whites and minorities (Masnick, 1998). These demographic differences include such things as the age structures of the different population groups, the size and duration of residence of different immigrant cohorts, basic long-term differences in white and minority headship and homeownership rates, and enduring differentials in family structures.

⁴ In 1994 the Clinton Administration developed a far-reaching program to help minorities and others who have been historically under-served by housing markets. The program had goals to: (1) make home ownership more affordable; (2) eliminate barriers to home ownership; (3) enable families to better manage the responsibilities and rewards of home ownership, and; (4) make it easier to complete the paperwork to buy a home. Initiatives were undertaken by the FHA, Fannie Mae, Freddie Mac, and others to lower the down-payment requirement, to recognize multiple income sources in qualifying a household for a housing loan, to reward the prompt and regular payment of monthly mortgages, to facilitate mortgage applications in languages other than English, and to work with realtors and banks to end discrimination in marketing and lending (U.S. Department of Housing and Urban Development, 1994).

Such a broader interpretation of recent trends is supported by the fact that the 1995-2000 differentials in total and owner household growth between whites and minorities mirror the longer term differentials as measured between 1985 and 1995 (Figure 6). Over this earlier 10-year period, the share of total and owner household growth from minorities was very close to that measured between 1995 and 2000, suggesting the importance of longer term structural factors as opposed to shorter term economic or public policy related influences. To be sure, the increases in minority shares of total and owner household growth in the late 1990s might reflect economic and housing policies of that period. We would first need to discount any heightened effects during the late 1990s of trends in the broader demographic factors to firmly reach such a conclusion, however.

The key to understanding the differential racial/ethnic contributions to household growth is in understanding how the different age cohorts in each racial group are contributing to this growth. Over the life course, as a cohort ages into its 20s, it begins to form independent households, typically renter households at first. As the cohort moves further along in the life course, it begins to make the transition from renter to owner occupancy. The peak ages for owner household formation are between the late 20s and early forties. By the time a cohort reaches age 50, little net additional owner household formation typically takes place. When a cohort reaches its late 50s and 60s, net household accumulation turns negative. Household dissolution, due to death and due to transitions from head to non-head increasingly characterizes the older age groups. After age 70, net cohort losses of households become substantial. The total net change in the number of total or owner households between two points in time is simply the sum of these net gains and net losses for individual cohorts across the entire age spectrum.

The details of this scenario of cohort growth and decline in household numbers differ for whites and minorities in several important respects. First, minorities have tended to move more slowly during their 20s and 30s into both household formation and homeownership than have whites. Economic realities and cultural traditions both work to delay the formation of independent households by minorities, especially those with a large share of recent immigrants in its young adult population base (Glick, et al. 1997). Housing discrimination, both real and perceived, undoubtedly also has an influence in slowing minority owner housing progress (Ratner 1996).

Secondly, while net owner household formation begins to decrease for whites between age 55 and 64, it continues to grow for minorities. Whites lose owner households on net after age 55 because, having formed owner households more quickly earlier in life, there are fewer new renter-to-owner transitions to offset the inevitable owner losses that accompany the aging process. Such elderly owner losses occur because of transitions from own to rent that sometimes happen when “downsizing” during the retirement years, or because of the disappearance of household headship altogether as infirmity and death begin to take their toll.

The effects of delayed immigrant entry into the housing market, and the greater time it takes minorities, on average, to overcome economic and housing market obstacles in attaining homeownership help explain this pattern of sustained minority owner growth in late mid-life. Dissolution of owner households does occur for minorities just as for whites after age 55, but the delayed additions that take place between the ages of 55 and 65 have more than offset minority dissolution in this age group.

Thirdly, it is important to recognize that a larger share of total and owner households fall in the oldest age groups for whites. Minorities, and in particular Asians and Hispanics, have relatively fewer households headed by persons age 65+. Whereas fully 24 percent of non-Hispanic white household heads were over the age of 65 in 1995, only 11 percent of Hispanic and 9 percent of non-Hispanic other (mostly Asian) households were headed by persons age 65 and older. Owner household differences among the groups are similar. The older age of white householders is significant when accounting for overall net total and owner household growth between the groups. Whites both add new households in large numbers among younger age cohorts, and lose households in large numbers among older cohorts (see below). This combination of gains and losses lowers overall net total and owner household growth relative to the stock of households for whites. Minorities do not yet suffer the large numerical losses among older household to offset their gains registered in the younger ages, even though those gains might be proportionally less than white gains in younger ages because of lower minority headship and ownership rates.

Figures 7a-7d show the cohort contributions to projected household growth over the next decade by race/Hispanic origin of head. For the decade ahead, whites will still contribute the majority of net new households formed by the younger birth cohorts (about two thirds of the total), in spite of the growing share minority in these cohorts. Although whites produce more households in the younger age cohorts than all minority groups combined, their household losses in the oldest age groups far exceed all minority losses. On net, projected total white household growth is less than total combined minority household growth.

The baby boom cohorts (age 45-64 in 2010) have all but stopped adding households to the net count, and in fact will begin to subtract from the net growth over the next decade. Cohorts born before 1935, who are age 65+ in 2000 and 75+ in 2010, will lose over 10 million households on net during the first decade of the 21st century, and five out of six of these losses will be non-Hispanic white. When all cohort contributions are summed, about 11.7 million net new households are projected to be formed over the next decade, with 36 percent being non-Hispanic white and 64 percent minority (Masnick and Di 2000). Figure 8 summarizes these projections by combining the 5-year cohorts in Figure 7 into 10-year age groups, labeling them with familiar names, adding the separate minority groups together and placing both whites and minorities on the same chart.

Understanding these cohort influences on household growth is significant in that it de-emphasizes period economic conditions as determinants of longer term household growth trends, and weighs more heavily the trends that are demographically driven

(Masnick and Di, 2000). Consequently, we can be more confident in our projections of future household growth.

More on The Aging of Baby Boom Households (Empty Nesters, Second Homes, and Single Person Households)

Although baby boomers have already stopped contributing to net household growth, their influence on housing will remain strong for the next few decades. As they age, they replace the smaller cohorts that preceded them in the age structure. Their own changing life course demography will prompt new patterns of housing consumption. Households headed by 55-64 year olds will increase from 13.9 million in 2000 to 17.1 million in 2005 to 20.4 million in 2010 to 22.9 million in 2015 to 24.3 million in 2020, as the smaller cohorts born before 1945 gradually move out of this age group and the larger baby boom cohorts replace them. Remember that these are for the most part not new households being formed, but are already existing households getting older and changing in composition.

The cohort that will be age 55-64 in 2020 was born 1955-64 and is the largest of the baby boom generation. In 2000 they were age 35-44, 60 percent were married and 64 percent had children under the age of 18 living with them. In 2020 they represent about the same number of households as in 2000, but only 51 percent are expected to be married couples and only 6 percent of the households will have children under the age of 18 living with them. Single person households are 30 percent of the 2020 total for this late baby boom cohort, compared to an estimated 17 percent in 2000 (Masnick and Di 2000).

Between 2000 and 2020, these late baby boomers will be moving through the ages when their incomes are peaking, when they begin to plan seriously for retirement, and when a growing number in this cohort will not be supporting children. Many will choose to trade up to newer housing at this time, and some of this trade-up will involve downsizing, but some will involve the purchase of larger homes, and some will remodel the home they have (see below).

This stage in the life course when the cohort is aging from 35-44 to 55-64 is also the time during which second homes are typically purchased. During the 1990s the number of second homes increased faster than the rate of increase in the housing stock overall (Di, McArdle and Masnick 2001). Between 1985 and 1995 the amount consumers spent on owned vacation homes more than doubled, from \$6.2 billion to \$13.1 billion (adjusted for inflation). Some of these second homes might be in anticipation of imminent retirement and will soon become the primary residence. Some might accommodate delayed retirement for many years while still providing for leisure opportunities in the pre-retirement years. Some retirees might have what amounts to several "second" homes, enabling households to spend part of the year in different locations. The second home trend is one that appears to be driven by both demographics

and wealth, and it is one we expect to strengthen as the baby boom generation ages toward retirement.⁵

The aging of the population is also partly responsible for the dramatic increase in the share of households that are composed of only one person. Surviving widows and widowers most commonly live alone. In 1960, only 13.3 percent of all households were people living alone. Today that share has doubled, and the trend is projected to increase steadily (Figure 9). Fully 40 percent of the projected growth in households between now and 2020 are persons living alone.

Prior to 1990, the majority of 1-person households were renters, and prior to 1980 single-person renter households were growing more rapidly than single-person owners. After 1980, the rate of growth of 1-person renters tailed off dramatically, so that by the early 1990s owners overtook renters (Figure 9). This trend can partly be explained by the growing number of older married-couple owner households being transformed to 1-person owner households upon the death of a spouse. Also, divorce could result in the same outcome without remarriage. But undoubtedly, there has been some contribution from young and middle-aged single persons becoming first-time homeowners. During the 1990s the youngest and largest half of the baby boom aged from 25-34 to 35-44, and many unmarried renters in this group benefited from a period of sound income growth and favorable housing market conditions.

The balance of the projected household growth is in large part married couples without children under the age of 18 at home (empty nesters). While much deserved attention has been given to the large number of would-be empty nesters still stuck with adult children living at home (Joint Center for Housing Studies, 2001b), over 40 percent of the net household growth for the next 20 years will be married couples without children under 18 (Masnick and Di, 2000). Most married couples do become empty nesters, and baby boom households will move through this life course stage during the next two decades. Eventually, boomer empty nesters are destined to become 1-person households as they age beyond 2020.

Marital Status Trends

The other demographic drivers besides widowhood that contribute to the increase in 1-person households are the delay in marriage, the high proportions that will never

⁵ There has been some anecdotal evidence that well-paid younger workers in the dot.com economy have been purchasing second homes as crash pads to avoid long commutes following long workdays, justifying their purchase as being not only convenient but a good investment. While the numbers might be small, there are other examples of fringe groups where owning multiple homes is perhaps on the increase, so that cumulatively, the increase in second “convenience homes” might also help explain why housing construction has been running well ahead net household formation in recent years. Other situations include extremely long distance commuters and telecommuters - including those who might view their jobs as temporary (e.g. people who live in Vermont but work in Washington, DC), unmarried couples who are reluctant to give up their own house or apartment even though they spend most of their time at one or the other’s homes, grandparents who want to spend some time close to the grandkids, and seasonal employees (eg., resort workers) who earn enough to justify trading in the motor home for something more permanent.

marry, high levels of divorce, and declining rates of remarriage. The effects of delayed marriage, high divorce, and low remarriage go beyond influencing 1-person household trends, however. These marital status trends also increase the number of single parent households, multigenerational households, and unmarried couple households as well. All of these household types have increased in recent decades to become a part of the new demographics of housing.

One of the most important trends of the past three decades has been the rising age at marriage and the increasing percent of the young adult population that has never married. First marriage rates⁶ reached their peak in the immediate post-WW II period and have since fallen by about half. Between 1950 and 1970, the median age at marriage hovered between 20 and 21 for women and between 22 and 23 for men. Since 1970, the median ages at first marriage have climbed steadily and are now about 25 for women and 27 for men. Today, there are more than twice as many never married men and women age 15+ as there were in 1950 (Table 4). Among 20-24 year olds, 70 percent of women and 83 percent of men have never been married. Among 30 to 34 year olds, these percentages are 21 and 29 percent, respectively. These high percentages unmarried in the young adult age groups are unprecedented (Figure 10).

For many, marriage is no longer a prerequisite for other adult life course transitions such as parenthood (Raley, 2001) or homeownership. The share of all births to unmarried women has risen from 18 percent in 1980 to 33 percent in 1998 (Ventura et al., 2000). Fully 47 percent of women age 25-29 in 1995 report that they had experienced non-marital cohabitation and 21 percent of all unmarried women were currently cohabiting (Bumpass and Lu, 2000). Many live in owner-occupied housing.

Formerly married men and women have dramatically increased their representation in the population. Overall, there are about three times as many widowed and divorced men and women today as there were in 1950. (During the past three decades there has been a shift in share from widowed to divorced). Prior to 1970 there were only about 25 divorces taking place for every 100 marriages in any given year. Since 1980, that ratio has risen to 50 divorces per 100 marriages taking place per year. Estimates are that between 50 and 60 percent of marriages taking place in the 1980s will eventually end in divorce or permanent separation (Martin and Bumpass, 1989). This high fraction might have softened slightly in the 1990s due to selectivity for more durable marriages with declining marriage and remarriage rates (Masnick, 1996).

Remarriage rates⁷, which began falling around 1970, have declined by over 40 percent from their peak (U.S. Census Bureau, 1992). Prior to 1970, the number of remarriages taking place almost equaled the number of divorces. Today, annual divorces outnumber remarriages by over 40 percent.

Because of these trends in marriage, divorce, and remarriage, married couples now head only slightly more than half of all households compared to 71 percent in 1970

⁶ First marriages per 1000 single women age 15-44.

⁷ Remarriages per 1000 widowed and divorced women age 15-54.

and 78 percent in 1950. This almost even split is likely to persist for the next several decades, and married couples might even fall below 50 percent. Perhaps the most significant outcome for housing markets of this bifurcation between married and unmarried households is on the economics of maintaining a household.

Labor Force Participation

Female labor force participation has risen across all marital statuses since 1970, but has risen most for married women, and among married women the greatest increase has been for mothers of pre-school children. In 1998, for the first time since the Census Bureau has begun keeping records, families with children in which both spouses worked became the majority of all married couple families (U.S. Census Bureau, 2000).

Even among mothers of newborns, labor force participation is the norm. In 1998, fully 60 percent of married women who had given birth within the past 12 months were in the labor force, up from 56 percent in 1990. Among widowed, divorced or separated women the increase in labor force participation was from 51 percent in 1990 to 65 percent in 1998. For never married women the increase was from 40 percent to 54 percent (U.S. Census Bureau, 2000). Participation rates for unmarried women with young children spiked upward in the late-1990s as a result of welfare reform. High rates of labor force participation, even among mothers of very young children, have become almost universally necessary to meet household expenses, the largest of which is typically housing.

Previous research has shown that wives' employment was instrumental in maintaining homeownership among married couples during a period of escalating home prices and declines in the real earnings of men (Myers, 1985a and 1985b). With the continued rise in wives' employment and earnings over the past several decades, married couples in two income households have been able to achieve much higher quality housing consumption than in previous generations.

Many one-earner households however, especially those headed by women, are competing in the same housing markets as married couples, and have seen their housing costs take an ever-increasing bite out of their paychecks. A large number of one-earner households are currently paying more than 50 percent of their income for housing. Even among two earner households, a large number are extremely vulnerable to oppressive housing cost burdens if one or the other spouse's income was lost (Joint Center for Housing Studies, 2001b).

Dramatic changes are also taking place in labor force participation rates at the older end of the age structure, for both women and men. After declining steadily for more than three decades from levels above 85 percent, the labor force participation rate of men age 60-64 suddenly stabilized in 1985 at about 55 percent. For women in this age group, rates have increased to about 40 percent (Quinn, 2000). The variation in age at retirement has also increased significantly (Han and Moen, 1999). It appears that many in the cohorts that are now approaching the retirement years plan to keep working beyond

age 65⁸. The labor economist Joseph Quinn thinks that this trend signals a fundamental change in retirement patterns, and that this is good news

...for the economy, for employers, and for many workers, who will find a mix of work and leisure preferable to all of one or all of the other, at least for a while. Employers offering job flexibility and creative compensation packages can tap a growing pool of experienced older workers, who are particularly attractive in a tight labor market. Finally, the economy will benefit as well, as goods and services produced by these older workers ease the burdens faced by an aging society.⁹

Changing labor force participation patterns in old age could also have important effects on housing consumption of tomorrow's elderly. Retirement migration among baby boomers could be postponed unless retirement destinations provide for at least part-time employment opportunities. For older men and women who are unwilling to leave their current job market, downsizing or moving to newer housing with less upkeep might be more difficult if such housing is not available nearby. Many baby boomer marriages are remarriages for one or both spouses, and many involve a considerable age difference between husbands and wives. Typically, in such cases it is younger wives who are still in the labor force when husbands are ready to retire. Husbands are affected by the current employment status of their wives, retiring at a faster rate after their wives have retired than before (Henretta, e. al., 1993). It is presumably easier to undertake retirement migration when neither spouse is employed (Han and Moen, 2000).

On the other hand, a longer work life improves a household's bottom line, and greater investment in housing in old age is therefore possible. Some pre-retirees from the baby boom generation are increasingly preparing for a comfortable retirement by moving into expensive amenity filled homes that they think they will live in for the rest of their lives (Wyatt, 2001). Not all of these homes are free of financing and not all will be paid off by age 65, which might provide an additional incentive to postpone retirement. Older empty nesters can also prepare for a more comfortable retirement by improving the homes they are already in by drawing upon their home equity to undertake significant remodeling projects (Joint Center for Housing Studies, 2001b).

Changing Use of Housing Inventory

We now turn to examine how some of the population and household changes we have described are related to housing consumption. At the outset we recognize that demographic change has been occurring at a pace that is much faster than can be mirrored by changes in the housing stock. One need only think about empty nesters with unused rooms, elderly widows remaining for years in large houses, young families struggling to find affordable housing in neighborhoods with good schools, single parents without many rental options that work well for children, immigrants in over-crowded

⁸ Quinn reports that a recent AARP survey found 80 percent of baby boomers plan to keep on working after age 65. While 80 percent might not be a credible forecast, it contrasts sharply with the 30 percent of 65 year-old men that were employed in 1985.

⁹ Quinn, 2000. P. 15.

housing, and the homeless who can not find suitable housing at all, in order to appreciate the ever present mismatch between housing supply and demand. When we add the spatial dimension, the mismatch between location of residence and location of employment is seen in the unemployment and underemployment in central cities, the often long commutes, the physical separation of family members during the day, and the traffic, pollution and parking problems that seem to affect us all.

