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THE HOUSING WEALTH OF THE AGED

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THE HOUSING WEALTH OF THE AGED

ABSTRACT

This paper examines the degree to which the elderly reduce homeownership as they age, and the factors which influence this process. We find that average levels of homeownership decline significantly with age, even when cohort effects are taken into consideration, and that the amount of housing held by people near death is quite low compared to what is seen in cross sections. We estimate that 42% of households will leave behind a house when the last member dies.

We also find that the degree to which households reduce homeownership between age 65 and death does not differ greatly between the upper and lower income halves of our sample; that people who do not have children reduce their homeownership more slowly than those who do; that increases in house prices in a state make it more likely that the elderly in that state reduce their home equity; and that the value of houses sold by elderly people tends not remain in their portfolios after the house is sold.

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Two widely noted facts about the wealth of the elderly are that most old people own their homes, and that these homes constitute a large fraction of tangible wealth for most old people.<sup>1</sup> In this paper we explore two questions that arise from these observations. First, do the elderly hold on to their housing wealth until they die? Second, to the extent that the elderly do hold on to their houses until they die, what are their motives?

The first question -- whether the equity in the houses of the elderly is passed on to the next generation in the form of bequests -- is important in assessing the question of whether bequests play a significant role in the finances of most families. Studies such as Kotlikoff and Summers (1981) have argued that most of the stock of wealth is attributable to intergenerational transfers. A large fraction of the wealth of households over 65 is in the form of housing, and this wealth is more evenly distributed than non-housing wealth. If all of the old people that we observe owning houses ended up bequeathing them, intergenerational wealth transfers will be less skewed than if the housing wealth is consumed.

The second question -- to the extent that the elderly do bequeath their housing equity to their children, what are their motives? -- is of central importance both in understanding intergenerational effects of fiscal policy and in assessing policies aimed at improving the welfare of the elderly. Barro

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<sup>1</sup> See, for example, Venti and Wise (1990) and Merrill (1984).

(1974) argues that people use intergenerational transfers to offset the effects of fiscal policy. In examining one major component of the elderly's bequeathable wealth, we can learn more about the motives behind intergenerational transfers. It may be that the old would like to consume their housing wealth themselves, but because of transactions costs, uncertainty, and lack of an appropriate instrument, they are unable to. Alternatively, it may be that the bequests of houses are intentional. The motivation behind the elderly's housing decisions also affects the potential for housing equity to be used for both health care and other consumption by the elderly: if, for example, the elderly keep their houses out of a desire to "age in place," then policies which encourage reverse mortgages would increase the welfare of the elderly. If the elderly hold on to their houses in order to pass wealth on to their children, by contrast, such programs would not have an effect on spending.

A large body of work on the housing wealth of the aged has produced two stylized facts. The first fact is that the elderly do not decumulate their housing wealth before they die. Venti and Wise (1989a, 1989b, 1990) find that the elderly are as likely to increase as to decrease their housing wealth when they move, and that few elderly move. They conclude that "most housing equity will apparently be left as a bequest, judging by the behavior of the RHS respondents through age 73." (1989b). Hurd (1987) finds that the decline in wealth among the aged is twice as large when housing wealth is

excluded as it is when housing wealth is included, and that for couples, wealth is constant when housing wealth is included but falls when housing wealth is excluded.

The second stylized fact of the aging literature is that the elderly do not respond to conventional economic incentives in their behavior toward housing. Put simply, the literature paints the elderly as treating their houses entirely as "a place to live," rather than also considering their role as assets. Feinstein and McFadden (1989) find no evidence of capital market imperfections that prevent the elderly from reducing housing equity in order to dissave. Merrill (1984) finds that elderly households with few liquid assets or low income are no more likely to trade down their housing equity than other elderly households. Venti and Wise interpret their evidence on the failure of old people to reduce their housing equity, in combination with the absence of a significant demand for reverse mortgages, as suggesting that "the typical elderly family does not wish to reduce housing wealth to increase current consumption" -- evidence that the elderly either do not think of their houses as assets or that they have very strong bequest motives. One of the questions we address in this paper is whether this picture of the elderly is justified.

The remainder of the paper is organized as follows. In section 1 we explore the potential importance of housing wealth as a component of bequests by examining asset data from the 1983 Survey of Consumer Finances. In Section 2, we examine whether the elderly do, in fact, decrease their housing

wealth as they age, and how much housing wealth is reduced before death. We argue that previous authors have incorrectly extrapolated from the behavior of the "young elderly" to the behavior of the "old elderly," and that they have been too willing to attribute the observed cross-sectional decline in homeownership with age to cohort effects.

Section 3 focuses on changes in housing wealth at two important events: widowhood and death. The reduction in housing equity that occurs at the time of widowhood partially explains the age profile of housing wealth that we present in Section 2. However, the reduction in housing in the years immediately preceding death imparts a strong bias to any estimate of the amount of bequeathed housing wealth derived from looking at living people. We show that the amount of housing held by people near death is quite low compared to what is seen in cross sections.

Section 4 examines the extent to which the decline in housing among the elderly is attributable to such non-economic factors as health, and how much is attributable to economic factors such as the desire to consume out of housing wealth or the desire to leave bequests. Our goal is to assess the view that the behavior of the old toward their houses is conditioned solely by the role of houses as a place to live, rather than also being a function of economic factors. We find some evidence that economic factors do play a role in the elderly's decisions about how much housing to hold. An increase in housing prices, for example, makes it more likely that the elderly will sell their house.

However, like other authors, we find little relationship between the behavior of the elderly and whether they have any children, thus indicating that the desire to leave a bequest may not an important factor in decisions about housing.

Section 5 examines how the non-housing assets of the elderly change when they sell their houses. We find that when the elderly sell their houses, they do spend a large fraction of the proceeds. We see this as further evidence that the desire to spend housing wealth on non-housing consumption is an important determinant of the elderly's housing tenure decisions.

Section 6 concludes. The picture of the housing wealth of the aged that this paper presents differs substantially from the image presented in the existing literature. Elderly households do substantially reduce their housing wealth before they die. Although the constraints involved in reducing housing equity may be large, we find evidence that these constraints are not completely binding: the elderly respond to prices and to the need for non-housing consumption in making their housing decisions.

## **1. Housing in the Portfolios of the Elderly**

This section examines briefly the role of housing in the portfolios of the elderly. It has been widely documented that the elderly hold a large fraction of their wealth in the form of housing. Exactly how much they hold varies with the data source used. Table 1 compares data on net worth and housing

value from the 1988 SIPP and the 1983 Survey of Consumer Finances. According to the SIPP, housing accounted for 40.4% of the net worth of households with heads over 64. By contrast, in the SCF, mean housing wealth is only 22% of mean net wealth for households with heads over 64. The difference is attributable to the extra effort made in the SCF to measure the assets of the very wealthy -- thus median non-housing wealth is similar in the two surveys, while mean non-housing wealth is much higher in the SCF.

In both surveys, housing plays a major role in the portfolios of non-wealthy households: for example, in both surveys median wealth excluding housing is only about one-third of median wealth including housing. In the remainder of this section, we use data from the SCF to further characterize the distribution of housing wealth in the elderly population. Figure 1 presents Lorenz curves showing the distribution of housing wealth, non-housing wealth, and total wealth for the population 65 and over. It is clear from examining the figure that housing wealth is much more evenly distributed than other forms of wealth: for example 67.6% of total wealth is held by the top decile of wealth holders, while only 42.3% percent of housing wealth is held by the top decile of housing wealth holders. Thus whether housing wealth is passed on as bequests or consumed during the lifetimes of the elderly is crucially important to the question of how evenly distributed are bequests.

