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HOW MUCH IS DUE TO SURVEY DESIGN?

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Increases in Wealth among the Elderly in the Early 1990s: How Much is Due to Survey Design?
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ABSTRACT

The Asset and Health Dynamics Among the Oldest Old (AHEAD) study shows a large increase in reported total wealth between 1993 and 1995. Such an increase is not found in other US household surveys around that period. This paper examines one source of this difference. We find that in AHEAD 1993 ownership rates of stocks, CDs, bonds, and checking and saving accounts were under-reported, resulting in under-measurement of wealth in 1993, and a substantial increase in wealth from 1993 to 1995. The explanation for the under-reporting is a combination of question sequence and wording in the AHEAD survey instrument.

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1. Introduction

The Asset and Health Dynamics among the Oldest Old (AHEAD) study collects panel data from households with at least one person who was 70 or over at baseline in 1993. Because of its large sample and broad coverage of life domains, the AHEAD is widely used to study the behavior and economic status of the elderly population in the US. However, simple descriptive analysis shows a remarkable feature: average total wealth increased from \$165 thousand in 1993 to \$256 thousand in 1995, an increase of about \$90 thousand or more than 50%. Yet, average household income was just \$26 thousand in 1993 and subsequent waves exhibit no such strong increases in total wealth. Taken at face value, the implication is the AHEAD cohorts had extraordinarily high rates of return between 1993 and 1995 because they could not possibly have saved the wealth increase out of income.

Comparison with other US household surveys shows that this pattern is unique to the AHEAD study. The most comparable household study in sampling and survey design is the Health and Retirement Study (HRS). According to the HRS, the increase in wealth among those aged 51-61 in 1992 was 14% between 1992 and 1994 and 11% between 1994 and 1996. These returns suggest a rate of increase of 12-13% between 1993 and 1995, which is much lower than in AHEAD despite the HRS cohort being in its high saving ages. Similarly, the 1992 and 1995 cross-sections of the Survey of Consumer Finances (SCF) show no large wealth increases in the age bands 65-74 and 75 or over.

The purpose of this paper is to investigate the details of the large increase in wealth between waves 1 and 2 of AHEAD. We conclude that a large part of the increase was the result of an underestimation of the frequency of ownership in several financial

asset categories in wave 1 and that the underestimation was due to an anomaly in the design of the survey instrument in that wave.

The remainder of this paper is organized as follows. Section 2 gives some background information on the AHEAD study. Section 3 provides further details on asset ownership in the various waves. Section 4 describes the aspects of the questionnaire that we argue are responsible for the underreporting of asset ownership in wave 1. The final Section concludes.

2. The AHEAD Data

Our data come from the Asset and Health Dynamics among the Oldest-Old (AHEAD).¹ This study is a panel survey of individuals born in 1923 or earlier and their spouses. At baseline in 1993 it surveyed 8,222 individuals from the community-based population, including oversamples of blacks, Hispanics, and Floridians. When weighted, the sample is representative of the national community-based population. Wave 2 was fielded in 1995, wave 3 was collected in 1998, and thereafter, households have been re-interviewed every two years.

The main goal of AHEAD is to provide panel data from the three broad domains of economic status, health and family structure. In wave 1 individuals and couples were asked for a complete inventory of assets and debts and about income sources. Through the use of unfolding brackets, nonresponse to asset values was reduced to levels much lower than would be found in a typical household survey such as the SIPP.² To reduce respondent burden and to improve data quality, couples were requested to designate the person most

¹ See Soldo, Hurd, Rodgers and Wallace, 1997. For current information about AHEAD see <http://hrsonline.isr.umich.edu/>

² To handle non-response, we use the RAND-HRS imputation files. See <http://www.rand.org/labor/aging/dataproduct/index.html> for further details on these files.

knowledgeable about financial matters to be the financial respondent. All questions about income and assets for the household were then put to the financial respondent.

Although we mainly use waves 1 and 2, we will also present data from waves 3 and 4 for comparative purposes.

3. Wealth Components

Table 1 shows mean and median wealth (nominal dollars) in AHEAD and HRS. In AHEAD average wealth increased by about 55% between 1993 and 1995. The increase in the median was much smaller, 21%. Such a large increase does not accord with the life-cycle model in which households of this age should be dissaving and it does not accord with observed rates of saving in other data.³ Furthermore there is no comparable change between 1995, 1998 and 2000, as would be suggested by a continuation of the behavior between 1993 and 1995.