Housing supply is readjusted to household demand in three different ways. New housing is built and old housing is torn down, housing is remodeled, and housing is exchanged. New housing construction typically has met the needs of young and middle age married couples with growing families, although that is slowly changing. The housing demographer Dowell Myers reminds us that the typical household is no longer the married couple with children, but still the housing stock is expanded each and every year with units (typically the ever-larger single family units built in the suburbs) that best meets the needs of this minority who buy new housing:

Given the durability of housing, most housing consumers must pick and choose among housing styles dictated by the preferences of the small minority that bought a new home some time in the past... Most of us must live in recycled housing that was built to meet other people's tastes and needs... The collective disadvantages imposed by the "consumer dictatorship" of these [relatively few] new buyers are two-fold. First, those initial preferences for individual housing units aggregate into an overall development pattern that then survives for decades afterward. The new buyers' preferences are forced on future residents. Moreover, as time passes, continual development and growing congestion erase the initial advantages of peripheral [suburban] location. (Myers, 2000: p.65)

Notwithstanding the cumulative influence of the tyranny of the minority on structuring future housing options for everyone else, exchange is perhaps the biggest way that housing adjustments are made. The fraction of the population that moves each year has been slowly trending downward as the population ages, from 20 percent typical in the 1950s through 1970s to about 16 percent today. Still, over 40 million persons move annually, representing about 16 million households. Even if the move is not prompted primarily by housing considerations, few movers pass up the opportunity to seek out new housing that better fits their needs and desires. About 12-15 million households undertake a significant remodeling project every year, many in conjunction with a move (Joint Center for Housing Studies, 2001a).

Old and New Housing

To examine the match-up between households and housing and how it is changing, we have divided the housing stock into four vintage categories: built before 1950, built 1950-1969, built 1970-1984 and built since 1985. Each vintage accounts for approximately one quarter of today's owner occupied housing stock. Renters are more commonly found to occupy older housing, and owner households headed by older persons also occupy the oldest housing stock (Figures 11a and 11b). Older housing is also where unmarried households more typically reside (both renters and owners), while married couple owners are found more commonly in recently built housing (Figures 12a

and 12b and Appendix 1). Young married couple owners (under age 35) in particular have moved into newer housing, with 40 percent living in units built since 1985.

This skewed match-up between households and housing is part of what creates housing turnover. Renters are motivated to move into owner housing, partly to consume newer and better housing. However, it is the older housing stock where older household heads are vacating units and making them available to younger households. We can illustrate the dynamics of housing turnover by examining how different age and race cohorts changed their numerical representation in the four different vintages of housing stock between 1989 and 1999. We can do this separately for owners and renters.

We can think of the process of cohort change in housing consumption as a kind of a game of musical chairs, with several important differences from the game with which we are all familiar. Let the chairs be the housing stock, and in the beginning of the period under observation everyone is seated in a chair of different vintage (everyone except the homeless and people living in group quarters, that is). The “person” occupying a chair is the household. When the music starts, some people get up and change chairs (movers), but not everybody has to get up (stayers). Some people change household membership. All household members get older, as do the housing units. Some of the chairs are taken away (losses, vacancies, conversions to non-residential, and mergers), but other chairs are added (primarily new construction but also older stock that is brought back into occupancy, splits, and conversions to residential). Some of the people die or quit the game while the music is playing, and others households can join the game. When the music stops, there is a new configuration of the housing “chairs” and a new configuration of households sitting in them. Some who were sitting two or three or more to a chair when the music started form their own households and are able to find a chair of their own. Sometimes households merge. Sometimes mover households wind up in chairs very similar to the one’s they were sitting in at the beginning of the game.

While the process just described might sound like pure chaos, there is certain orderliness to it. We can capture some of the changes that take place by focusing separately on particular age cohorts of household heads as they age over the period while the music is playing. Figures 13 and 14 and Appendix 2 record the number of household heads occupying owner and renter housing in four different housing vintages according to year the unit was built. The arrows on the graphs track the level of occupancy at the beginning and end of the period for each age cohort. The tail of the arrow is the level of occupancy in 1989 and the head of the arrow the level in 1999. When an arrow trends upward, the cohort occupies more of that type of housing at the end of the period than it did at the beginning. When an arrow trends downward, the opposite is true. We have plotted trends for non-Hispanic whites and for minorities¹⁰.

The dynamics of the movement of households through the housing stock is clearly shown by these cohort trajectories. The largest net movement out of the owner occupied stock was by older non-Hispanic white household heads, and the losses occurred in both

¹⁰ The vertical rise (or fall) of these cohort trajectories is what was plotted in Figures 7 and 8, summed across vintage categories and tenure.

the pre-1950 built housing (Figure 13a) and in owner units built 1950-1969 (Figure 13b). Cohorts who were over the age of 75 in 1999 in these two vintages vacated approximately 6 million units during the previous 10 years. Older white cohorts living in owner units built between 1970 and 1984 also trended downward, but since fewer older cohorts live in these units, their losses were not much different from other cohorts' losses among those in the age range 45 to 74 in 1999.

The largest movement into the owner occupied stock was for non-Hispanic white heads in the youngest cohorts for units built since 1985, but significant increases in owner occupancy occurred for the older vintage categories as well. All cohorts increased their occupancy of units built since 1985, but generally only the youngest cohorts increased occupancy in the older three vintage categories. The persistent decline in the levels of white owner occupancy of cohorts over age 45 living in units built between 1970 and 1984 stands out, with the oldest of the non-Hispanic white baby boomers (age 45-54 in 1999) dominating the occupancy of this vintage housing (Figure 13c). Minority owner cohorts are much more evenly distributed throughout the three oldest vintage types.

On the rental side it can be seen that overall levels of occupancy between whites and minorities are much closer in 1999 compared to owners (Figures 14a-14d). Between 1989 and 1999, there was an especially strong movement by the youngest of the white baby boom cohorts (age 35-44 in 1999) out of renter occupancy, especially in the oldest three vintage categories, and especially in the 1970-84 stock. There, over 1.5 million renter households were lost from this cohort alone. The combined renter loss in the other three vintage categories for this cohort was about 2.5 million, for a total of 4 million. Not surprisingly, the gain on the owner side was also about 4 million for this youngest of the white baby boom cohorts, although the households that contributed to the renter losses and owner gains were certainly not entirely the same (remember that household reconfiguration and new formations take place).

Also significant on the rental side has been the weak movement of the baby bust (age 25-34 in 1999) into rental housing, particularly in the two middle vintages. While it was expected that they would form fewer rental households than the larger baby boom cohort that preceded them in the age structure, their rate of renter household formation was slower than their smaller numbers or their movement into homeownership would suggest (Joint Center for Housing Studies, 2001b).

It is still unclear whether the slow rate of renter household formation that took place in the 1990s is due to economic, housing market or cultural causes. Rising rents have typically wiped out much of the income gains that took place among renters, and new construction of rental housing has barely replaced the units lost to the stock. The greater representation of immigrants in the baby bust cohort, sustained high rates of young adults living at home with their parents, and an increased level of three generations living in grandparent households might suggest cultural changes in addition to income and cost constraints (Joint Center for Housing Studies, 2001b).

Increasing Housing Amenities: the Example of Bathrooms

Between 1998 and 1999, owners age 55 and older sold almost nine million homes to younger buyers (Joint Center for Housing Studies, 2001a). Almost 75 percent of these homes were built before 1970, and therefore are prime candidates for upgrading, especially of kitchens and baths, but also including decks, garages and extra rooms. We can use the same cohort methodology to track how remodeling is changing the older housing stock.

In the 1950s, it was not unusual for a household that was headed by a 45 year-old to have four children and one bathroom. Today, it is perhaps more common for such a household to have one child and four bathrooms. Figure 15 tracks 1989-1999 changes in the average number of bathrooms in newer and older homes for different age cohorts living in owner occupied housing. Newer homes have more bathrooms than older homes. Every age group living in housing built before 1950 owned fewer bathrooms than owners from the same cohort living in housing built since 1985. As younger cohorts age and increase both their incomes and family sizes, they increase the number of bathrooms they own. As older cohorts living in the newer stock age they tend to locate in housing with fewer bathrooms (except for the very oldest cohort). Since more housing is being added every year to the newer stock, it is easy to find a home with the correct number of bathrooms to suit a household's stage in the life course.

In the older stock, however, all household heads in both younger and older cohorts increased the number of bathrooms they owned between 1989 and 1999. The only way that such an across the board trend is possible is if the older housing stock gained bathrooms on net. This could have occurred in one of two ways: either houses with few bathrooms were removed from the stock, or the remaining houses had more bathrooms added. With about 500,000 pre-1950 units lost to the stock of owner housing between 1989 and 1999, probably some of both trends occurred. But the most important factor increasing the average number of bathrooms in older housing must clearly have been bathroom additions.

When average cohort bathroom consumption across all vintage categories is calculated (dotted arrows) it is clear that two trends are taking place for owner households as a whole. Each cohort is increasing its average consumption of bathrooms over time, and each successively younger cohort is living in owner housing with more bathrooms than the cohort that preceded them in the age structure. The latter trend is consistent with our earlier observation that younger cohorts generally move into newer housing, and most homes built since 1985 have two or more baths. Since older cohorts are increasing their ownership of newer units as well (Figure 14d), this housing mobility also increases the average number of bathrooms available to them. But for numbers to work out, for the majority who lives in older housing, their increase in available bathrooms has to come from bathroom additions.

The lessons from this bathroom example are twofold. First, it demonstrates that the older housing stock is not static, but is being modified to meet the needs of modern

living. Second, it also shows that some “trading down” in amenities is occurring among older empty nest households that live in the newer housing stock. Whether the baby boom cohorts who currently own homes with the greatest number of extra baths will follow the path of older cohorts in trading down to new (presumably smaller) houses with fewer such amenities is yet to be seen. More importantly, whether the baby boom will be willing to return to the 1960s and earlier vintage stock with its much lower level of amenities, as they must if a serious “back to the city” movement is to materialize, is a further stretch. If boomers do return to the older housing stock in significant numbers, present levels of remodeling will surely be far surpassed. But the potential that the existing configuration of the older housing stock will act as a deterrent to any nascent “back to the city” migration by baby boomers should not be discounted.

Homeownership Rates

No discussion of the new demographics of housing would be complete without a few observations about trends and differentials in homeownership rates. After stagnating throughout most of the 1980s and the early 1990s, homeownership rates took a sharp turn upward through the mid- and late 1990s. All age groups, all race/Hispanic origin groups, and all household types participated in this increase. At 67.5 percent, the homeownership rate in 2000 stands at the highest level in U.S. history.

The long-term outlook for the future indicates that further increases in homeownership are likely in store, although perhaps not in the short run. The high rental occupancy rates of minorities, and especially recent immigrants, has established a pool of potential new first-time homeowners that is substantial. While Asian immigrants move into homeownership quickly after their arrival, Hispanic immigrants begin their housing careers at low levels of homeownership, but increase rapidly (even more rapidly than the native born passing through the same age span) during the two decades after their arrival (Myers and Lee, 1998). Thus, when they eventually move into homeownership, 1990s immigrants will help to raise overall homeownership rates.

Second, the continued movement of minorities out of central cities and into the suburbs will also serve to raise homeownership rates as this population shifts from locations where there are less homeownership opportunities to places where there are more. The increased rate at which immigrants are locating directly to the suburbs should also boost homeownership. Finally, the simple aging of the population will raise homeownership rates as echo boomers follow their parents into the high homeownership age groups.

In the short run, however, we may experience a slowdown in homeownership growth as a consequence of the dramatic way in which the homeownership rate moved upward in the late 1990s. Figure 14 reminds us that the youngest of the non-Hispanic white baby boomers (age 35-44 in 1999) experienced an extraordinary drop in rental occupancy between 1989 and 1999 (see especially Figure 14c), responding as they did to

the favorable economic and ownership opportunities of that period. As a consequence, the new homeowners left behind a much smaller renter cohort to make further moves into homeownership during the next decade. Simultaneously, the baby bust (age 25-34 in 1999) formed noticeably fewer renter households than might have been expected during the past decade. This cohort is now in a weak position to contribute directly to new owner household formation, as many of them are still unmarried or living with parents (Joint Center for Housing Studies, 2001b).

The homeownership rate is simply the ratio of owner households in the numerator to the sum of owner plus renter households in the denominator. The inflation of the numerator by the baby boom first-time owners and deflation of the denominator by the baby bust non-heads leveraged a very rapid homeownership rate increase in the late 1990s. Any future slowdown in the rate of owner household formation or improvement in the rate of renter household formation will cause the numerator to grow more slowly and the denominator to grow more rapidly, thus leveraging the homeownership rate in the opposite direction. Should the current slowdown in the economy last for several more years, or perhaps deepen into a recession, the homeownership rate could decline before it resumes its upward demographic destiny.

Both non-Hispanic whites and minorities, including African Americans, increased their homeownership rates during the end of the 1990s. Consequently, the black/white homeownership gap changed little during this remarkable period of aggregate homeownership increase, and remains above 25 percentage points. The black/white gap has ranged between 24 and 28 points for much of the 20th century (Masnick, 2001). Research efforts over the past 30 years to understand this gap by statistically modeling the effects on homeownership of certain endowments like income, education and family structure have achieved greater or lesser success depending both on the period being studied and the variables included in the models (Masnick, 2001). Most studies conclude that a significant part of the black/white gap remains even after various endowments are controlled. Typical is a recent study of the Los Angeles metropolitan area that has found that all of the gap between whites and Asians or Hispanics could be fully accounted for by differential endowments, but only half of the gap for blacks could be explained by black/white differences (Painter et al., 2000). Recent research by Masnick and Di (2001) confirms that persistent black/white cohort differences in homeownership remain when controlling for such factors as education and family structure.

Racial discrimination, especially in the suburbs where most homeownership opportunities exist, has long been identified as a major cause of the black/white homeownership gap (Kain and Quigley, 1972; Yinger, 1995). Others have emphasized the importance of differentials in wealth (Oliver and Shapiro, 1995). With the recent experience of increased black suburbanization in many newer cities in the South and West (Cutler et al., 1999), and with increased Asian and Hispanic migration cracking the white stranglehold on many suburban communities throughout the country, the pendulum may now be swinging in favor of increased homeownership opportunities for all minorities, including African Americans. We need only remind ourselves, however, of

the extreme difficulty blacks have had in closing the homeownership gap with whites over the past 90 years before assuming this gap will soon shrink significantly.

Conclusions

In discussing the new demographics of housing, we have chosen to focus on the changing demographic context in which emerging housing trends must necessarily operate throughout the country. These are trends that effect both new economy and old economy housing markets. We have managed to get through the entire discussion without once using the term “new urbanism.” We have not given special attention to emerging micro-metros that now capture the imaginations of new age migrants - places that the social critic David Brooks calls “Latte Towns”¹¹ (Brooks, 2000). We have not dwelled on the possible consequences of the telecommunications revolution for demographic change in non-metropolitan areas. We have not strained to find data on housing preferences of unmarried couple households of the same and opposite sex. Instead, we have charted those broad demographic trends that have been gaining momentum for several decades, and drawn out some of their implications for our current and future housing situation.

Foremost among these trends has been the growth of the minority population. We have placed this trend in the context of the aging of the non-Hispanic white majority, and of the changing use of the existing housing stock. We have tried to keep the influence of marital status trends before us, but much more can be learned.

We hope that some of what we have presented is new to those who think about future housing trends, or at least stated in a different way from that which generally appears in the literature. The key here is to think in terms of cohort changes and in terms of component flows into and out of a particular group, or place, or housing type that is of special interest. The insights we have gained through cohort analysis, and the variables we have analyzed with this approach, have just scratched the surface. The full release of the 2000 census data will provide new information needed to examine recent cohort trends across a wide array of geographic, economic and demographic categories, and provide for at least decade of future work by housing demographers. Hopefully, a focus on the demographics of housing in new economy metropolitan areas will be early on this agenda.

¹¹ Latte Towns are upscale liberal communities, often university based, that have become crucial gestation centers for America’s new upscale culture. These places include Boulder, Colorado, Madison, Wisconsin, Burlington, Vermont, Wilmington, North Carolina, and half the towns in northern California, Oregon and Washington State. According to Brooks there are, all told, hundreds of Latte Towns in America, and even in non-Latte Towns there are often Latte Neighborhoods.

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Table 1
Components of Population Growth 1990-1999.....

Region and Census Division	Population Change	Natural Increase	Net Domestic Migration	Net International Migration	Other**
United States	23,226,417	15,365,793	0	7,306,765	553,859
Northeast	954,323	2,192,633	-2,938,095	1,805,070	-105,285
New England	275,911	549,241	-488,959	246,336	-30,707
Middle Atlantic	678,412	1,643,392	-2,449,136	1,558,734	-74,578
Midwest	3,476,844	3,028,867	-613,301	744,973	316,305
East North Central	2,365,506	2,226,717	-730,470	579,761	289,498
West North Central	1,111,338	802,150	117,169	165,212	26,807
South	10,736,708	5,112,439	3,510,992	1,951,134	162,143
South Atlantic	5,802,759	2,229,248	2,310,320	1,122,009	141,182
East South Central	1,373,697	681,538	603,272	66,176	22,711
West South Central	3,560,252	2,201,653	597,400	762,949	-1,750
West	8,058,542	5,031,854	40,404	2,805,588	180,696
Mountain	3,411,170	1,284,208	1,694,337	312,427	120,198
Pacific	4,647,372	3,747,646	-1,653,933	2,493,161	60,498

** Includes net federal movement from abroad and a residual component.

Source: U.S. Census Bureau, Annual Population Estimates, Table ST-99-7.

