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Baby Boomer Retirement Security: the Roles of Planning, Financial Literacy, and Housing Wealth

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Abstract

Recent research on wealth and household finances seeks to blend neoclassical models with an understanding of real-world imperfections to answer questions about why some people save and others do not. This paper focuses on Baby Boomers standing on the verge of retirement, many of whom have saved little and will face financial insecurity in old age. The new 2004 wave of the Health and Retirement Study is invaluable for this first analysis of the financial situation of leading-edge Boomers, as it reports not only wealth levels but also information about respondents' planning behaviors and economic literacy. We show that the distribution of net worth among Early Baby Boomers is quite skewed; those in the 75th percentile had over 10 times the net worth ($400K) of households in the bottom 25th percentile ($37K). There is substantial heterogeneity in wealth within this cohort: the median high-school dropout had less than $23K in total net worth, while the median college graduate had over 10 times as much. Many Black and Hispanic Boomer households hold miniscule levels of wealth. Further, many in this cohort have accumulated little wealth outside their homes: at the mean, one third of the early Boomers' wealth is held in the form of home equity, and at the median the fraction is close to half. Since many members of this EBB cohort are reaching retirement with a substantial portion of its wealth in housing, they are particularly vulnerable to housing value shocks. By contrast, holders of stocks, IRAs, and business equity are concentrated in the top quartiles. Finally, we show that planning and economic literacy are important predictors of savings and investment success.

Authors' Acknowledgements

Baby Boomer Retirement Security:
The Roles of Planning, Financial Literacy, and Housing Wealth

The standard economic model of wealth accumulation posits that people make

saving/consumption decisions in a forward-looking context.[1] Thus a young decision-maker who

faces a hump-shaped profile of income must save during his working years to finance

consumption during retirement. Of necessity, this optimization is highly complex, as the

consumer must maximize his discounted lifetime expected utility taking into account survival

probabilities, expected labor income, uncertain future pensions and social security benefits,

inflation rates, retirement ages, and family needs. In this theoretical framework, consumption

and saving rates depend on household "permanent income" or the household's anticipated

lifetime resources. Wealth holdings at any moment will also depend on the decisionmakers'

permanent income, age, and preferences toward risk and bequests.

While this model is invaluable in a range of economic contexts, it also highlights two

important facts. First, the consumer who must save for retirement faces a heavy computational

burden to "get it right." That is, the decisionmaker seeking to *formulate* an optimal

consumption/saving plan must develop expectations regarding possible future time paths of a

host of economic and demographic variables. This is a daunting task. Second, the consumer

must also *implement* his saving plan. This too is often a challenging endeavor. As John

Campbell (2006) recently noted: "for many households, the discrepancies between observed and

ideal behavior have relatively minor consequences and can easily be rationalized by small

frictions that are ignored in standard finance theory. For a minority of households, however,

particularly poorer and less educated households, there are larger discrepancies with potentially

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[1] See Browning and Lusardi (1996) for a review.

serious consequences. I call these investment mistakes, and argue that they are central to the field of household finance. It should not be surprising that some households make investment mistakes, given the complexity of their financial planning problem and the often confusing financial products that are offered to them."

To date, economic researchers have devoted little attention to whether people have the financial sophistication and practical tools required to devise and implement long-term retirement saving plans. In what follows, we provide evidence regarding what people know about the key economic variables that enter a saving plan, whether and which types of people plan for the future, and how planning and economic knowledge, in turn, is associated with saving behavior. Our analysis relies on the new 2004 wave of the Health and Retirement Study (HRS) to study patterns of household wealth for the cohort of Baby Boomer households now on the verge of retirement. Three questions are of central interest:

1) What do the level and composition of wealth tell us about the financial position of the Early Baby Boomers?[2]
2) How are levels of retirement wealth associated with retirement planning propensities?
3) Are the more sophisticated and financially literate individuals wealthier, holding other factors constant?

In what follows, we first document aspects of the distribution of wealth for cohort members across a range of observable socioeconomic and demographic characteristics. Next, we evaluate alternative explanations for the composition of household wealth, focusing on planning and financial literacy. We show that the distribution of net worth among Early Baby Boomers is quite skewed and there is substantial heterogeneity in wealth within this cohort. Furthermore, many in this cohort have accumulated little wealth outside their homes, leaving them vulnerable to housing value shocks. By contrast, holders of stocks, IRAs, and business equity are

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[2] As Social Security and pension wealth are not yet available from the HRS, this is excluded from the empirical analysis.

concentrated in the top quartiles. Finally, we show that planning and economic literacy are important predictors of saving and investment success.

Descriptive Statistics

Our analysis draws on the Health and Retirement Study (HRS), a rich and detailed nationally representative survey of older Americans over the age of 50 (and their spouses of any age). The survey collects data on respondents' health, assets and debts, expectations, and patterns of wellbeing.[3] Specifically, we examine the "Early Baby Boomer" (EBB) cohort where at least one household member was born between 1948 and 1953 (age 51-56 in 2004). This group was first surveyed in 2004 and the sample totaled 2,660 after we delete a handful of households with missing observations or zero income.[4] All statistics are weighted using the preliminary weights provided by the HRS[5] and all values are expressed in 2004 dollars.

We summarize wealth for these respondents in terms of their self-reported household total net worth, and separately report home equity and non-housing/non-business wealth. *Total net worth* is a broad concept; it includes respondents' checking and savings account balances, certificates of deposits and T-bills, bonds, stocks, IRAs and Keoghs, home equity, second homes and other real estate, business equity, vehicles, the values of trusts and other assets, minus all debt. *Home equity* refers to respondents' net equity in their homes after subtracting mortgage debt. *Non-business-non housing wealth* is obtained by subtracting home and business equity from total net worth.

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[3] A 90-minute core questionnaire was administered to age-eligible respondents and their spouses; in addition, the "financially knowledgeable" respondent is also asked to report information on household finances. See http://hrsonline.isr.umich.edu/

[4] Specifically, 96 observations had zero income; 7 had missing demographic information; and 4 had missing asset information.

[5] Blacks and Hispanics are oversampled in the HRS.

One important observation from Table 1 is that the wealth distribution for pre-retirees is quite skewed. Median net worth is $152K for this cohort, while the mean is two and a half times larger (approximately $390K). This confirms the findings for previous cohorts nearing retirement (Mitchell and Moore, 1998, Moore and Mitchell, 2000). The fact that wealth is distributed quite unevenly is also seen in the fact that those in the third quartile (75th percentile) had more than 10 times the wealth ($400K) as compared to households in the first quartile ($37K).

Table 1 here

Another crucially important fact has to do with the central role of housing equity for near-retirees. At the mean, one-third of the early Boomers' wealth was held in the form of home equity, and at the median the fraction was close to half. That is, many Americans on the verge of retirement have accumulated little wealth outside their homes. Note that housing equity still represents a crucial component of net worth (close to one-third), even among the wealthiest respondents. In the third column, when both housing and business wealth are excluded from the net worth computation, we see that a sizeable fraction of the Early Baby Boomers have no wealth at all or are in debt. A final observation from Table 1 is that the wealthiest households are disproportionately business owners, as is shown in the third column. In fact, if we exclude both business assets and housing from net worth, the right tail of the wealth distribution display much less extreme values.

The heterogeneity in wealth observed among this cohort remains large even within socio-economic groups. For example, wealth by educational attainment is presented at the top of Table 2. There is a very steep wealth-education gradient; the median respondent with less than high school education has less than $23K in total net worth, whereas respondents with a high school

degree has almost four times as much. The median college graduate has over 10 times the level of wealth held by the least educated respondent, and the median respondent with at least some post-college education control more than 16 times the wealth of the median respondent without a high school degree. It is also important to highlight the dispersion in wealth *within* given education groups. For example, considering those with a high school degree, respondents in the third quartile hold 15 times as much wealth as those in the first quartile. The wealth gradient is flattest (but still sizable) for the most educated; the third/first quartile wealth ratio was 5 times among those with some graduate training.

