

## **Emerging Cohort Trends in Housing Debt and Home Equity**

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Abstract – **Emerging Cohort Trends in Housing Debt and Home Equity** by George S. Masnick, Zhu Xiao Di and Eric S. Belsky

Several roles that housing plays in the household economics of homeowners have begun to fundamentally change during the past decade. Cohorts approaching retirement now and in the future will typically carry substantial mortgage debt into old age, a trend in marked contrast to cohorts that preceded them in the age structure. While married couples have the higher housing debt, unmarried owners lag married couples in home equity accumulation. In the future, elderly cohorts facing a downturn in annual income will be more motivated to tap into their home equity, both by borrowing against equity for those who stay in their homes and by liquidating some equity and downsizing for those who choose to move. Unmarried owners will have fewer options to do either. Rising mortgage debt in old age will also likely reinforce the recent trend toward increasing labor force participation beyond the age of eligibility for social security.

## **Introduction**

Homeownership plays a pivotal role in the economic well being of households and families. Housing costs are by far the largest drain on the average household budget, accounting for about 42 percent of total household expenditures according to the Consumer Price Index for All Urban Consumers (CPI-U). This is more than twice the amount households typically spend on the next largest items in the household budget (transportation =17 percent, and food and beverages =15 percent).<sup>1</sup>

Though renters tend to spend larger shares of income on housing than homeowners, who often lock into payments based on past home prices, the typical homeowner also dedicates a great deal of income to housing-related expenditures. But for most homeowners, a significant part of overall housing costs also represent a form of savings and long-term investment. Homeownership builds household wealth as the monthly mortgage payment pays off part of the principal and builds home equity. Additional equity gains are realized when housing values appreciate. Long-term fixed rate mortgages greatly help to stabilize the housing component of the household budget over the life course, and when the mortgage is paid off, monthly household expenses are greatly reduced. For taxpayers that itemize their deductions, mortgage payments are deductible and thereby help to reduce annual income taxes. Furthermore, home equity can be tapped for emergency expenses or drawn upon late in life for routine expenditures not covered by income. Finally, accumulated housing wealth is typically the largest part of inheritances that are passed down to the next generation.

Several of the roles that housing plays in the finances of homeowners have recently begun to change in fundamental ways. The amount of mortgage debt carried by homeowners later in life has been increasing, and the share of homeowners having completely paid off their mortgage debt as they approach retirement has been declining. What was widely perceived by previous generations as an illiquid asset is increasingly

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<sup>1</sup> Components of the CPI are available on the Bureau of Labor Statistics home page. <http://www.bls.gov/cpi/home.htm> or can be found at [ftp://ftp.bls.gov/pub/special.requests/cpi/cpieri01-02\\_2003.txt](ftp://ftp.bls.gov/pub/special.requests/cpi/cpieri01-02_2003.txt)

being viewed as relatively liquid. More than before—and later in life—homeowners are now tapping into their home equity by borrowing against home equity or reinvesting less than was gained on the home sold when buying another home. Home equity loans are being used to fund a variety of household expenses because of the favorable interest charged for such loans, the longer payback period, and/or the tax advantages of shifting general consumer borrowing into housing debt. Indeed, in the first few years following the passage of the Tax Reform Act of 1986 that retained the deduction for mortgage interest but eliminated the deduction of consumer credit, home equity lending increased sharply.

Households reaching retirement age in the 1970s and earlier typically had paid off their mortgages as they reached mid-life. Many homeowners viewed their home equity as a nest egg to be used for emergencies and otherwise to be passed down as an inheritance to children or grandchildren. The “burning of the mortgage” that was finally paid off was often an occasion for much celebration because monthly housing costs dropped significantly and households received what amounted to a long-term windfall to the monthly household budget. According to the 2000 Census, the average owner household with a mortgage paid almost \$800 more in monthly housing costs compared to households without housing debt. Households without housing debt have housing costs that are between one quarter and one third that of households with housing debt (Table 1). Once the mortgage is paid off, cash flow is freed up to make other investments and consumer purchases. Households that have paid off their debt also have more cash available to cope with the eventual falling incomes and increasing health care costs that typically take place later in life.

# Table 1

<b>Mortgage Status by Median Selected Monthly Owner Costs by Age of Householder: 2000</b>					
Age of Householder	Number Specified Owner Units**		Median Selected Monthly Owner Costs****		
	With Mortgage***	Without Mortgage	With Mortgage***	Without Mortgage	
15-24	483,755	79,717	\$833	\$257	
25-34	5,966,933	391,342	\$1,056	\$273	
35-44	11,727,506	1,128,916	\$1,158	\$296	
45-54	10,863,671	2,099,326	\$1,145	\$311	
55-64	5,803,296	3,163,260	\$1,049	\$309	
65-74	2,683,826	4,683,524	\$887	\$296	
75+	1,134,900	5,002,136	\$814	\$283	
Total	38,663,887	16,548,221	\$1,088	\$295	
** Specified owner occupied units are single family homes on less than 10 acres with no business or commercial establishment on the property.					
*** Mortgages include mortgages (first, second or junior), deeds of trust or similar debt, and home equity loans.					
**** Costs include: mortgage debt; real estate taxes; fire, hazard, and flood insurance on the property; utilities (electricity, gas, water, and sewer); and fuels (oil, coal, kerosene, wood, etc.).					
Source: U.S. Census Bureau, <i>Housing Costs of Homeowners: 2000</i> , Census 2000 Brief C2KBR-27, September 2003					

In the 1980s and 1990s this pattern of paying off the mortgage by late mid-life began to change. Cohorts approaching retirement now typically still carry substantial mortgage debt into old age. It is likely that these cohorts will continue to tap into their home equity more readily than before. Whereas fully 54 percent of owners age 55-64 owned their home debt free in 1989, by 1998 only 39 percent of owners in this age group had paid off their mortgage according to the Federal Reserve Board's Survey of Consumer Finances (SCF). In the future, an even smaller percentage in this age group will own their home outright.

These trends are the result of significant inter-generational demographic and economic shifts. In addition to the change in tax law in 1986, the effects of which are generally under appreciated, later age at marriage, divorce and remarriage, the rise of the two-earner household, declines in the real earnings of men and the increasing share of total household income contributed by wives, shifts in the structure of labor markets, increasing life expectancies and returns to labor supplied by older people, changes in the way retirement is funded, increases in the cost of education and health care, and rising standards of living in general and of housing consumption in particular are all trends that have likely reinforced the emergence of higher mortgage debt late in life.

Fundamental shifts in mortgage markets affecting the liquidity of housing equity have also contributed to the emerging trend toward higher housing debt in old age. First, the cost of borrowing against home equity has been reduced during the past decade and a half. In addition to declines in interest rates, from their record highs in the early 1980s to 40 year lows in the early 2000s, the cost of mortgage originations has been trimmed as a result of the rise of secondary mortgage markets and improvements in information technologies. Second, legal impediments that discouraged lenders from offering home equity products were removed in the late 1980s. As a result, today's homeowners are willing to swap home equity for debt as never before.

The goal of this paper is to describe and better understand recent trends in housing debt and in home equity accumulation for different generations of homeowners. While the paper is intended to be primarily descriptive of the trends and differences in housing

debt and home equity that have emerged in the 1990s, we sketch out what we believe to be some important broader social and demographic implications of these trends for the decades to come.

### **Household Debt Over the Life Course**

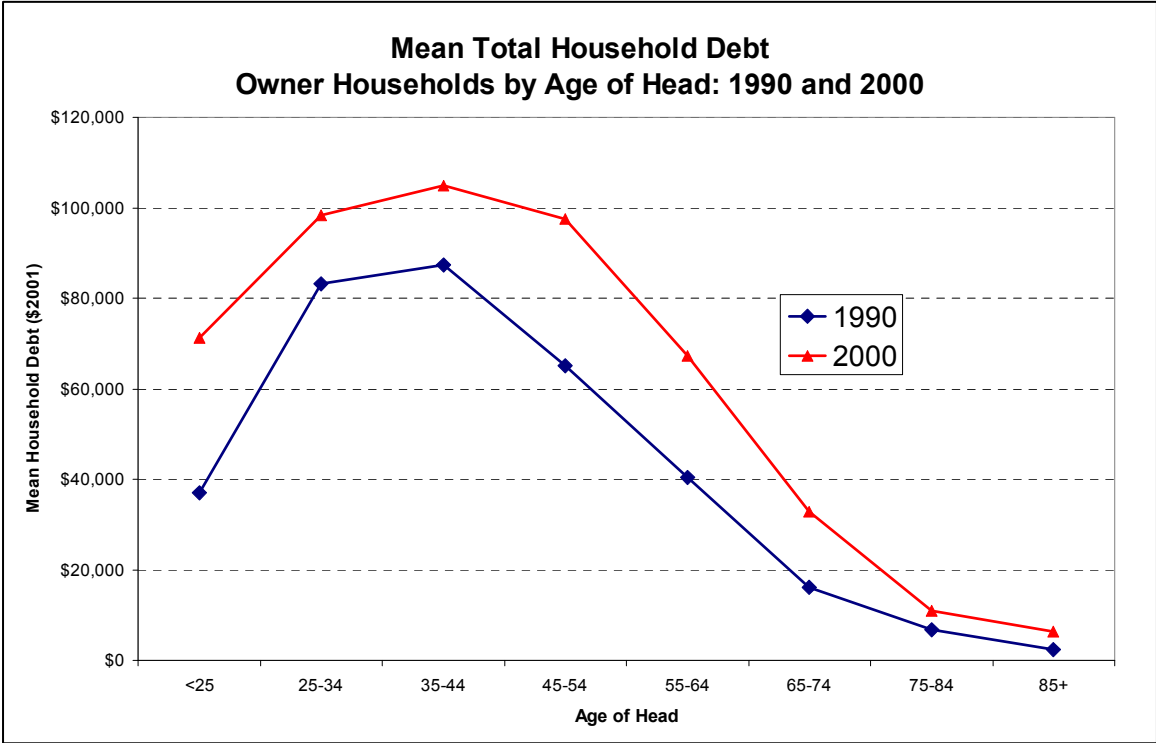
Homeowners today have taken on significantly more debt compared to owner households just ten years earlier. According to the Federal Reserve Board's Survey of Consumer Finances (SCF), total debt for owner households increased from \$2.4 trillion to \$4.1 trillion between 1990 and 2000.<sup>2</sup> Average (mean) debt per owner household grew by 45 percent over the decade, from \$40,600 to \$58,700 (in constant \$2001). Median debt grew by over 140 percent, from \$13,700 in 1990 to \$33,100 in 2000.