The contrast with HRS is obvious, as is seen in Table 1: over the same period wealth increased in a steady manner and continued to do so beyond 1996. The increase observed in the HRS data accords with life-cycle behavior and with other data.⁴

Table 2 shows the components of wealth in AHEAD. The majority of the increase in mean total wealth in AHEAD between 1993 and 1995 stems from the large increase in mean financial assets of about \$70k. All components of financial assets increased over the two years. This increase is particularly notable because financial wealth was approximately constant in subsequent waves. The remainder of the increase

³ For example, in the first wave of the Consumption and Activities Mail Survey (CAMS), the average rate of saving out of after-tax income among those 75 or over in 2001 was -5.6% (Hurd and Rohwedder, 2004). In CAMS saving is measured as the difference between disposable household income and total household spending and so it has no dependence on capital gains.

⁴ In CAMS wave 1 the saving rate among households aged 55-59 was about 20% out of after-tax income.

in total wealth was in IRA/KEOGH accounts and in business wealth. This suggests that we ought to study further the reasons of the increases above all in financial wealth, but also investigate the increases in value of IRAs and business.

We observe very large increases between 1993 and 1995 in all the components of financial wealth. In contrast the values of these components were quite stable from 1995 on. By itself this table does not establish that the increase in total wealth is the result of a survey flaw: stock holders could have experienced very large gains between 1993 and 1995 and reallocated some of those gains to the other asset categories. We note, however, that the large sustained gains in the stock market began at about the beginning of 1996.⁵ For stock market gains to be the explanation, AHEAD stockholders would have achieved much higher rates of return than the returns experienced by the broad stock market. We will return to this issue below.

Table 3 shows ownership rates among AHEAD households for each of the components of financial assets in the various waves. These are cross-section prevalence rates. Thus in 1993, 20.2% of households owned stocks or mutual funds whereas by 1995 the ownership rate had increased to 30.8 percent.⁶ In the two subsequent waves the ownership rate increased gradually in line with a slow population-wide increase in stock ownership that accompanied the stock market boom. Ownership rates in the other components of financial wealth show similar strong increases between waves 1 and 2. Checking and saving accounts are widely held and the ownership rate varied by just 0.7 percentage points over waves 2, 3 and 4, yet the rate of ownership increased by eight percentage points between waves 1 and 2. Similarly, between waves 1 and 2, CD

⁵ From June 1993 to June 1995 the New York Stock Exchange Index increased at an annual rate of about 8%. From June 1995 to June 1996 it increased by about 23%.

⁶ These ownership rates exclude item nonresponse to ownership status. Item nonresponse to ownership is low and stable: for example, for stock ownership it was 2.4% in 1993, 1.7% in 1995 and 2.7% in 1998.

holdings increased by 10 percentage points, and bond holdings increased by 3.6 percentage points, representing a relative increase of 61%.

We would expect some increase in IRAs and Keoghs as people roll DC accounts into them. Indeed we see a modest increase from wave 1 to 2, which does not seem out of line with the increases in subsequent waves. The rate of business ownership increased by about 3.4 percentage points. The increase is at least partly explained by the inclusion of farm ownership in business assets in waves 2 through 4 but not in wave 1.

This increase in the ownership rates of financial assets is unparalleled in other surveys. Table 4 displays the ownership rates for the same asset categories in the HRS. Stock and mutual fund ownership increased by 3.2 percentage points between 1992 and 1994 and by an additional 0.1 percentage point between 1994 and 1996. The ownership rate of checking and savings increased slightly but the rates of ownership of CDs and bonds actually decreased between 1992 and 1994.

For comparison, Table 5 shows ownership rates for financial assets in the SCF. These rates were stable or possibly even falling between 1992 and 1995. For example, in the age bands 65-74 and 75 or over the ownership rate of stocks increased by about two percentage points between 1992 and 1995 but the ownership rates of mutual funds fell. Without knowing the overlap in stock and mutual fund ownership we cannot give an ownership rate that corresponds to the AHEAD aggregate category, but there is certainly no suggestion of any large increase. Both bond ownership and CD ownership fell in the SCF data.