Table 2 here

Very pronounced wealth differences are evident in the other panels of Table 2, where we report figures broken down by race and ethnic group, marital status, and sex. In the HRS, many Black and Hispanic EBB households hold miniscule levels of wealth. The median White respondent reports having almost $200K in total net worth, over seven times the median Black net worth ($27K) and three times the median Hispanic net worth (of $56K). The third/first quartile wealth gradient at 7.5 for whites is much flatter than for Blacks and Hispanics.

Wealth differences are also very large across marital status and by childbearing status. For instance, the median married respondent has over four times the total net worth of the median nonmarried respondent (the latter group included separated, divorced, widowed, and never married individuals). Lack of resources is also a stark concern among the nonmarried group, with the bottom quartile having only $3000 in total net worth. Respondents with children (most of the EBB sample) accumulate more wealth than the childless, and male respondents report much higher net worth than female respondents.

These socioeconomic factors are, to some extent, reflective of respondents' permanent income, so the differences are not surprising. What is surprising is the difference in wealth within income groups. In the final panel of Table 2, we reports wealth across household income categories. In view of the narrow age band (age 51-56 in 2004) in the sample, it is striking that wealth differences by income are so much larger than differences in income. We find the same results when we examine income differences among demographic groups (education, race, marital status, children and sex). Differences in wealth are always much larger than difference in income within each demographic group.

We turn next to an assessment of asset ownership patterns for the Early Boomers. Table 3 and Figure 1 highlight the fact that home ownership is remarkably widespread for this generation of Boomers. Indeed, more than 80% of respondents indicated that they own their homes. Further, as the first panel of Table 3 indicates, residential home equity plus other real estate account for more than half of this cohort's total net worth. Overall, 30% of the EBB own stocks, and stock wealth account for 13% of their total net worth. Individual Retirement Accounts (IRAs) and Keoghs were held by 40% of the Boomers, and these assets make up 11% of total net worth. It is also worth noting that, while stock holding and IRAs dominate for the wealthiest (in the top wealth quartile), home ownership is prevalent across much of the wealth distribution. In other words, less than half the EBB group is directly exposed to stock market fluctuations, but most are highly exposed to the housing market.

Table 3 and Figure 1 here

The next panels of Table 3 reveal more about asset ownership for different socioeconomic groups of Boomers. Those with the least education (less than high school) are also relatively unlikely to hold stock and IRAs; this is also true for Blacks and Hispanics. The

same patterns appear for business ownership, where again minorities and the least educated are

unlikely to have invested in their own businesses. Married respondents and those who have

children are much more likely to hold real estate, own stocks, have IRA's, and be business

owners. Most respondents are homeowners, while only one-third of the men and a quarter of the

women hold stock. It is also worth noting that, though business owners make up only 14% of the

EBB population, they have a powerful influence on observed wealth patterns. For example,

almost half of the households in the top 5% of the wealth distribution are business owners

(Figure 1) and business owners account for 10% of total net worth in this cohort.

Vulnerability to Wealth Shocks

As just noted, housing wealth emerges as a key vehicle for retirement savings for many in

the EBB cohort. Not only is the rate of homeownership very high among members of this

generation, but homes are also one of the few assets held by even the least educated households

and by ethnic/racial minority groups. In view of the upward trend in housing prices over the last

decades, some have suggested that housing can be a good way to finance retirement, particularly

for EBB members who benefited from widespread appreciation of home equity. [6] Yet

macroeconomic and monetary policymakers should be concerned with this reliance on housing

values to finance retirement, since an interest rate rise could induce a "hard landing" in housing

values, and many EBB households would thus experience substantial wealth losses.

To help evaluate the possible impact of a negative housing price shock on the generation

on the verge of retirement, we have modeled what would happen if housing prices in each region

were to fall back to their 2002 levels. Since home prices rose substantially in 2002 and 2003, this

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[6] For instance a recent book by Edmunds and Keene (2005) urges readers to "use your home to finance your retirement…Forgot to save for retirement, but bought a house? Saved a lot and also bought a house? Whatever your situation, (we) can show you how to best use your home equity for a long and prosperous retirement."

exercise implies an average national housing price drop of 13.5% (Office of Federal Housing Enterprise Oversight 2005). Our simulation calculates how much wealth would change for the EBBs if all real estate values declined by as much as they rose in the respondent's own Census region over the 2002-4 period. Results suggest that a shock of this magnitude would be substantive for the Boomers: more than 9% of their total net worth would be lost. Furthermore, the effects would be felt strongly by the median household, as median net worth would fall by 13%. This finding reinforces the fact that Boomers are quite vulnerable to housing value shocks.

A related issue to consider when assessing EBB wealth is whether this generation anticipates using home equity to finance their retirement. Prior waves of retirees have not downsized their homes at retirement nor have they taken up reverse mortgages (Venti and Wise 1990, 1991). There is, however, some evidence that home equity is a buffer used in the event of widowhood and to finance long-term care. And not surprisingly, whether one includes or excludes housing equity has a substantive effect on measures of projected retiree wellbeing (Bernheim 1993; CBO 1993).

In view of both the increase in home ownership and the value of home equity for Boomers, the role of housing in financing retirement has the potential to be even more important than in the past. Of course we do not know yet whether and how the EBB cohort will draw down home equity in retirement, but it is of interest to ask households what they expect to do. To this end, we have devised a special module for the 2004 HRS, where we asked homeowners the following question:

> *"On (a) scale from 0 to 100, where 0 equals absolutely no chance and 100 equals absolutely certain, what are the chances that you will sell your house to finance your [(and your (husband/wife/partner)'s] retirement?"*

Answers to the question are graphed in Figure 2. The first panel includes all respondents age 50

and over in 2004 (not just those in the EBB group) while the second panel is restricted to

respondents younger than age 70. In both cases, almost 60% of homeowners stated that they did

not plan to sell their homes to finance retirement, and close to 70% of respondents felt there was

a minimal (10% or less) chance they would sell their homes to pay for retirement. In other

words, most older Americans report they will not sell their homes to finance retirement, even

though this store of wealth is accessible for consumption purposes. Accordingly, in what follows,

we both include and exclude net housing equity in our measure of wealth.

Figure 2 here

A different simulation examines the potential distributional implications of a macro

shock affecting the stock market instead of the housing market. For example, we consider a

scenario where the stock market falls by 10%, and assess how a shock of this magnitude would

influence EBB wealth. Even if all IRA assets were assumed to be held in stocks (in addition to

direct stock holdings), only 2% of EBB wealth would be lost in this event.[7] The decrease in

median wealth would be even smaller: median net worth would decrease by only 1.6%. This is

due to the fact that most Boomers do not hold stocks. Moreover, those who hold stocks generally

hold small amounts (also the values grew little over the 2000 to 2004 period).

Issues Regarding Business Ownership

Earlier research has shown that business owners are very different from other members of

the population.[8] As noted above, business owners are disproportionately found at the top of the

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[7] The study by Gustman and Steinmeier (2002) comes to a similar conclusion.
[8] See Hurst and Lusardi (2004) and Hurst, Lusardi, Kennickell and Torralba (2005). As Hurst and Lusardi (2004, 2006) have shown, business owners are more likely to be male, white, and married, and they also are more likely to come from families of business owners or highly educated families. They also have stronger ties with family and

wealth distribution and they are a very heterogeneous group. For example, 14% of business

owners indicate they have no business equity, but median business equity is $50,000 and those at

the very top hold as much as $20 million. Moreover, business owners hold a great deal of wealth

in their businesses; over 40% of them hold a quarter or more of their wealth in this form.[9]

As in the case of housing, it is unclear whether business owners think of their business

equity as an asset they will use to finance their retirement, and whether they plan to sell off their

businesses when they retire. A large fraction of business owners explicitly state they will never

retire completely (Hurst and Lusardi, 2006); since many business owners are self-employed, it is

accordingly difficult to characterize exactly what "retirement" means for this group. There are

also important measurement problems that arise when studying business owners. Tax evasion

may drive some to underreport their income. In addition, legal tax avoidance mechanisms can

induce some owners to retain a portion of their compensation within their business.[10] Because

we cannot fully account for all the differences between business owners and other households,

we exclude business owners in the subsequent analyses of saving and portfolio choice among

EBB respondents.