One implication of Figure 1 is that housing does not play an important role in the portfolios of either the very wealthy (who own a lot of non-housing



assets) or the poor (who tend not to be homeowners), but should bulk large in the portfolios of the middle class. For example, for the middle two quartiles of the net wealth distribution, the average ratio of net housing wealth to total net wealth is 58.9%.

Figure 2 classifies households by the percentage of their total wealth made up of housing. Housing represents more than half of total wealth for 46.6% of households, and represents more than 80% of wealth for 25.1% of households. It is clear that the question of whether the wealth locked up in housing is passed on to the next generation is a crucial determinant of the size of intergenerational wealth transfers for a large number of households.

Another calculation makes this same point: if all of the households with heads aged 65-69 kept their net worth constant until death, 59% of households would leave bequests larger than \$60,000; if such households kept their non-housing wealth constant but eliminated their housing wealth before death, then only 40% of households would leave bequests this large.

## **2. Does Housing Wealth Decline with Age?**

Few of the studies that have examined the housing of the elderly have followed people into extreme old age. In this section, we show that doing so significantly modifies the portrait of the relationship between housing and age presented in the literature.

We examine the housing tenure of the aged in two data sources: the March Current Population Survey (CPS) and the Panel Study of Income Dynamics (PSID). Both sources have the advantage of allowing us to examine the behavior of people well into old age. The CPS has the advantage of a large sample size, but does not contain information on house value. The PSID not only contains information on house value<sup>2</sup>, but also allows us to follow individuals as they age and die.

Table 2 reports the measures of tenure in cross section in our two data sets. The table reports tenure broken down by five-year age category for three groups: all men, all women, and unmarried women (since few elderly men are widowers). For the PSID, we report the average value for the years 1983-87. For the CPS, we use data from 1988. Although the levels of homeownership in the two data sets differ somewhat, the relationships between tenure and age are quite similar.

Two interesting points emerge from this examination. First, contrary to the evidence in Venti and Wise, et al, we find that homeownership does decline with age. This finding is most striking looking at the case of all women, where homeownership declines from 78 percent at ages 60-64 in the CPS to 47 percent for women aged 85 and over. This pattern is much less

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<sup>2</sup>The PSID contains data on house value in all years. Information on remaining mortgage is gathered in only a few years. Because the average remaining mortgage in the years for which there are data is less than 10% of house value, we use house value instead of home equity in all further work.

striking for widowed women, who have a lower level of homeownership at all ages, but show less variation in tenure patterns with age. The decline in homeownership for all women as they age is thus associated with their entry into widowhood, since the fraction of women who are widows increases with age.<sup>3</sup> Since most husband and wife households go through widowhood before the household ends, the lower rate of homeownership for widows shows that households do reduce their housing equity, even though neither individual men nor widows do so over time.<sup>4</sup>

One explanation for the decline in homeownership in our cross sections is that we are picking up a cohort effect: the older cohorts in our sample may have had lower lifetime income and thus lower homeownership.<sup>5</sup> To examine this possibility, we perform a simple tests: we compare the housing status of the same cohort five years apart, using the CPS from 1983 and 1988.<sup>6</sup> Table

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<sup>3</sup> In 1980, for example, 40% of women aged 65-74 were widows, as compared to 68% of women aged 75 and above. (US Bureau of Census).

<sup>4</sup> Of the women aged 65 and over who died in 1983, 68% were widowed and 11% were divorced or never married. By contrast, of the men 65 and over who died, 63% were married. Thus in examining single women, we are examining the most common end stage for households.

<sup>5</sup> Venti and Wise (1990) find a decline in equity for homeowners at older ages in the SIPP. They conclude that cohort effects explain all of this decline. Although they use only a cross section, they reach this conclusion by observing that housing equity is unrelated to the number of years since a household last moved.

<sup>6</sup> This method removes the cohort bias, but can not distinguish between changes in homeownership due to age from those due to time.

3 shows that for elderly women, there is a within-cohort decline in ownership for every age group, with the largest declines for those above age 70. Under the assumption that cohort effects determine the level of home-ownership at age 60, but not the rate of homeownership decline, we project the homeownership rate for the cohort aged 60-64 in 1988. These calculations, presented in the fourth column of Table 3, suggest that the homeownership rate will decline from 78 percent at ages 60-64, to 59 percent at ages 85-89. Thus, although there is evidence of some cohort effect, most of the decline in homeownership is attributable to the aging of the same cohort. For men, within-cohort ownership rates are constant up until age 80, after which they decline sharply.

We conclude from the results in Tables 2 and 3 that homeownership declines significantly with age. Women experience larger and earlier declines than men, and single women experience much smaller declines than the group of women as a whole. From looking at these average ownership rates, however, we still cannot know whether the elderly actually hold on to their houses until they die. In the next section, we attempt to answer this question, and we begin to explore the factors that determine housing wealth.

### **3. Changes in Housing Wealth at Widowhood and Death**

In this section, we begin to explore the reasons for the decline in housing wealth as people age. We examine changes in housing status that take place

near the events of widowhood and death.<sup>7</sup> We postpone until Section 4 the question of how changes in housing are related to such non-economic variables as health and to such economic variables as housing prices and bequest motives.

In Table 4, we look at changes in housing tenure and equity for a cohort of men and women who we can follow from four years before to four years after the year in which they are widowed. For women, the results are as expected: tenure and house value are constant in the years before widowhood. In the year after widowhood, there is a sharp increase in rental, and a fall in ownership. Among our small sample of men who lose their wives, the evidence is more ambiguous: rental rises and ownership falls before widowhood as well as after.

Table 5 looks at changes in housing status at the time of death for widows and widowers. For both women and men, we find a large jump in renting and a large decline in ownership in the year before death. The finding in Table 5 that being near to death lowers the probability of owning a home suggests that there may be a significant bias in using cross-sectional data to determine whether the elderly die owning their homes. To answer this question directly, and to assess the bias in examining cross sections, we estimate the fraction of

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<sup>7</sup> Borsch-Supan (1989) finds that changes in living arrangements are concentrated after such changes in status as widowhood. Feinstein and McFadden (1989) find that mobility is concentrated in the periods following such shocks as retirement and changes in family composition.

people who die owning houses and the average amount of housing wealth bequeathed, using two different methodologies. The first, the "random death method," applies age-, sex-, and race-specific mortality probabilities to each household in a cross sectional sample.<sup>8</sup> As the name implies, this method assumes that, holding age, sex, and race constant, the incidence of death is unrelated to the variables in which we are interested. This method is biased in the case where people reduce their housing equity in the years before death. To deal with this problem, our second method is to follow households in panel data until they actually die.

The results of using these two methods are presented in Table 6. We estimate the fraction of the population that owned and rented their houses, and the mean and median housing equity of people in the year before death. Again we look separately at all women, unmarried women, and all men. We also present results averaged over the 20 years for which we have data and separately for four five-year periods.