The AHEAD evidence we have presented is from successive cross-sections. To show that changes in composition in the cross-sections are not responsible for the observed change in ownership rates, Table 6 presents ownership rates for households that were interviewed in all of the first three waves of AHEAD. We observe similarly large

increases in the rates of ownership of stocks and mutual funds, checking and saving accounts, CDs and bonds.

We conclude that ownership of financial assets as measured in AHEAD increased sharply between waves 1 and 2 and was approximately stable in later waves, and that the increase deviates from changes in ownership rates as recorded in other U.S. surveys.

4. Our Hypothesis

We believe that the ownership rates of stocks and mutual funds, checking and savings accounts, CDs, and bonds in AHEAD wave 1 were substantially underreported and that the reason for this lies in the survey design. AHEAD wave 1 asks about income from assets in several broad categories and records the answers as income from “stocks or bonds/dividends” and “saving accounts/CDs/ interest.” See the Appendix for the exact question wording and response codes. In a later section of the survey the ownership of each specific asset is queried. This sequencing aspect and the wording of the ownership questions are important. We believe that a number of respondents who reported income from “stocks and bonds” in the income section fail to mention the ownership of stocks or bonds or both later in the asset section because the ownership question begins with the phrase “Aside from anything you have already told me about...” and then continues “Do you own any stocks or mutual funds?” There are similar questions for ownership of bonds, CDs, and checking and saving accounts. It seems likely that a number of respondents thought that, because they had already told about income from stocks and bonds, they should not now report ownership of these items when prompted with the

phrase “aside from anything you have already told me about.”⁷ Such an interpretation could lead some respondents to report that they do not own any (additional) assets and other respondents to report only on the subset of assets that were not income-producing.⁸ In what follows we present several pieces of evidence that support our hypothesis.

4.1. Relationship between Ownership Rates, Income Reporting and “Aside From”

Language

Table 7 categorizes assets according to whether income from the asset was queried in the income section (which preceded the asset section in wave 1) and whether the query about ownership used the language, “Aside from anything you have already told me about...” For example, the income section asked about income from IRAs, and the “Aside from” language was not used in the query about IRA values in the asset section. The shading shows the four asset categories with the large increase in ownership rates, and the table shows that with all four of those assets the “Aside from” language was used and that income from the asset was queried.⁹ Thus, the large changes in ownership are confined to the asset categories that used the “Aside from” language and that asked about income from the asset prior to asset ownership and asset value. This would be expected according to our hypothesis.

⁷ The phrase “Aside from anything you had already told me about...” was intentionally put in as a lead-in to the question to avoid double counting of asset values. At the beginning of the asset section the respondent had been queried about IRA ownership and value, so there was a risk that stocks held in IRAs would be counted both as part of the value of the IRA and in response to the question about stock ownership following immediately after the questions about IRAs.

⁸ AHEAD wave 1 asked only about the most important (other) sources of income received so that households with only minor income from, say stocks and bonds, might not have reported it in the income section.

⁹ As mentioned previously, the business asset question was changed after the 1993 wave to include farm assets as well. Therefore, although there was a large increase in business ownership between 1993 and 1995, we do not shade this asset type because the increase can be attributed to this wording change.

4.2. Inconsistent Reports: Asset income reported, yet ownership denied

In AHEAD wave 1, 924 households reported income from stocks or bonds or both, yet about 40% (359 households) denied ownership of both assets later in the asset section of the survey. This is a clear inconsistency in the reports. Note that because AHEAD wave 1 records income from stocks and bonds jointly we can only identify a subset of the inconsistencies: those who deny ownership of both assets while reporting income from one or the other or both. The number of inconsistent cases (359 households) that we have identified is therefore a lower bound for the underreporting of actual ownership.