Planning and Wealth

One aspect of saving patterns that has received little attention to date is the fact that

saving decisions are complex, requiring consumers to possess substantial economic knowledge

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relatives; and they are more likely to have received and also to give money to family and relatives. Most
importantly, business owners may display different motives to save than the rest of the population; they are not only
much more likely to state they wish to leave a bequest to heirs but they are also less likely to be covered by
pensions. Business owners may also need to maintain large amounts of working capital both to deal with necessities
of their business and to maintain effective control over the business. Moreover, if households are compensated for
taking greater risks with higher returns, it is again not surprising that business owners have higher wealth than non-
business owning households.
[9] See also Gentry and Hubbard (2004).
[10] Holtz-Eakin et al (1994) also emphasize the many tax incentives in business ownership.

and information (Lusardi 1999, 2003). Our recent paper (Lusardi and Mitchell 2006) used a special module covering only a small subset of 2004 HRS respondents and demonstrated that only a small fraction (less than a third) of older respondents ever tried to figure out how much they needed to save for retirement. The fraction of older persons reporting they not only tried but actually succeeded in developing a saving plan is even smaller (18%).

A simple prediction of theoretical models of savings is that consumers are able to formulate and execute saving plans. By focusing on older households, it is reasonable to suppose that most will be aware of the proximity to retirement and should be making provision to finance their consumption after they stop working. To this end, we devised a special question for the 2004 HRS, inquiring as to how much people had thought about retirement. Table 4 shows that as many as 30% of respondents report that they had not thought about retirement *at all*. This mirrors findings from earlier HRS waves (Lusardi, 1999) and the Retirement Confidence Survey (RCS). Nevertheless, we believe the finding is surprising in view of the widespread availability of retirement planning tools and the numerous, and sometimes expensive, educational campaigns offered by employers throughout the 1990s.

Table 4 here

Also evident from Table 4 is a bimodal pattern of planning effort and net worth. That is, those reporting any planning – even "a little"- are much better off than those who said they planned "hardly at all." In other words, undertaking even a little planning is associated with sizable wealth holdings, while non-planners end up with less wealth.

Figure 3 reports the distribution of planning by education and race/ethnicity. Those who said they had not thought about retirement are disproportionately in the extremely low educational categories, while planners are more educated. Lack of planning is also concentrated

among Blacks and Hispanics, many of whom had not given any thought to retirement; while Whites are disproportionately more likely to be planners. As shown in Table 2, those with low education, Blacks, and Hispanics are also those with the lowest wealth levels and the wealth differences are wider than income difference. Therefore, planning may provide an important explanation for these differences.

Figure 3 here

The finding that few people plan for retirement is also supported by other research. For example, many older workers have only very limited knowledge about their old-age benefits. Gustman and Steinmeier (2004) show that only half of earlier HRS respondents could identify what type of pension plan they had (defined benefit, defined contribution, or hybrid) and fewer than half could identify when they would be eligible for early or normal retirement benefits (see also Mitchell 1988; Gustman and Steinmeier 1989). Information about Social Security is also scanty. Only two-fifths of earlier HRS respondents could venture a guess about their expected Social Security benefits and many respondents knew little about program rules (Gustman and Steinmeier 2004; Bernheim 1998). The 2001 RCS documents that over half of current workers expect to become eligible for full Social Security benefits younger than they actually will (at age 65 or before). Thus, households are overall uninformed about the critical variables that should enter any saving plans.

Wealth and Economic Literacy

One reason why people fail to plan is because they are financially unsophisticated. After all, how can one plan effectively if one cannot even make simple projections about the possible economic consequences of one's financial decisions? In our earlier research, we explored

whether older respondents display basic financial literacy and the results are not encouraging. Half the respondents we surveyed could not make a simple calculation regarding interest rates over a 5-year period and did not know the difference between nominal and real interest rates. An even larger percentage of respondents did not know that holding a single company stock was riskier than holding a stock mutual fund (Lusardi and Mitchell 2006).

To pursue this question further, we turn to the 2004 HRS where respondents were asked several questions helpful in assessing how people use numbers in their everyday lives, along with queries about their economic and political literacy. [11] Three economic literacy questions were asked, as follows:

> 1) *"If the chance of getting a disease is 10 percent, how many people out of 1,000 would be expected to get the disease"*?
>
> 2) *"If 5 people all have the winning number in the lottery and the prize is 2 million dollars, how much will each of them get?"*

For respondents who gave the correct answer to either the first or the second question, the following question was then asked:

> 3) *"Let's say you have 200 dollars in a savings account. The account earns 10 percent interest per year. How much would you have in the account at the end of two years?"*

For each case, if the respondent got the answer correct we set the variable equal to 1 and 0 otherwise. These are respectively recoded as "Percentage Calculation," "Lottery Division," and "Compound Interest" variables. We also define a "Political Literacy" variable which is equal to

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[11] Questions are also available on respondents' success at counting backward and subtracting 7 from 100 five times. The answers to these calculations are highly correlated with the questions we take up in the text. Further, as they do not refer to economic calculations, we have not included them in the present analysis.

1 if the respondent correctly knew the names of the US President and Vice President; this is likely to capture respondents' awareness of future tax and macroeconomic prospects.[12]

Table 5 summarizes how Early Boomers answered the economic literacy questions. While 84% got the percentage calculation right, only about half got the lottery division right. Only 18% could correctly compute compound interest; of those who got the compound interest wrong, 43% undertook a simple interest calculation thereby overlooking the interest which accrues on both principal and interest. Also note that a fifth of the sample did not know either the US President or the Vice President.[13]

Table 5 here

Further detail on financial knowledge and literacy appears in Figure 4, which reports patterns by educational and racial/ethnic groups. For all four variables, literacy rises steeply with education: the more educated are much more likely to answer correctly the economic literacy and also the political literacy queries. Blacks and Hispanics are less likely to answer correctly than Whites, which may not be surprising as the former groups report lower wealth levels. Nevertheless, there are also sharp cross-question variations. For instance, all three racial/ethnic groups scored above 50% on the percentage calculation, and all three scored low on the compound interest question. Thus, these questions may be able to capture different types of economic literacy. These tables do not control on education, family status, and other demographic characteristics yet. These factors are considered in the next section.

Figure 4 here

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[12] These questions were asked only of respondents who entered the sample in 2004, so we lose approximately 600 observations when we consider these data.
[13] Similar results about lack of financial literacy are reported by Bernheim (1988), Hogarth and Hilgert (2002), Moore (2003), Mandell (2004, and the National Council on Economic Education (2005).

Panel B of Table 5 illustrates the relationship between financial literacy and wealth. This table suggests that a possible reason why wealth varies so much across households is not just due to differences in permanent income, age, and preferences, but also due to differences in household financial literacy.

Multivariate Analysis

We now examine whether the positive relationship observed between Early Boomers' levels of wealth, planning, and economic literacy persists after controlling for conventional determinants of wealth. We focus on total net worth and also on non-housing, non-business wealth. In view of the widespread pattern of homeownership, and the importance of housing in total wealth, we also separately examine this wealth component. Since some of the questions we use are only asked to respondents who entered the survey in 2004, our sample restricts to less than 1,800 households. Moreover, we trim the bottom and top of the wealth distribution to exclude outliers.