Owner household debt generally increases as householders age from early adulthood into middle age. Between 1990 and 2000 average household debt moved sharply upward across all age groups of owner households (Figure 1). Some of the largest relative increases in total household debt over the past decade took among the older age groups. While it appears from the cross-sectional data in Figure 1 that total household debt declines after age 35-44, when cohorts are followed over time it is not until age 55-64 that debt begins to decline (Figure 2).

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<sup>2</sup> The SCF data is collected every three years. We average the 1989 and 1992 data to get 1990 estimates, giving two-thirds of weight to the 1989 estimates and one third of weight to the 1992 estimates. Similarly, we get 2000 estimates by averaging the 1998 and 2001 data, giving two-thirds of weight to 2001 estimates and one third of weight to the 1998 estimates.

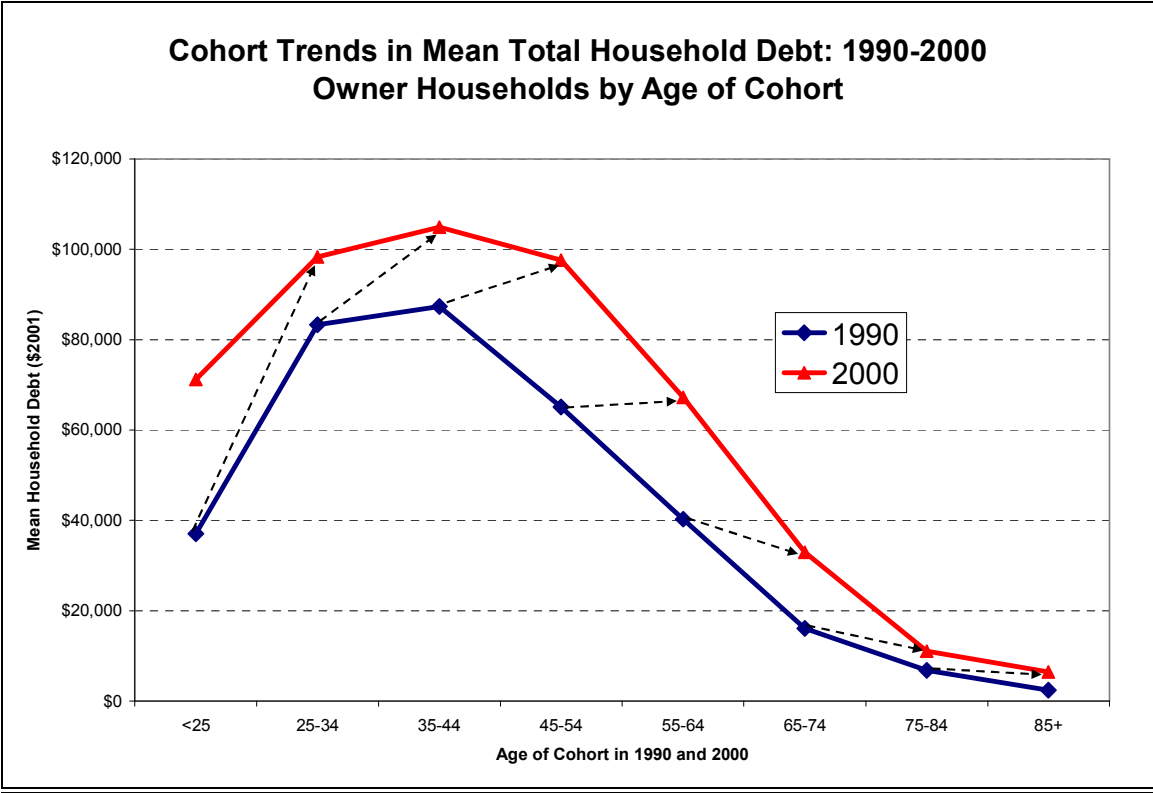
# Figure 1



Source: Joint Center tabulations of 1989, 1992, 1998 and 2001 Survey of Consumer Finances  
Values are in constant \$2001



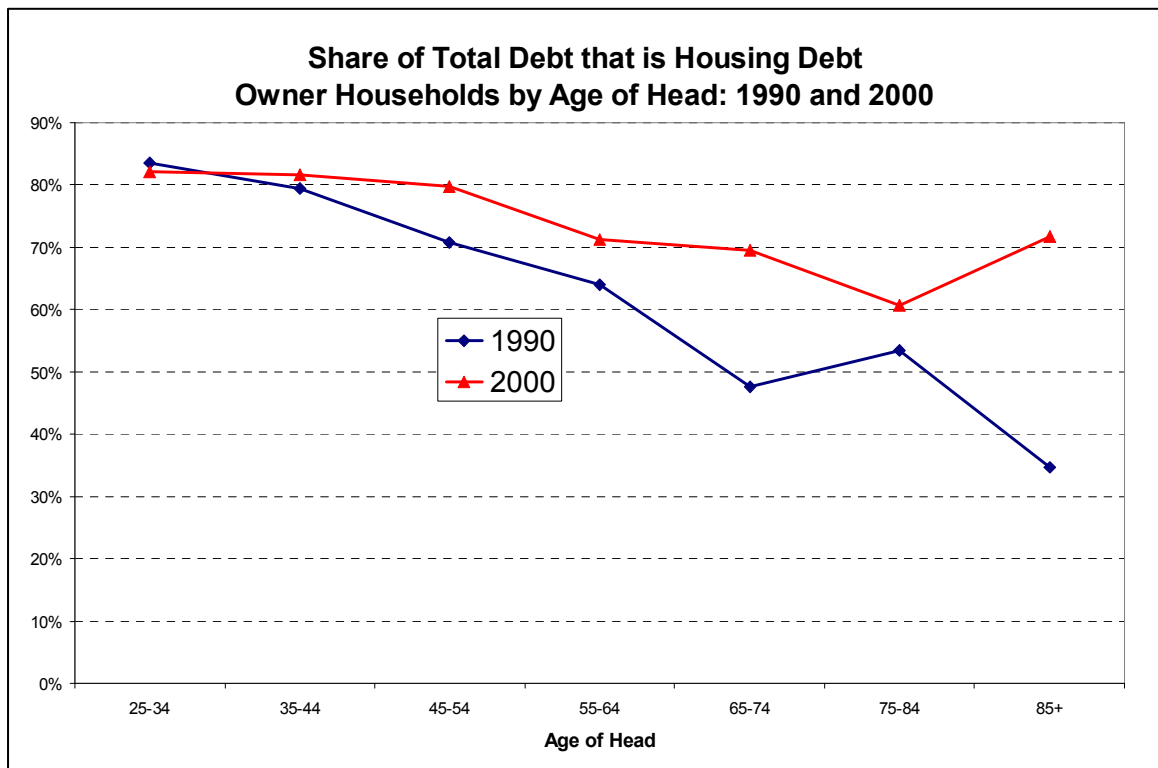
# Figure 2



Source: Joint Center tabulations of 1989, 1992, 1998 and 2001 Survey of Consumer Finances  
Values are in constant \$2001

The majority of total household debt is housing debt, and housing debt as a share of total debt increased substantially between 1990 and 2000 (Figure 3). By 2000, roughly 60-80 percent of total debt was due to housing debt among the different age groups of owners. The relative importance of increased housing debt for older cohorts can be clearly seen in Figure 3.

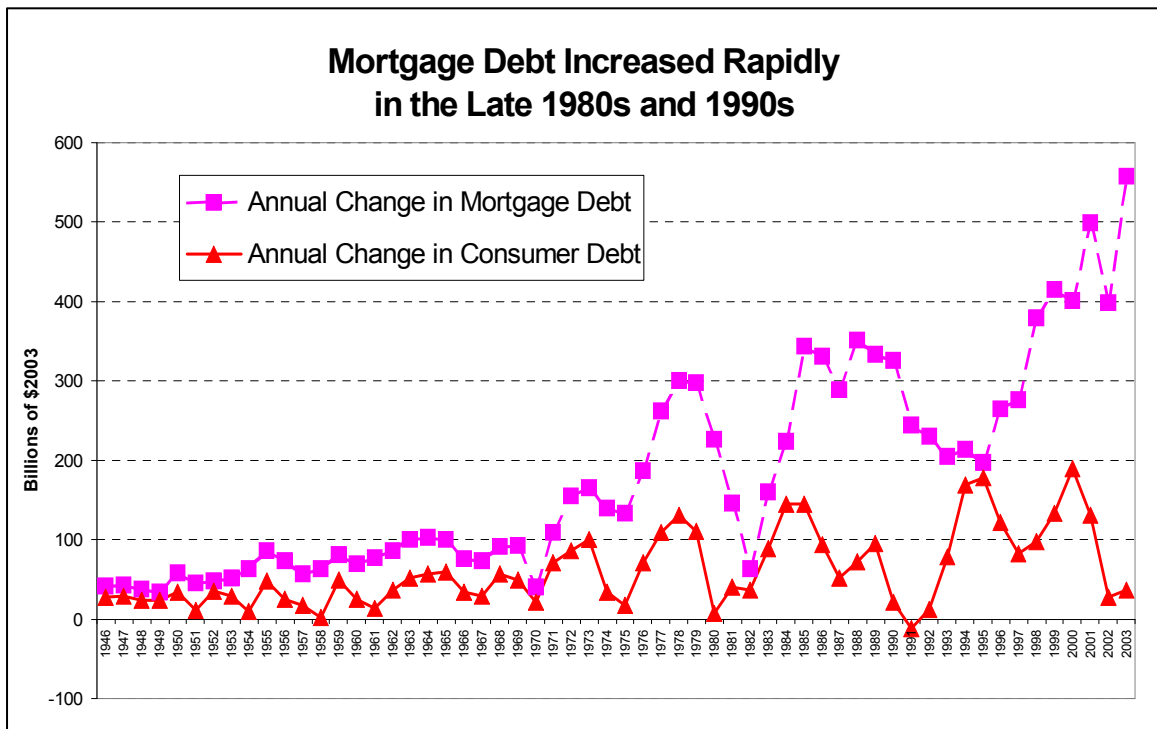
### Figure 3



Source: Joint Center tabulations of 1989, 1992, 1998 and 2001 Survey of Consumer Finances  
Values are in constant \$2001

The recent rapid growth in both housing debt and consumer debt is corroborated by another data source, the Flow of Funds data, also compiled by the Federal Reserve Board (Figure 4). While these data do not allow the detailed demographic decomposition that the SCF data afford, they are released annually (and even quarterly for the most recent two years) and go back further in time.<sup>3</sup>

Figure 4



Source: Federal Reserve Board Flow of Funds database, Table B. 100, Balance Sheet of Households and Non Profit Organizations.