Table 2

Percent Of The Population That Is Non-Hispanic White.....									
	1990	2000	Difference	% Change		1990	2000	Difference	% Change
US Total	75.7	69.1	-6.6	-8.7%	South	71.9	65.8	-6.1	-8.5%
					South Atlantic	73.1	66.8	-6.3	-8.6%
					DE	79.3	72.5	-6.8	-8.5%
					MD	69.6	62.1	-7.5	-10.7%
					DC	27.4	27.8	0.4	1.6%
					VA	76.0	70.2	-5.8	-7.6%
					WV	95.8	94.6	-1.2	-1.3%
Northeast	79.5	73.4	-6.1	-7.7%	NC	75.0	70.2	-4.8	-6.4%
New England	89.3	83.9	-5.4	-6.0%	SC	68.5	66.1	-2.4	-3.6%
ME	98.0	96.5	-1.5	-1.5%	GA	70.1	62.6	-7.5	-10.7%
NH	97.3	95.1	-2.2	-2.3%	FL	73.2	65.4	-7.8	-10.7%
VT	98.1	96.2	-1.9	-2.0%	East South Central	79.0	76.2	-2.8	-3.5%
MA	87.8	81.9	-5.9	-6.7%	KY	91.7	89.3	-2.4	-2.6%
RI	89.3	81.9	-7.4	-8.3%	TN	82.6	79.2	-3.4	-4.1%
CT	83.8	77.5	-6.3	-7.5%	AL	73.3	70.3	-3.0	-4.0%
Middle Atlantic	76.1	69.7	-6.4	-8.4%	MS	63.1	60.7	-2.4	-3.8%
NY	69.3	62.0	-7.3	-10.5%	West South Central	65.8	58.5	-7.3	-11.1%
NJ	74.0	66.0	-8.0	-10.8%	AR	82.2	78.6	-3.6	-4.4%
PA	87.7	84.1	-3.6	-4.1%	LA	65.8	62.5	-3.3	-5.0%
					OK	81.0	74.1	-6.9	-8.5%
Midwest	85.8	81.4	-4.4	-5.1%	TX	60.6	52.4	-8.2	-13.5%
East North Central	83.5	79.0	-4.5	-5.4%	West	66.8	58.4	-8.4	-12.6%
OH	87.1	84.0	-3.1	-3.5%	Mountain	78.0	70.9	-7.1	-9.1%
IN	89.6	85.8	-3.8	-4.2%	MT	91.8	89.5	-2.3	-2.6%
IL	74.8	67.8	-7.0	-9.4%	ID	92.2	88.0	-4.2	-4.6%
MI	82.3	78.6	-3.7	-4.5%	WY	91.0	88.9	-2.1	-2.3%
WI	91.3	87.3	-4.0	-4.3%	CO	80.7	74.5	-6.2	-7.7%
West North Central	91.2	86.9	-4.3	-4.7%	NM	50.4	44.7	-5.7	-11.4%
MN	93.7	88.2	-5.5	-5.9%	AZ	71.7	63.8	-7.9	-11.0%
IA	95.9	92.6	-3.3	-3.5%	UT	91.2	85.3	-5.9	-6.5%
MO	86.9	83.8	-3.1	-3.6%	NV	78.7	65.2	-13.5	-17.2%
ND	94.2	91.7	-2.5	-2.6%	Pacific	62.9	53.4	-9.5	-15.1%
SD	91.2	88.0	-3.2	-3.5%	WA	86.7	78.9	-7.8	-9.0%
NE	92.5	87.3	-5.2	-5.6%	OR	90.8	83.5	-7.3	-8.0%
KS	88.4	83.1	-5.3	-6.0%	CA	57.2	46.7	-10.5	-18.4%
					AK	73.9	67.6	-6.3	-8.6%
					HI	31.4	22.9	-8.5	-27.0%

Table 3

Total and Minority Population Growth 1990-2000 in Core Cities of 50 Largest Metropolitan Areas (1,000,000+ Population)
(Arranged by Total Growth Rate: 1990-2000)

Core City of Major Metropolitan Area	2000 Census			1990 Census			1990-2000 % Change		
	Population Total	Minority*	% Minority	Population Total	Minority*	% Minority	Total	Non-Hispanic Whites	Minority
Las Vegas, NV	478,434	200,730	42.0%	258,295	71,579	27.7%	85.2%	48.7%	180.4%
Austin, TX	656,562	309,008	47.1%	465,577	177,149	38.0%	41.0%	20.5%	74.4%
Charlotte, NC	540,828	242,983	44.9%	396,003	139,241	35.2%	36.6%	16.0%	74.5%
Phoenix, AZ	1,321,045	584,201	44.2%	983,403	275,903	28.1%	34.3%	4.1%	111.7%
Raleigh, NC	276,093	109,707	39.7%	207,951	65,157	31.3%	32.8%	16.5%	68.4%
San Antonio, TX	1,144,646	780,289	68.2%	935,927	595,129	63.6%	22.3%	6.9%	31.1%
Greensboro, NC	223,891	103,779	46.4%	183,521	67,056	36.5%	22.0%	3.1%	54.8%
West Palm Beach, FL	82,103	44,332	54.0%	67,643	31,620	46.7%	21.4%	4.9%	40.2%
Portland, OR	529,121	129,770	24.5%	437,398	73,922	16.9%	21.0%	9.9%	75.5%
Houston, TX	1,953,631	1,351,780	69.2%	1,630,672	965,034	59.2%	19.8%	-9.6%	40.1%
Denver, CO	554,636	266,639	48.1%	467,610	179,746	38.4%	18.6%	0.0%	48.3%
Dallas, TX	1,188,580	777,803	65.4%	1,006,831	524,637	52.1%	18.1%	-14.8%	48.3%
Jacksonville, FL	735,617	278,139	37.8%	635,230	188,274	29.6%	15.8%	2.4%	47.7%
Oklahoma City, OK	506,132	178,907	35.3%	444,730	119,823	26.9%	13.8%	0.7%	49.3%
Salt Lake City, UT	181,743	53,366	29.4%	159,936	27,531	17.2%	13.6%	-3.0%	93.8%
Orlando, FL	185,951	91,499	49.2%	164,693	60,953	37.0%	12.9%	-9.0%	50.1%
Columbus, OH	711,470	235,573	33.1%	632,958	164,540	26.0%	12.4%	1.6%	43.2%
Nashville, TN	545,524	196,420	36.0%	488,518	130,450	26.7%	11.7%	-2.5%	50.6%
Sacramento, CA	407,018	242,044	59.5%	369,365	171,698	46.5%	10.2%	-16.5%	41.0%
San Diego, CA	1,223,400	619,508	50.6%	1,110,549	457,181	41.2%	10.2%	-7.6%	35.5%
New York, NY	8,008,278	5,207,011	65.0%	7,322,564	4,143,852	56.6%	9.4%	-11.9%	25.7%
Seattle, WA	563,374	180,842	32.1%	516,259	135,226	26.2%	9.1%	0.4%	33.7%
Tampa, FL	303,447	148,575	49.0%	280,015	114,161	40.8%	8.4%	-6.6%	30.1%
Providence, RI	173,618	94,167	54.2%	160,728	56,337	35.1%	8.0%	-23.9%	67.1%
San Francisco, CA	776,733	437,824	56.4%	723,959	385,042	53.2%	7.3%	0.0%	13.7%
Indianapolis, IN	781,870	254,195	32.5%	731,321	180,411	24.7%	6.9%	-4.2%	40.9%
Memphis, TN	650,100	433,926	66.7%	610,337	343,790	56.3%	6.5%	-18.9%	26.2%
Los Angeles, CA	3,694,820	2,595,632	70.3%	3,485,398	2,179,751	62.5%	6.0%	-15.8%	19.1%
Atlanta, GA	416,474	286,252	68.7%	394,017	274,834	69.8%	5.7%	9.3%	4.2%
Grand Rapids, MI	197,800	74,263	37.5%	189,126	46,901	24.8%	4.6%	-13.1%	58.3%
Chicago, IL	2,896,016	1,988,850	68.7%	2,783,726	1,720,445	61.8%	4.0%	-14.7%	15.6%
Minneapolis, MN	382,618	143,538	37.5%	368,383	82,727	22.5%	3.9%	-16.3%	73.5%
Boston, MA	589,141	297,580	50.5%	574,283	234,825	40.9%	2.6%	-14.1%	26.7%
Kansas City, MO	441,545	187,074	42.4%	435,141	151,956	34.9%	1.5%	-10.1%	23.1%
Miami, FL	362,470	319,573	88.2%	358,548	314,457	87.7%	1.1%	-2.7%	1.6%
New Orleans, LA	484,674	355,803	73.4%	496,938	332,481	66.9%	-2.5%	-21.6%	7.0%
Richmond, VA	197,790	123,284	62.3%	203,056	116,008	57.1%	-2.6%	-14.4%	6.3%
Philadelphia, PA	1,517,550	873,155	57.5%	1,585,577	757,874	47.8%	-4.3%	-22.1%	15.2%
Louisville, KY	256,231	97,580	38.1%	269,157	83,901	31.2%	-4.8%	-14.4%	16.3%
Milwaukee, WI	596,974	325,985	54.6%	628,088	245,819	39.1%	-5.0%	-29.1%	32.6%
Rochester, NY	219,773	122,378	55.7%	231,636	95,870	41.4%	-5.1%	-28.3%	27.6%
Cleveland, OH	478,403	292,762	61.2%	505,616	262,893	52.0%	-5.4%	-23.5%	11.4%
Washington, DC	572,059	412,881	72.2%	606,900	440,675	72.6%	-5.7%	-4.2%	-6.3%
Detroit, MI	951,270	851,349	89.5%	1,027,974	815,170	79.3%	-7.5%	-53.0%	4.4%
Cincinnati, OH	331,285	157,504	47.5%	364,040	145,138	39.9%	-9.0%	-20.6%	8.5%
Pittsburgh, PA	334,563	110,581	33.1%	369,879	105,285	28.5%	-9.5%	-15.3%	5.0%
Norfolk, VA	234,403	124,182	53.0%	261,229	116,136	44.5%	-10.3%	-24.0%	6.9%
Buffalo, NY	292,648	141,198	48.2%	328,123	120,656	36.8%	-10.8%	-27.0%	17.0%
Baltimore, MD	651,154	449,588	69.0%	736,014	451,392	61.3%	-11.5%	-29.2%	-0.4%
St. Louis, MO	348,189	198,860	57.1%	396,685	197,497	49.8%	-12.2%	-25.0%	0.7%
Hartford, CT	121,578	99,901	82.2%	139,739	96,872	69.3%	-13.0%	-49.4%	3.1%

Source: 1990 and 2000 Censuses: Tables DP-1.

* Minority includes everyone other than non-Hispanic whites. In the 1990 census only one race was chosen. In 2000, more than one racial category could be checked on the census form. Therefore, 2000 includes some who checked both white and another race. These are counted as minority in this table. The inclusion of non-Hispanic multi-racials in the minority category boosts minority growth rates only slightly. Relatively few non-Hispanics checked more than one race, white was not always one of the races selected, and if instructed to choose only one race to be consistent with 1990 methodology, not all of the non-Hispanic white multi-racials would have chosen white only. Multi-racial non-Hispanics who are part white are generally not more than 5% of all non-Hispanic whites in the above cities.

Table 4 Marital Status Distribution of Men and Women: 1950-1998

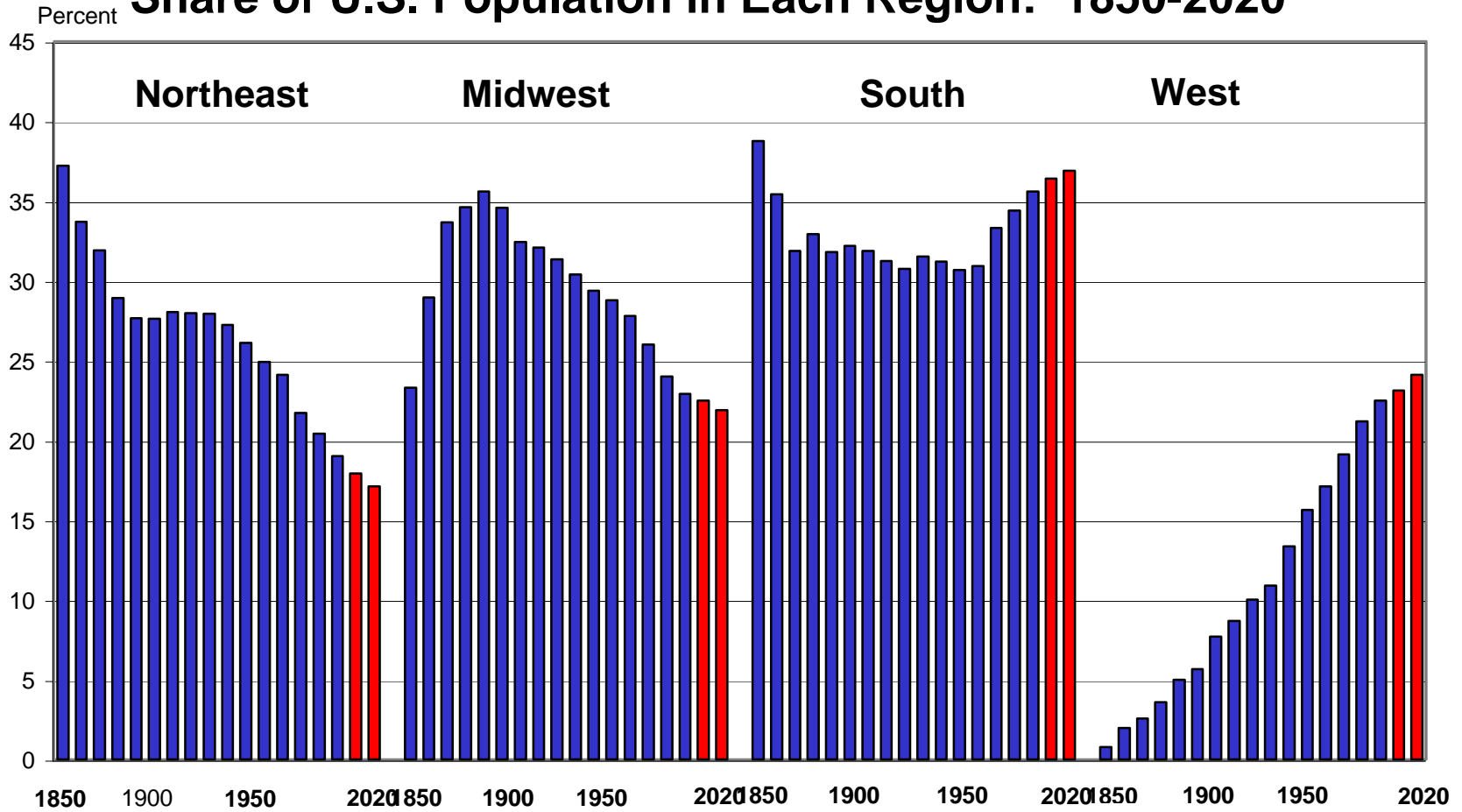
	Total	Currently Married	Currently Unmarried	Never	Widowed	Divorced
Women Age 15+ (thousands)						
1998	108,168	59,333	48,835	26,713	11,029	11,093
1997	107,076	58,829	48,247	26,073	11,058	11,116
1996	106,031	58,905	47,127	25,528	11,078	10,521
1995	105,028	58,984	46,045	24,693	11,082	10,270
1994	104,032	58,185	45,847	24,645	11,073	10,129
1993	102,400	57,768	44,631	23,534	11,214	9,883
1990	99,838	56,797	43,040	22,718	11,477	8,845
1980	89,914	52,965	36,950	20,226	10,758	5,966
1970	77,766	48,148	29,618	17,167	9,734	2,717
1960	64,607	42,583	22,024	12,252	8,064	1,708
1950*	57,102	37,577	19,525	11,418	6,734	1,373
Men Age 15+ (thousands)						
1998	101,123	58,633	42,491	31,591	2,569	8,331
1997	100,159	57,923	42,236	31,315	2,690	8,231
1996	98,593	57,656	40,937	30,691	2,478	7,768
1995	97,704	57,570	39,953	30,286	2,284	7,383
1994	96,768	57,068	39,700	30,228	2,222	7,250
1993	94,854	56,833	38,021	28,775	2,468	6,778
1990	91,955	55,833	36,121	27,505	2,333	6,283
1980	81,947	51,813	30,134	24,227	1,977	3,930
1970	70,559	47,109	23,450	19,832	2,051	1,567
1960	60,273	41,781	18,492	15,274	2,112	1,106
1950*	54,601	36,866	17,735	14,400	2,264	1,071

* 1950 data are for persons age 14+

Source: U.S. Bureau of the Census, Current Population Reports, "Marital Status and Living Arrangements" P20-514, March 1998 (Update) and earlier reports. Internet release date January 1999.

Figure 1

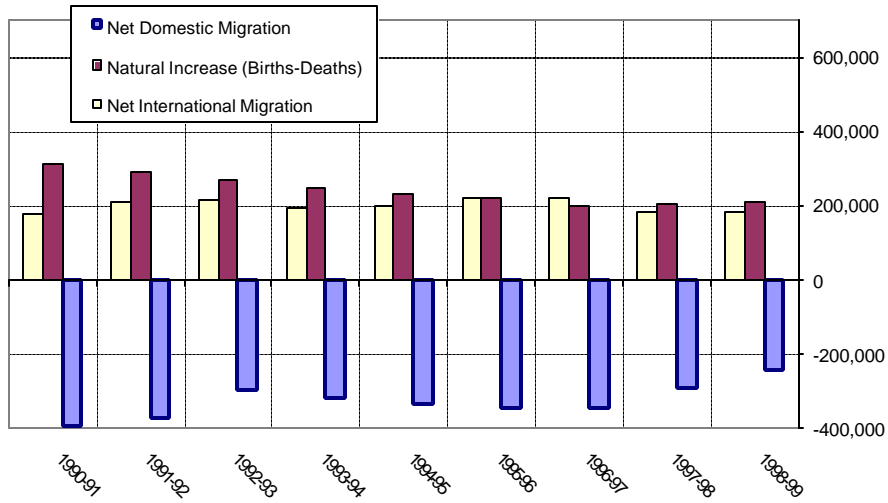
Share of U.S. Population in Each Region: 1850-2020



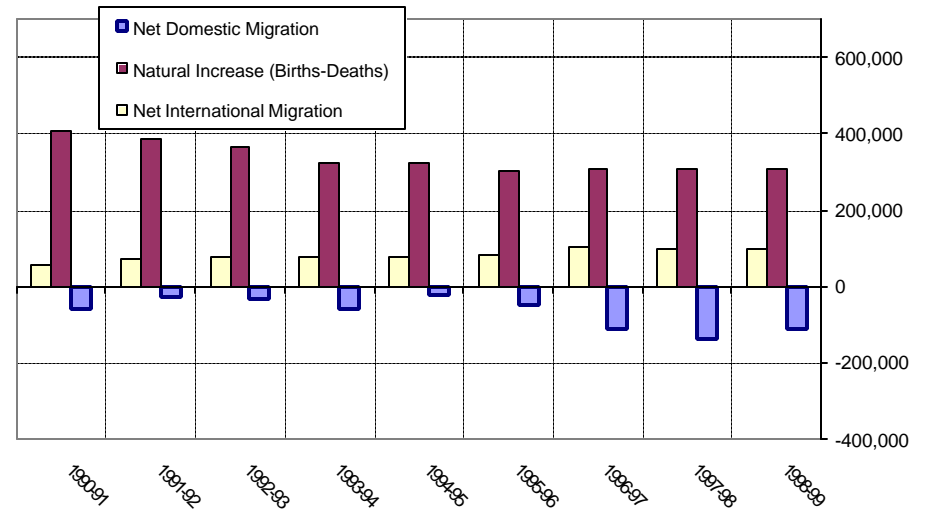
Source: U.S. Bureau of the Census, Decennial Censuses and PPL-47 Population Projections.
Adapted from Nancy McArdle, "Outward Bound: The Decentralization of Population and Employment",
Harvard University Joint Center for Housing Studies, Working Paper W99-5.