The empirical strategy first controls for the conventional determinants of wealth, most likely to be associated with household permanent income and preferences. In our dataset, these include variables measuring respondents' educational attainment, race/ethnicity, marital status, sex, age, number of children, and household income (in natural log). Our strategy then adds to this canonical set of regressors the two new determinants of wealth we have introduced above. First, we add the indicator of planning, and next we include the economic and political literacy variables. In each case, we investigate whether the new variables are associated with wealth outcomes after controlling for the conventional factors associated with saving. Since wealth distributions are skewed, we perform quartile regressions.

The results in Table 6 focus on household total net worth, where we see that both education and race/ethnicity remain strongly associated with wealth levels in the multivariate context as well. In particular, those with at least some college have far more wealth than the base group (those who did not complete high school), and Blacks have far less wealth than Whites, other things equal. Married couples have higher wealth and so do high income households, other factors constant. The next row confirms that those who report doing some planning accumulate more wealth, not only among the rich (third wealth quartile), but also for those in the bottom of the wealth distribution (first quartile). The economic importance of planning is also noteworthy: of the least wealthy group, those who said that they plan accumulated more than $10K above their nonplanner counterparts; in the third quartile, planners had over $40K more.

Table 6 here

It is also interesting that the financial and political literacy are positively related to wealth; these variables are jointly significant across all quartiles. The factor that is most strongly and consistently linked to wealth is knowledge about compound interest; those who can correctly answer the interest compounding accumulate substantially more wealth than their less knowledgeable peers. The magnitude of the knowledge effect surpasses that of planning, suggesting that financial knowledge has an effect on wealth above and beyond its effect on the propensity to plan. We also note that the financial and political literacy slightly reduce the estimated coefficients on education, marital status, and even race/ethnicity. We interpret this to imply that these other socioeconomic factors in part proxy for financial literacy, though they do

not fully capture the literacy effects. Accordingly, it is important to be able to account for these variables separately in empirical analysis of wealth outcomes on the verge of retirement.[14]

Since we have earlier established that housing equity is a large component of pre-retirement wealth, Tables 7 and 8 examine sub-components of wealth to determine whether our main results continue to hold for different categories of wealth. Table 7 shows that planning is only weakly associated with housing equity and the literacy variables are not strong predictors. Indeed, the only strong effect is among the least wealthy, where those who understand compound interest have higher values of home equity. By contrast, there is a much stronger link between planning, literacy, and non-housing wealth (Table 8). Note that households in the top of the wealth distribution are more likely to hold stocks, IRAs, and other assets. This may explain why financial literacy matters so much for those in the third quartile, while it matters less for households in the first quartile who are much less likely to hold these complex assets.

Tables 7 and 8 here

To explore these ideas further, Table 9 relates Boomers' ownership of three major asset classes to the same vector of regressors examined previously. Specifically, using Probit regressions we evaluate ownership of stocks, IRAs, and housing (Haliassos and Bertaut, 1995; Venti and Wise 2001). Once again, we find that education and racial/ethnic status are powerfully associated with stock ownership, supportive of many previous empirical studies (Campbell 2006). For our purposes, however, it is important to note that the planning variable is also powerfully associated with stock, IRA, and home ownership. Furthermore, its economic magnitudes are sizeable. It is also of note that the planning effect is not much attenuated when we introduce the economic and political literacy variables. Moreover, the literacy factors are

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[14] We have also tried different empirical specifications. For example, we added controls for risk aversion and controls for subjective expectations about longevity and Social Security. Our main results remain unchanged and for brevity, we do not include these results in the tables.

jointly significant for each asset. In other words, the literacy variables are associated with portfolio composition outcomes, after controlling for permanent income proxies and planning. In particular, the lottery division question is the most consistently significant, though political literacy is large and significant for IRA owners. We interpret this to mean that respondents who are politically literate may be better able to understand tax-favored assets. The final three columns which focus on home ownership confirm that home equity is a much more broadly distributed asset than IRAs and stock, so that education and race/ethnicity differences are not predictive. Even here, however, planning and financial literacy have independent and significant effects on home ownership. In other words, planning and financial literacy are associated with the decision to own a home.

Table 9 here

Conclusions

In this paper, we examine the distribution of wealth across Baby Boomers. We first assess the resources that this cohort has on the verge of retirement, and how retirement wealth differs across people of observably different characteristics. We then examine whether people have the knowledge and the capacity to implement complex retirement planning tasks. Most importantly, we examine whether planning and financial and political literacy influence savings and portfolio choice.

We use preliminary data from the 2004 HRS for the first wave of the Boomer cohort, and we report the following findigs:

- The distribution of total net worth among Early Baby Boomers on the verge of retirement is quite skewed, such that median net worth is $152K for this cohort, falling well below

the mean which is two and a half times greater ($390K). Those in the 75th percentile had over 10 times the net worth ($400K) of households in the bottom 25th percentile ($37K).

- Many Americans on the verge of retirement have accumulated little wealth outside their homes. At the mean, one-third of the early Boomers' wealth was held in the form of home equity, and at the median the fraction was close to half.

- There is substantial heterogeneity in wealth within this cohort. The median high-school dropout had less than $23K in total net worth, while the median college graduate had over 10 times as much and the median respondent with at least some post-college education controlled more than 16 times as much. Many Black and Hispanic Boomer households hold miniscule levels of wealth: the median White respondent had almost $200K in total net worth, more than 7 times the median Black net worth ($27K) and 3 times the median Hispanic net worth ($56K).

- Since many members of this EBB cohort are reaching retirement with a substantial portion of its wealth in housing, they are particularly vulnerable to housing value shocks. By contrast, holders of stocks, IRAs, and business equity are concentrated in the top quartiles.

Our research also links wealth patterns with efforts to carry out retirement planning and economic literacy. Those with low wealth are disproportionately likely to be non-planners, and those responding incorrectly to financial computation and political literacy questions are also less likely to have substantial wealth. After controlling on factors that can proxy for permanent income, we examine the separate effects of the planning indicator as well as the economic and political literacy variables. The economic importance of planning is noteworthy and persistent for net worth and non-housing wealth, while the financial and political literacy questions also are

statistically significant. In other words, planning and economic literacy are important predictors of saving and investment success.

Future research should proceed in several directions. While we have established a strong positive relationship between wealth levels, planning, and economic literacy, the relationships are complex and not necessarily causal. Instrumental variable strategies are of interest to investigate further whether remedial programs in economic literacy and financial planning can enhance households' saving potential. Also it would be of interest to evaluate how including measures of pension and Social Security wealth might influence observed patterns of net worth and its component parts.

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Table 1: Wealth Levels and Distribution among Early Baby Boomers ($2004)

Percentile	Total Net Worth	Housing Equity	Non-housing Non-business Wealth
5th	-3,500	0	-8,850
10th	200	0	-200
25th	36,500	8,000	7,500
50th	**151,500**	**69,000**	**48,000**
75th	403,000	160,000	190,575
90th	888,010	300,000	536,700
95th	1,327,000	425,000	903,600
Mean	**389,494**	**126,651**	**222,771**
Std Dev.	964,809	294,664	678,296

Note: N=2660; weighted using preliminary HRS weights.