<sup>3</sup> For a variety of reasons, Flow of Funds and the Survey of Consumer Finances report somewhat different totals for debt and housing value (Antoniewicz, 2000).

Throughout most of the past half century, changes in mortgage debt and in general consumer debt moved in tandem, but since about 1990 the two series appear to have diverged. This suggests that annual net changes in general consumer debt during the past decade might have actually been higher than portrayed in Figure 4, but that a certain amount of mortgage debt was being substituted for consumer debt in the 1990s and early 2000s.

Tracking the changes for individual cohorts in median levels of housing debt between 1990 and 2000 dramatically shows the emerging increases in housing debt for younger and middle age owner households (Figure 5a). Each cohort is represented by a separate line that begins with a circle (median debt at age  $x$  in 1990) and ends with a diamond (median debt when the cohort is age  $x+10$  in 2000). The lines, when followed from left to right, represent changes in median household debt over the 10-year period from 1990 to 2000. Upward slanting lines represent increases in cohort median debt, downward slanting lines represent declines. In 1990, median housing debt for 45-54 year olds was just over \$25,000 in 2001 dollars. By 2000, the cohort that moved into the 45-54 age-group (oldest half of the baby boom generation) carried a median housing debt of about \$50,000. Extrapolating these cohort trajectories forward 10 years, while certainly not sophisticated, suggests that the next group of 45-54 year olds in 2010 (the youngest of the baby boomers) may well have a median housing debt of over \$70,000 based on debt levels for this group in 2000 when they were 35-44 and the likely changes in debt as they age (Figure 5b). But what actually occurs will be heavily influenced by the rate of house price appreciation this decade. Unlike the ratio of housing debt to total value, which is likely to follow a more predictable cohort path, the actual level of housing debt each cohort will carry ten years hence is intimately tied to how much house values grow.

Figure 5a

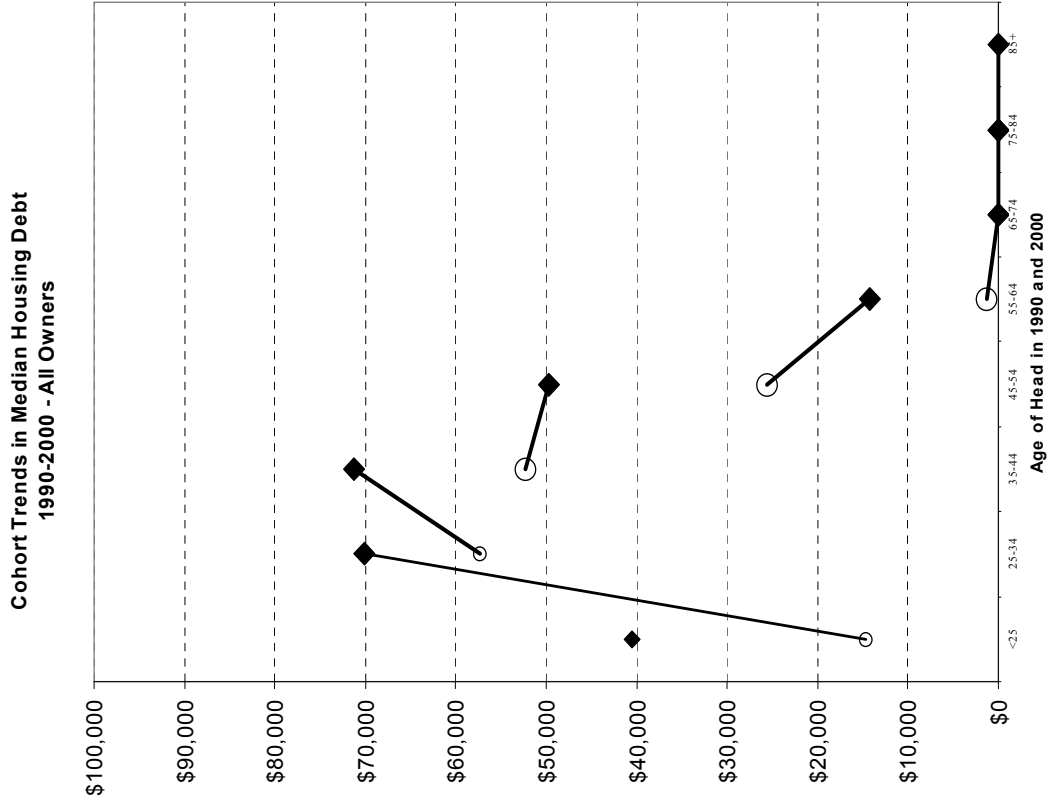
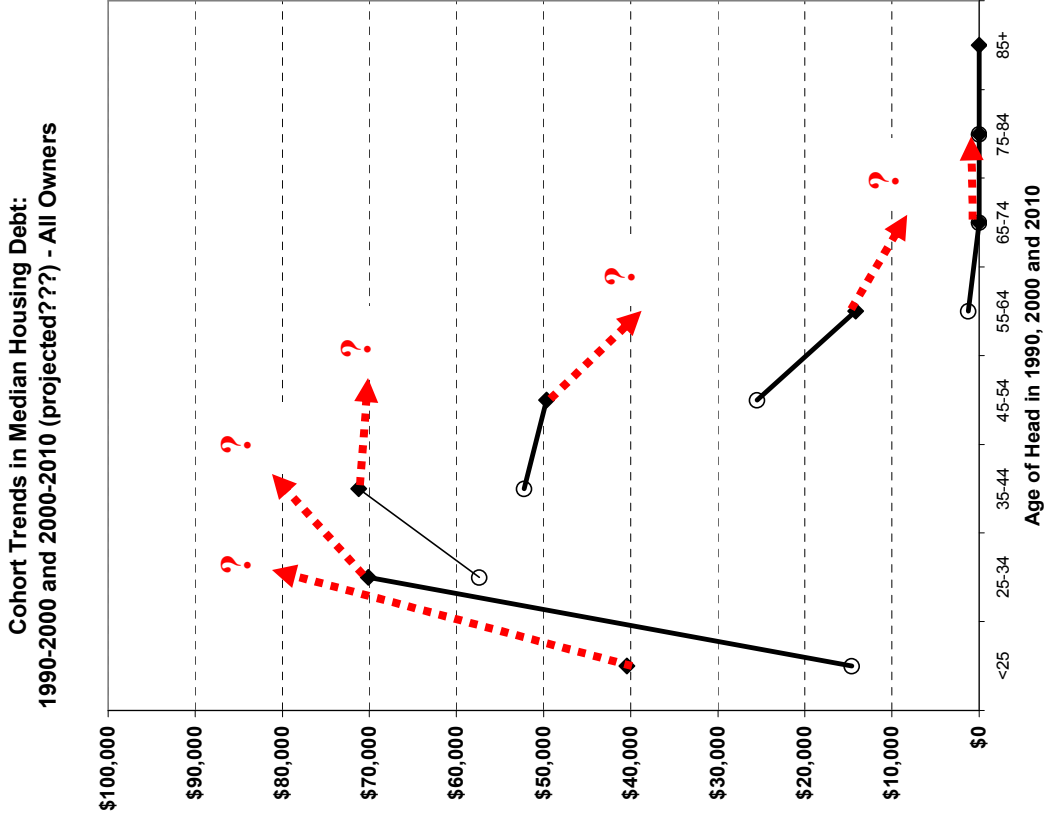


Figure 5b



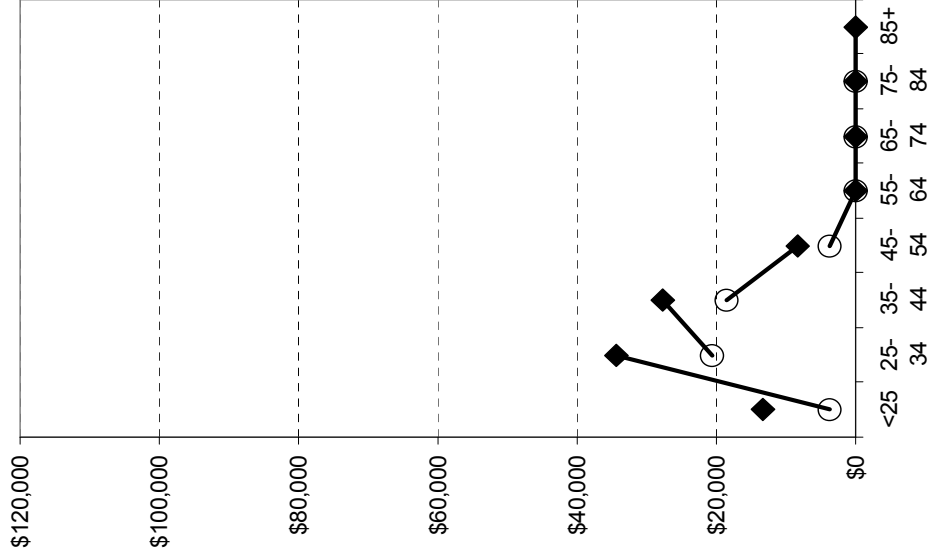
Source: Joint Center tabulations of 1989, 1992, 1998 and 2001 Survey of Consumer Finances  
Values are in constant \$2001

These distinctive patterns of cohort increases in housing debt have been taking place across the board; among owners with the least debt as well as those with the most debt. Figures 6a-6c compare cohort trends in housing debt for the 25<sup>th</sup>, 50<sup>th</sup> (median) and 75<sup>th</sup> percentiles of the distribution of housing debt. The top quartile of owners with the most housing debt overall show especially large increases in the debt for the two baby boom cohorts (those age 35-44 and 45-54 in 2000). Owners in the top quartile in the 55-64 age-group had over twice the housing debt - over \$70,000 in 2000 - compared to under \$30,000 in 1990 (Figure 6c). Looking ahead 10 years, it is likely that the oldest baby boomers in the top quartile will have median housing debt well in excess of \$100,000 (when they are age 55-64 in 2010), and the youngest boomers in this quartile housing debt around \$120,000 when they are 45-54 in 2010, unless they reduce their debt significantly over the next 10 years. These debt levels are unprecedented for cohorts approaching the typical retirement ages.