4.3. Higher Transitions into Asset Ownership for Households who report Asset Income in Wave 1

862 of the 924 households with income from stocks and bonds in wave 1 were re-interviewed in AHEAD wave 2. Because households tend to maintain ownership of assets over a number of years, we would expect that owners in AHEAD wave 1 would tend to be owners in wave 2. If reporting income from an asset is an indicator of ownership, households that had income from an asset but did not report ownership, should have high rates of ownership in wave 2 under our hypothesis. Table 8 offers evidence that this is the case. It has transition rates from not owning in AHEAD wave 1 to owning in AHEAD wave 2 stratified by reporting of income from the asset in wave 1. Thus, among those who had no income from stocks or bonds the transition rate to ownership of either or both was 9.7 percent whereas among those who reported income from stocks or bonds (but did not affirm ownership in wave 1) the transition rate was

81.3%. For reference, we show the transition rates from not owning to owning in HRS waves 1 to 2 because we do not expect there to be the same classification error. As the table shows the HRS transition rates are similar to the transition rates in AHEAD among those who did not report income from the asset (and denied ownership), but the transition rates are substantially higher in AHEAD among those who did report income (and denied ownership).¹⁰ We find qualitatively the same results of unusually high transition rates into ownership for CDs and for checking and savings accounts for households who reported income from these assets but denied ownership (also shown in Table 8).

4.4. Comparison of Characteristics of Consistent and Inconsistent Reporters

Table 9 offers further evidence about the under-reporting of ownership in AHEAD wave 1. It shows household and personal characteristics by report of income receipt and ownership of stocks and bonds. We adopt a definition of “asset holding” that facilitates a comparison with the reporting of income from “stocks and bonds” in AHEAD wave 1: we consider a household “holding the asset” if it owns either stocks, or bonds, or both and “not holding the asset” if it owns neither one of the two. Thus, in our classification in Table 9, column (1) “no asset income, no asset” refers to those households that reported no income from either source and denied ownership of both stocks and bonds; column (2) “household owns asset” refers to households that affirmed holding stocks or bonds or both; Column (3) “asset income reported, no asset” refers to households that reported income from stocks or bonds or both but denied ownership of both.

¹⁰ Section N of the AHEAD wave 2 questionnaire asks about purchases and sales of assets between waves 1 and 2. We found these data to be sparse and uninformative possibly due to the skip patterns used in that section.

As shown in column (1) 4,293 households report owning neither asset and in column (2) 1,181 apparently owned one or both assets. The personal and household characteristics of the two groups are very different. For example about 34% of the nonowners are married whereas 55% of the owners are married. This is consistent with marital status being a strong predictor of wealth. Just 17% of the owners have less education than high school compared with 56% of the nonowners. Owners are much more likely to own other assets: 85% own houses compared with 65% of nonowners, and asset values in those other assets are considerably higher. Total wealth in wave 2 among owners was \$528 thousand compared with \$107 thousand among non-owners. The subjective probability of leaving a bequest has been shown to be strongly correlated with total wealth (Smith, 1999). In the table the average probability of leaving a bequest of more than \$100 thousand was 58.7% among owners and just 31.5% among nonowners.

Comparing the inconsistent reports in column(3), that is those who reported income from the asset but denied ownership later, with the remaining households of AHEAD wave 1 in columns (1) and (2) shows that the inconsistent reporters have very similar characteristics to owners in terms of education levels, ownership of housing, and total wealth in wave 2. They have even greater total stock and bond wealth in wave 2 than owners. This is plausible because column (3) only contains asset holders who reported income from stocks and bonds as an “important source of income” which is an indicator for more sizeable holdings; column (2) contains a mixture of asset holders with and without important income receipts from the asset. The average probability of leaving a bequest of more than \$100 thousand is greater among inconsistent reporters, indicating that their true wealth levels were probably greater in wave 1 even though their measured wealth levels were considerably less (due to the lack of measured ownership of stocks and bonds).

4. Magnitude of the Problem and Potential for Correction

To gauge the importance of underreporting of ownership in wave 1 for the large gain in total wealth in AHEAD between 1993 and 1995, we performed the following calculation. We assumed that ownership rates of the four financial assets were the same in 1993 as in 1995 and that the average amounts conditional on ownership were accurately recorded in 1993. From these assumptions we calculated what population wealth of each component would have been in 1993. Then we assumed that each component changed value as it would have due to recorded capital gains between 1993 and 1995. For example, we assumed stock ownership was 30.8% in 1993 rather than the recorded rate of 20.2% and that stock owners gained 32.4% between AHEAD wave 1 and AHEAD wave 2.¹¹ The result is that stocks and mutual funds held from 1993 to 1995 would have been worth \$39.6 thousand in 1995. For the other three components of financial wealth we assumed no change in price except for inflation because interest rates were approximately constant over the two-year period. The overall result is that financial wealth would have been worth \$80.2 thousand in wave 2 of AHEAD. However, actual wave 2 financial wealth was \$117.0 thousand. We conclude from this exercise that the underreporting of ownership was not by itself the only cause of the apparent under-measurement of financial wealth in AHEAD wave 1.