Table 2: Total Net Worth among Early Boomers by Socieconomic Group ($2004)

Group	N	25th Percentile	Median	75th Percentile	Mean
Education					
< HS	331	200	**22,500**	80,000	99,897
HS Graduate	755	15,500	**88,500**	235,000	214,011
Some College	766	36,500	**133,000**	328,000	280,665
College Graduate	451	139,000	**297,900**	690,000	657,588
>College	357	171,000	**365,800**	847,500	786,232
Race					
White	1754	62,000	**198,100**	463,000	458,712
Black	459	61	**27,000**	122,000	121,232
Hispanic	189	4,500	**55,800**	200,000	177,739
Other	258	10,000	**75,200**	250,000	235,678
Marital Status					
Married	1643	84,125	**222,000**	497,000	499,150
Non-Married	1017	3,000	**52,500**	200,000	204,030
Children					
None	321	26,000	**125,200**	370,000	361,789
Some	2274	37,000	**156,000**	405,000	395,752
Sex					
Male	1359	55,425	**194,000**	489,000	490,540
Female	1301	20,000	**104,000**	296,100	269,534
Household Income					
1st Quartile	756	68	**20,200**	91,000	104,711
2nd Quartile	680	32,500	**98,500**	230,000	193,732
3rd Quartile	602	94,500	**193,000**	379,950	320,946
4th Quartile	593	240,000	**463,000**	991,000	946,976

Note: N=2660; weighted using preliminary HRS weights.

Table 3: Distribution of Asset Ownership among Early Baby Boomers, by Socioeconomic Group

Group	N	Home Owner (%)	Real Estate (%)	Stock Owner (%)	IRA Owner (%)	Business Owner (%)
Full Sample						
% of Total Net Worth	2660	32.5	14.1	12.6	10.6	10.2
% of Owners	2660	80.2	28.1	30.9	41.4	14.6
Education						
< HS	331	57.1	12.8	3.5	12.1	4.7
HS Graduate	755	77.5	20.2	20.3	28.2	12.8
Some College	766	79.9	29.6	29.5	39.0	14.2
College Graduate	451	89.4	37.2	49.1	60.5	20.3
>College	357	89.1	38.4	48.7	66.3	18.1
Race/Ethnicity						
White	1754	86.4	31.6	36.3	49.0	17.2
Black	459	54.8	16.2	9.7	14.8	5.1
Hispanic	189	65.5	16.9	9.8	14.7	7.2
Other	258	66..7	17.2	21.9	22.9	8.2
Marital Status						
Married	1643	90.0	32.8	36.4	47.4	17.4
Not Married	1017	63.6	20.1	21.6	31.3	9.9
Children						
None	321	72.7	27.1	28.9	42.5	12.3
Some	2274	81.6	28.2	31.4	41.1	15.3
Sex						
Male	1359	81.8	32.6	34.4	45.7	17.1
Female	1301	78.4	22.6	26.7	36.4	11.6
Household Income						
1st Quartile	755	54.8	11.8	8.8	16.6	4.9
2nd Quartile	680	78.6	23.1	24.7	34.5	11.0
3rd Quartile	603	91.1	32.6	34.2	49.0	16.0
4th Quartile	593	96.4	45.0	56.4	66.3	27.2

Note: N=2660; weighted using preliminary HRS weights.

Table 4: Distribution of Early Baby Boomers' Net Worth by Planning

Group	% of Sample	25th Percentile	Median	75th Percentile	Mean
Planning					
Hardly at All	30%	10,000	**84,000**	291,000	348,601
A Little	17%	59,700	**172,000**	390,500	357,215
Somewhat	27%	54,000	**189,000**	449,500	365,922
A Lot	26%	55,000	**199,000**	463,000	503,661

Note: N=2660; weighted using preliminary HRS weights.

Table 5: Financial Knowledge and Literacy Among Early Boomers

A. Summary Statistics

Question Type	Correct	Incorrect	Do Not Know
Percentage Calculation	83.6	13.2	2.7
Lottery Division	56.4	34.1	9.5
Compound Interest*	17.9	78.6	3.1
Political Literacy	81.4	10.8	7.6

Notes: * Conditional on being asked the question. N=1981; weighted using preliminary HRS weights.

B: Net Worth by Financial Literacy

Group	N	25th Percentile	Median	75th Percentile	Mean
Percentage Calculation (10% of 1000)					
Correct	1581	40,000	162,500	420,000	401,438
Incorrect	328	2,000	46,492	182,500	167,782
Do Not Know	72	68	40,000	133,000	108,476
Lottery Split (2 million divided by 5)					
Correct	1034	64,500	205,000	475,000	461,073
Incorrect	727	6,000	80,500	232,800	258,108
Do Not Know	220	2,000	42,305	165,500	141,248
Compound Interest ($200, 10% interest over 2 years)					
Correct	269	120,000	309,000	635,000	677,861
Incorrect	1653	22,000	116,000	320,000	306,895
Do Not Know	59	1,600	33,340	201,700	176,513
Political Literacy (Name President and VP)					
Correct	1599	49,000	175,000	440,000	414,195
Incorrect	275	400	37,000	155,000	140,157
Do Not Know	200	1,500	29,000	149,500	117,750

Table 6: Multivariate Analysis of Early Boomer Wealth: Total Net Worth ($04)

	25th (I)	25th (II)	25th (III)	Median (I)	Median (II)	Median (III)	75th (I)	75th (II)	75th (III)
HS Grad	-9.253	-7.228	-8.862	-9.033	-9.711	-10.739	-4.183	-7.300	-2.549
	(9.754)	(7.159)	(7.549)	(16.164)	(11.415)	(12.968)	(28.225)	(31.592)	(25.007)
Some College	-4.815	-3.838	-4.864	10.460	10.714	12.784	24.151	21.472	20.433
	(9.822)	(7.263)	(7.893)	(16.216)	(11.569)	(13.375)	(28.546)	(32.215)	(25.883)
College +	46.816	47.269	43.925	145.696	145.955	136.109	288.924	282.707	264.501
	(10.725)***	(7.907)***	(8.589)***	(17.394)***	(12.366)***	(14.611)***	(30.789)***	(35.018)***	(28.962)***
Hispanic	-12.114	-11.590	-10.089	-18.164	-19.986	-23.518	-70.377	-69.210	-54.561
	(8.982)	(6.644)*	(6.960)	(15.054)	(10.686)*	(11.801)**	(26.807)***	(30.741)**	(24.261)**
Black	-17.125	-17.199	-15.713	-27.177	-31.719	-31.707	-77.061	-69.789	-59.713
	(6.766)**	(4.956)***	(5.310)***	(11.190)**	(7.903)***	(8.985)***	(20.884)***	(23.306)***	(18.976)***
Married	32.126	29.677	28.404	53.316	56.284	50.722	121.489	111.218	106.291
	(6.236)***	(4.586)***	(4.664)***	(10.276)***	(7.276)***	(8.014)***	(20.254)***	(22.380)***	(17.664)***
N Children	-1.286	-0.888	-0.564	0.130	0.289	0.685	1.706	1.171	0.805
	(1.707)	(1.249)	(1.289)	(2.873)	(1.994)	(2.236)	(5.752)	(5.855)	(4.585)
Female	3.360	-6.233	-4.332	-4.656	-1.249	-3.701	4.929	7.891	16.108
	(5.493)	(4.034)	(4.083)	(9.054)	(6.370)	(7.098)	(16.962)	(18.690)	(14.969)
Log of Income	27.256	26.218	25.643	45.501	42.700	41.553	42.249	42.010	38.954
	(2.131)***	(1.569)***	(1.598)***	(4.373)***	(3.139)***	(3.464)***	(11.195)***	(12.762)***	(9.998)***
Any Planning		**10.395**	**10.736**		**19.904**	**16.380**		**41.539**	**44.457**
		(4.344)**	(4.387)**		(7.013)***	(7.686)**		(21.013)**	(16.416)***
Percentage Calculation			**-1.611**			**-8.289**			**-11.878**
			(5.545)			(9.174)			(18.716)
Lottery Division			**1.639**			**14.770**			**35.323**
			(4.384)			(7.630)*			(16.457)**
Compound Interest			**19.891**			**34.321**			**78.688**
			(6.274)***			(10.748)***			(23.565)***
Political Literacy			**4.595**			**-4.152**			**12.898**
			(5.740)			(9.125)			(18.683)
Other Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-Squared	0.09	0.09	0.10	0.15	0.15	0.15	0.18	0.18	0.18
F-Statistic		5.73	2.80		8.05	4.07		3.91	4.73
P-Value		(0.017)	(0.025)		(0.005)	(0.003)		(0.048)	(0.001)

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. Net Worth is the dependent variable (divided by 1000). Business owners excluded. Other controls include Age, Retirement Status and Other Race. N=1731; weighted using preliminary HRS weights. F statistics test significance of planning (column 2) and financial and political literacy (column 3).