To conclude this description of recent cohort trends in housing debt, we note that married couple owners have been the driving force behind the overall trends in increasing housing debt for middle age cohorts. Figures 7a and 7b contrast the trends in median housing debt for married couple owners with those of unmarried owners. While unmarrieds have experienced increases in housing debt, these increases are nowhere as large as those for married couples. This is as we might expect, both because married couples are more likely to be multiple earner households and have higher incomes to purchase more expensive housing, and because married couple households are more likely to also contain children, requiring larger houses and therefore a larger housing investment. Note especially the large difference in housing debt between married older baby boomer households age 45-54 in 2000 and the median housing debt for the next oldest cohort when they were the same age ten years earlier (\$62,000 vs. \$26,700). Note also the fact that the younger married baby boomers (age 35-44 in 2000) are already on an even higher housing debt trajectory, \$79,900 compared to the \$57,300 the older boomers had accumulated when they were age 35-44 in 1990. The baby bust generation of married owners (age 25-34 in 2000) is on a still higher median debt trajectory with already over \$81,000 in mortgage debt by age 25-34.

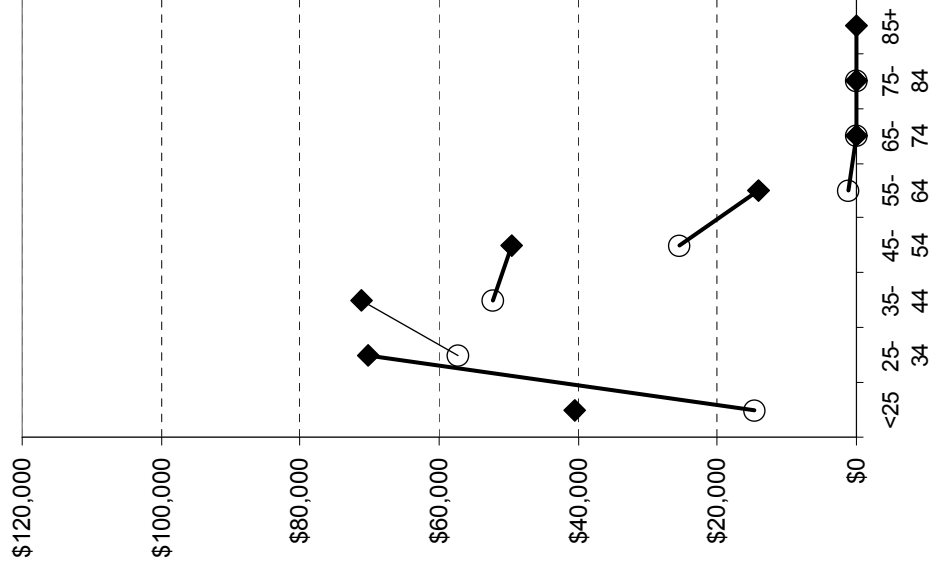
# Figure 6a

## 25<sup>th</sup> Percentile Housing Debt



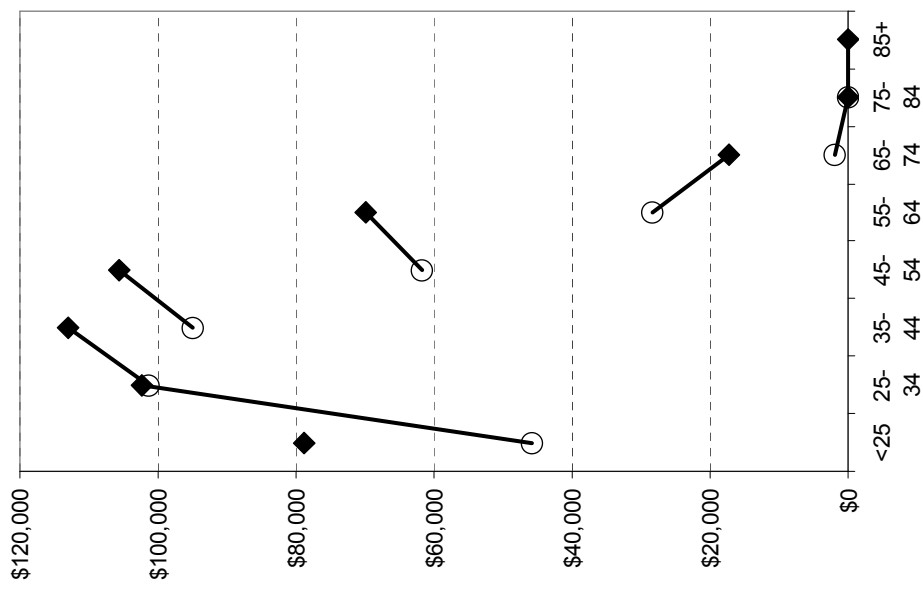
# Figure 6b

## Median Housing Debt



# Figure 6c

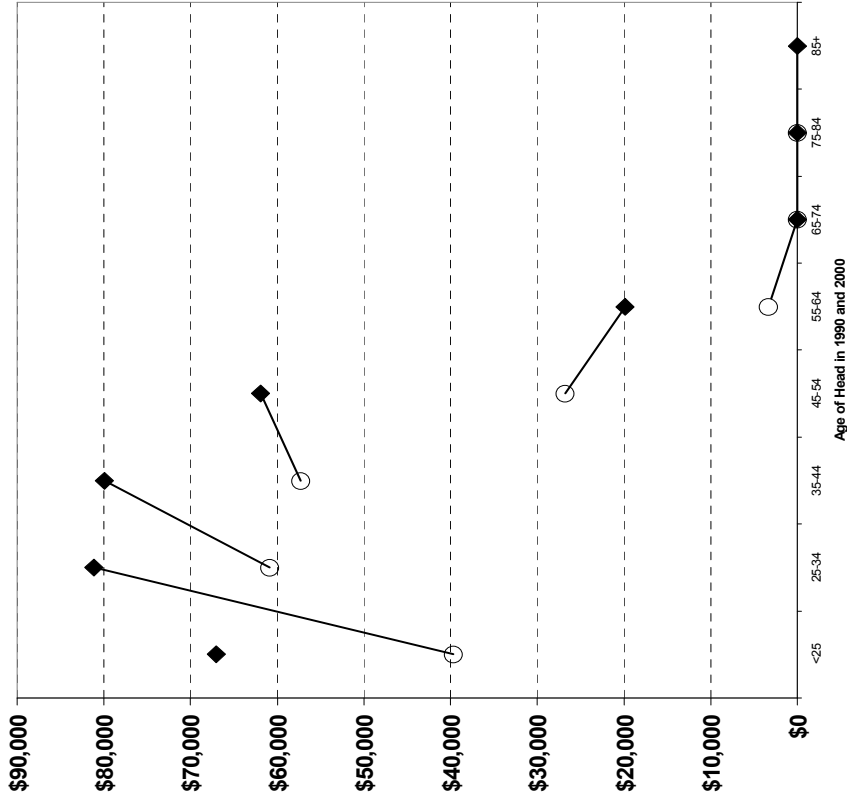
## 75<sup>th</sup> Percentile Housing Debt



Source: Joint Center tabulations of 1989, 1992, 1998 and 2001 Survey of Consumer Finances  
 Values are in constant \$2001

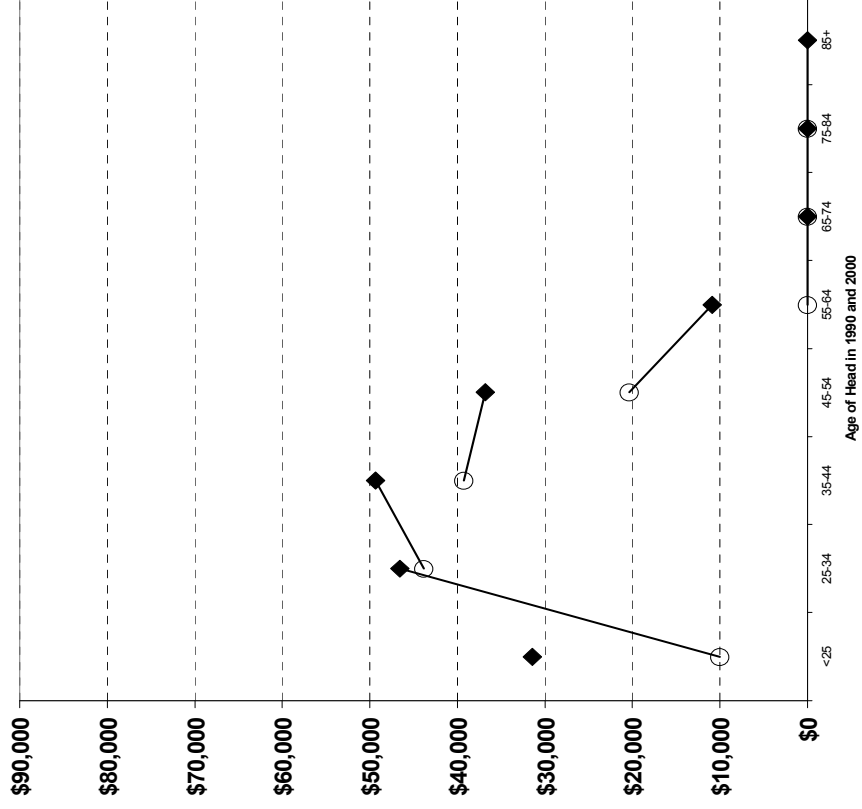
# Figure 7a

## Cohort Trends Median Housing Debt 1990-2000 - Married Owners



# Figure 7b

## Cohort Trends Median Housing Debt 1990-2000 - Non-married Owners



Source: Joint Center tabulations of 1989, 1992, 1998 and 2001 Survey of Consumer Finances  
Values are in constant \$2001