The first panel of Table 6 examines unmarried women, the majority of whom are widows. The difference in the results produced by the two methods is striking. Applying mortality probabilities to our sample of single women

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<sup>8</sup> Kotlikoff and Summers (1981) apply this method to data from the 1962 Survey of Consumer Finances, in order to estimate the annual flow of bequests. This method has also been used -- in reverse -- to estimate the distribution of wealth among the living by examining data on estates. Atkinson (1975) discusses the potential bias in using this method if members of different social classes have different mortality rates.

implies that 51% of them would die as homeowners; in fact, only 40% do so. Similarly, average home equity at death using the random death method is 87% higher than it is using actual deaths. For the group of all women, examined in the second panel of the table, there is a similarly large difference between homeownership at death using the two methods, and the average equity of women who die is 56% higher using the random death method than it is using the real death method.

The third panel of Table 6 performs the same exercise for men. Once again, the random death method greatly overstates the probability of a man dying as a homeowner. The difference between the results produced by the random and actual death methods is largest in the early part of our sample period, and quite small at the end. This phenomenon was not present in the case of women.

The final panel of Table 6 examines the tenure patterns at death for all unmarried people. Because the probability of both household members dying in a single year is very small, examining unmarried people (who are predominantly widows or widowers) is like looking at household dissolution. Thus, this table calculates the ownership rate and amount of housing equity that households die with. Only 42% of households die owning their own homes. While this is still a large fraction, it is much lower than the average homeownership rate of elderly people. The median household does not die owning a home. Similarly, the mean housing wealth at death is only \$16,055

(1987 dollars) -- slightly more than half the mean housing wealth at death that would have been calculated using the random death method.

In this section we have found, first, that while many men still own a house at the time of death, it is common for men to die before their wives, and for widows to reduce their housing equity around the time of widowhood. Second, among both women and men there is a strong tendency to reduce housing equity in the period immediately preceding death. When the changes in housing equity around widowhood and death are combined with the decline in housing equity associated with aging, the result is to partially overturn the conclusion, which one might have drawn from the previous literature, that most of the housing wealth of the old is held until death.

Thus far we have not said anything about causation. Do women who lose a spouse sell their houses because they want to consume some of their housing equity, or because they want to relocate? Do people near death move because they want to change the housing they consume, because they need to pay medical bills, or because they want to change some other aspect of consumption?

If the movement from owning to renting that we observe as people age and approach death is due purely to the desire to live in more appropriate housing, rather than to consume the equity in housing, it could be that



although ownership rates decline with death, bequeathable wealth does not.<sup>9</sup>

In the next section, we are able to shed some light on the factors that influence the housing decisions of the elderly. In Section 5 we examine the non-housing assets of elderly movers to see if we can trace where the money received from house sales goes.

#### **4. What Governs Housing Wealth: Non-Economic vs Economic Factors**

In the last section, we established that the elderly change their housing status as they age, as their marital status changes, and as they approach death. This pattern of behavior could be consistent with several hypotheses about the motives governing the elderly's housing decisions: the elderly may not be responding to economic factors at all when they move (for example, they may move from owning to renting solely for convenience); they may be treating their house as an asset in a lifetime optimization problem, (holding on to them for medical expenses in their last years, for example), in which case houses left as bequests are accidental; or they may be treating their house as an asset in an intergenerational optimization problem, in which case houses held until death are part of intentional bequests.

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<sup>9</sup> Even if elderly households do move out of home ownership for reasons of convenience rather than to explicitly run down their assets, it is still possible that once they have moved, they do consume some of their housing equity.

In this section we try to learn more about the elderly's motives by examining the interaction between housing wealth and other variables. We examine both variables that are not economic -- in particular health -- and variables of particular interest to economists, such as income, whether a person has children, and changes in the value of the person's house.

Ideally, we would like to sort out the effect of "moving as a way of increasing non-housing consumption" from "moving as a way of changing the form of housing consumed." It may be, for example, that people who face disabilities or are unable to care for a house on their own move from owner-occupied to rental housing without changing their non-housing consumption. Alternatively, people near death may move explicitly to increase consumption, either because of increased need (for example higher medical bills) or because they are optimally running down their assets.

Table 7 calculates the probability of moving for elderly homeowners in the PSID, and also tabulates the fraction of movers who move to rental vs to owner occupied housing. The second and third panels show the effect of aging on mobility and on the destination of movers. Within each category the probability of moving is higher among the 75+ age group than among the 65-74 age group. Further, the fraction of movers who become renters is also higher for the older group. Combining these two effects one sees that, among couples, the probability of moving from owner occupied housing to rental housing rises from .67% among the 65-74 age group to 1.94% among the

75+ age group. This confirms our earlier result that projecting from the behavior of the "young" elderly will lead to incorrect predictions about the "old" elderly.

The fourth and fifth panels of Table 7 examine the effect of health on mobility. Our health measure is whether the head of the household claimed to have a severely-limiting disability. Unfortunately, the PSID does not provide sufficient data on the health of people who were not heads of household. Ill health raises mobility and, in the case of couples, raises the probability of that when the homeowners move, they move into rental housing. For example, couples where the head is healthy have a .68% chance of moving from ownership to rental in a year, as compared with a 2.18% chance for couples where the head is not in good health. The last two panels of Table 7 look at the effect of whether one of the members of the household (either the head or the spouse) will die within three years on mobility. Being within three years of death raises mobility and the probability of moving into rental housing for both male and female singles. But having one member of a couple be within three years of death has only a minor effect on the mobility of couples.

In Table 8, we look at the cumulative effect of the mobility differentials. We examine the housing tenure in the year of death for people who were homeowners ten years before they died. Of the women who were homeowners ten years before death, 75% died as homeowners; for men the figure was 88%. The next two lines examine show the dramatic difference

between those who died married and those who died single: women who died married and were owners ten years before death had a 94% probability of dying as homeowners; those who died single had only a 64% probability.

Lines 4 and 5 of Table 8 demonstrate again the increase in the probability of moving from ownership to rental that takes place with age. Conditional on having been a homeowner ten years before death, the chances of dying as a homeowner are much higher for those who die before age 75 than for those who die after.

### **The Relation Between Income and Ownership at Death**

We now examine the relationship between income and the changes in housing tenure between the beginning of old age and death. If declines in homeownership are larger for the poorer half of the sample than for the wealthier half, we could conclude that the desire to raise non-housing consumption is behind the decline in homeownership with age and at the approach of death.

Lines 6-9 of Table 8 break down the population of homeowners by income and by house value. We focus on men and women who were homeowners ten years before their deaths and who died single. We find that although the probability of moving from ownership to rental in the ten years before death is lower for high income households than for low income households, the

difference is not striking: 60% of women homeowners who were in the lower half of the income distribution died as homeowners, while 68% of those in the upper half of the distribution did so. The value of the house lived in is more important than income in determining whether a person will die as a homeowner: 73% of women who died single and lived in houses worth more than the median ten years before death died as homeowners, vs 56% of women with houses below the median. The corresponding figures for men are 84% and 70%.

### **The Effects of Children**

The presence or absence of children has been taken to be an indication of the strength of a person's bequest motive. The logic is that people without children should have weaker bequest motives than those with children. Hurd (1987) finds that non-housing wealth declines more slowly for people without children than it does for people with children, and Venti and Wise (1989a) find no significant relationship between changes in housing wealth and whether a family has children. Both of these findings are interpreted as evidence against an operative bequest motive. The analysis of housing wealth in this case is complicated, of course, by the problem that people with children have the option of moving in with these children.