Table 7: Multivariate Analysis of Early Boomer Wealth: Housing Wealth ($04)

	25th (I)	25th (II)	25th (III)	Median (I)	Median (II)	Median (III)	75th (I)	75th (II)	75th (III)
HS Grad	-4.598	-5.318	-5.472	-3.566	-3.970	-5.264	8.973	4.318	-2.389
	(4.195)	(3.877)	(3.963)	(6.579)	(6.780)	(7.003)	(13.584)	(15.050)	(15.609)
Some College	-1.330	-2.140	-3.530	1.796	2.294	0.149	25.319	20.332	10.042
	(4.161)	(3.881)	(4.045)	(6.609)	(6.856)	(7.238)	(13.505)*	(15.034)	(15.842)
College +	14.849	13.353	11.931	47.059	46.918	40.022	115.295	109.382	91.069
	(4.534)***	(4.197)***	(4.444)***	(7.055)***	(7.310)***	(7.888)***	(14.726)***	(16.385)***	(17.685)***
Hispanic	-4.193	-3.319	-3.233	-9.411	-8.225	-8.321	-24.314	-21.693	-17.220
	(4.029)	(3.684)	(3.750)	(6.120)	(6.283)	(6.335)	(12.592)*	(13.995)	(14.681)
Black	-6.948	-6.864	-5.211	-13.277	-12.047	-12.560	-38.557	-37.245	-34.832
	(2.817)**	(2.599)***	(2.735)*	(4.501)***	(4.634)***	(4.784)***	(9.531)***	(10.669)***	(11.091)***
Married	19.873	21.030	20.522	39.412	37.656	38.128	56.930	53.631	52.041
	(2.663)***	(2.459)***	(2.470)***	(4.128)***	(4.263)***	(4.273)***	(9.668)***	(10.929)***	(10.850)***
N Children	-0.145	0.361	-0.127	0.755	0.496	0.373	-0.467	-0.853	-1.144
	(0.724)	(0.665)	(0.673)	(1.140)	(1.192)	(1.163)	(2.413)	(2.711)	(2.770)
Female	4.349	4.668	4.698	2.965	2.974	4.011	9.302	9.462	7.560
	(2.304)*	(2.108)**	(2.145)**	(3.638)	(3.735)	(3.808)	(7.959)	(8.981)	(9.038)
Log of Income	7.290	7.290	6.876	16.172	16.225	14.905	16.500	17.003	16.035
	(0.977)***	(0.890)***	(0.894)***	(1.760)***	(1.824)***	(1.845)***	(5.149)***	(5.903)***	(5.990)***
Any Planning		**3.457**	**2.864**		**6.274**	**6.904**		**9.045**	**7.999**
		(2.297)	(2.288)		(4.098)	(4.108)*		(10.115)	(9.987)
Percentage Calculation			**2.882**			**1.274**			**-1.395**
			(2.929)			(4.965)			(11.254)
Lottery Division			**-0.800**			**7.013**			**13.962**
			(2.257)			(4.069)*			(9.747)
Compound Interest			**6.568**			**5.490**			**7.859**
			(3.264)**			(5.752)			(13.907)
Political Literacy			**0.991**			**1.799**			**10.010**
			(2.937)			(4.884)			(11.323)
Other Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-Squared	0.05	0.05	0.05	0.13	0.13	0.13	0.15	0.15	0.16
F-Statistic		2.26	1.38		2.34	1.30		0.80	0.91
P-Value		(0.133)	(0.293)		(0.126)	(0.269)		(0.371)	(0.455)

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. Housing Wealth is the dependent variable (divided by 1000). Business owners excluded. Other controls include Age, Retirement Status and Other Race. N=1731; weighted using preliminary HRS weights. F statistics test significance of planning (column 2) and financial and political literacy (column 3).

Table 8: Multivariate Analysis of Early Boomer Wealth: Non-Housing Wealth ($04)

	25th (I)	25th (II)	25th (III)	Median (I)	Median (II)	Median (III)	75th (I)	75th (II)	75th (III)
HS Grad	-3.037	-2.659	-3.401	-3.718	-2.685 -	1.787	-9.532	-13.845	-8.095
	(3.168)	(2.988)	(2.830)	(5.411)	(5.521)	(6.927)	(17.449)	(13.127)	(20.768)
Some College	0.203	-1.404	-1.731	1.427	3.553	2.821	12.283	10.415	12.657
	(3.159)	(3.017)	(2.938)	(5.434)	(5.565)	(7.160)	(17.460)	(13.335)	(21.328)
College +	18.727	18.088	15.837	71.463	72.424	65.611	199.424	198.935	174.556
	(3.449)***	(3.287)***	(3.192)***	(5.812)***	(5.935)***	(7.792)***	(18.751)***	(14.252)***	(23.690)***
Hispanic	-2.818	-2.220	-2.171	-5.268	-4.392	-4.108	-25.757	-24.155	-29.459
	(2.884)	(2.732)	(2.550)	(5.036)	(5.114)	(6.303)	(16.914)	(12.882)*	(20.508)
Black	-5.319	-5.076	-6.083	-11.437	-11.459	-11.029	-27.356	-25.592	-26.447
	(2.162)**	(2.018)**	(1.896)***	(3.724)***	(3.773)***	(4.732)**	(12.680)**	(9.665)***	(15.908)*
Married	7.690	6.509	6.746	13.485	11.575	10.155	82.710 7	6.353	62.893
	(1.911)***	(1.790)***	(1.641)***	(3.406)***	(3.462)***	(4.222)**	(12.484)***	(9.520)***	(14.958)***
N.Children	-1.364	-1.154	-1.099	-1.460	-1.214	-1.306	-0.030	0.263	-1.268
	(0.543)**	(0.506)**	(0.465)**	(0.956)	(0.973)	(1.157)	(3.714)	(2.659)	(4.239)
Female	-2.019	-2.906	-2.251	-8.504	-8.921	-8.737	-6.152	-7.924	-2.468
	(1.738)	(1.627)*	(1.520)	(3.007)***	(3.040)***	(3.760)**	(10.358)	(7.837)	(12.672)
Log of Income	8.506	8.025	7.784	15.890	15.513	13.639	20.828	18.934	20.814
	(0.665)***	(0.629)***	(0.587)***	(1.457)***	(1.504)***	(1.838)***	(6.766)***	(5.268)***	(8.290)**
Any Planning		**5.566**	**6.144**		**8.774**	**9.316**		**30.171**	**30.709**
		(1.733)***	(1.617)***		(3.331)***	(4.056)**		(8.764)***	(13.753)**
Percentage Calculation			**-3.311**			**-6.404**			**-12.748**
			(2.025)			(4.902)			(15.936)
Lottery Division			**3.093**			**4.292**			**30.685**
			(1.645)*			(4.040)			(13.575)**
Compound Interest			**1.469**			**20.268**			**43.246**
			(2.245)			(5.651)***			(19.895)**
Political Literacy			**2.156**			**2.904**			**-3.609**
			(2.116)			(4.830)			(15.696)
Other Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-Squared	0.04	0.04	0.04	0.09	0.09	0.09	0.14	0.14	0.14
F-Statistic		10.31	1.73		6.94	4.19		11.85	2.85
P-Value		(0.001)	(0.140)		(0.009)	(0.002)		(0.001)	(0.023)

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. Non-housing Wealth is the dependent variable (divided by 1000). Business owners excluded. Other controls include Age, Retirement Status and Other Race. N=1731; weighted using preliminary HRS weights. F statistics test significance of planning (column 2) and financial and political literacy (column 3).