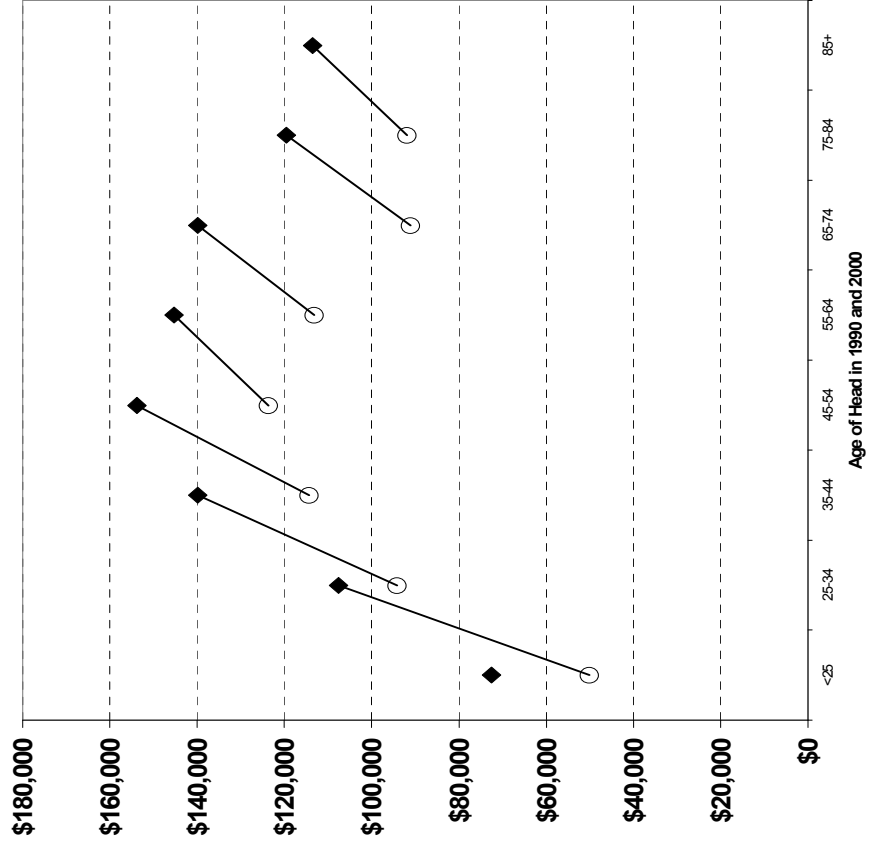
### **Cohort Trends and Differences in Housing Value and Home Equity**

The cohort housing debt trends we have just described need not raise any red flags if increasing housing debt is matched by equally large or larger increases in the value of the homes being purchased, if these values hold up in the future, and if the investment in housing that the debt has secured remains relatively liquid. Liquidity in a housing investment requires both the ability to borrow against equity and the ability to quickly resell at full value if there is a decision to down-size during the empty nest period of the life course in order to reduce housing costs when incomes fall and payments on the much higher levels of debt than carried by earlier cohorts can no longer be sustained. On the other hand, if the higher debt levels being assumed by the baby boomers and their successors are not being matched by equal or greater trends in the value of the homes being purchased or if mortgage interest move materially higher, then there might be greater reason for concern. If housing values were to suddenly fall, or if interest rates were to spike up in the future making the equity in homes less liquid, that could create serious problems for those with high housing debt. Falling values and rising mortgage interest rates not only would dampen cash-out refinancing, but also would limit the ability of owners to lower their debt or mortgage payments by downsizing.

SCF data confirm that the values of owner housing that different cohorts occupy have indeed increased for both married and unmarried owners between 1990 and 2000 (Figures 8a and 8b). Every successively younger cohort of married owners is on a higher value trajectory than the cohort that preceded it in the age structure. This trend reflects both higher initial value of the housing asset for recent first-time buyers and strong appreciation in housing values (inflation) during the 1990s, as well as cohort upward mobility in the housing market (trading up). The value increases for married couples are larger than for unmarried owners, and this trend is consistent with the fact that younger married cohorts of owners showed the largest increases in household income over the 1990s. In addition, a higher percentage of younger married cohorts purchase newer housing, which has more amenities and higher value than older housing (Masnick 2002).

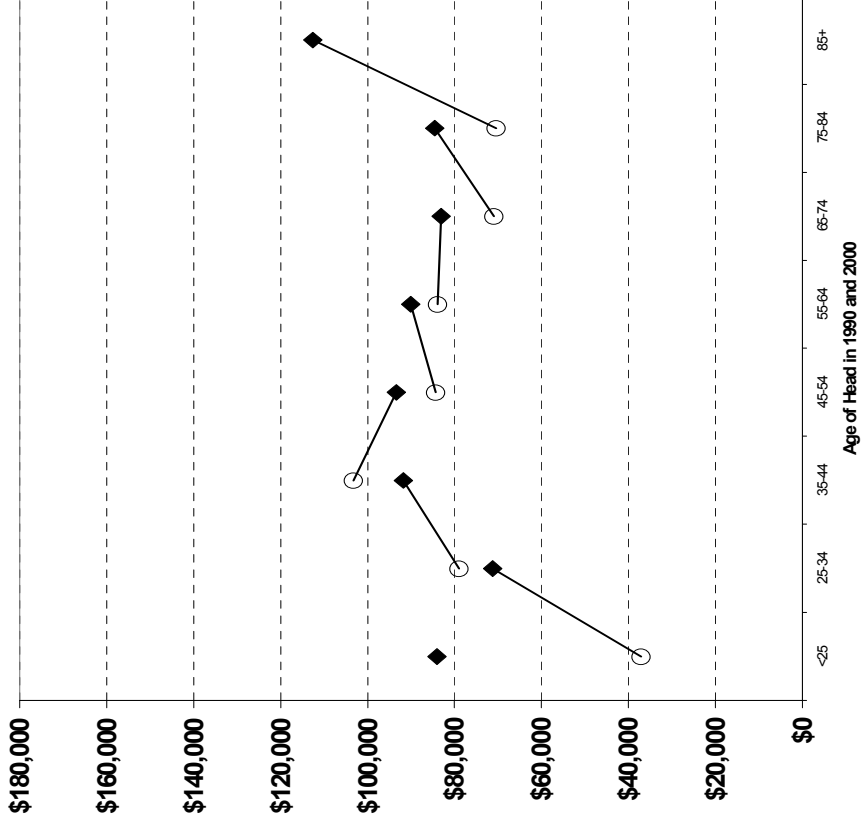
# Figure 8a

## Cohort Trends Median Housing Value 1990-2000 - Married Owners



# Figure 8b

## Cohort Trends Median Housing Value 1990-2000 - Non-Married Owners



Source: Joint Center tabulations of 1989, 1992, 1998 and 2001 Survey of Consumer Finances  
Values are in constant \$2001

Unmarried owners have not fared as well as marrieds in their increases in housing values, particularly for cohorts in the middle age ranges (Figure 8b). For these broad middle age groups of unmarried owners, the lack of appreciation in house values may reflect the fact that unmarried heads, with typically one income, are constrained to occupy a lower valued housing stock because it is what they can afford. The housing stock occupied by unmarrieds is more likely to include older units, smaller units, houses in less desirable locations, and is more likely to be the more affordable mobile home, condo and townhouse compared to that occupied by married couples. It is likely that older unmarrieds contain a higher proportion of recently divorced individuals who have experienced a downturn in disposable income. Married owners are more likely to trade up in the housing market, while unmarried owners are forced to trade down. In 2002, the median income of married couple households was approximately twice the income of households headed by unmarried individuals (U.S. Census Bureau, 2003). The continued influx of newly divorced (and widowed) owners into the middle age groups of unmarrieds helps to keep median incomes (and housing values) in the aggregate from rising.

The level of increase in housing values for the older married cohorts depicted in Figure 8a most likely reflects the effects of housing inflation, since relatively few elderly homeowners are trading up. Census Supplementary Survey data indicate that only 30 percent of 65-74 year olds and 20 percent of those age 75 and older changed residences between 1990 and 2000, and much of this residential relocation likely reflected downsizing rather than moving up in the housing market. For the unmarried elderly, the increase in value could also reflect the effects of mortality converting relatively high-valued married couple homes into the unmarried owner category.

A larger share of the increase in value for younger married cohorts reflects upward mobility in the housing market that typically accompanies growing incomes and growing family sizes. House value appreciation for both movers and non-movers also undoubtedly played an important role in increasing housing values over the decade for younger cohorts as well. Low mortgage interest rates have made purchasing higher

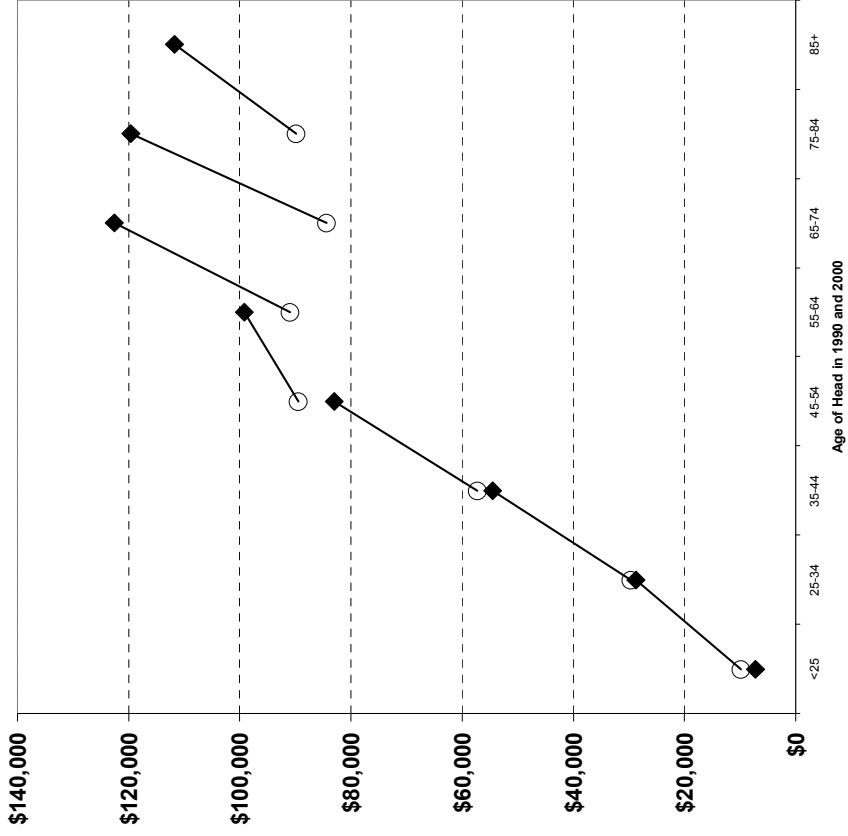
valued homes and carrying higher amounts of housing debt more affordable for both first-time and trade-up buyers. A home purchase is a highly leveraged investment, and with the low interest rates and low down payments offered by today's lenders, high-priced homes have never been within easier reach. A household that can afford a \$1,200 monthly mortgage payment could only borrow \$160,000 when interest rates were 8.25 percent, but can afford to borrow \$205,000 when interest rates are 5.75 percent.

But has the increases in house value kept pace with the increases in housing debt discussed earlier? Has home equity been increasing as well as house value? Figure 9a demonstrates that growing housing values did indeed translate into growing home equity for all cohorts of married owners in spite of their growing housing debt. The lesser increases in values we observed for unmarried owners, when combined with their growing housing debt, resulted in much less of a net increase in home equity over the 1990s when compared to married owners (Figure 9b). Only older unmarried owners, with their low housing debt, influx of newly widowed owners, and relative residential stability were able to sit on a housing asset that gained significant equity. Among married owners, the largest increases in home equity also occurred for the oldest cohorts - those with the least housing debt.