The above calculation overlooks two other potential sources of underestimation associated with the same design problem:

¹¹ This is the gain in the New York Stock Exchange Index between February, 1994 and February, 1996. Although wave 1 of AHEAD is said to occur in 1993, it actually was fielded in October, 1993. February 1994 was about the mid-point of the data collection.

First, average asset values of those households for whom ownership was underreported due to the “aside from language” were likely higher than average. This is because the income questions in wave 1 asked for “largest (other) income” and therefore the survey design problem is more likely to occur for households with large asset holdings. Table 9 lends support to this interpretation in that inconsistent reporters in column (3) have substantially higher total wealth in wave 2 than the average asset holders in column (2).

Second, suppose that just some stocks paid dividends and that income from those stocks was reported in the income section. Then a respondent might have not reported the value of that part of the portfolio when reporting ownership and the value of the other part of the portfolio. Thus average stock holdings would have been underreported. We recognize that this explanation is speculative and we do not have a good method for investigating it.

As for corrections to the problem of underreporting, a number of difficulties have to be recognized. Asset income in AHEAD wave 1 is not queried separately for each asset. As a result we can only identify a subset of the observations where the misreports occur. For example, we can clearly identify inconsistencies for those who reported a source of income, say income from stocks and bonds, and who subsequently stated not owning either one of these assets. However, it is possible that households that report income from the combination of assets but own only one of the assets could also misreport ownership. Observing only combinations of income also implies that imputations of ownership will have to be performed jointly for the assets for which income is observed jointly. This not only makes the imputation task more complex but also will leads to less reliable imputations at the individual level.

One possible correction is to use observed asset ownership in AHEAD wave 2 and ownership transitions between waves 2 and 3 to “backcast” asset ownership in wave 1. However, asset ownership and asset ownership transitions between AHEAD waves 2 and 3 encompass approximately three years rather than the two years that separated waves 1 and 2. Moreover, observations between 1995 and 1998 will be affected by the very large increase in the stock market during that period; that is, there are important time effects.

Alternatively, we might think of using observed asset ownership and ownership transitions in HRS between wave 1 and wave 2 or between wave 2 and wave 3. However, HRS covers a different cohort so that ownership rates and transitions observed in those years cannot be transferred directly to the AHEAD cohort. Using observations from the HRS when the sample is older does not help because age effects are very important in stock ownership and values.

We conclude that strategies for imputations at the individual-level will be affected by various sources of error. Depending on the use of the imputations, the trade-off among these various sources of error may be different, and thus it is not possible to offer one solution as being preferred.

5. Conclusions

We have offered what we believe to be good evidence of systematic underreporting of financial asset ownership in AHEAD wave 1. The most likely explanation for the underreporting is that avoiding one problem (double counting of the financial assets) inadvertently caused another problem. The effect of this underreporting is that, at the population level, wealth was measured to increase much more than is plausible. A lower

bound estimate of how much of the increase in wealth is accounted for by the survey problem we identified is about \$31 thousand or 46% of the difference. We believe that the real impact is higher but it is difficult to provide a reliable estimate. From our discussion of possible ways of fixing the identified problem by means of imputation at the individual level, we conclude that the chances are slim of recovering the information in a sufficiently reliable manner to allow the study of general behavioral questions. Therefore, studies should consider the potential impact and potential solutions for this problem on a case by case basis.

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Table 1: Total net wealth in AHEAD and HRS

	1992	1993	1994	1995	1996	1998	2000
AHEAD							
<i>N</i>		6,047		5,222		4,551	3,924
mean		165,484		255,949		255,429	285,923
median		81,100		98,000		106,000	119,800
HRS							
<i>N</i>	7,702		7,052		6,811	6,635	6,329
mean	217,706		248,640		271,905	327,257	384,424
median	97,000		115,500		120,200	128,000	150,000

Weighted cross-sections; unweighted N.