Lines 10 and 11 of Table 8 look at changes in housing tenure over a period of ten years, broken down by whether a person had children. They show that

moving from owning to renting in the ten years before death is more common for women who have had children than for those who have not (conditional on the women being homeowners). This finding, like the findings of Hurd and Venti and Wise, seems to contradict an intentional-bequest model. The finding that women with children may be even more likely to trade down is even more surprising. Two possible explanations are as follows. First, the finding that women who die widows are particularly likely to trade down their housing wealth suggests that widows who have had children are more likely to find themselves "over housed" at the death of a spouse than those who never had children. Alternatively, women who have had children may have either the motive (being close to children) or the wherewithal (help from children) to move, while their childless counterparts do not.

Table 9 presents probit regression summarizing the effects of the factors discussed above -- age, health, nearness of death, and children -- on the likelihood of moving from ownership to rental. Controlling for other factors, age has a significant effect on the probability of moving for couples but not for singles. Poor health significantly increases the probability of moving for both couples and singles, while nearness to death significantly raises mobility for singles only.

As a measure of the importance of our health and nearness to death variables, we calculated the average probability of moving from owning to renting holding all of the other right hand side variables constant. The results

are presented in Table 10. The magnitude of the effects of health and nearness to death are fairly large: for example being within three years of death raises the probability of moving to rental for single home homeowners from 1.96 % to 4.25 %.

### **Effects of Housing Prices**

Variation in housing price changes the opportunity cost of not reducing housing equity. If the elderly do not treat their houses as assets, such changes should not matter. At the opposite extreme, if the elderly explicitly trade off housing consumption and other consumption, then an increase in the price of housing should be reflected in reductions in housing consumption. To the extent that bequests of housing are intentional, the behavior of housing consumption in response to a change in housing price will depend on the form of the bequest motive.

We now turn to examining the effect of changes in housing prices on the homeownership of the elderly. As discussed above, a large fraction of the elderly's wealth is in the form of owner-occupied housing. The large cross sectional variation in the rate of growth of housing prices has produced a correspondingly large variation in the additional consumption available to elderly people who sell their houses. If the old optimize along this margin -- that is, if they trade off the value of living in their houses against the potential

increase in consumption available if they sell their houses -- then we would expect to see an increase in housing prices associated with a reduction in homeownership. On the other hand, if the elderly do not optimize along this margin -- if, for example, they are sated in their non-housing consumption, or if they only change housing arrangements for non-economic reasons -- then there will be no relation between house price changes and changes in ownership.

In Table 11, we exploit cross-state variation in the rate of growth of house prices to examine how changes in housing prices affect the decision of the elderly to remain homeowners. The dependent variable is the change in the rate of homeownership for members of a cohort in a state over the period 1983 to 1988, derived from the March CPS. On the right hand side, in addition to the change in house prices over the same five years, we include the log of the initial rate of homeownership in 1983 and the log of the 1983 house price. We present our results both unweighted, and weighted by the size of our CPS sample in each state, though the results are insensitive to the weighting scheme.

Our results provide evidence that old people do indeed reduce their ownership in response to changes in price. When initial price and initial level of homeownership are included, we find a significant negative coefficient on price change in both the weighted and unweighted specification. Dropping the initial level of prices does not have much of an affect on our estimates, while



if the initial level of ownership is not included on the right hand side, the coefficient on the change in prices is negative but not significant.

For 65-75 year old women, a state house price increase of 100% over five years is associated with a 23% decrease in the rate of homeownership (using the weighted regression). The regression results imply that the ownership rate in the state with the largest five-year growth rate in our sample, Rhode Island (5-year growth rate of 86%) would decline 20% more than the ownership rate in the state with the slowest house price growth, Oklahoma (7.7%). The magnitude of the responsiveness of homeownership rates to housing price is slightly larger for 75-85 year old women, where a 100% increase in house prices would be associated with a 39% decline in homeownership rates. The pattern of coefficients for the regressions run for men is similar.

### **Health Expenditures and Medicaid**

Finally, in this section we discuss, but do not confront with any evidence, the possibility that the medicaid system of paying for nursing home expenditures is an important motivation behind the elderly's holding on to their houses. The debate over how frequently the elderly shuffle their assets to avoid the "tax" of medicaid spend-down (Moses, 1990) suggests that more attention should be paid to a "defensive" motivation for the high home-

ownership rates of the elderly. Since houses are exempt from medicaid's asset limits, one would expect to see households which face the risk of high nursing home expenditures holding a large fraction of their wealth in this form.

There are two situations in which one would expect to see such behavior: First, single old persons may hold on to a house as a means of preserving wealth to be passed on to beneficiaries. Second, and we suspect more common, a married couple may hold on to a house in order to preserve wealth for the care of the surviving spouse in the case where one spouse has large medical bills. Over many of the years covered in the PSID data, the non-housing assets of a household that were protected by Medicaid were quite small. Holding on to a house was the best way to preserve wealth for the non-institutionalized spouse. Note that the house could be preserved both for its consumption value, or as an asset that could be sold after the first spouse died. This would explain the especially high homeownership rate for couples, as well as the frequency of home sales after widowhood.

## **5. Where Does the Money Go?**

We have shown that as households age, there is a significant probability that they will sell their homes. In order to know whether this movement away from homeownership is associated with a reduction in wealth, it is necessary to know what the homeowners do with the money they receive from selling the house. If the elderly who sell their houses do not generally use the money,

then the reduction in homeownership with age is not associated with a reduction in bequeathable wealth, but only with a change in the composition of the portfolios of the elderly. If, on the other hand, some or all of the housing equity is used, then the movement away from homeownership that we have identified also represents a reduction in wealth, and may be evidence of significant dissaving by the older elderly.

Analyzing the motivations for selling, as is done in Section 4, provides some insight into this question. For instance, the relationship between housing tenure and housing price changes may be viewed as evidence of a consumption motive for selling. On the other hand, the relationship between bad health or nearness to death and selling could be interpreted in two ways. It could be that the movement to rental housing is due to a desire to relocate or to an inability to perform the activities necessary to maintain a home. In this case, the money received from selling the house may be converted into liquid assets and remain part of the bequeathable estate. On the other hand, the motivation behind moving for people in ill health may be to use the housing capital to pay for medical or nursing care, in which case the movement to rental would represent a reduction in wealth.

This section tries to shed some light on this issue by examining the assets of elderly households before and after they sell their homes. Unfortunately, the data available for this exercise are rather crude. The PSID only collects information on assets in one year; however, information on asset income is

collected in all years. To construct assets, we have divided asset income by the 3-month Treasury bill rate. Because this procedure may be particularly prone to error for households with business income, we have excluded all households with any significant amount of farm or business income from our analysis.<sup>10</sup>

In order to test whether households who sell their houses spend or save the money they receive for their house, we examine the level of assets of households two years after they have moved from ownership to rental. The use of a two year lag is necessary to ensure that asset income includes a full year of interest on the value of the housing wealth retained after the house is sold. A disadvantage of this approach is that singles who sell their houses within two years of their deaths are excluded from the analysis. We present the results both for all households that were owners and for a restricted sample which excludes households with negative asset holdings and with asset holdings greater than \$150,000 (1987 dollars) in either of the two years in which we observe them.