For the younger married cohorts, despite the fact that overall housing values have increased the most for them, their growing housing debt has cut into their growth in home equity. Successively younger cohorts, while taking on higher and higher housing debt, were only able to achieve the same home equity growth trajectories as the cohorts that preceded them in the age structure, despite their higher house values. This is not to portray the growth in home equity over the 1990s among younger married cohorts as insignificant or insubstantial. It is just to note that the housing and mortgage market conditions of the 1990s, with its low interest rates, low down payments, and substantial inflation in prices, especially toward the end of the decade, meant that younger cohorts took on relatively more debt, only to achieve the same gains in home equity as the cohorts that preceded them in the age structure. It should be acknowledged that if the cohort differences in values of units that we observe in Figure 8a are sustained well into the future, at some point these younger cohorts will eventually gain additional equity as

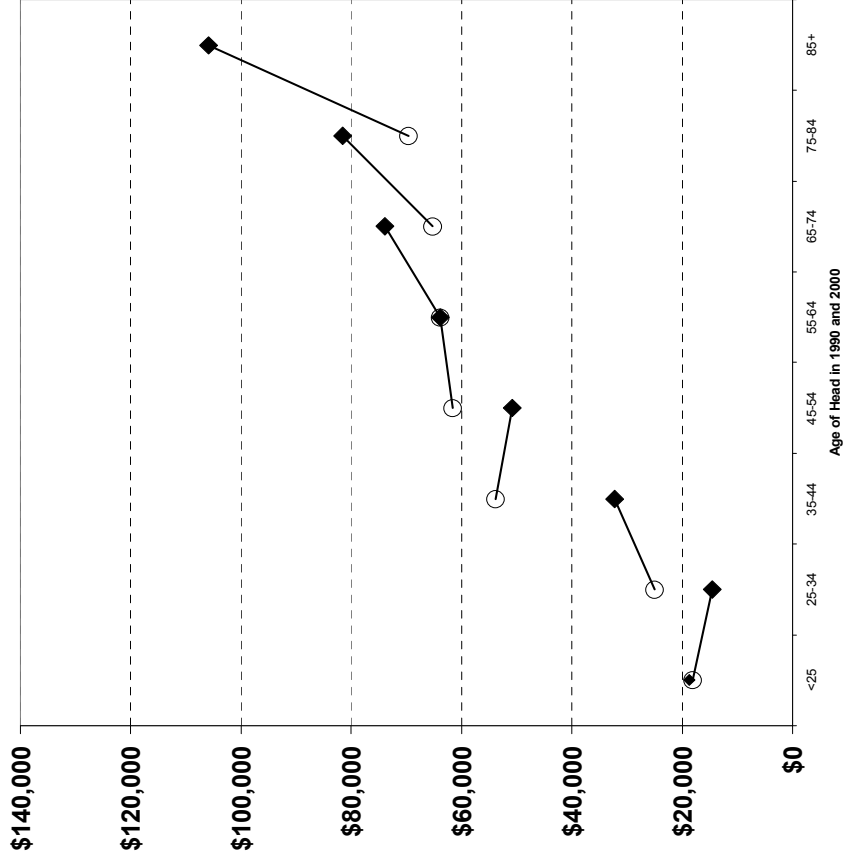
# Figure 9a

## Cohort Trends Median Home Equity 1990-2000 - Married Owners



# Figure 9b

## Cohort Trends Median Home Equity 1990-2000 - Non-Married Owners



Source: Joint Center tabulations of 1989, 1992, 1998 and 2001 Survey of Consumer Finances  
Values are in constant \$2001

their mortgages are paid off. But these gains will come later in life and will depend on the present cohort differences in housing values being sustained.

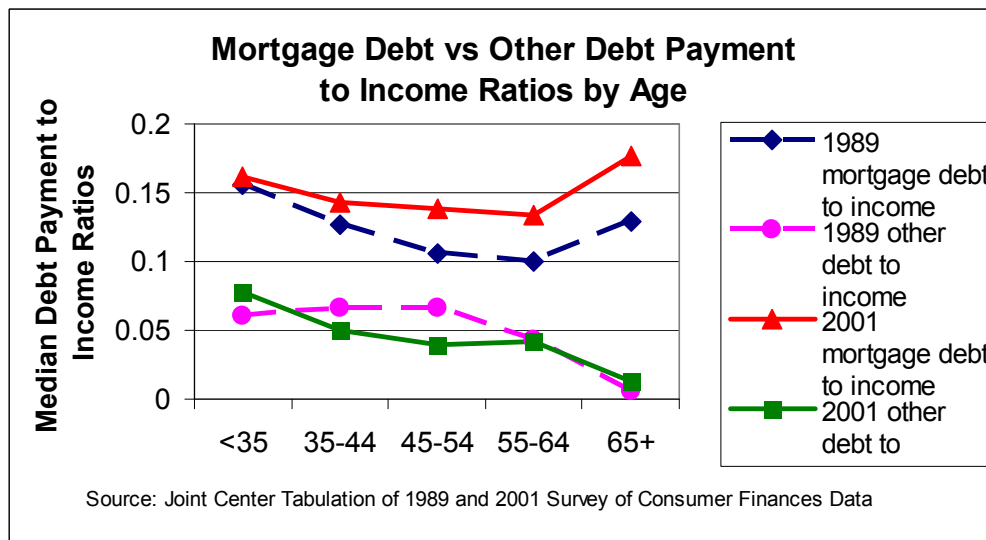
Among younger unmarried owners, the housing market conditions of the 1990s have resulted in successively younger cohorts falling further and further behind the cohorts that preceded them in the age structure in home equity accumulation.

**Discussion**

***Future Cohorts Will Have Higher Debt as They Reach Age 55-64***

Today’s high housing prices require buyers to take on higher and higher housing debt, but the willingness to do so has also been driven by higher incomes and lower mortgage interest rates. Despite these recent favorable trends in incomes and interest rates, elderly owner households with mortgages have increased the share of their income that the mortgage consumes (Figure 10).

**Figure 10**



For many in the baby boom cohort, later ages at marriage and a higher proportion of all marriages that are remarriages for one or both spouses, means that for many, added

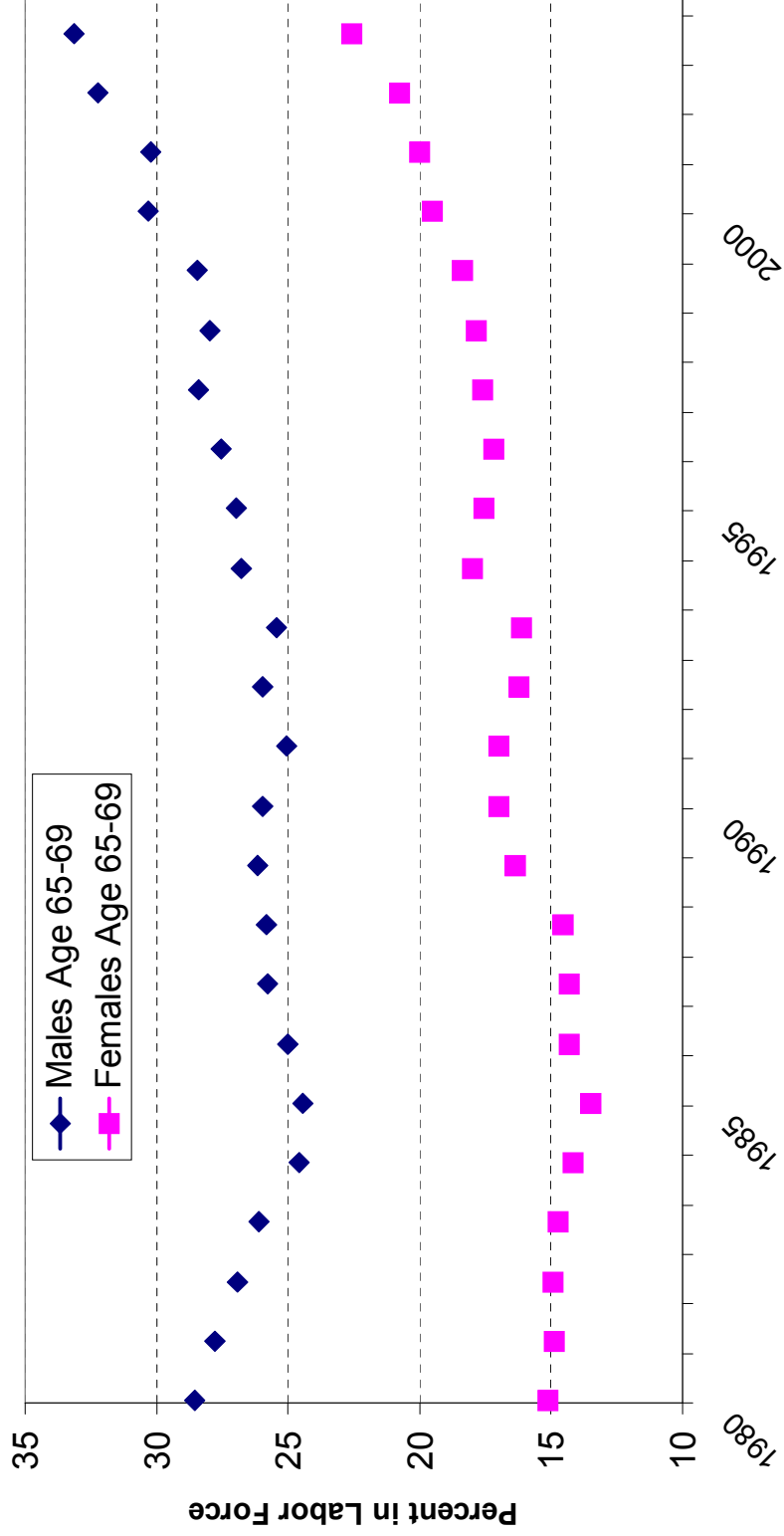
homeownership debt has been taken on later and later in life. Home purchase under the circumstances of today's delayed patterns of family formation takes place when incomes are higher, allowing greater debt to be taken on. Mortgages taken out by older couples and by older singles will still be active as the retirement years approach if the mortgage taken is a standard fixed-rate 15, 20, 25 or 30-year term.