Source: Authors' calculations.

Table 2: Average net wealth in AHEAD by components

	1993	1995	1998	2000
<i>N</i>	6,047	5,222	4,551	3,924
Financial Assets	49,449	116,984	110,760	121,576
Stocks and mutual funds	19,608	60,486	58,592	62,712
Checking and saving accounts	16,354	28,770	22,899	25,683
CD's	8,930	17,974	19,938	23,433
Bonds	4,557	9,754	9,331	9,748
Other Saving	2,711	5,164	5,924	6,051
Debt	899	665	547	651
IRA and Keogh acc.	7,803	15,403	15,396	18,616
Housing	68,908	68,364	75,681	82,791
Real estate	22,686	23,213	27,351	30,732
Business	7,996	21,418	14,027	19,914
Transportation	6,819	6,067	6,837	6,894
Total wealth	165,484	255,949	255,429	285,923

Weighted cross-sections; unweighted N.

Source: Authors' calculations.

Table 3: Asset Ownership Rates in AHEAD [% owners]

	1993	1995	1998	2000
<i>Financial Assets</i>				
Stocks and mutual funds	20.2	30.8	31.2	32.9
Checking and saving accounts	76.9	84.9	85.0	84.3
CD's	22.0	32.1	32.2	33.9
Bonds	5.9	9.5	8.2	9.6
<i>Other Saving</i>	10.6	9.4	9.7	10.2
<i>Debt</i>	13.7	13.0	11.8	11.6
<i>IRAs, Keogh accounts</i>	17.0	19.6	20.5	22.1
<i>Businesses</i>	4.7	7.1	6.7	6.0

Weighted cross-sections. Number of observations varies from item to item due to item nonresponse about ownership. See Table 1 for approximate counts. Ownership status reported, not imputed.

Source: Authors' calculations.

Table 4: Asset Ownership Rates in HRS [% owners]

	1992	1994	1996	1998	2000
<i>Financial Assets</i>					
Stocks, mutual funds, and investment trusts	30.4	33.6	33.7	33.7	34.0
Checking	82.2	83.6	85.2	84.7	86.9
CD's	26.7	23.6	22.4	22.5	24.5
Bonds	7.0	6.3	8.2	7.6	7.6
<i>Other Saving</i>	16.7	24.4	19.7	17.0	17.3
<i>Debt</i>	38.5	36.4	33.9	31.5	31.6
<i>IRAs, Keogh accounts</i>	42.1	45.1	44.5	45.0	45.6
<i>Businesses</i>	17.7	16.5	13.5	11.6	11.3

Weighted cross-sections. Number of observations varies from item to item due to item nonresponse about ownership. See Table 1 for approximate counts. Ownership status reported, not imputed.

Source: Authors' calculations.

Table 5: Asset Ownership in the Survey of Consumer Finances

Percent of households that own asset types					
Age of head and year	CDs	Savings bonds	Bonds	Stocks	Mutual funds
55-64					
1992	20.2	19.3	4.8	21.6	15.9
1995	16.2	19.6	2.9	14.9	15.2
65-74					
1992	31.0	13.8	7.5	16.0	14.1
1995	23.9	17.0	5.1	18.0	13.7
75+					
1992	37.6	14.1	8.5	19.1	14.3
1995	34.1	15.3	7.0	21.3	10.4

Source: Kennickell, Starr-McCluer and Sunden, 1997.

Table 6: Asset Ownership Rates in AHEAD [% ownership], panel

	1993	1995	1998
Stocks and mutual funds	20.1	28.7	27.5
Check and savings accounts	75.2	82.4	81.1
CDs	22.0	30.4	28.6
Bonds	5.8	8.9	7.4
IRA and Keogh accounts	16.9	17.9	17.1
Housing	73.9	65.1	67.3
Mortgage	11.9	8.4	7.7
Other Real Estate	19.5	15.2	11.3
Business	4.7	6.0	5.3
Transportation	75.1	68.6	62.1

Unweighted. Based on 4398 panel observations where household identifier remained constant across waves (excludes divorced households). Number of observations varies from item to item due to item nonresponse about ownership. Ownership status reported, not imputed.

Source: Authors' calculations.