Table 9: Asset Ownership of Early Boomers: Probit Regressions

	Stock (I)	Stock (II)	Stock (III)	IRA (I)	IRA (II)	IRA (III)	Home (I)	Home (II)	Home (III)
HS Grad	0.192	0.169	0.147	0.101	0.082	0.038	0.013	-0.002	-0.019
	(0.080)**	(0.078)**	(0.078)*	(0.068)	(0.068)	(0.068)	(0.037)	(0.038)	(0.040)
Some College	0.288	0.267	0.235	0.252	0.228	0.170	0.040	0.019	-0.001
	(0.079)***	(0.079)***	(0.080)***	(0.066)***	(0.067)***	(0.069)**	(0.036)	(0.038)	(0.040)
College +	0.402	0.380	0.331	0.380	0.357	0.277	0.064	0.044	0.016
	(0.076)***	(0.076)***	(0.079)***	(0.064)***	(0.065)***	(0.070)***	(0.038)*	(0.039)	(0.044)
Hispanic	-0.088	-0.084	-0.070	-0.179	-0.173	-0.145	-0.073	-0.070	-0.064
	(0.038)**	(0.039)**	(0.041)*	(0.041)***	(0.041)***	(0.044)***	(0.044)*	(0.044)	(0.044)
Black	-0.137	-0.136	-0.121	-0.241	-0.238	-0.212	-0.207	-0.206	-0.185
	(0.026)***	(0.026)***	(0.028)***	(0.028)***	(0.028)***	(0.031)***	(0.037)***	(0.037)***	(0.037)***
Married	0.057	0.053	0.048	0.036	0.038	0.028	0.209	0.208	0.211
	(0.024)**	(0.024)**	(0.024)**	(0.028)	(0.028)	(0.028)	(0.024)***	(0.024)***	(0.024)***
N.Children	-0.013	-0.013	-0.014	-0.010	-0.010	-0.008	-0.001	-0.002	-0.002
	(0.008)*	(0.008)*	(0.008)*	(0.009)	(0.009)	(0.009)	(0.007)	(0.007)	(0.007)
Female	-0.026	-0.027	-0.017	0.001	0.005	0.020	0.090	0.094	0.102
	(0.022)	(0.022)	(0.022)	(0.025)	(0.025)	(0.026)	(0.021)***	(0.021)***	(0.022)***
Log of Income	0.077	0.076	0.073	0.091	0.083	0.077	0.089	0.085	0.083
	(0.012)***	(0.012)***	(0.012)***	(0.013)***	(0.013)***	(0.014)***	(0.010)***	(0.010)***	(0.010)***
Any Planning		**0.101**	**0.098**		**0.110**	**0.105**		**0.085**	**0.085**
		(0.023)***	(0.023)***		(0.027)***	(0.027)***		(0.025)***	(0.025)***
Percentage Calculation			**0.004**			**0.023**			**0.052**
			(0.033)			(0.038)			(0.030)*
Lottery Division			**0.043**			**0.060**			**0.068**
			(0.023)*			(0.027)**			(0.024)***
Compound Interest			**0.022**			**0.021**			**-0.036**
			(0.030)			(0.036)			(0.038)
Political Literacy			**0.056**			**0.122**			**-0.022**
			(0.031)*			(0.034)***			(0.027)
Other Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R-Squared	0.16	0.16	0.17	0.16	0.16	0.17	0.21	0.22	0.23
Wald Test Chi-Squared		16.39	8.05		15.15	19.15		12.17	13.60
P-Value		(0.000)	(0.090)		(0.000)	(0.001)		(0.001)	(0.009)

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors in parentheses. Stock ownership, IRA ownership, or Home Ownership are the dependent variables (0,1). Regressions are Probits with marginal values at the means of all variables reported. Business owners excluded. Other controls include Age, Retirement Status and Other Race . N=1731; weighted using preliminary HRS weights.

Figure 1: Early Boomer Asset Ownership, by Percentile of Total Assets
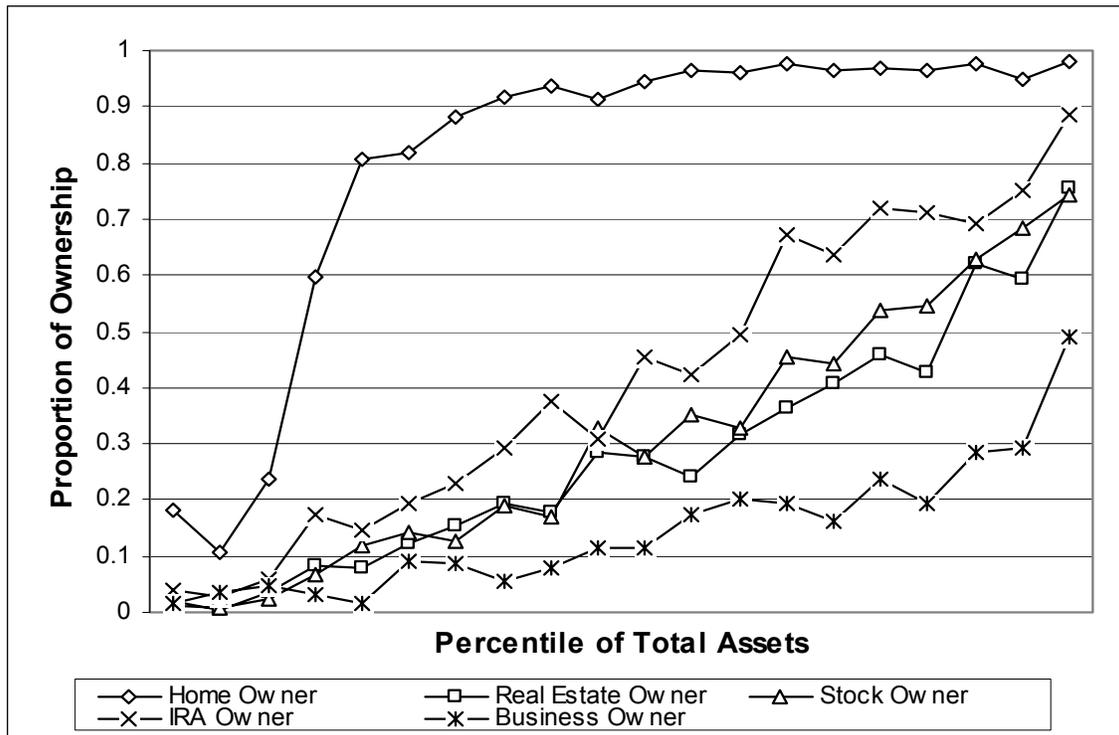
Notes: The X-axis shows the percentile of total asset distribution (total net worth – debt). The Y-axis is the proportion of owners in that range. Each point represents the proportion of owners of a given asset within a range of 5 percent of the wealth distribution. Business owners excluded. N=1731; weighted using preliminary HRS weights.