Table 12 takes the simple approach of tabulating the data. We compare the change in the value of assets that took place over a three year period

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<sup>10</sup> Our measure of asset income is equal to total income minus labor earnings, transfers, and retirement (pension and social security) income. In the first eight years of the PSID, asset income was only recorded by category. Thus, we excluded any household who had farm, business, royalty, or garden income exceeding \$500 (nominal). Over the later years, we excluded any household with \$500 (1987 dollars) of such asset income.

among people who were homeowners in year one and remained in their houses until year three (non-movers), and people who sold their houses and moved into rental in year one (movers). Both the restricted and unrestricted samples provide evidence that when couples sell their houses, some of the house's value remains part of the family's wealth. For example, in the unrestricted sample, couples who remained homeowners experienced an average drop in the value of their assets of \$7,400, while those who sold their houses experienced an average increase in their assets of \$25,208. Among singles, the change in the assets of movers is slightly higher than among non-movers, but the difference is small. It appears that when singles sell their houses, little of their housing wealth remains as part of their total assets.

In Table 13, we present regressions in which the dependent variable is the level of assets of the household in year  $t+3$  and the independent variables are attributes of the household (including its level of assets) in year  $t$ . We also include a dummy variable for whether the household moved from owning to renting in year  $t$ , interacted with the value of the house in year  $t-1$ . We interpret the coefficient on this term as the fraction of the house's value that has remained part of the family's wealth.

The table shows that the value of assets in year  $t$  is a good predictor of assets in year  $t+3$ . The coefficient on the value of the house in year  $t$  is also significant and positive, presumably because assets in year  $t$  are very imprecisely measured, so the value of the house adds information about the

total wealth of the household. The coefficient on the value of the house multiplied by the dummy variable indicating whether the household moved from own to rent, is insignificant but very imprecisely estimated for the unrestricted sample. For the restricted sample, the coefficient on house value multiplied by the dummy for moving is .31 (with a standard error of .12) for couples, indicating that some fraction of the value of a house remains in a couple's wealth two years after it is sold. For the restricted sample of singles, the coefficient on the interaction term is insignificantly different from zero, but precisely estimated. This implies that single elderly people who sell their houses do not keep the money that they receive. Our regression results thus confirm the results of simple tabulations in Table 12.

## 6. Conclusion

This paper set out to answer two questions: do the elderly hold on to their housing wealth until they die, and what is their motive? Our answer to the first is that the old die with a good deal less housing wealth than one would have thought from looking at previous literature. We have found that average levels of homeownership and housing wealth do decline significantly with age, even when cohort effects are taken into consideration. These declines are particularly important at the time of the death of a spouse. As important as

the decline in average levels of housing, there is a strong tendency to reduce homeownership in the few years before death. Thus looking at the average level of homeownership or equity of a group greatly overstates the amount of housing that will be held by people who die.

Despite all of these effects, however, the amount of housing wealth that is held by people who die is still significant. We estimate that 42% of households will leave a house when the last member dies. The average house value for those that do leave a house is \$38,266. Simple measures of income suggest that although higher income households do hold more housing wealth, many poorer households also end without having sold their homes. In comparison to the amount of financial wealth that most people (old or young) hold, bequests of houses should be quite important.

We have obtained three interesting results on the question of what motivates the old in their decisions to hold housing. First, we find that the degree to which households reduce homeownership between age 65 and death does not differ greatly between the upper and lower income halves of our sample. This suggests that non-economic factors may play important roles in determining housing decisions. Second, we find that people who do not have children reduce their homeownership more slowly than those who do -- a finding that casts doubt on a bequest motive for holding housing assets. Third, we have found evidence that increases in house prices in a state make it more likely that the elderly in that state reduce their home equity -- providing some

evidence that the elderly do respond to economic incentives in choosing whether to hold on to their houses. Finally, we have found evidence that the value of houses sold by elderly people tends not remain in their portfolios after the house is sold.



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**Table 1**  
**Holdings of Housing and Other Assets by the Elderly**

	1988 SIPP	1983 SCF
<b>Net Worth</b>		
median	73,471	62,870
mean	136,013	230,150
<b>Net Worth Excluding Housing</b>		
median	23,856	20,923
mean	81,073	178,728
<b>Mean Housing Equity</b>	54,940	51,422
<b>Homeownership Rate</b>	74.7%	74.3%

Note: Dollar values from the 1983 SCF are converted to 1988 dollars using the CPI. Source: Bureau of Census, 1990, and authors' calculations.

Table 2  
Tenure Rates by Age in the CPS and PSID

	ALL WOMEN						
	CPS			PSID			
	Own	Rent	Other	Own	Rent	Live with family	House Value
60-64	0.78	0.14	0.07	0.80	0.17	0.02	52822
65-69	0.76	0.16	0.07	0.77	0.18	0.02	49616
70-74	0.69	0.21	0.09	0.69	0.25	0.01	40083
75-79	0.65	0.22	0.13	0.64	0.26	0.03	35461
80-84	0.56	0.27	0.17	0.59	0.26	0.07	32916
85+	0.47	0.25	0.28	0.49	0.26	0.12	34071
	(N = 14557)			(N = 5135)			

	WIDOWED WOMEN <sup>11</sup>						
	CPS			PSID			
	Own	Rent	Other	Own	Rent	Live with family	House Value
60-64	0.67	0.19	0.14	0.64	0.33	0.00	25054
65-69	0.64	0.24	0.12	0.63	0.33	0.00	35079
70-74	0.59	0.28	0.13	0.64	0.30	0.00	28624
75-79	0.57	0.27	0.16	0.60	0.31	0.00	29315
80-84	0.53	0.29	0.18	0.59	0.30	0.02	27457
85+	0.45	0.25	0.30	0.54	0.27	0.03	33840
	(N = 6020)			(N = 2283)			

	ALL MEN						
	CPS			PSID			
	Own	Rent	Other	Own	Rent	Live with family	House Value
60-64	0.81	0.13	0.06	0.88	0.09	0.01	52822
65-69	0.82	0.13	0.05	0.89	0.08	0.01	49616
70-74	0.81	0.13	0.06	0.83	0.13	0.01	40083
75-79	0.78	0.15	0.06	0.75	0.19	0.00	35461
80-84	0.71	0.17	0.12	0.78	0.17	0.00	32916
85+	0.64	0.21	0.15	0.67	0.23	0.04	34071
	(N = 10901)			(N = 3399)			

Note: CPS data are from the March 1988 CPS. PSID data represent averages from the 1983-87 Waves of the PSID. All values are weighted with CPS or PSID sample weights.

<sup>11</sup>The PSID does not identify the marital status of individuals who are neither heads nor spouses. We thus greatly underestimate the propensity of widows to live with family.

**Table 3**  
**Changes in Ownership Within Cohorts**

WOMEN				
Age in 1988	Ownership in 1988	Ownership in 1983	Change in Ownership	Simulated Ownership for Single Cohort
60-64	.78	.80	-.02	.78
65-69	.77	.78	-.01	.77
70-74	.69	.74	-.05	.73
75-79	.65	.67	-.02	.71
80-84	.56	.63	-.07	.64
85-89	.48	.53	-.05	.59

MEN				
Age in 1988	Ownership in 1988	Ownership in 1983	Change in Ownership	Simulated Ownership for Single Cohort
60-64	.81	.82	-.01	.81
65-69	.82	.82	.00	.81
70-74	.81	.81	.00	.81
75-79	.78	.79	-.01	.80
80-84	.71	.79	-.08	.72
85-89	.64	.73	-.09	.63

Note: Sources are the 1983 and 1988 CPS. Simulated ownership for a single cohort is calculated by applying the 1983-88 within-cohort changes for each age group to the cohort that was 60-64 in 1988. All values are weighted with CPS sample weights.