Figure 2: Components of Population Growth by Region: 1990-1999

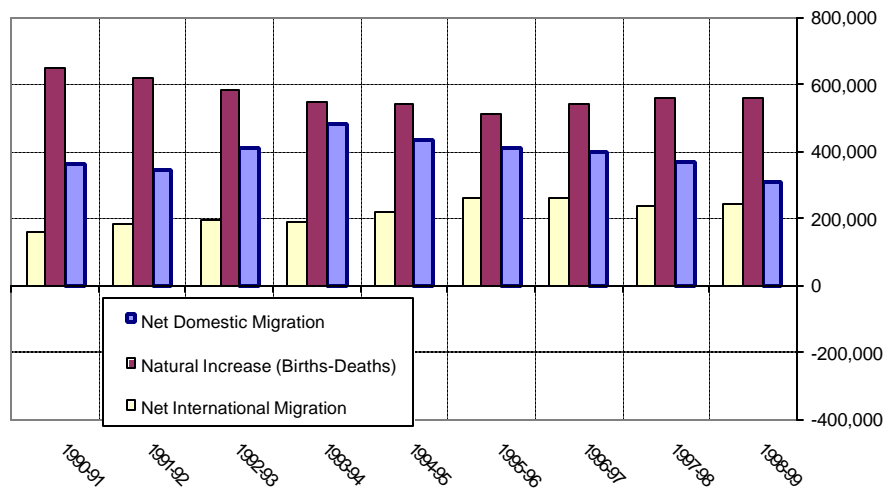
Northeast



Midwest



South



West

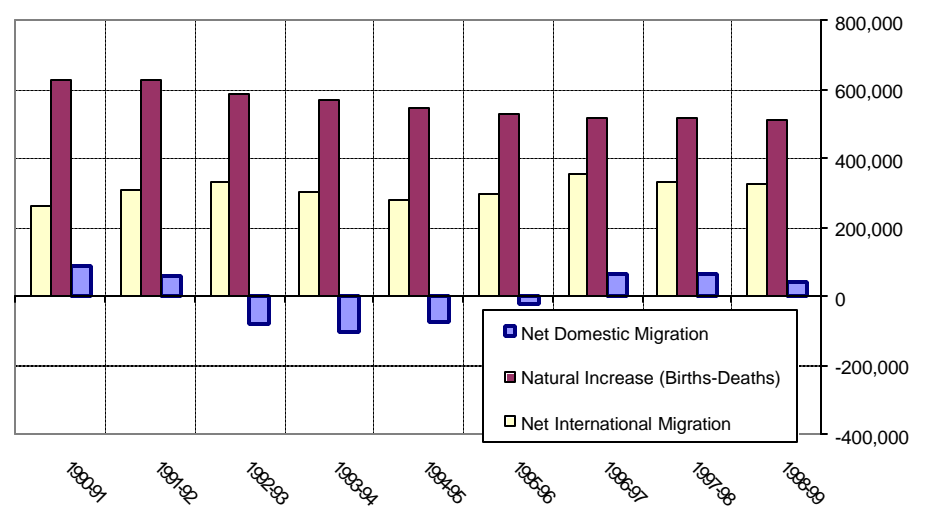


Figure 3
Relationship between Non-Hispanic White and Minority Growth Rates: 1990-2000
Core Cities of 50 Largest Metropolitan Areas

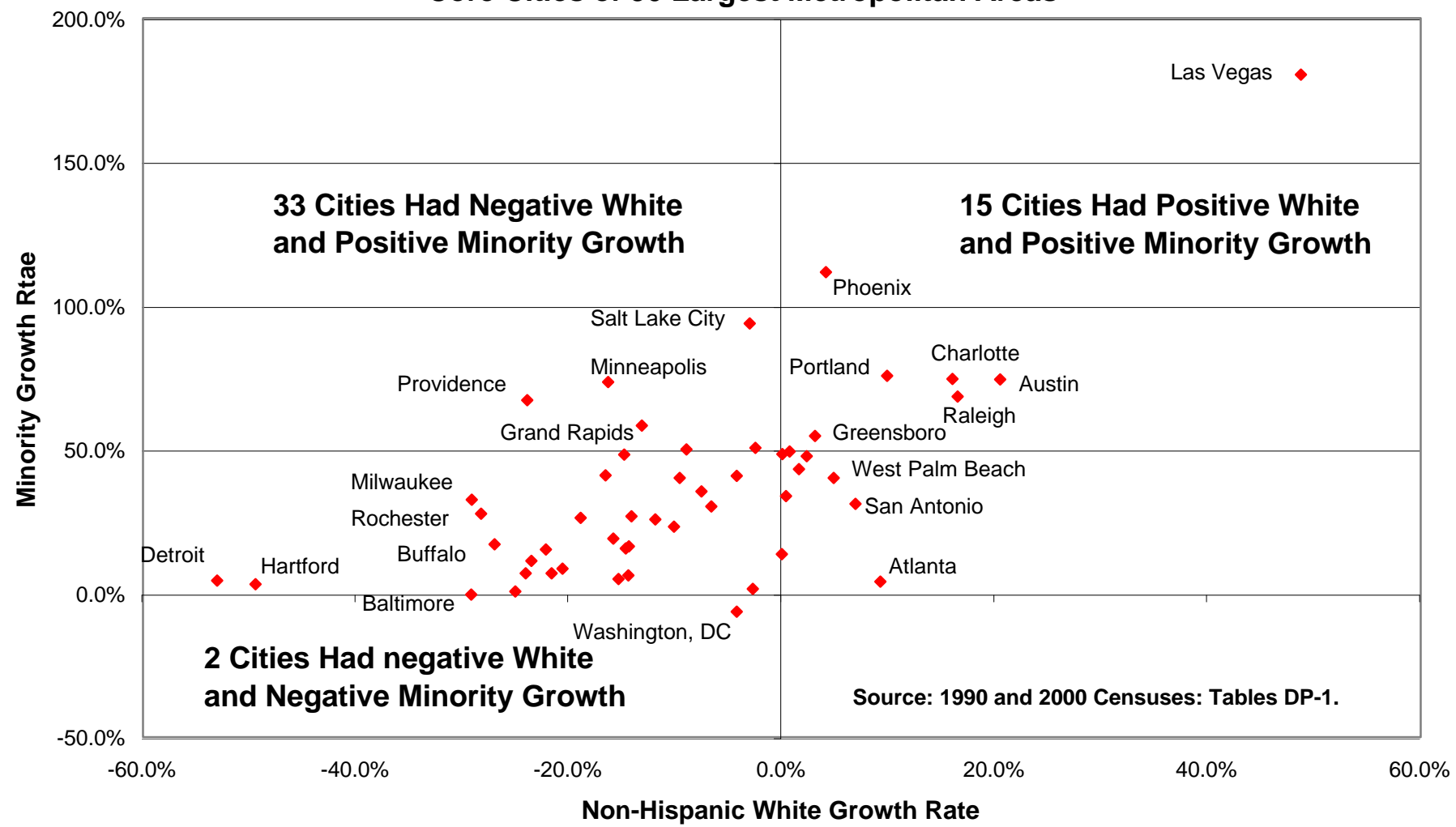


Figure 4: Recent Movers To and From Central Cities/Suburbs - Within and Between MSAs

Figure 4a

Non-Hispanic Whites

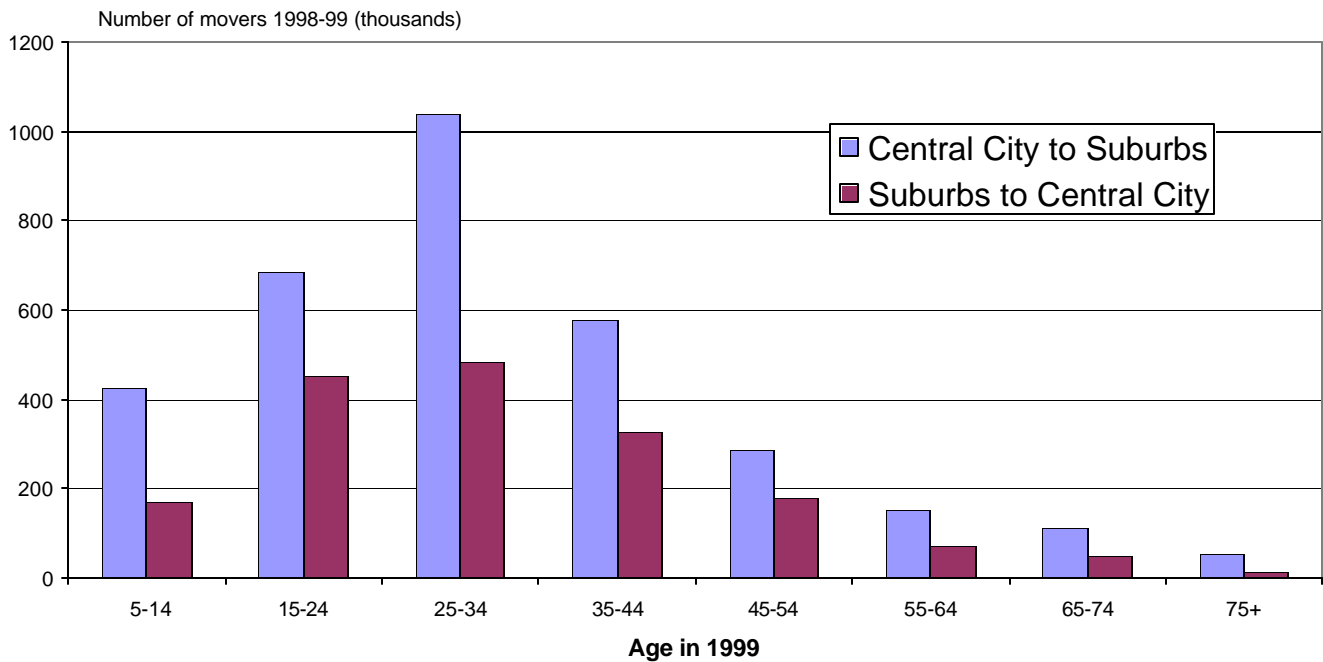
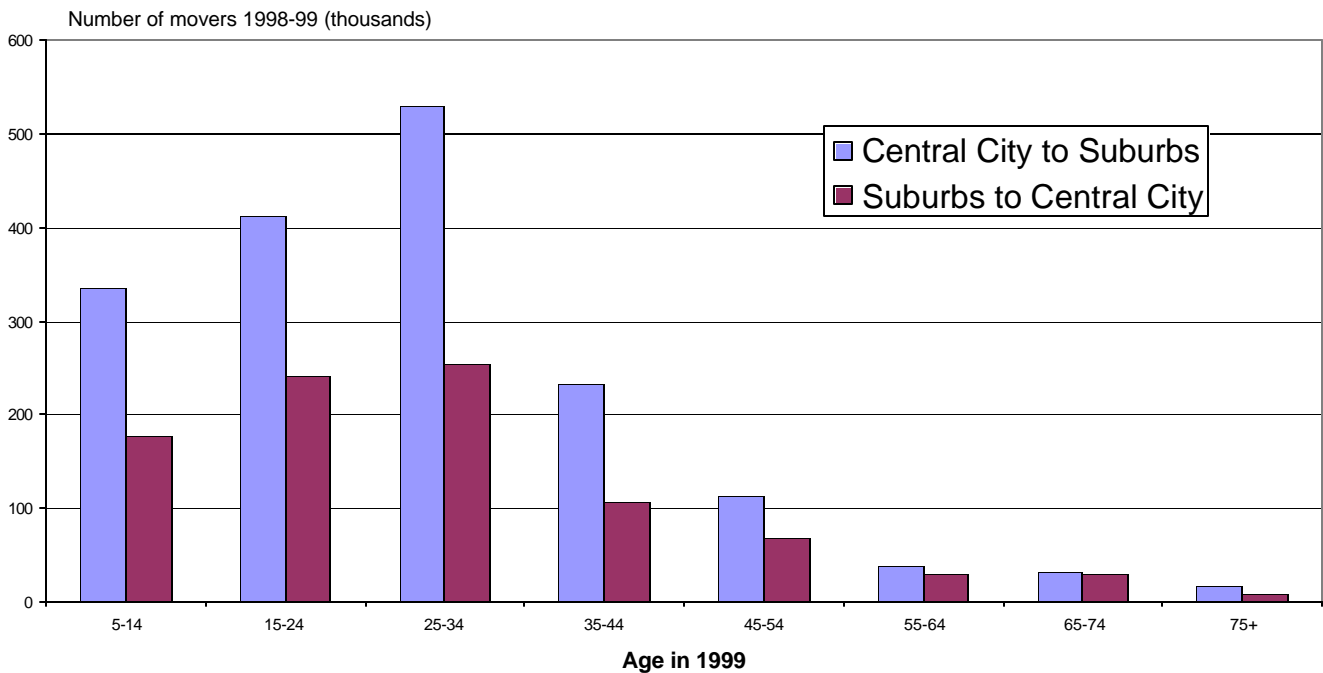


Figure 4b

Minorities



Source: <http://www.census.gov/population/socdemo/migration/p20-531/tab23.txt>

Figure 5: Share of Total and Owner Household Growth by Race/Hispanic Origin - 1995-2000

Figure 5a

Total Household Shares

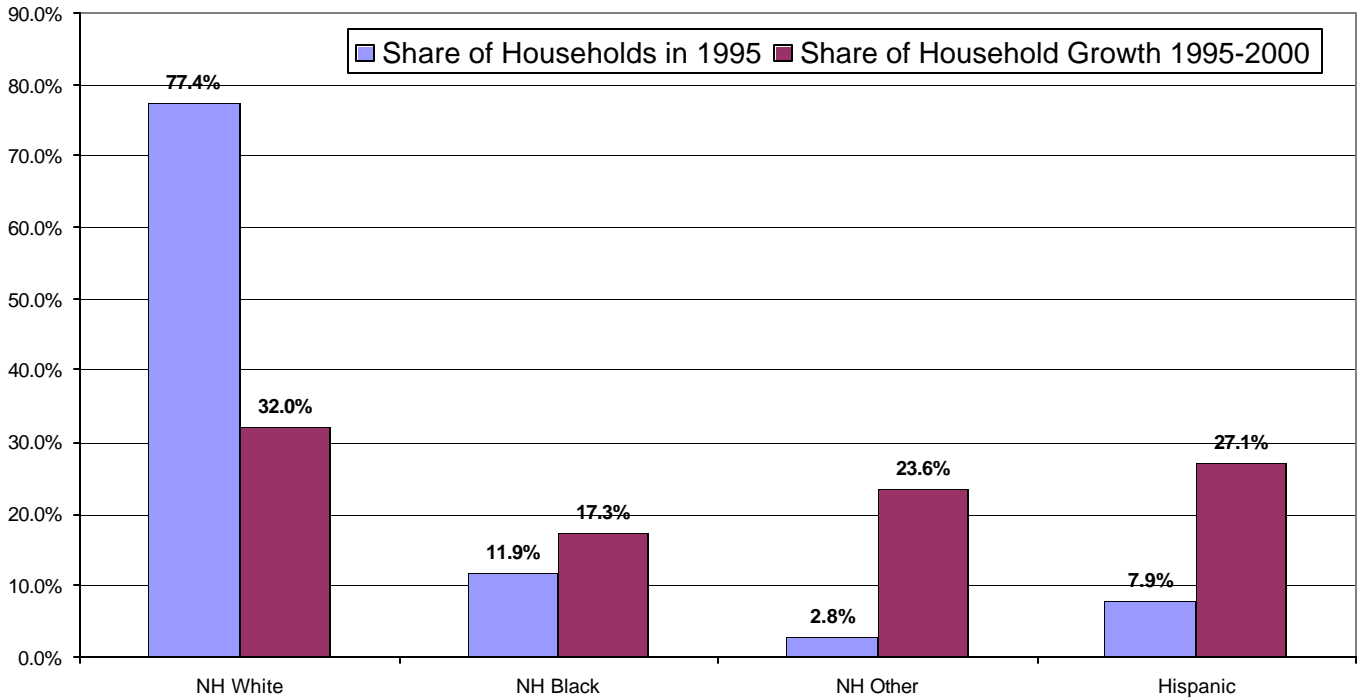
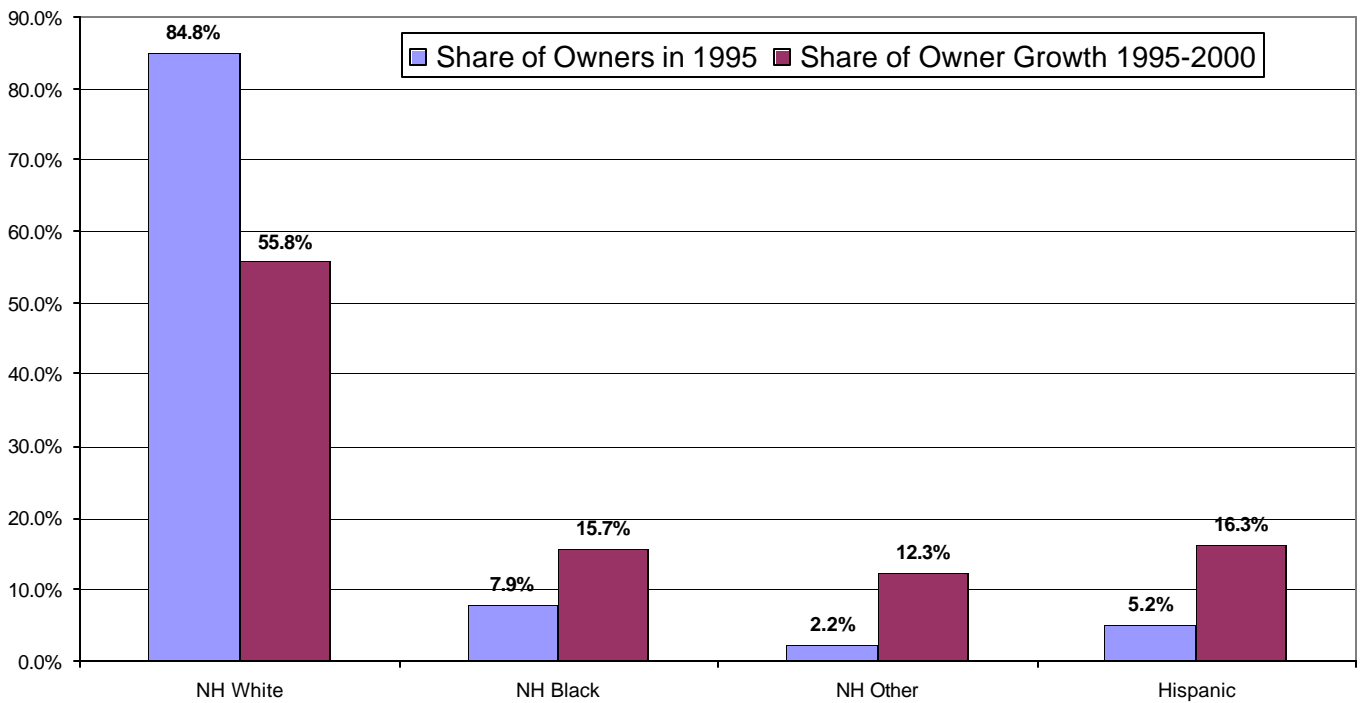