**Table 7: Question wording on asset ownership and associated ownership rates [%]
(cross-section)**

Asset type	Income question	“Aside from” language?	1993	1995	1998
Housing			69.8	62.7	67.2
Mortgage			10.9	8.0	7.7
Other real estate			17.7	14.5	11.3
Transportation			69.6	64.9	61.8
Business			3.9	5.7	5.4
IRA	x		14.2	16.4	16.9
Stocks and mutual funds	x	x	18.2	27.5	27.5
Checking and saving accounts	x	x	73.2	81.3	80.8
CD’s	x	x	20.5	29.6	28.5
Bonds	x	x	5.3	8.5	7.5
Other Saving			9.4	8.3	8.8
Debt		x	13.9	13.7	12.1

Source: Authors’ calculations and AHEAD questionnaire.

Unweighted. Ownership status reported, not imputed.

Table 8: Transition rates from not owning to owning [%]

	Ownership in Wave 2		
	Stocks & bonds	CDs	Checking & saving account
<i>AHEAD</i>			
Did not report income from asset in wave 1	9.7	11.6	44.3
Reported income from asset in wave 1	81.1	41.1	89.7
<i>HRS</i>	11.9	8.1	34.5

Source: Authors’ calculations

Unweighted.

Table 9: Personal and household characteristics by reporting status about stock and bond holdings

Variable	(1)	(2)	(3)
	no asset income no asset	household owns asset	asset income reported no asset
<i>Number of observations</i>	4,293	1,181	359
Age	77.7	76.0	77.2
Couple (%)	33.6	55.3	48.7
Hispanic (%)	7.8	1.1	1.4
White/Caucasian (%)	77.9	96.5	95.8
Education (% distribution)			
Less than HS	55.8	17.2	22.3
HS graduate & equiv.	27.6	36.9	30.6
Some college	11.0	23.6	24.5
College or more	5.7	22.3	22.6
Asset Ownership in Wave 1			
Housing (%)	64.5	84.8	82.7
Real estate (%)	12.2	33.8	30.1
Business (%)	2.4	8.6	7.0
Debt (%)	15.7	9.4	9.5
Asset Values in Wave 1			
Housing	45,438	106,881	126,021
Real estate	10,052	48,632	42,013
Business	3,983	15,269	9,928
Debt	653	882	1,835
Asset Values in Wave 2			
Total wealth	107,453	528,408	554,231
Financial assets	36,479	279,518	316,841
Housing	44,000	99,356	120,484
Stocks	7,742	167,332	206,979
Bonds	1,407	31,911	16,912
Probability of leaving a bequest (%)			
of any size	43.2	74.7	74.6
of \$10k or more	67.7	87.6	87.1
of \$100k or more	31.5	58.7	64.9
<i>Number of observations</i>	5,619	1,807	521

Source: Authors' calculations.

Note: In the case of a couple, the personal characteristic of the household is that of one spouse chosen at random. Because the probability of a bequest is reported by each spouse, data from both spouses are used, resulting in more observations.

Unweighted.

[...]

J40-1 (Aside from anything you have already told me about,) Do you (or your (husband/wife/partner)) receive any income from financial investments like savings accounts, CDs, stocks and bonds, rental property, or investment trusts?

- | | |
|----------------------|-------|
| 1. YES | 5. NO |
| 6 [vol] already said | 8. DK |
| | 9. RF |

GO TO J43

J41-1 What do you receive your largest income from?

[Iwer: Probe with categories only if R needs help]

1. Savings Accounts/CDs/Interest
2. Stocks or Bonds/Dividends
3. Rental Property
4. Investment Trust
5. Relative
7. Other (Specify)
8. don't know
9. refuse

2. Excerpts from the Asset Section in AHEAD wave 1

For financial assets the AHEAD questionnaire first asks about IRAs and Keogh accounts (K7):

K7 “Do you [or your (husband/wife/partner)] have any Individual Retirement Accounts, that is, IRA or Keogh accounts?”

After a few IRA related questions the survey asks about stock ownership:

K10 (Aside from anything you have already told me about,) “Do you [or your (husband/wife/partner)] have any shares of stock in publicly held corporations, or mutual funds?”

The questions about ownership of other financial assets (checking and savings accounts; CDs; and bonds) follow the same format as the one on stocks and mutual funds in K10.