Table 4  
Housing Status Changes at the Death of a Spouse

Women who were widowed (302 observations)

Years since Death of Husband	Fraction Renting	Fraction Owning	Housing Value	
			mean	median
-4	.15	.78	37775	32859
-3	.16	.77	38061	32256
-2	.16	.79	37531	34563
-1	.16	.76	40281	36464
0	.17	.76	37952	34216
1	.22	.72	36511	32805
2	.23	.71	34549	29724
3	.26	.68	34098	28488
4	.26	.64	32733	23471

Men who were widowed (101 observations)

Years since Death of Wife	Fraction Renting	Fraction Owning	Housing Value	
			mean	median
-4	.12	.85	40728	32643
-3	.11	.85	39668	34563
-2	.13	.84	42827	32492
-1	.15	.80	40592	34424
0	.16	.79	41763	34466
1	.16	.77	43257	33784
2	.22	.71	38407	24994
3	.20	.76	39184	29947
4	.18	.75	38059	28512

Note: The year labeled zero in the column for years since death of spouse is the last year in which the spouse was alive. For each table, the sample is all of those people who remained alive at least four years after the death of their spouse. All values are weighted using PSID sample weights.

Table 5  
Housing Status Changes Before Death

WIDOWS (203 observations)

Years Prior to Death	Fraction Renting	Fraction Owning	House Value	
			mean	median
4	.30	.59	24698	13724
3	.28	.60	24012	16543
2	.28	.60	25217	18040
1	.29	.57	26924	17212
0	.35	.49	21441	0

WIDOWERS (76 observations)

Years Prior to Death	Fraction Renting	Fraction Owning	House Value	
			mean	median
4	.23	.71	30237	23471
3	.29	.67	27687	27572
2	.30	.61	27988	19964
1	.26	.64	24026	14996
0	.34	.52	21001	13686

Note: Data are from the PSID 1968-87. House Value is in 1987 dollars. All values are weighted by PSID sample weights.



Table 6

## Tenure and House Value at Death

	UNMARRIED WOMEN		ALL WOMEN		ALL MEN		ALL SINGLE PEOPLE	
	Random Death	Actual Deaths	Random Death	Actual Deaths	Random Death	Actual Deaths	Random Death	Actual Deaths
Fraction Owning								
1968-87	.51	.40	.61	.52	.76	.68	.51	.42
1968-72	.47	.39	.59	.51	.72	.60	.47	.38
1973-77	.51	.42	.61	.53	.76	.65	.53	.41
1978-82	.51	.46	.61	.58	.76	.69	.51	.46
1983-87	.53	.35	.62	.46	.79	.77	.54	.42
Average House Value								
1968-87	29911	16207	35875	23001	41564	30569	28429	16055
1968-72	34375	10903	36174	18490	34034	24025	31622	12073
1973-77	29263	17803	34520	22051	38652	26217	28209	15768
1978-82	27320	15438	34680	25788	44195	33225	25644	18311
1983-87	30035	18086	37577	24185	48044	37135	28898	16893
Fraction Renting								
1968-87	.27	.30	.23	.27	.16	.23	.27	.30
1968-72	.18	.11	.17	.16	.16	.27	.18	.18
1973-77	.27	.27	.23	.22	.15	.24	.26	.24
1978-82	.31	.36	.27	.30	.18	.24	.31	.37
1983-87	.29	.40	.24	.35	.16	.17	.29	.36

Note: Random death method applies 1987 mortality probabilities from Vital Statistics of the United States to PSID Data. Actual Deaths follows people to their death in the PSID years 1968-1987. House values are in 1987 dollars. All values are weighted with PSID sample weights.

Table 7  
Analysis of Moves by Elderly Homeowners in PSID

	group	move	own==>own	own==>rent
all households	all single	4.0%	.50	.50
	male single	4.2%	.62	.38
	female single	3.9%	.47	.53
	couples	3.9%	.76	.24
age<75	all single	3.3%	.52	.48
	male single	2.7%	.80	.20
	female single	3.5%	.47	.53
	couples	3.5%	.81	.19
age>74	all single	4.6%	.48	.52
	male single	5.6%	.54	.46
	female single	4.4%	.46	.54
	couples	5.4%	.64	.36
head health not severely limited	all single	3.4%	.50	.50
	male single	3.8%	.59	.41
	female single	3.3%	.48	.52
	couples	3.6%	.81	.19
head health severely limited	all single	5.4%	.47	.53
	male single	6.1%	.61	.39
	female single	5.3%	.44	.56
	couples	5.6%	.61	.39
neither head nor spouse dies within 3 years	all single	3.7%	.53	.47
	male single	4.1%	.67	.33
	female single	3.7%	.49	.51
	couples	3.8%	.77	.23
head or spouse dies within 3 years	all single	6.3%	.31	.69
	male single	5.3%	.38	.62
	female single	6.8%	.28	.72
	couples	4.1%	.71	.29

Note: Tabulations weighted by PSID sample weights.

Table 8 A

Changes in Tenure and House Value in the Ten Years Before Death  
for Women who were Home Owners Ten Years Before Death

line	group	N	Tenure at Death			House Value	
			own	rent	live w/ fam	ten yrs before death	at death
1.	all	135	.75	.16	.02	47,220	35,645
2.	die married	48	.94	.04	.00	55,505	52,756
3.	die single	87	.64	.22	.03	42,650	26,205
4.	die single at age<75	29	.76	.14	.00	46,482	31,692
5.	die single at age 75+	58	.59	.26	.05	40,734	23,461
6.	die single income<median	43	.60	.21	.07	27,578	18,069
7.	die single income>median	44	.68	.23	.00	57,379	34,156
8.	die single hsval<median	43	.56	.23	.00	18,645	14,594
9.	die single hsval>median	44	.73	.20	.02	66,109	37,552
10.	die single had children	69	.61	.25	.04	44,013	25,077
11.	die single never children	18	.78	.11	.00	37,424	30,526

Note: median income and house value are for women who were homeowners 10 years before death and who died single

Table 8 B

Changes in Tenure and House Value in the Ten Years Before Death  
for Men who were Home Owners Ten Years Before Death

line	group	N	Tenure at Death			House Value	
			own	rent	live w/ fam	ten yrs before death	at death
1.	all	187	.88	.08	.01	48,879	41,623
2.	die married	139	.92	.05	.00	50,133	46,474
3.	die single	48	.77	.17	.02	45,248	27,577
4.	die single at age<75	13	.92	.08	.00	45,152	26,293
5.	die single at age 75+	35	.71	.20	.03	45,284	28,053
6.	die single income<median	24	.75	.17	.04	35,086	16,208
7.	die single income>median	24	.79	.17	.00	55,410	38,945
8.	die single hsval<median	23	.70	.17	.04	20,287	16,593
9.	die single hsval>median	25	.84	.16	.00	68,212	37,681
10.	die single had children	38	.76	.16	.03	48,656	28,847
11.	die single never children	10	.80	.20	.00	32,301	22,750

Note: median income and house value are for men who were homeowners 10 years before death and who died single.

Table 9  
 Probits for Moving from Ownership to Rental

	couples	singles
income	-6.1 e-6 (1.2 e-5)	-4.2 e-6 (1.2 e-5)
hswal	-2.3 e-6 (2.5 e-6)	2.4 e-6 (1.3 e-6)
age	.046 (.015)	.012 (.008)
nonwhite	-.230 (.393)	-.529 (.295)
ever had children	.224 (.252)	.096 (.133)
die within 3 years	-.085 (.199)	.356 (.151)
head health severely lim	.394 (.165)	.234 (.113)
sex		.147 (.148)
widow within last 3 yrs		.042 (.142)
widow		-.019 (.199)
N	1955	3318

Note: standard errors in parentheses. All regressions include year dummies.