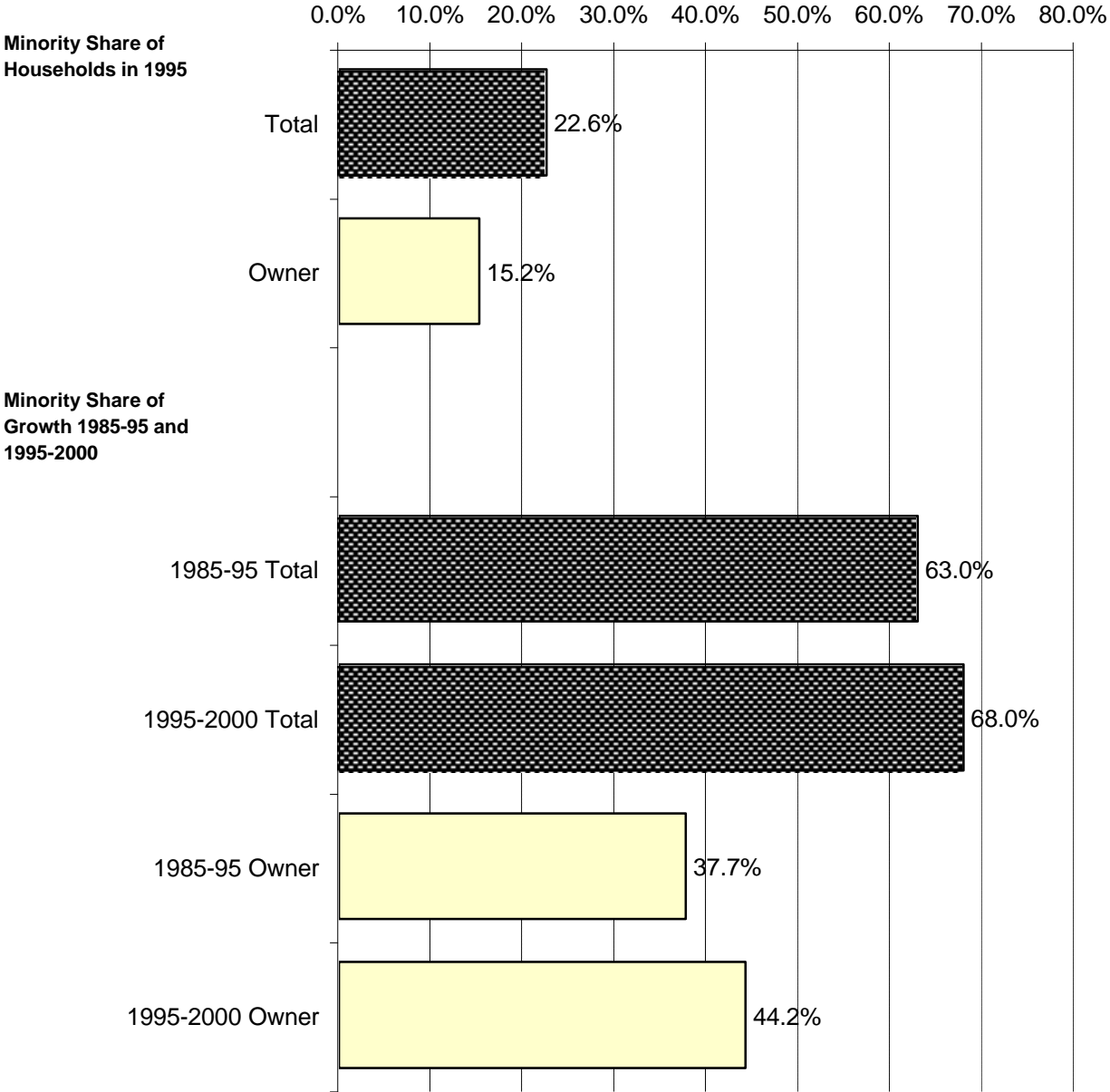
Figure 5b

Owner Shares



Source: average annual data from the monthly Current Population Survey as tabulated in the Housing Vacancy Survey release

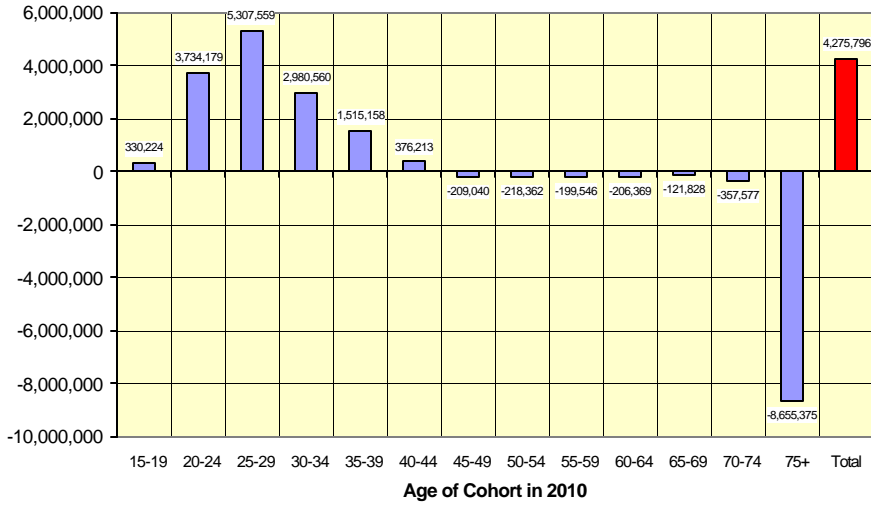
Figure 6
Minority Share - Household Stock/Growth
Total and Owner Households



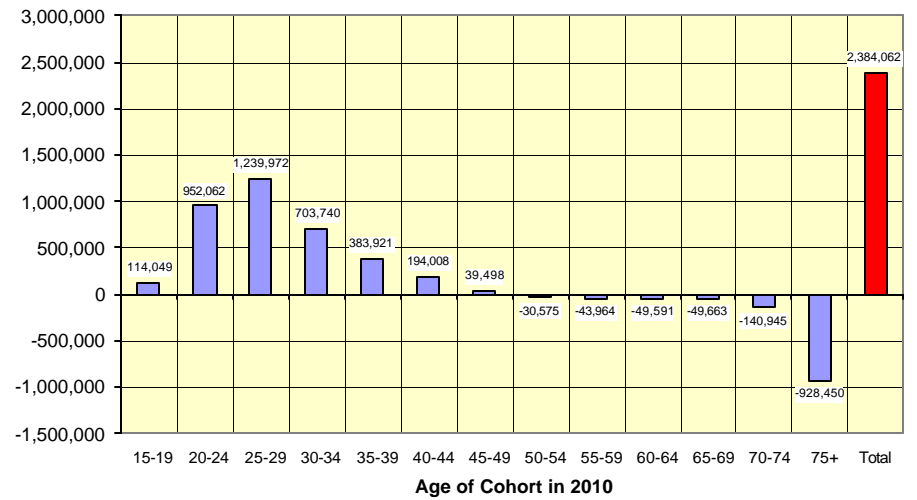
Source: 1985 and 1995 American Housing Survey and 1995 and 2000 Annual Housing Vacancy Survey

Figure 7: Cohort Contributions to Projected Household Growth 2000-2010: by Race/Hispanic Origin

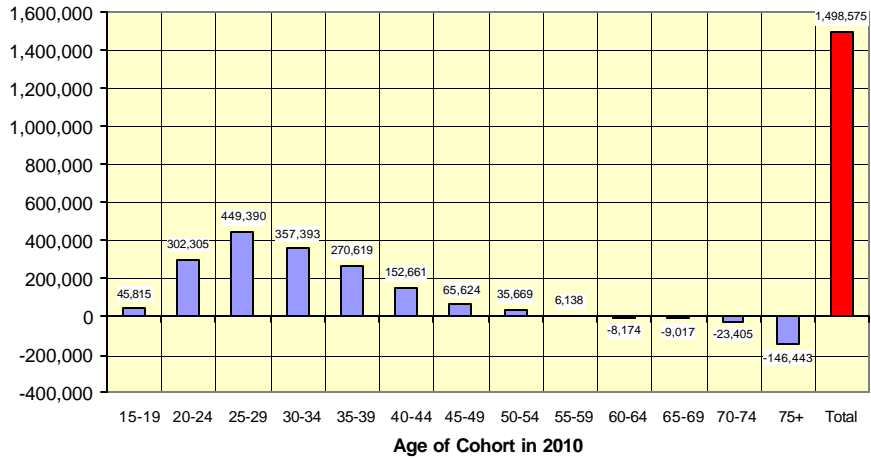
**Cohort Contributions to Household Growth: 2000-2010
Non-Hispanic Whites**



**Cohort Contributions to Household Growth: 2000-2010
Non-Hispanic Blacks**



**Cohort Contributions to Household Growth: 2000-2010
Non-Hispanic Asian/Others**



**Cohort Contributions to Household Growth: 2000-2010
Hispanics**

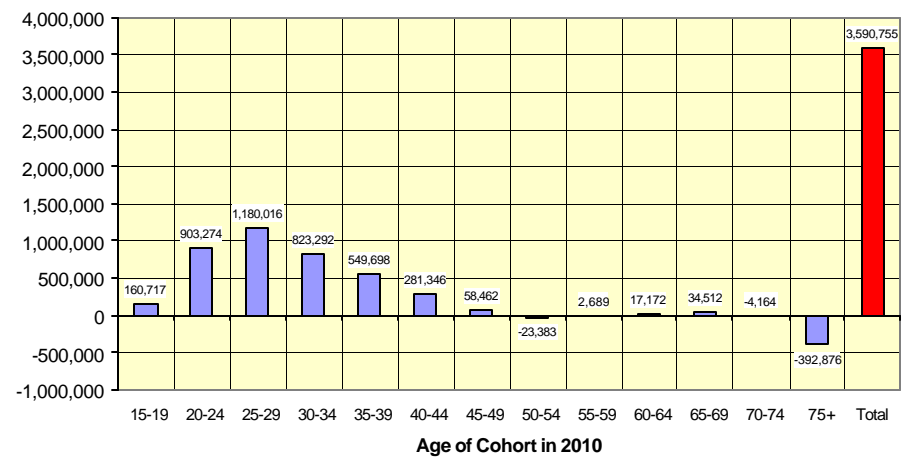
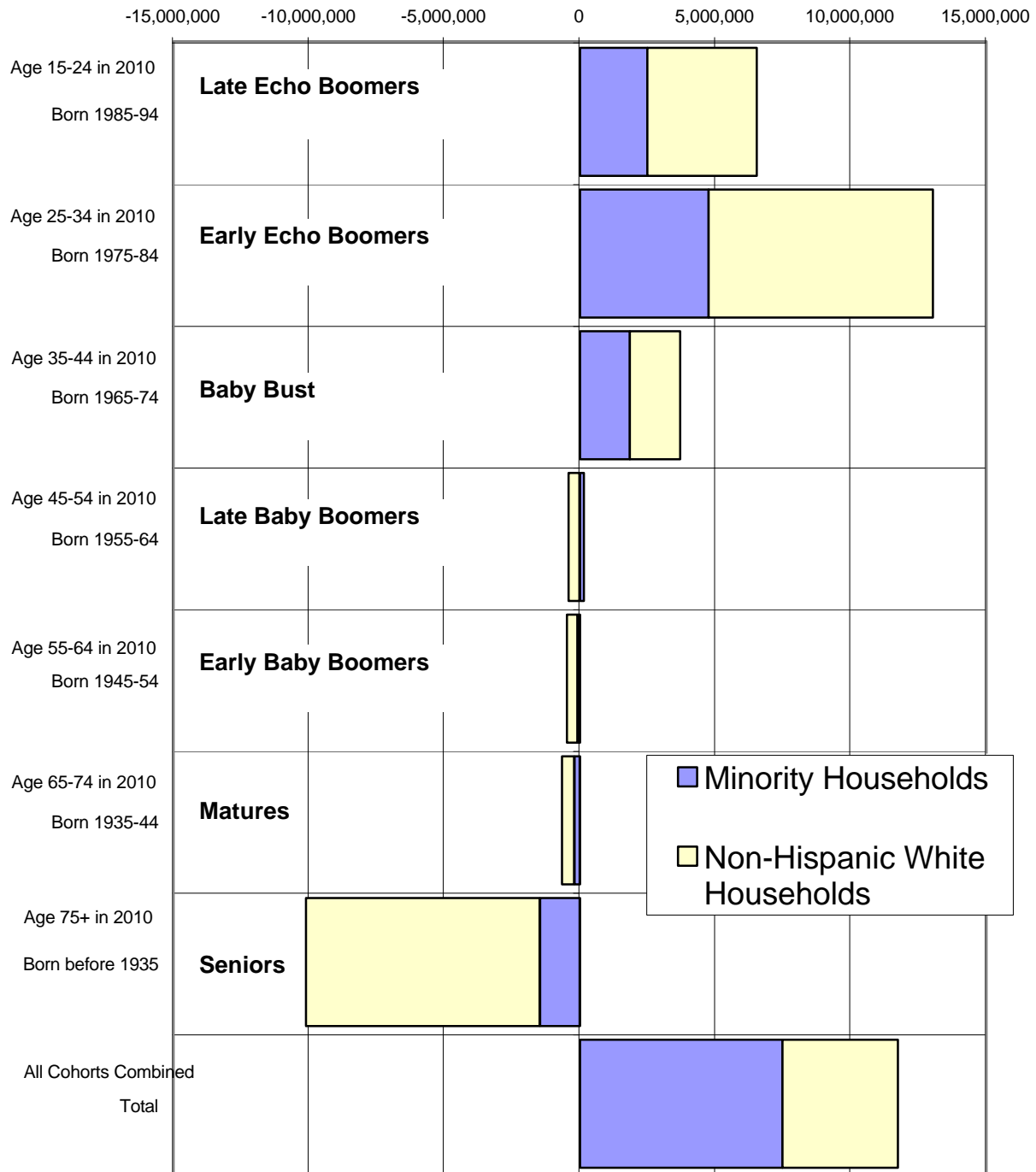
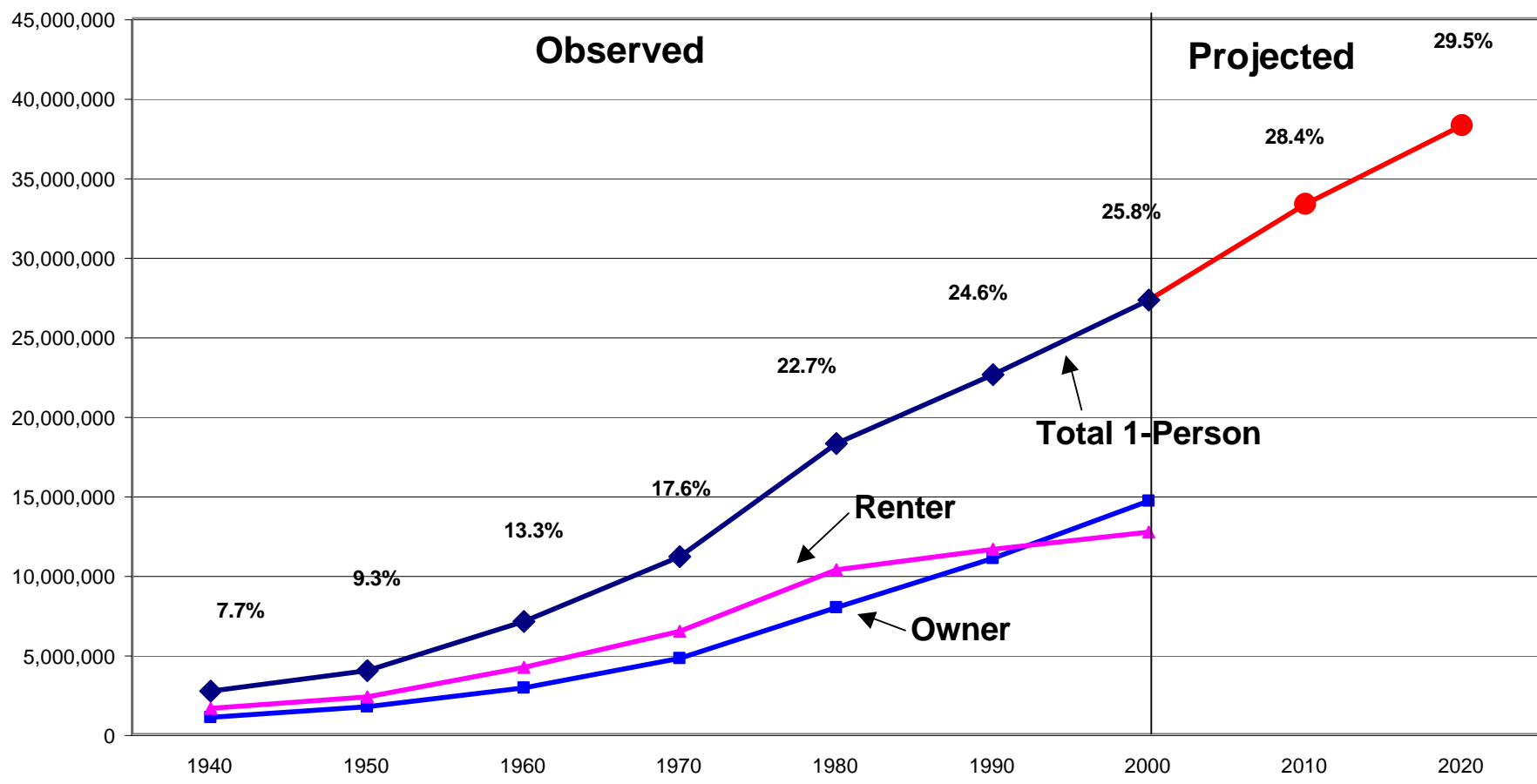