Figure 2: Probability of Selling House to Finance Retirement
A. All HRS Respondents
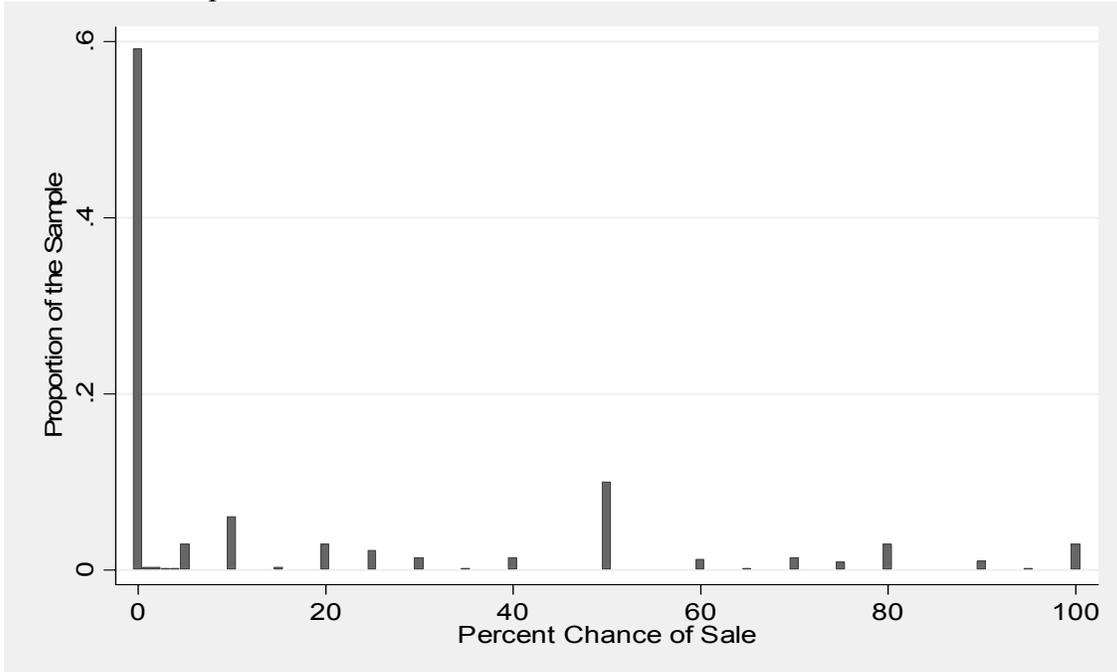
B: HRS Respondents Younger than Age 70
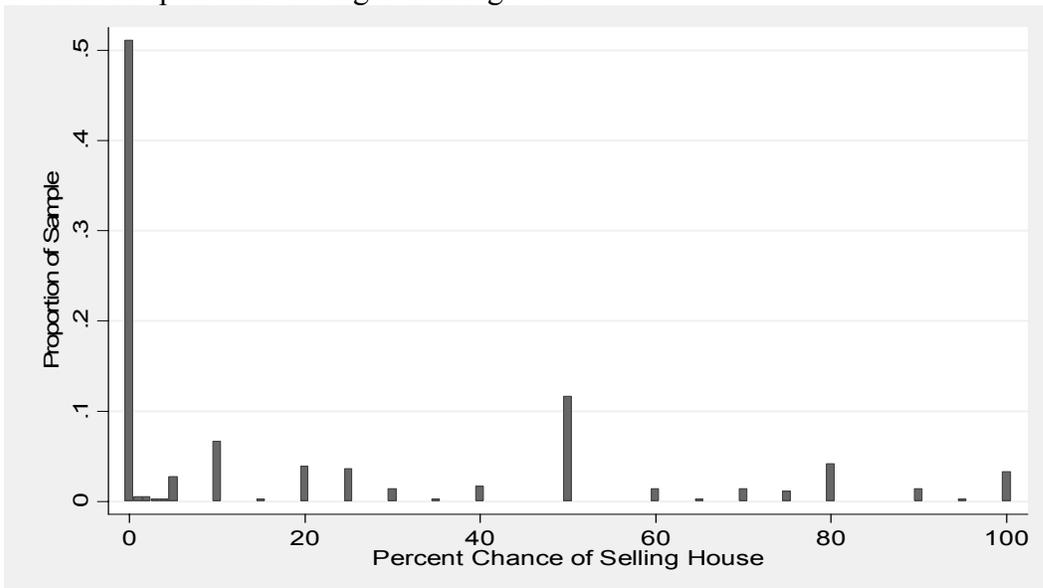
Figure 3: Prevalence of Planning Among Early Boomers, by Socioeconomic Group

Planning by Education

Planning by Race
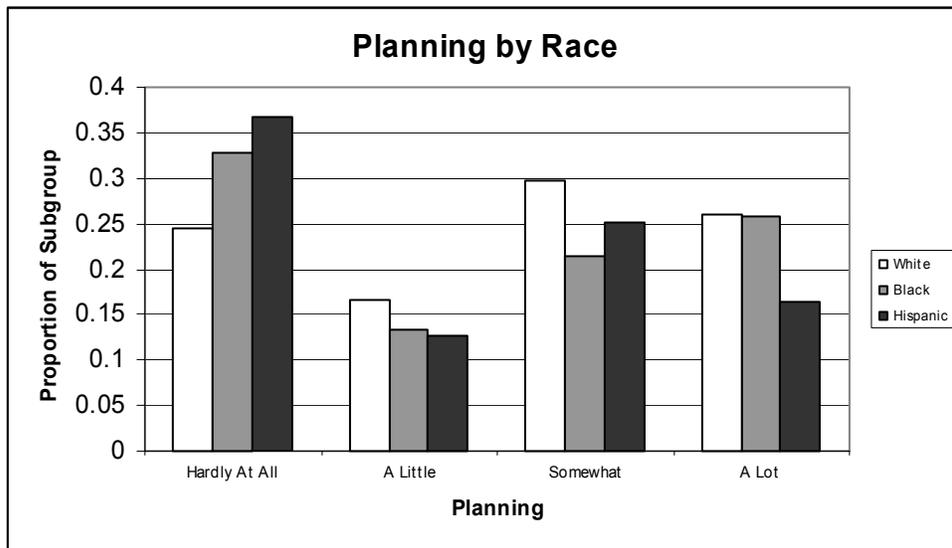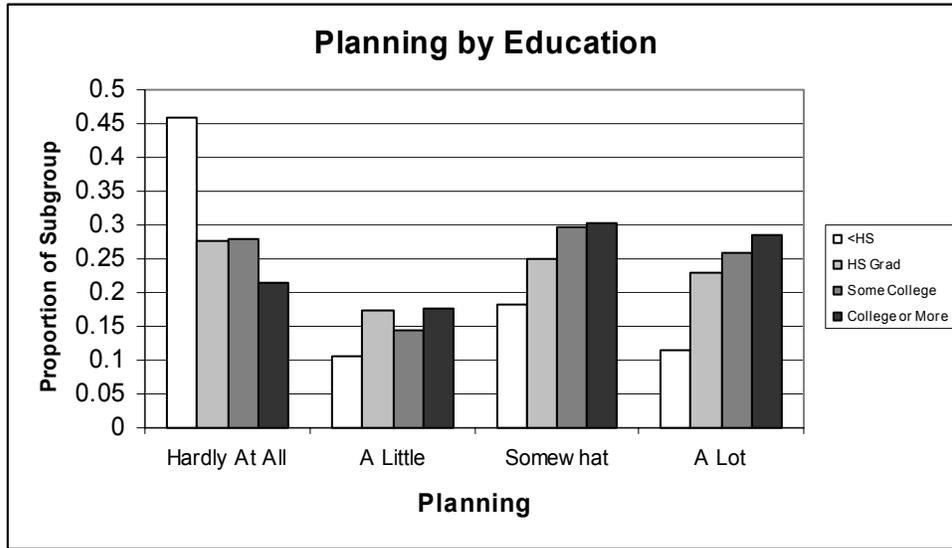
Figure 4: Prevalence of Literacy Among Early Boomers, by Socioeconomic Group