Table 10  
 Predicted Probabilities from Table 9

	Singles	Couples
head or spouse will die within 3 years	4.25%	1.27%
neither head nor spouse will die within 3 years	1.96%	1.55%
head health severely limited	3.07%	2.51%
head health not severely limited	1.82%	1.00%

Note: Probabilities in this table are calculated as the average predicted probability of moving from ownership to rental from the regressions in Table 9. Other than the indicated variables, all right hand side variables are kept at their actual values.

Table 11 A

## Cross-State Regressions of Ownership on House Price Growth

Dependent variable:  $\log(\text{own88}) - \log(\text{own83})$ 

## A. Women Aged 75-85 in 1988

	Unweighted				Weighted			
constant	-.23 (.06)	-.17 (.07)	-.03 (.06)	.84 (.84)	-.20 (.06)	-.16 (.05)	-.03 (.05)	-.41 (.33)
$\log(\text{price88}) - \log(\text{price83})$		-.26 (.15)	-.09 (.15)	-.30 (.14)		-.36 (.12)	-.08 (.11)	-.39 (.12)
$\log(\text{price83})$				-.26 (.11)				-.15 (.09)
$\log(\text{own83})$	-.41 (.14)	-.50 (.14)		-.65 (.15)	-.32 (.12)	-.55 (.14)		-.69 (.16)
$\bar{R}sq$	.14	.17	-.01	.24	.10	.22	-.01	.25

## B. Women Aged 65-75 in 1988

	Unweighted				Weighted			
constant	-.11 (.04)	-.06 (.04)	.00 (.03)	.12 (.27)	-.12 (.03)	-.08 (.02)	-.01 (.03)	-.14 (.23)
$\log(\text{price88}) - \log(\text{price83})$		-.21 (.08)	-.15 (.08)	-.22 (.08)		-.24 (.07)	-.09 (.07)	-.23 (.07)
$\log(\text{price83})$				-.05 (.06)				.01 (.06)
$\log(\text{own83})$	-.24 (.13)	-.34 (.13)		-.40 (.16)	-.28 (.10)	-.45 (.10)		-.43 (.13)
$\bar{R}sq$	.05	.14	.04	.14	.12	.28	.01	.26

Note: Standard errors in parentheses. Regressions are cross sections for 1988. The dependent variable change in the log of the fraction of people in a cohort who own their homes. own83 is the fraction of people in the same cohort who owned their homes in the state in 1983. Weighted regressions are weighted by the square root of the number of people in the state's 1988 CPS sample. State house prices are from DRI.

Table 11 B

## Cross-State Regressions of Ownership on House Price Growth

Dependent variable:  $\log(\text{own88}) - \log(\text{own83})$ 

## C. Men Aged 75-85 in 1988

	Unweighted				Weighted			
constant	-.18 (.05)	-.14 (.05)	-.04 (.05)	1.02 (.32)	-.09 (.04)	-.05 (.05)	-.01 (.04)	.50 (.34)
$\log(\text{price88}) - \log(\text{price83})$		-.20 (.12)	-.01 (.13)	-.26 (.12)		-.27 (.12)	-.14 (.10)	-.31 (.12)
$\log(\text{price83})$				-.29 (.08)				-.14 (.09)
$\log(\text{own83})$	-.59 (.19)	-.74 (.21)		-1.02 (.20)	-.12 (.17)	-.38 (.20)		-.58 (.23)
$\bar{R}^2$	.14	.17	-.02	.33	-.01	.07	.22	.10

## D. Men Aged 65-75 in 1988

	Unweighted				Weighted			
constant	-.08 (.03)	-.05 (.03)	.01 (.03)	.57 (.20)	-.09 (.02)	-.06 (.02)	.01 (.03)	.41 (.15)
$\log(\text{price88}) - \log(\text{price83})$		-.10 (.07)	-.07 (.07)	-.11 (.06)		-.14 (.05)	-.03 (.06)	-.15 (.05)
$\log(\text{price83})$				-.16 (.05)				-.12 (.04)
$\log(\text{own83})$	-.34 (.12)	-.37 (.12)		-.55 (.12)	-.42 (.09)	-.51 (.09)		-.66 (.10)
$\bar{R}^2$	.12	.15	.00	.29	.28	.36	-.01	.46

Note: Standard errors in parentheses. Regressions are cross sections for 1988. The dependent variable change in the log of the fraction of people in a cohort who own their homes.  $\text{own83}$  is the fraction of people in the same cohort who owned their homes in the state in 1983. Weighted regressions are weighted by the square root of the number of people in the state's 1988 CPS sample. State house prices are from DRI.



Table 12  
 Comparison of asset changes over 3 years  
 For households that were owners in year 1

Unrestricted Sample					
	N	Assets(t=1)	Assets(t=3)	change assets	House value (t=0)
<b>Singles</b>					
non-movers	2339	54,016	50,381	-3,634	43,181
movers	40	36,266	40,838	4,572	41,228
<b>Couples</b>					
non-movers	1708	74,095	66,695	-7,400	55,361
movers	19	31,913	57,122	25,208	50,272
Restricted Sample					
	N	Assets(t=1)	Assets(t=3)	change assets	House value (t=0)
<b>Singles</b>					
non-movers	2,045	19,182	17,913	-1,269	39,447
movers	36	21,635	23,958	2,323	38,308
<b>Couples</b>					
non-movers	1,490	26,034	34,002	7,968	50,961
movers	18	17,806	53,785	35,979	48,611

Note: restricted sample is households with  $0 \leq \text{assets} < 150,000$  in both year 1 and year 4. Movers are households which moved from ownership to rental in year one. Non-movers are households which were owners in year one and did not move at all.

Table 13

## Regressions of Assets in Year 3

	Singles		Couples	
	full	restricted	full	restricted
Assets(1)	.66 (.01)	.62 (.02)	.49 (.01)	.63 (.02)
income	1.06 (.47)	.32 (.12)	1.68 (.25)	.36 (.07)
hsva1	.39 (.06)	.08 (.02)	.28 (.07)	.04 (.02)
age	1223 (353)	-11 (82)	1190 (637)	72 (146)
nonwhite	-6898 (5685)	-5054 (1279)	-19595 (8929)	-9420 (1938)
ever kid	-4235 (5301)	-1451 (1181)	4222 (7806)	-1498 (1785)
hsv*move	-.22 (.30)	-.04 (.07)	.35 (.47)	.31 (.12)
widow	-14014 (7266)	-4813 (1677)		
wid for 3	2216 (5687)	3183 (1337)		
sex	-16190 (6122)	1957 (1439)		
wid in 3			-12561 (8202)	-2854 (1846)
rsq	.55	.48	.79	.50
N	2379	2061	1727	1426

Note: restricted sample is households with  $0 \leq \text{assets} < 150,000$  in both year 1 and year 4.