Figure 8
Cohort Contributions to Projected Household Growth 2000-2010
Non-Hispanic White and Minority Household Heads



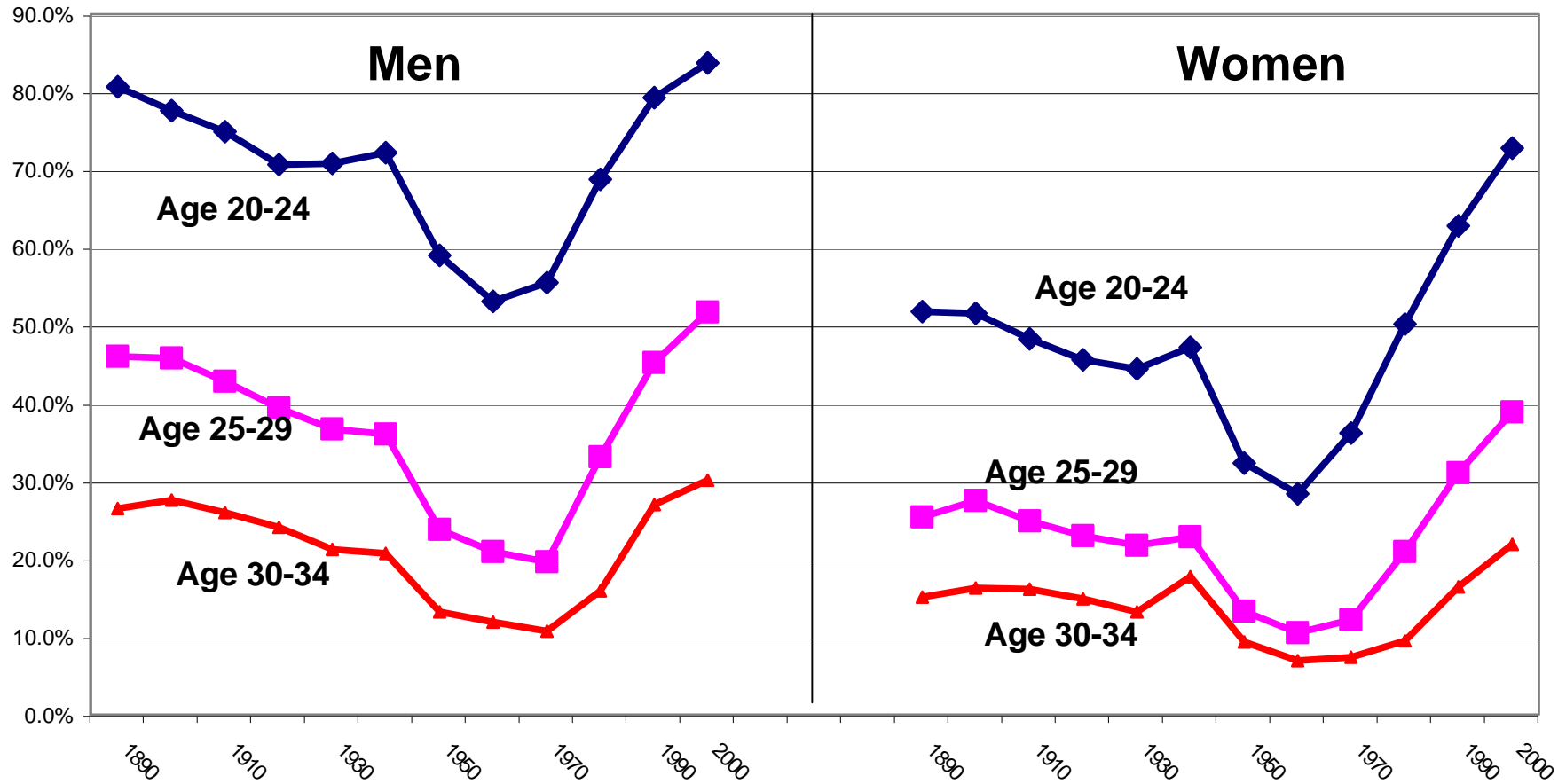
Source: George Masnick and Zhu Xiao Di, "Updating and Extending the Joint Center Household Projections Using New Census Bureau University Joint Center for Housing Studies Research Note N00-1, October 2000.

Figure 9
Number of 1-Person Households: 1940 to 2020
 (Percentages represent the share of total households that are 1-person)



Source: 1940-1990 decennial censuses, 2000 Housing Vacancy Survey and 2010-2020 Joint Center household projections.

Figure 10
Percentage Never Married: 1890-1998

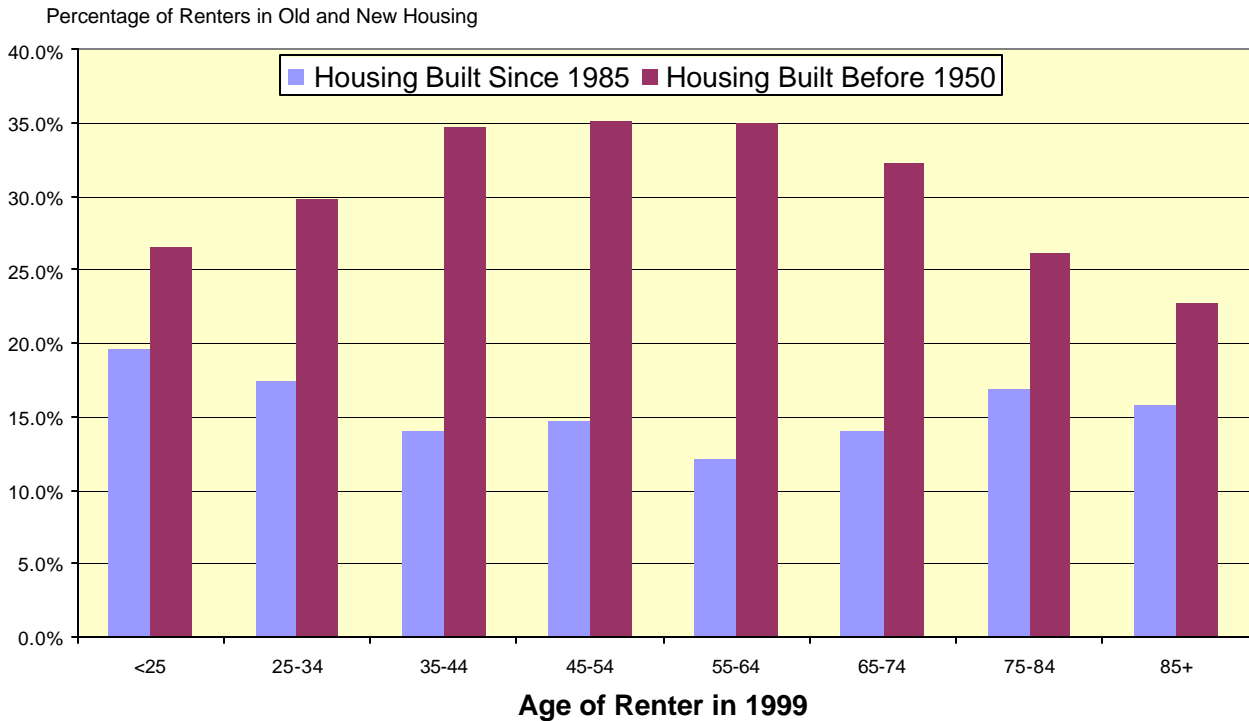


Source: U.S. Census Bureau, Decennial Census Data and *Current Population Reports*, "Marital Status and Living Arrangements: 2000," Internet Release Date: June 29, 2001.

Figure 11: Share of Renters and Owners in Old and New Housing by Age of Head - 1999

Figure 11a

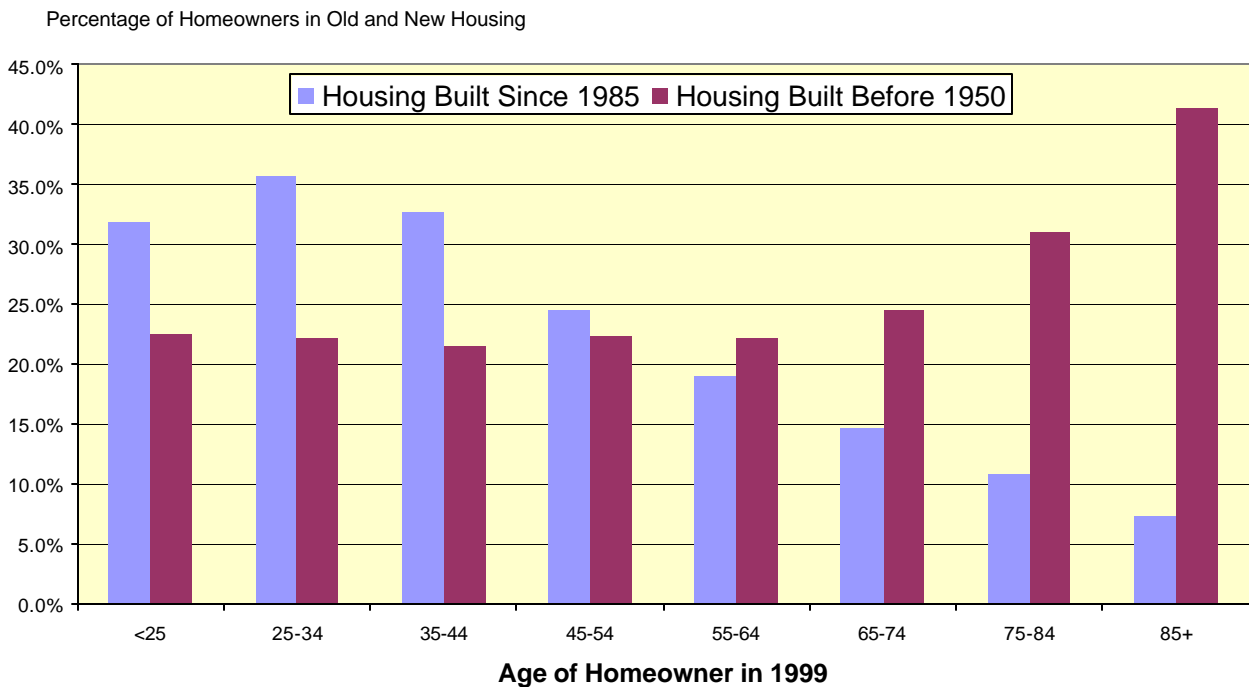
Renters Generally Live in Older Housing



Source: Joint Center tabulations of 1999 American Housing Survey

Figure 11b

Older Homeowners Generally Live in Older Homes While Younger Owners Live in Newer Units



Source: Joint Center tabulations of 1999 American Housing Survey

Figure 12: Unmarrieds Favor Older Owner Units While Younger Cohorts and Married Couples Favor Newer Units

Figure 12a

Housing Built Before 1950

Percent of Owners in 1999 Living in Housing Built Before 1950

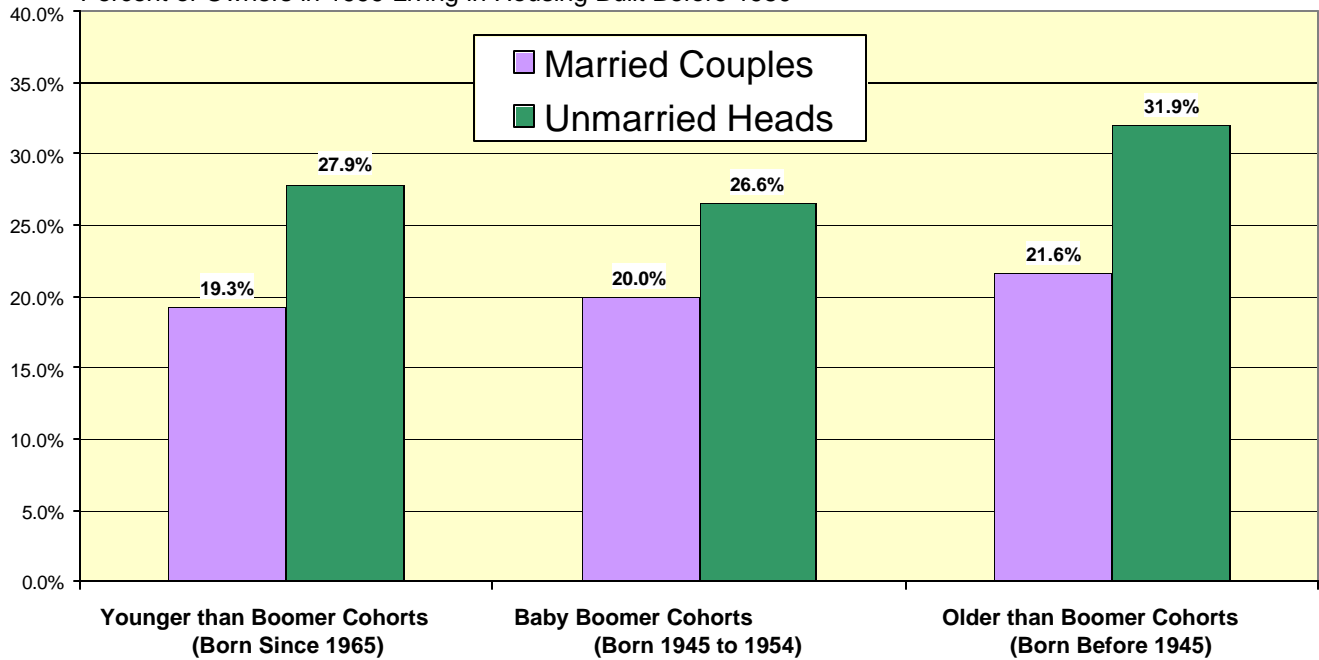
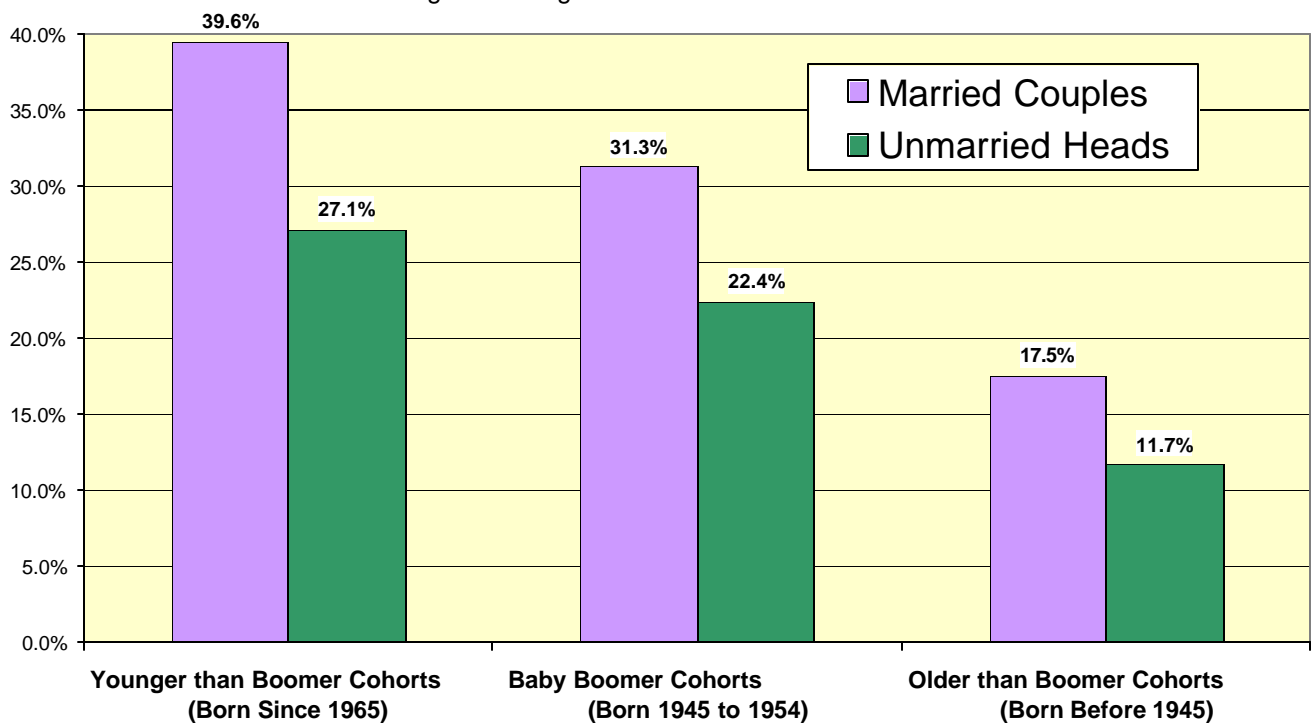