Even among long-term owners, it is not uncommon for households to have refinanced their mortgages during the 1990s to take advantage of declining interest rates. In the process of refinancing it has become easy to convert some home equity to cash in order to fund remodeling and repairs, make other current purchases, or pay off other consumer debt. Often, the refinance is with a full term mortgage of longer duration than the balance of the time that remained on the previous mortgage loan. Monthly principal and interest payments, even with some cash out refinancing, often are lower than under the terms of the former loan because of the lower interest rate. But it is the extension of the repayment period past when it would have ended that is the greater cause for concern. It adds to the obligations of retired homeowners at a time when they would have receded and when such obligations may force difficult spending tradeoffs.

High housing debt as cohorts approach traditional retirement age could have several repercussions. Continued labor force participation into the late 60s and early 70s in order to earn the income to service this debt would be one likely consequence. Although later intended retirement age is likely more of a cause of the willingness to hold mortgage debt later in life than an effect of it, it may nevertheless also motivate some to remain in the workforce after they would have otherwise exited it. Indeed, we have already seen a trend toward increasing labor force participation since the early 1990s for both men and women in the 65-69 age group (Figure 11). The added pressure of higher

Figure 11

Elderly Labor Force Participation Rates  
Annual Average of Monthly Rates: 1980-2003



Source: Monthly data reported by the Bureau of Labor Statistics



mortgage payments late in life should reinforce this upward trend in elderly labor force participation in the future. Public opinion polls now indicate that the majority of baby boomers plan to work well beyond the age that they are eligible for social security (Quinn 2000). For married couples, where the debt is the highest, even the continued employment of one spouse, or part-time employment of both, would probably be sufficient to meet mortgage payments in most cases.

Because of delayed marriage and high shares of all baby boomer marriages that are a second or higher marriage for one or both spouses, the age differences between spouses for future retirement age cohorts will be greater than for retirees in the 1970s and 1980s, who were more likely to have married when both partners were in their early to mid-20s (Masnick, 1996). Research has shown that the older spouse will tend to work longer if the younger spouse is still in the labor force (Han and Moen, 1999).

In the event that continued employment is not possible, not desirable, or not sufficient to meet mortgage payments late in life, owners can always down-size to reduce their debt. In fact, for many elderly households who might otherwise be reluctant to move out of their aging housing, often in need of repairs and maintenance they can no longer give, being “forced” to down-size might not be viewed in a negative light at all. Housing that gets recycled back into the market generally gets the repairs that are needed to maintain its value and integrity (Joint Center for housing Studies 2003), and provides housing that more closely matches the needs of the new owners in terms of number of rooms and proximity to schools, employment opportunities, and neighborhood amenities such as parks and shopping.

The four keys to successful downsizing late in life are: 1) sufficient home equity that has been built up in the current home; 2) a demand for this housing; 3) mortgage interest rates that are affordable for buyers, and; 4) alternative housing that is more affordable for those wishing to down-size. For baby boomers that will be moving toward retirement over the next two decades, the first two conditions appear to be unequivocally met for a majority of homeowners, especially for married couples. Our analysis has

shown significant and growing home equity for these future retirement cohorts. Projections of future housing demand show that there will be sustained demand for this owner occupied housing stock from echo boomers and new immigrants for at least the next two decades (Masnick and Di, 2003).

Only the third and fourth requirements for successful downsizing provide areas of uncertainty. Future mortgage interest rates, as well as other aspects of the health of the economy that impact home buying, are difficult to predict. The fourth item, the availability of acceptable less costly housing alternatives, can also be an obstacle to downsizing. In fully built-out communities, it is often difficult to find alternative less expensive housing nearby that meets the needs of those wishing to down-size and still remain in their communities. However, for those willing to relocate, less expensive retirement housing opportunities abound, and sometimes modest housing closer to adult children, or in locations where the cost of living is low, can provide just the alternatives to allow for downsizing.

The difficulties with carrying higher housing debt into old age will arise in those cases where neither continued employment nor down-sizing is practical. In such situations, one-earner or no-earner owner households unmarried owners with mortgage debt are especially vulnerable if their health deteriorates or if income declines, especially if their housing is already of low value or in low demand. Such unmarried adult or poor households are also less likely to undertake long-distance moves to retirement communities or to some far-off place to seek lower cost housing.

In the past, the early age at which households became relatively debt free provided a cushion to absorb the consequences of falling income later in life. Typically, household income begins to trend downward for cohorts after age 55 when households begin to experience the loss of one wage earner through mortality or morbidity, and when divorce is less likely to be followed by remarriage. In addition, loss of employment through workplace downsizing or loss of “old economy” jobs more typically held by the older generations also becomes a factor in the downturn in household income after age

55. In such cases, high housing debt in old age could divert money away from spending on other necessities such as food, heat and utilities or health care.

More broadly, high housing debt late in life will perhaps curtail consumer spending by baby boomers on a wide variety of goods and services once their incomes take a downward life course adjustment. General consumer spending by baby boomers (and not only on housing) has been an important force in sustaining recent economic growth. High housing debt at the time in the life course when household income begins to decline could significantly alter patterns of consumer spending by this generation later in life.

***Married Couples Have Dominated Housing Markets While Younger Cohorts of Unmarried Owners Have Gained the Least Home Equity, Have the Highest Housing Cost Burdens, and Are the Most Vulnerable to Losing Out in any Housing Market Downturn***

There can be little argument that two-earner married couple baby boomers dominated housing markets in the 1990s. The youngest (and largest) part of the baby boom generation reached their late 30s and early 40s over the 1990s. During the 1990s, married couples from this youngest baby boom cohort were the primary purchasers of new homes, and their consumption patterns, more than any other group, set the prices for housing. This cohort accounted for almost 16 million owner households in 2000, with fully 75 percent of them having moved into the unit they currently occupied sometime during the previous decade. Forty-three percent of the 16 million became first-time owners during the 1990s, and over 11 million (71 percent of all owners in this cohort) were married couple households at the end of the decade. The married couple influence on housing prices extended across the board to impact both starter and trade-up housing.

Over the first decade of the 21<sup>st</sup> century, younger baby boomers will pass into the 45-54 age-group and be at a point in their life course where incomes are peaking. Median household income for married couple owners in this cohort had reached \$60,400 in 1999,

while median household income for oldest married baby boomer owners (age 45-54 in 1999) was \$65,000. Over the next decade we expect the youngest boomers to do as well or better when compared to their older brothers, sisters and cousins by further increasing household income as they reach age 45-54, and thus continue to exert pressure on housing prices for everyone, especially in the trade-up market. Therefore we fully expect that the high trajectories of housing debt presently being carried by both married boomers and their successors to be extrapolated forward throughout the next decade. Home equity should also continue to grow for these households as house prices are inflated.

Still, 29 percent (4.7 million) of these younger baby boom owners in 2000 were not married. An additional 8 million households with heads age 35-44 were renters according to the 2000 census. These unmarried owners and prospective owners are competing in largely the same housing markets as the married owners who, on average, have greater financial and familial resources to assist them in purchasing their first home or in moving up in the housing market. Because of the dominant role of married baby boomers in setting housing prices, housing has become less affordable for many unmarried adults. The bar has been significantly raised for all households on both the amount of housing debt they are willing to incur, and the debt burdens (mortgage debt as a percent of household income) that result. Unmarried owners and renters will continue to be disadvantaged in housing markets because of their lower incomes and lower home-equity stakes.

Unmarried baby boomer owners' lower home equity is partly due to the fact that, for many, marital disruption has allowed them less time to build up equity. But it is also partly due to the fact that unmarrieds consume smaller, older, and lower quality housing. A higher percentage of unmarried owner homes have only one or two bedrooms, were built before 1980 and are townhouses, mobile homes or condominiums. Lower household incomes of unmarrieds constrain housing choices to the stock that costs the least and appreciates the least, yet housing cost burdens for unmarried owners are higher than for marrieds (See Table 2).

# Table 2

## Housing Characteristics of Married and Unmarried Baby Boom Owners: 2001

Shares of Households	Age of Head and Marital Status			
	35-44		45-54	
Owners	Married	Unmarried	Married	Unmarried
<b>Cost Burdens</b>				
<20%	59.9%	45.4%	66.4%	47.5%
20-29%	22.4%	23.0%	17.8%	21.0%
30-49%	12.5%	18.8%	9.8%	16.9%
50%+	5.2%	12.8%	6.0%	14.6%
	100.0%	100.0%	100.0%	100.0%
<b>Income</b>				
<\$20K	3.5%	15.3%	4.8%	17.9%
\$20-\$39K	12.1%	30.8%	11.3%	28.3%
\$40-\$59K	19.7%	21.6%	16.9%	23.2%
\$60-\$79K	20.5%	13.5%	18.7%	12.8%
\$80-\$99K	15.7%	7.8%	15.4%	7.6%
\$100K+	28.6%	10.9%	33.0%	10.1%
	100.0%	100.0%	100.0%	100.0%
<b>Type of Structure</b>				
Single family (detached)	88.0%	73.5%	89.5%	74.7%
Single family (attached)	3.1%	7.8%	3.1%	7.4%
Mobile Home	6.9%	11.7%	4.9%	10.7%
2-4 unit structure	1.1%	2.3%	1.1%	2.5%
5-9 unit structure	0.2%	0.8%	0.5%	1.7%
10-49 unit structure	0.5%	2.3%	0.6%	1.9%
50+ unit structure	0.2%	1.7%	0.3%	1.1%
	100.0%	100.0%	100.0%	100.0%
<b>Year built</b>				
pre-1940	13.5%	17.4%	15.3%	16.2%
1940-1949	5.2%	7.2%	4.8%	7.7%
1950-1959	9.8%	12.0%	9.6%	11.9%
1960-1969	10.8%	11.5%	11.6%	11.7%
1970-1979	16.2%	16.8%	22.3%	21.3%
1980-1989	15.8%	14.7%	17.5%	15.5%
1990-1994	12.2%	8.3%	8.5%	5.5%
1995-2001	16.6%	12.2%	10.5%	10.1%
	100.0%	100.0%	100.0%	100.0%
<b>Number of bedrooms</b>				
0-1	0.9%	4.1%	1.2%	4.5%
2	9.8%	27.0%	11.0%	27.1%
3+	89.3%	68.9%	87.9%	68.4%
	100.0%	100.0%	100.0%	100.0%