Figure 1

# Lorenz Curves for Total Wealth, Housing Wealth, and Non-housing Wealth Population Over 64

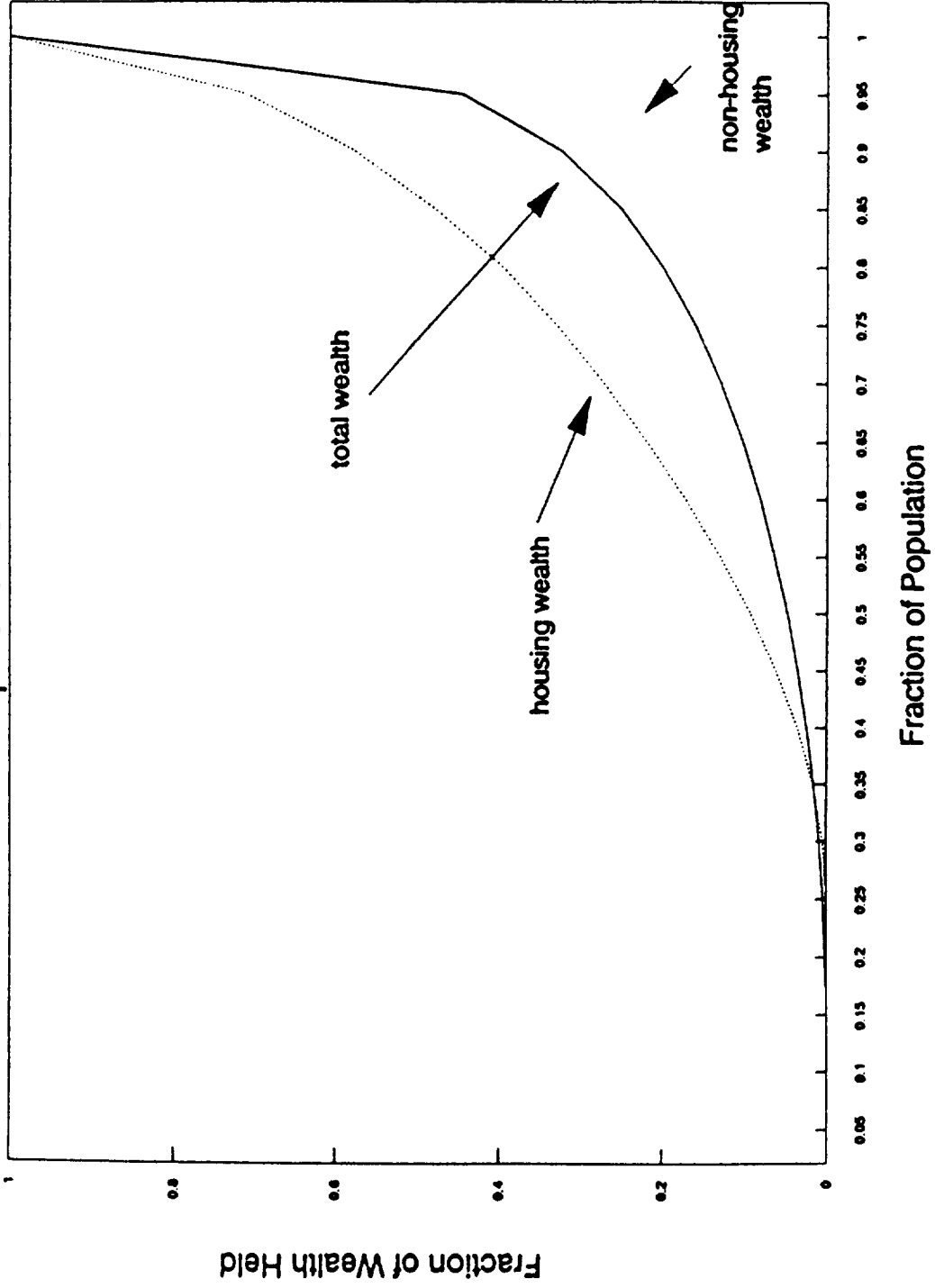
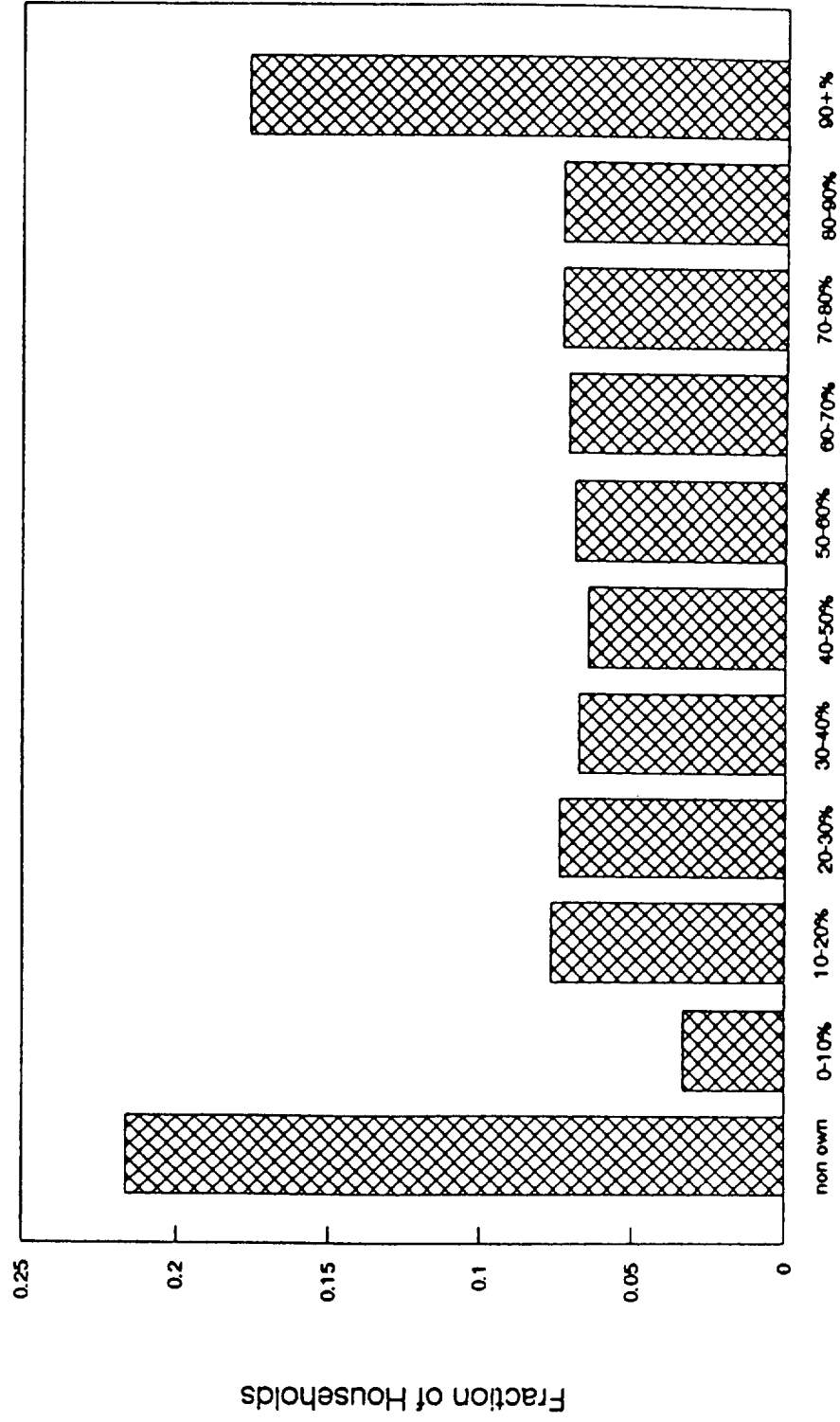


Figure 2

### Net Housing Wealth as a Fraction of Net Wealth Households with Heads Aged Over 64



Source: 1983 Survey of Consumer Finances