Figure 12b

Housing Built Since 1985

Percent of Owners in 1999 Living in Housing Built Since 1985

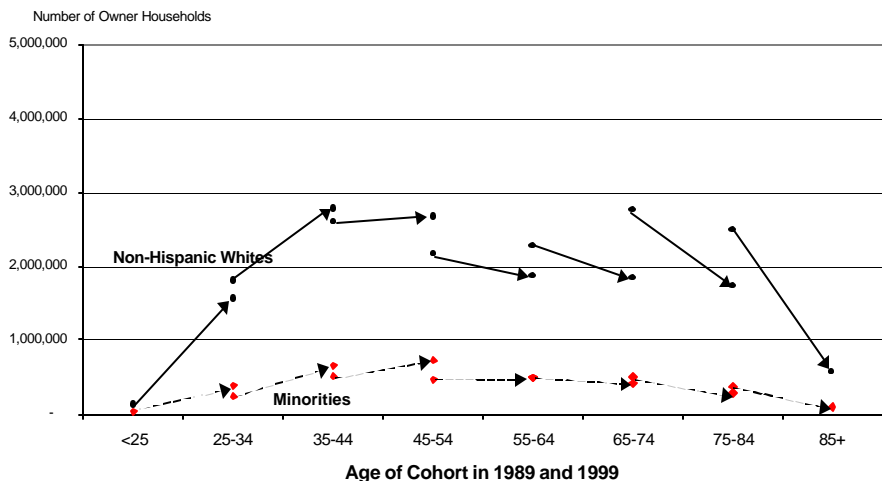


Source: Joint Center Tabulations of 1999 American Housing Survey

Figure 13: Changing Cohort Owner Occupancy of Different Vintage Housing - Minorities vs. Non-Hispanic Whites

Figure 13 a

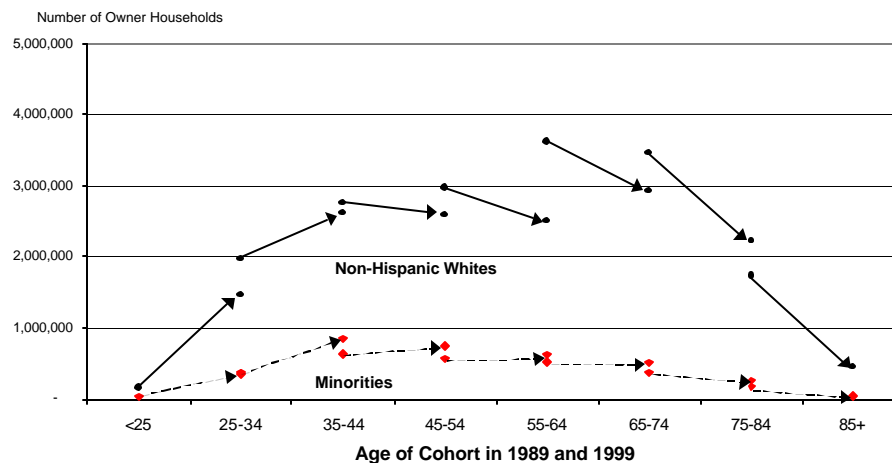
Housing Built Before 1950



Source: Joint Center tabulations of 1980 and 1999 American Housing Survey

Figure 13 b

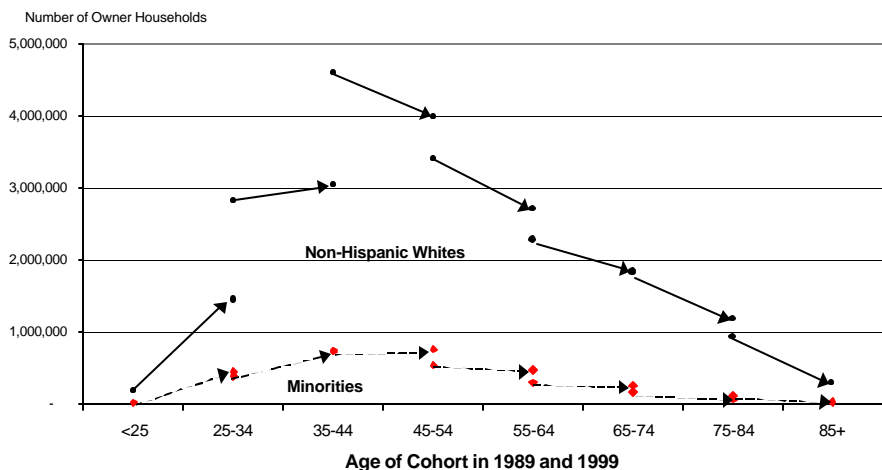
Housing Built 1950-69



Source: Joint Center tabulations of 1980 and 1999 American Housing Survey

Figure 13 c

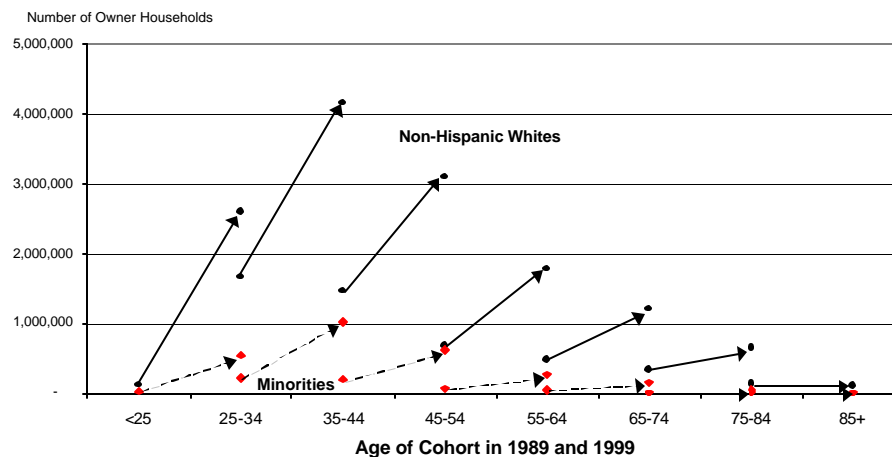
Housing Built 1970-84



Source: Joint Center tabulations of 1980 and 1999 American Housing Survey

Figure 13 d

Housing Built 1985+

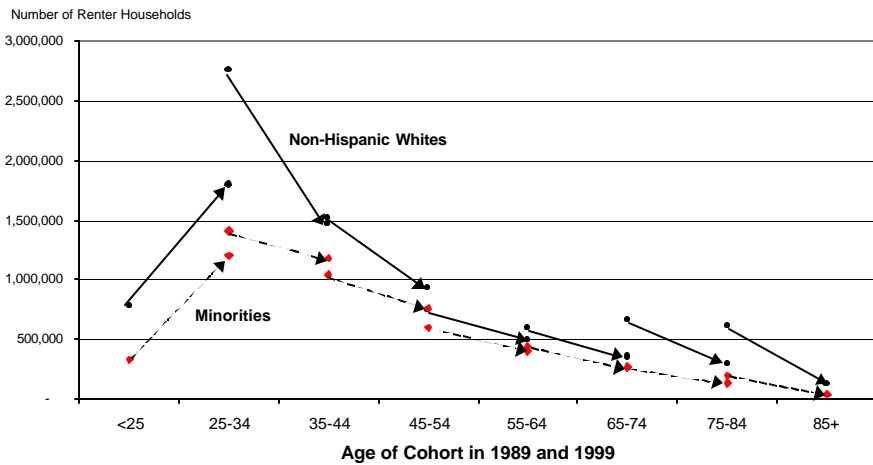


Source: Joint Center tabulations of 1980 and 1999 American Housing Survey

Figure 14: Changing Cohort Renter Occupancy of Different Vintage Housing - Minorities vs. Non-Hispanic Whites

Figure 14a

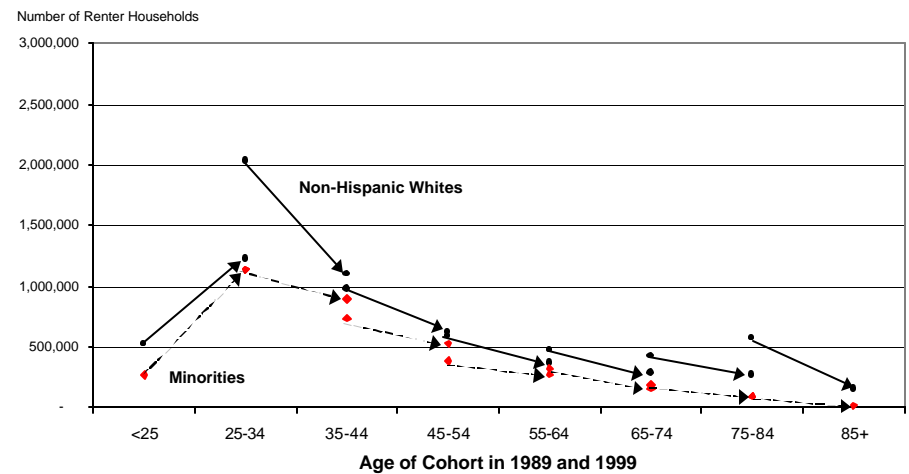
Housing Built Before 1950



Source: Joint Center tabulations of 1980 and 1999 American Housing Survey

Figure 14b

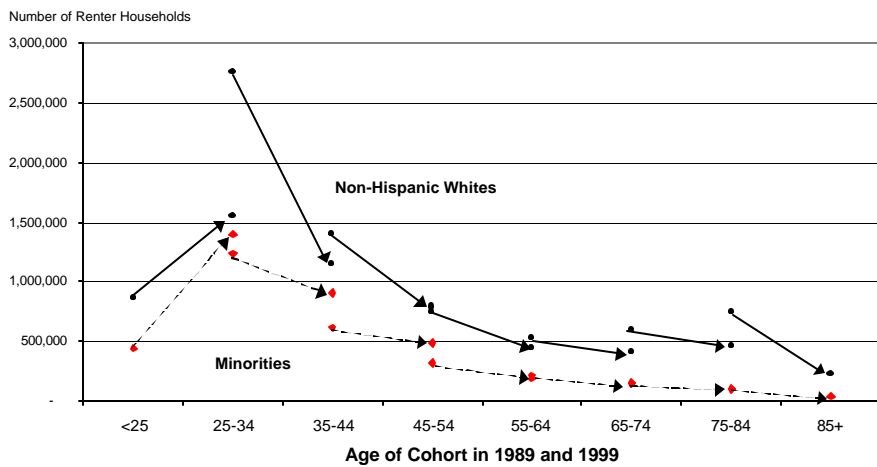
Housing Built 1950-1969



Source: Joint Center tabulations of 1980 and 1999 American Housing Survey

Figure 14c

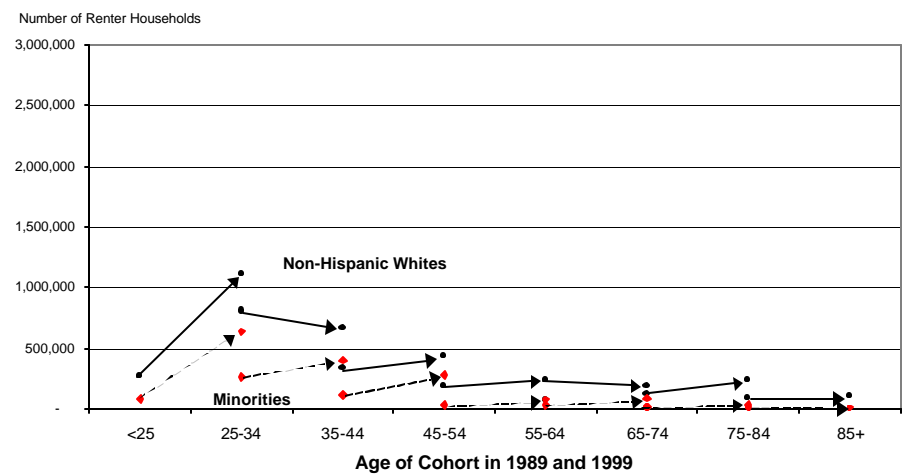
Housing Built 1970-1984



Source: Joint Center tabulations of 1980 and 1999 American Housing Survey

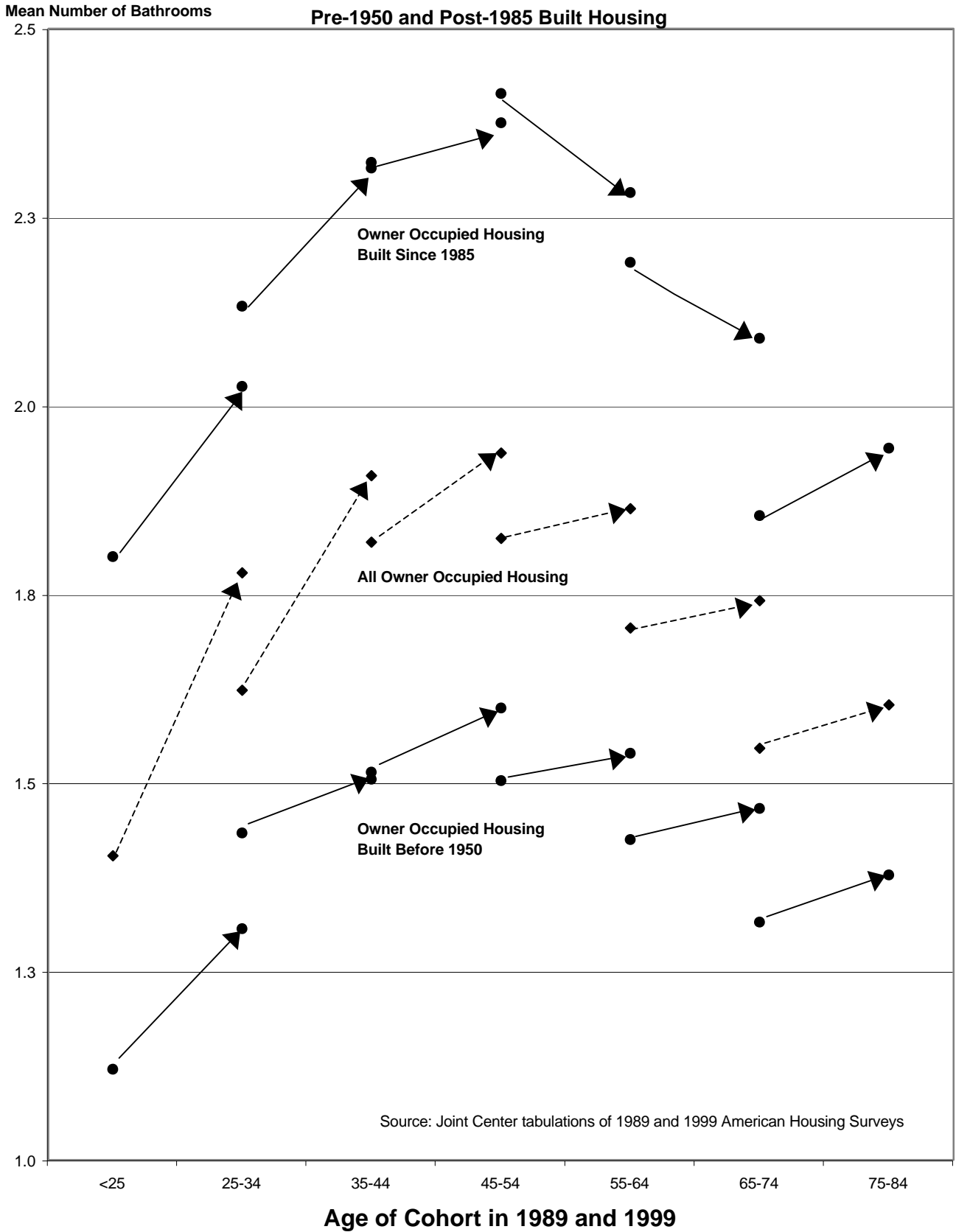
Figure 14d

Housing Built 1985+



Source: Joint Center tabulations of 1980 and 1999 American Housing Survey

Figure 15
Cohort Changes between 1989 and 1999
in Mean Number of Bathrooms : Owner Units
Pre-1950 and Post-1985 Built Housing



Appendix 1

Household Type by Age of Head, Units Built before 1950

	All Households					
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	329,780	933,518	1,263,298	325,592	1,156,137	1,481,729
25-34	2,855,989	3,345,489	6,201,478	2,013,246	2,921,341	4,934,587
35-44	3,082,583	2,576,948	5,659,531	3,027,839	3,042,407	6,070,246
45-54	2,248,069	1,724,914	3,972,983	2,685,781	2,405,230	5,091,011
55-64	2,099,200	1,708,794	3,807,994	1,756,588	1,508,810	3,265,398
65-74	1,853,124	2,316,124	4,169,248	1,294,991	1,564,180	2,859,171
75-84	902,312	1,918,571	2,820,883	738,177	1,703,032	2,441,209
85+	157,159	692,044	849,203	118,211	693,752	811,963
Total	13,528,216	15,216,402	28,744,618	11,960,425	14,994,889	26,955,314