Source: Joint Center Tabulations of 2001 American Housing Survey

***How Much Equity Has Been Tapped? How Has this Equity Been Used? Is This Good or Bad?***

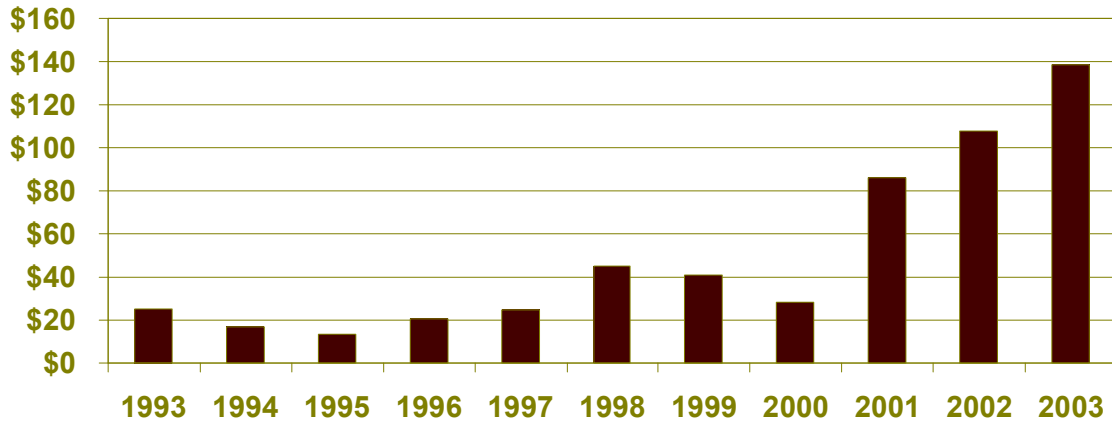
Short of selling a home and reinvesting only a portion of the full equity in another home, home equity is tapped either through cash-out refinances (replacing a mortgage retired with a larger mortgage) or by taking on an additional mortgage loan or home equity line of credit. Home equity borrowing through cash-out refinances have surged several times since 1990 but soared after 2001 (Figure 12). Strong house price appreciation paired with the lowest mortgage interest rates in 40 years motivated homeowners to extract record amounts of equity from their homes. Freddie Mac estimates that the amount of home equity cashed out, net of paying off second mortgages as part of the refinance process, was about \$139 billion on primary conventional loans in 2003.<sup>4</sup> Freddie Mac further estimated that \$65 billion in second mortgages were paid off by homeowners who refinanced and rolled these second mortgages into their new first mortgages. Meanwhile, debt outstanding on home equity loans and lines of credit also skyrocketed, roughly tripling to \$1.0 trillion by the fourth quarter of 2003 (Figure 13).

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<sup>4</sup> Freddie Mac bases its estimates on primary conventional loans only.

# Figure 12

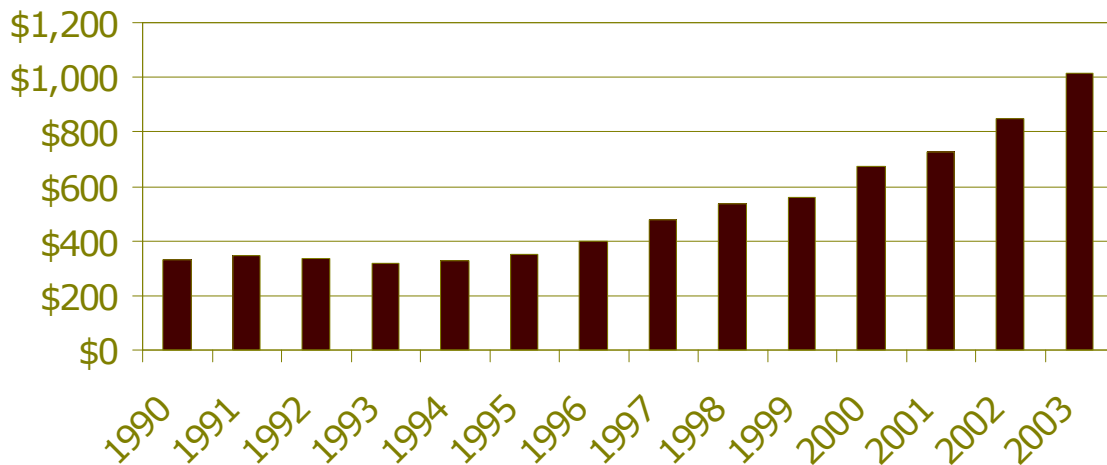
## Cash Out Refinances Skyrocketed After 2000



Source: Freddie Mac

# Figure 13

## Second Mortgage Borrowing Has Increased Sharply



Source: Second mortgage loans and lines outstanding from Federal Reserve Board Flow of Funds

A survey of borrowers that took cash out when they refinanced in 2001-2002 found that the most common reported use was to payoff a second mortgage (45 percent). Nearly equal shares of borrowers reported using at least some of the proceeds to make home improvements (40 percent) (Canner et al 2002). More importantly, about 35 percent of the proceeds were spent on home improvements, 16 percent on consumer expenditures, and the rest to paying off second mortgages and other debts (Figure 14).

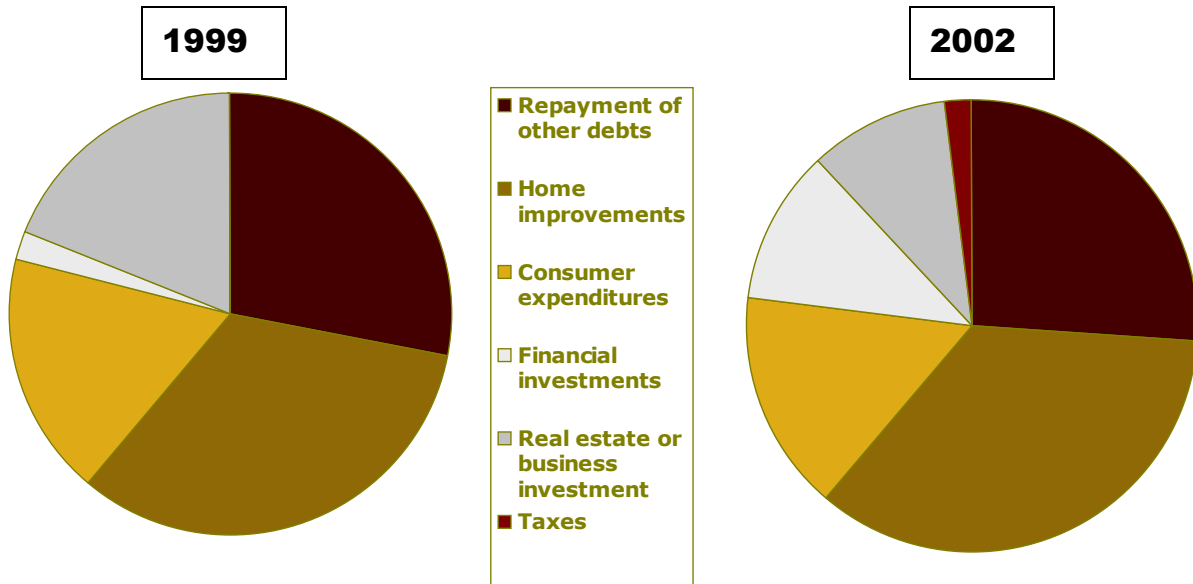
A survey of home equity line and loan borrowers conducted from May through October 1997, on the other hand, found that the most frequent use of home equity lines was for home improvement (69 percent) and of home equity loans was to pay off other debt (61 percent). Excluding car and truck purchases (37 percent), only very small fractions of loan or line borrowers used the proceeds for personal consumption.

It appears that those who take out second mortgages are more likely to do so either to reinvest in their homes or to consolidate consumer credit than people taking cash out when they refinance. Second mortgage borrowing is more common during periods of rising interest rates when it does not pay to refinance a mortgage as a method to extract home equity. When rates are falling, as they did from 2001-2003, cash out refinances are by far the more common method. At these times, larger fractions of home equity converted to cash are used for general consumption. Either way, though, paying off other higher cost debt is the primary use of the proceeds of home equity borrowing.

This shifting of consumer debt to mortgage debts has costs and benefits. On the benefits side, it usually results in lower monthly payments and interest rates. It may however result in longer-term mortgages that ultimately involve the payment of more interest. On the downside, it allows lenders to attach an individual's home in the event of a loan default. This places people's homes at greater risk. When before they could miss credit card or other payments but leave their home unreachable to creditors, more and more that miss a debt payment are missing a mortgage payment and putting their home at risk. Despite this there has been no secular upturn in the rate of mortgage loan



Figure 14: Reported Uses of Money Cashed Out In Refinances in Two Recent Time Periods Are Similar



Source: The Federal Reserve Survey of Consumers of 1999 and 2002.

delinquencies and defaults since consumers began substituting mortgage debt for consumer debt.

On balance, therefore, this shifting around of debt on to the home has almost certainly been a net plus. It does mean, however, that looking at people's mortgage payments and equating them with their housing costs is becoming an antiquated way of viewing the world. In fact, some portion of mortgage payments is being used to finance college educations, auto purchases, and short-term non-housing consumption.

### ***High Levels of Home Equity among Older Cohorts Could Result in Large Transfers of Wealth between the Generations Over the Next Two Decades***

While the baby boom generation has taken on record levels of housing debt, it might not be insignificant that their parent's generation has attained record levels of home equity and household wealth that boomers stand to inherit at some time in the future. A recent estimate by the Boston College Social Welfare Research Institute suggests that boomers could inherit as much as \$7.2 trillion dollars (Havens and Schervish, 2003). Aside from possible direct linkages between housing wealth accumulated by parents that serves to help children to purchase housing through down payment assistance and the like, boomers might be more sanguine about taking on high levels of housing debt in anticipation of inheritances that will likely materialize when the boomers themselves are ready to retire. This connection has not been studied by economists, but is an extension of the well known finding that savings rates are lower when parents' wealth is higher. (See Di, 2001 for a summary of this literature.)

Surely there are many caveats to keep in mind. There are more siblings among the boomer generation to share the inheritance, parents are living longer and longer and may use up most of their wealth in old age, many parents are divorced and remarried to younger spouses that will inherit before the boomers do, many boomers have parents with little wealth, especially if they are minorities and immigrants, and so on. However, we are not talking about actuarial calculations as the motivating factor for the boomers borrowing behavior, but rather psychological reasons why boomers might be more comfortable with high housing debt at a time in their life course when, historically, incomes have declined and aging parents' demands on time and money had increased. The aging parents now need less taking care of thanks to Medicare, better health, fatter savings accounts, and higher home equity that they can easily draw upon for emergencies. Even better from the boomers' perspective, a windfall inheritance could make their own retirement plans all the sweeter. Whether such a scenario always plays itself out is beside the point. Carrying high housing debt in old age is surely based on wishful thinking across a whole range of issues – joint high and appreciating housing values, continued labor force attachment, continued ease at tapping accumulated home

equity, and ease of selling the house when needed are the primary bets. A windfall inheritance might only be the hoped for icing on the cake.

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