	Owners					
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	86,282	71,395	157,677	90,596	138,364	228,960
25-34	1,399,617	633,537	2,033,154	1,154,934	780,980	1,935,914
35-44	2,163,521	945,833	3,109,354	2,165,305	1,258,112	3,423,417
45-54	1,824,699	808,285	2,632,984	2,192,137	1,205,166	3,397,303
55-64	1,821,099	948,768	2,769,867	1,505,567	865,705	2,371,272
65-74	1,639,247	1,615,118	3,254,365	1,133,342	1,107,727	2,241,069
75-84	806,257	1,409,265	2,215,522	672,209	1,344,467	2,016,676
85+	138,162	509,975	648,137	106,961	547,716	654,677
Total	9,878,884	6,942,176	16,821,060	9,021,051	7,248,237	16,269,288

	Renters					
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	243,498	862,123	1,105,621	234,996	1,017,773	1,252,769
25-34	1,456,372	2,711,952	4,168,324	858,312	2,140,361	2,998,673
35-44	919,062	1,631,115	2,550,177	862,534	1,784,295	2,646,829
45-54	423,370	916,629	1,339,999	493,644	1,200,064	1,693,708
55-64	278,101	760,026	1,038,127	251,021	643,105	894,126
65-74	213,877	701,006	914,883	161,649	456,453	618,102
75-84	96,055	509,306	605,361	65,968	358,565	424,533
85+	18,997	182,069	201,066	11,250	146,036	157,286
Total	3,649,332	8,274,226	11,923,558	2,939,374	7,746,652	10,686,026

Source: Joint Center Tabulations of 1989 and 1999 American Housing Survey

Appendix 1, continued

Household Type by Age of Head, Units Built 1950-69

	All Households					
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	301,484	684,221	985,705	332,520	921,131	1,253,651
25-34	2,987,231	2,514,906	5,502,137	2,059,085	2,144,533	4,203,618
35-44	3,165,059	2,065,557	5,230,616	3,069,208	2,275,728	5,344,936
45-54	2,918,156	1,579,477	4,497,633	2,571,241	1,921,362	4,492,603
55-64	3,096,599	1,794,568	4,891,167	2,306,194	1,525,605	3,831,799
65-74	2,590,312	1,814,297	4,404,609	2,134,045	1,765,405	3,899,450
75-84	811,657	1,304,873	2,116,530	1,236,450	1,595,133	2,831,583
85+	94,599	357,971	452,570	152,461	512,830	665,291
Total	15,965,097	12,115,870	28,080,967	13,861,204	12,661,727	26,522,931

	Owners					
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	78,474	107,823	186,297	116,666	108,507	225,173
25-34	1,733,905	600,311	2,334,216	1,248,975	586,402	1,835,377
35-44	2,495,920	898,707	3,394,627	2,392,248	1,077,480	3,469,728
45-54	2,611,065	918,086	3,529,151	2,202,852	1,139,869	3,342,721
55-64	2,908,251	1,228,783	4,137,034	2,097,083	1,042,093	3,139,176
65-74	2,421,135	1,406,149	3,827,284	2,016,929	1,412,225	3,429,154
75-84	715,783	883,248	1,599,031	1,170,279	1,299,125	2,469,404
85+	74,683	231,695	306,378	130,015	361,232	491,247
Total	13,039,216	6,274,802	19,314,018	11,375,047	7,026,933	18,401,980

	Renters					
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	223,010	576,398	799,408	215,854	812,624	1,028,478
25-34	1,253,326	1,914,595	3,167,921	810,110	1,558,131	2,368,241
35-44	669,139	1,166,850	1,835,989	676,960	1,198,248	1,875,208
45-54	307,091	661,391	968,482	368,389	781,493	1,149,882
55-64	188,348	565,785	754,133	209,111	483,512	692,623
65-74	169,177	408,148	577,325	117,116	353,180	470,296
75-84	95,874	421,625	517,499	66,171	296,008	362,179
85+	19,916	126,276	146,192	22,446	151,598	174,044
Total	2,925,881	5,841,068	8,766,949	2,486,157	5,634,794	8,120,951

Source: Joint Center Tabulations of 1989 and 1999 American Housing Survey

Appendix 1, continued

Household Type by Age of Head, Units Built 1970-1984

All Households						
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	469,745	1,029,742	1,499,487	377,214	1,377,049	1,754,263
25-34	3,945,224	3,328,376	7,273,600	2,243,428	2,542,288	4,785,716
35-44	4,901,786	2,472,681	7,374,467	3,313,547	2,523,273	5,836,820
45-54	3,354,724	1,663,656	5,018,380	3,683,669	2,347,554	6,031,223
55-64	2,080,112	1,225,981	3,306,093	2,454,737	1,394,535	3,849,272
65-74	1,425,916	1,305,400	2,731,316	1,348,568	1,324,693	2,673,261
75-84	520,177	983,445	1,503,622	685,706	1,178,870	1,864,576
85+	60,159	281,422	341,581	119,508	453,769	573,277
Total	16,757,843	12,290,703	29,048,546	14,226,377	13,142,031	27,368,408

Owners						
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	92,569	106,770	199,339	92,704	147,659	240,363
25-34	2,431,616	843,232	3,274,848	1,204,239	642,875	1,847,114
35-44	4,200,294	1,158,261	5,358,555	2,674,350	1,116,445	3,790,795
45-54	2,990,191	967,303	3,957,494	3,363,230	1,394,149	4,757,379
55-64	1,857,199	728,852	2,586,051	2,255,431	936,867	3,192,298
65-74	1,295,404	700,374	1,995,778	1,264,864	852,294	2,117,158
75-84	416,506	446,205	862,711	607,146	696,073	1,303,219
85+	44,536	97,650	142,186	97,631	221,951	319,582
Total	13,328,315	5,048,647	18,376,962	11,559,595	6,008,313	17,567,908

Renters						
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	377,176	922,972	1,300,148	284,510	1,229,390	1,513,900
25-34	1,513,608	2,485,144	3,998,752	1,039,189	1,899,413	2,938,602
35-44	701,492	1,314,420	2,015,912	639,197	1,406,828	2,046,025
45-54	364,533	696,353	1,060,886	320,439	953,405	1,273,844
55-64	222,913	497,129	720,042	199,306	457,668	656,974
65-74	130,512	605,026	735,538	83,704	472,399	556,103
75-84	103,671	537,240	640,911	78,560	482,797	561,357
85+	15,623	183,772	199,395	21,877	231,818	253,695
Total	3,429,528	7,242,056	10,671,584	2,666,782	7,133,718	9,800,500

Source: Joint Center Tabulations of 1989 and 1999 American Housing Survey

Appendix 1, continued

Household Type by Age of Head, Units Built 1985+

All Households						
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	170,872	314,344	485,216	381,932	862,930	1,244,862
25-34	1,866,637	1,086,101	2,952,738	2,929,526	1,941,751	4,871,277
35-44	1,467,749	632,172	2,099,921	4,367,937	1,884,671	6,252,608
45-54	649,295	303,647	952,942	3,047,359	1,385,535	4,432,894
55-64	419,661	187,904	607,565	1,592,027	759,085	2,351,112
65-74	246,900	229,009	475,909	969,626	639,957	1,609,583
75-84	69,647	116,540	186,187	414,569	554,872	969,441
85+	20,591	28,177	48,768	49,487	174,719	224,206
Total	4,911,352	2,897,894	7,809,246	13,752,463	8,203,520	21,955,983

Owners						
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	83,101	55,027	138,128	202,980	121,420	324,400
25-34	1,473,296	409,263	1,882,559	2,355,444	772,616	3,128,060
35-44	1,307,868	349,575	1,657,443	3,995,094	1,188,620	5,183,714
45-54	581,424	159,822	741,246	2,834,656	890,935	3,725,591
55-64	383,087	126,631	509,718	1,503,742	536,771	2,040,513
65-74	200,276	139,443	339,719	877,804	464,670	1,342,474
75-84	60,800	47,993	108,793	355,804	340,715	696,519
85+	17,257	9,311	26,568	40,966	74,190	115,156
Total	4,107,109	1,297,065	5,404,174	12,166,490	4,389,937	16,556,427

Renters						
	1989			1999		
	Married Couples	All Others	Total	Married Couples	All Others	Total
<25	87,771	259,317	347,088	178,952	741,510	920,462
25-34	393,341	676,838	1,070,179	574,082	1,169,135	1,743,217
35-44	159,881	282,597	442,478	372,843	696,051	1,068,894
45-54	67,871	143,825	211,696	212,703	494,600	707,303
55-64	36,574	61,273	97,847	88,285	222,314	310,599
65-74	46,624	89,566	136,190	91,822	175,287	267,109
75-84	8,847	68,547	77,394	58,765	214,157	272,922
85+	3,334	18,866	22,200	8,521	100,529	109,050
Total	804,243	1,600,829	2,405,072	1,585,973	3,813,583	5,399,556

Source: Joint Center Tabulations of 1989 and 1999 American Housing Survey

Appendix 2

Race by Age of Head, Units Built before 1950

All Households						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	904,006	359,292	1,263,298	931,794	549,935	1,481,729
25-34	4,557,364	1,644,114	6,201,478	3,352,368	1,582,219	4,934,587
35-44	4,116,054	1,543,477	5,659,531	4,236,134	1,834,112	6,070,246
45-54	2,909,350	1,063,633	3,972,983	3,604,154	1,486,857	5,091,011
55-64	2,872,251	935,743	3,807,994	2,367,826	897,572	3,265,398
65-74	3,410,643	758,605	4,169,248	2,184,240	674,931	2,859,171
75-84	2,359,402	461,481	2,820,883	2,023,784	417,425	2,441,209
85+	744,965	104,238	849,203	683,837	128,126	811,963
Total	21,874,035	6,870,583	28,744,618	19,384,137	7,571,177	26,955,314

Owners						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	125,412	32,265	157,677	163,064	65,896	228,960
25-34	1,796,965	236,189	2,033,154	1,557,849	378,065	1,935,914
35-44	2,604,067	505,287	3,109,354	2,769,614	653,803	3,423,417
45-54	2,165,526	467,458	2,632,984	2,667,643	729,660	3,397,303
55-64	2,272,616	497,251	2,769,867	1,874,044	497,228	2,371,272
65-74	2,755,140	499,225	3,254,365	1,832,064	409,005	2,241,069
75-84	1,903,204	312,318	2,215,522	1,734,173	282,503	2,016,676
85+	590,621	57,516	648,137	562,685	91,992	654,677
Total	14,213,551	2,607,509	16,821,060	13,161,136	3,108,152	16,269,288

Renters						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	778,594	327,027	1,105,621	768,730	484,039	1,252,769
25-34	2,760,399	1,407,925	4,168,324	1,794,519	1,204,154	2,998,673
35-44	1,511,987	1,038,190	2,550,177	1,466,520	1,180,309	2,646,829
45-54	743,824	596,175	1,339,999	936,511	757,197	1,693,708
55-64	599,635	438,492	1,038,127	493,782	400,344	894,126
65-74	655,503	259,380	914,883	352,176	265,926	618,102
75-84	456,198	149,163	605,361	289,611	134,922	424,533
85+	154,344	46,722	201,066	121,152	36,134	157,286
Total	7,660,484	4,263,074	11,923,558	6,223,001	4,463,025	10,686,026

Source: Joint Center Tabulations of 1989 and 1999 American Housing Survey

Appendix 2, continued

Race by Age of Head, Units Built 1950-69

All Households						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	681,546	304,159	985,705	754,722	498,929	1,253,651
25-34	4,009,854	1,492,283	5,502,137	2,687,350	1,516,268	4,203,618
35-44	3,865,176	1,365,440	5,230,616	3,596,164	1,748,772	5,344,936
45-54	3,549,841	947,792	4,497,633	3,214,352	1,278,251	4,492,603
55-64	4,092,791	798,376	4,891,167	2,879,454	952,345	3,831,799
65-74	3,875,858	528,751	4,404,609	3,205,406	694,044	3,899,450
75-84	1,904,749	211,781	2,116,530	2,484,793	346,790	2,831,583
85+	397,239	55,331	452,570	605,531	59,760	665,291
Total	22,377,054	5,703,913	28,080,967	19,427,772	7,095,159	26,522,931

Owners						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	150,419	35,878	186,297	187,568	37,605	225,173
25-34	1,977,308	356,908	2,334,216	1,461,197	374,180	1,835,377
35-44	2,763,173	631,454	3,394,627	2,619,470	850,258	3,469,728
45-54	2,964,449	564,702	3,529,151	2,594,767	747,954	3,342,721
55-64	3,614,498	522,536	4,137,034	2,510,199	628,977	3,139,176
65-74	3,455,884	371,400	3,827,284	2,920,931	508,223	3,429,154
75-84	1,467,967	131,064	1,599,031	2,215,362	254,042	2,469,404
85+	264,024	42,354	306,378	449,868	41,379	491,247
Total	16,657,722	2,656,296	19,314,018	14,959,362	3,442,618	18,401,980

Renters						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	531,127	268,281	799,408	567,154	461,324	1,028,478
25-34	2,032,546	1,135,375	3,167,921	1,226,153	1,142,088	2,368,241
35-44	1,102,003	733,986	1,835,989	976,694	898,514	1,875,208
45-54	585,392	383,090	968,482	619,585	530,297	1,149,882
55-64	478,293	275,840	754,133	369,255	323,368	692,623
65-74	419,974	157,351	577,325	284,475	185,821	470,296
75-84	436,782	80,717	517,499	269,431	92,748	362,179
85+	133,215	12,977	146,192	155,663	18,381	174,044
Total	5,719,332	3,047,617	8,766,949	4,468,410	3,652,541	8,120,951

Source: Joint Center Tabulations of 1989 and 1999 American Housing Survey

Appendix 2, continued

Race by Age of Head, Units Built 1970-1984

All Households						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	1,045,151	454,336	1,499,487	1,088,728	665,535	1,754,263
25-34	5,588,244	1,685,356	7,273,600	2,997,424	1,788,292	4,785,716
35-44	6,017,831	1,356,636	7,374,467	4,199,423	1,637,397	5,836,820
45-54	4,164,563	853,817	5,018,380	4,785,374	1,245,849	6,031,223
55-64	2,815,847	490,246	3,306,093	3,162,539	686,733	3,849,272
65-74	2,417,195	314,121	2,731,316	2,254,582	418,679	2,673,261
75-84	1,375,290	128,332	1,503,622	1,643,040	221,536	1,864,576
85+	303,458	38,123	341,581	511,452	61,825	573,277
Total	23,727,579	5,320,967	29,048,546	20,642,562	6,725,846	27,368,408

Owners						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	181,190	18,149	199,339	197,189	43,174	240,363
25-34	2,825,642	449,206	3,274,848	1,451,791	395,323	1,847,114
35-44	4,613,422	745,133	5,358,555	3,058,223	732,572	3,790,795
45-54	3,419,527	537,967	3,957,494	3,997,099	760,280	4,757,379
55-64	2,284,571	301,480	2,586,051	2,713,532	478,766	3,192,298
65-74	1,826,511	169,267	1,995,778	1,848,811	268,347	2,117,158
75-84	806,242	56,469	862,711	1,185,911	117,308	1,303,219
85+	129,810	12,376	142,186	292,698	26,884	319,582
Total	16,086,915	2,290,047	18,376,962	14,745,254	2,822,654	17,567,908

Renters						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	863,961	436,187	1,300,148	891,539	622,361	1,513,900
25-34	2,762,602	1,236,150	3,998,752	1,545,633	1,392,969	2,938,602
35-44	1,404,409	611,503	2,015,912	1,141,200	904,825	2,046,025
45-54	745,036	315,850	1,060,886	788,275	485,569	1,273,844
55-64	531,276	188,766	720,042	449,007	207,967	656,974
65-74	590,684	144,854	735,538	405,771	150,332	556,103
75-84	569,048	71,863	640,911	457,129	104,228	561,357
85+	173,648	25,747	199,395	218,754	34,941	253,695
Total	7,640,664	3,030,920	10,671,584	5,897,308	3,903,192	9,800,500

Source: Joint Center Tabulations of 1989 and 1999 American Housing Survey

Appendix 2, continued

Race by Age of Head, Units Built 1985+

All Households						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	380,530	104,686	485,216	877,162	367,700	1,244,862
25-34	2,473,834	478,904	2,952,738	3,699,796	1,171,481	4,871,277
35-44	1,792,057	307,864	2,099,921	4,834,521	1,418,087	6,252,608
45-54	860,274	92,668	952,942	3,534,651	898,243	4,432,894
55-64	538,352	69,213	607,565	2,015,054	336,058	2,351,112
65-74	450,063	25,846	475,909	1,382,774	226,809	1,609,583
75-84	178,130	8,057	186,187	886,584	82,857	969,441
85+	41,839	6,929	48,768	205,680	18,526	224,206
Total	6,715,079	1,094,167	7,809,246	17,436,222	4,519,761	21,955,983

Owners						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	114,587	23,541	138,128	256,954	67,446	324,400
25-34	1,665,965	216,594	1,882,559	2,593,571	534,489	3,128,060
35-44	1,463,489	193,954	1,657,443	4,165,399	1,018,315	5,183,714
45-54	676,770	64,476	741,246	3,107,022	618,569	3,725,591
55-64	469,581	40,137	509,718	1,777,564	262,949	2,040,513
65-74	328,313	11,406	339,719	1,198,650	143,824	1,342,474
75-84	108,793	-	108,793	646,654	49,865	696,519
85+	23,632	2,936	26,568	104,216	10,940	115,156
Total	4,851,130	553,044	5,404,174	13,850,030	2,706,397	16,556,427

Renters						
1989			1999			
	Non-Hispanic White	All Others	Total	Non-Hispanic White	All Others	Total
<25	265,943	81,145	347,088	620,208	300,254	920,462
25-34	807,869	262,310	1,070,179	1,106,225	636,992	1,743,217
35-44	328,568	113,910	442,478	669,122	399,772	1,068,894
45-54	183,504	28,192	211,696	427,629	279,674	707,303
55-64	68,771	29,076	97,847	237,490	73,109	310,599
65-74	121,750	14,440	136,190	184,124	82,985	267,109
75-84	69,337	8,057	77,394	239,930	32,992	272,922
85+	18,207	3,993	22,200	101,464	7,586	109,050
Total	1,863,949	541,123	2,405,072	3,586,192	1,813,364	5,399,556

Source: Joint Center Tabulations of 1989 and 1999 American Housing Survey