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Saving for Retirement: The Importance of Planning

In this issue of *Research Dialogue*, Professor Annamaria Lusardi of Dartmouth College summarizes her recent research on the relationship between household saving and planning for retirement. She emphasizes that planning for retirement can be a difficult and even stressful exercise that many families may be ill equipped to do on their own. The high "cost" of planning may explain why relatively few households report having made a significant effort to plan for retirement. Professor Lusardi presents summary statistics on the extent of planning and saving among American households, and describes the details of her finding that those households who have made a relatively greater effort to plan for retirement have higher levels of household saving. She concludes with a brief discussion of the public policy implications of her work.

in this issue

INTRODUCTION

Economists who study how people save typically base their analysis on a model that assumes people make their saving decisions considering all their lifetime resources and needs. According to this model, which is called the "life-cycle permanent income model," people are fundamentally forward-looking. The model implies, for example, that people will anticipate any decline in their income after retirement, and will save before retirement to offset this anticipated change and smooth their consumption of resources over time.

A number of studies have shown that this simple model does not accurately describe the distribution of wealth in the U.S. (or in other countries).[1] In particular, detailed survey data on household finances show significant differences in the accumulated wealth of households with similar levels of lifetime resources. These data suggest that there are large differences in saving behavior that are not explained by the life-cycle permanent income model. We know relatively little about exactly what causes these large differences in wealth holdings. Why do some households save so little, while others save so much?

One possible explanation of these differences, which has not been given much attention until recently, is that planning for retirement is a complex task, and many individuals may perform it imperfectly. Some may even postpone retirement planning decisions until it is too late. Among many of the difficulties involved in the planning process are that the information required for making decisions is extensive, and the rules concerning Social Security and pensions are rather elaborate. There is evidence that many households are not well informed about their Social Security and pension benefits.[2]

Very little existing research focuses on how households make saving plans and how they collect all the relevant information to make their saving decisions. In particular, almost all models used in existing analyses assume that there are no planning costs and, for example, no differences in how individuals attain and evaluate information as well as overcome all the difficulties of devising saving plans. Nevertheless, these are important factors in decision making. Differences in building saving plans and carrying those plans out can be powerful determinants of both wealth holdings and portfolio choice. Research on these subjects is important not only to advance our knowledge of the saving process, but also to inform the current debate on the effectiveness of saving incentives. Understanding the links between saving and planning may also have implications for assessing the potential effects of privatizing Social Security, or for examining the consequences of changes in pension plan provisions, such as the current shift among employers from defined benefit pension plans to defined contribution plans.

In this article, I examine saving and planning behavior of households whose head is only a few years away from retirement using data from the Health and Retirement Study (HRS), a survey of a sample of U.S. households in which the head was born between 1931 and 1941. This survey reports detailed information on wealth and the retirement process, with a focus on health, participation in labor markets, and economic and psychosocial factors. These data provide the researcher with an unusually rich set of information to analyze household behavior. I also use data from the Survey of Consumer Finances (SCF), a triennial survey of U.S. families sponsored by the Board of Governors of the Federal Reserve System. This survey is designed to provide detailed information on families' balance sheets and their use of financial services. Finally, in a few instances, data from the 1997 Retirement Confidence Survey are mentioned; this survey collected information on American workers' retirement planning and saving behavior (Yakoboski and Dickemper, 1997).

STATISTICS ON THE WEALTH OF OLDER HOUSEHOLDS

Table 1 reports some simple descriptive statistics regarding household wealth holdings. The data in the table are for households in the first wave of the 1992 HRS, excluding partially and fully retired respondents. Two measures of wealth are examined: liquid and total net worth. Liquid wealth is defined as the sum of checking and saving accounts, bonds, stocks, and other assets minus short-term debt. Total net worth is obtained by adding housing equity, other real estate, IRAs and Keoghs, business equity, and all vehicles to financial wealth. To look more closely at the major components of wealth, the amount of wealth in certain types of retirement assets (IRAs and Keoghs) and housing equity is also reported. All data refer to the year 1992, and all values are in 1992 dollars. Because the HRS oversamples black and Hispanic households as well as households from Florida, weights are used in the calculations to obtain statistics representative of the U.S. population. As mentioned on page 7, there is also information on pension wealth (i.e., wealth accumulated in defined contribution, defined benefit, and other types of pension plans) in the HRS. These data are used in the empirical work I discuss in the section below on the "Consequences of Planning: Savings and Portfolio Choice."

The data indicate large differences in household wealth holdings even when looking at a narrow age group in the population. While some households amass large amounts of wealth, others accumulate very little.[3] Also apparent from Table 1 is that housing is an important asset in many household portfolios, and many families have few assets other than their home equity. However, at issue is whether households use housing equity to support their consumption at retirement. A few studies, such as Venti and Wise (1990, 1991), show that there is little downsizing of housing after retirement and a limited use of contracts such as reverse mortgages. Retirement assets, such as IRAs and Keoghs, have been one of the fastest-growing components of household wealth in the past 20 years. However, ownership and the amount invested in these tax-favored assets differ widely across households.

A second important feature to note in Table 1 is the proportion of households that arrive close to retirement with little or no savings. A quarter of the households in the sample have less than $30,000 in total net worth. This measure of total net worth is only a partial measure of accumulation, because it does not include wealth in Social Security and pensions. However, it is hard to borrow against retirement assets. It seems apparent that households with only $850 (the first decile of the distribution of net worth) will have difficulty offsetting potential shocks to income, health, or family circumstances. (Of course, many of these individuals may have to rely on government programs for this purpose.) How (or if) such households will accumulate a stock of wealth in the remaining years up to retirement is also not obvious.

As reported in Lusardi (1999), not only is wealth very heterogeneous, but portfolios also vary widely across households. For example, retirement assets, such as IRAs and Keoghs, are concentrated among households whose head has at least a high school education. Only a fraction of the population hold stocks and bonds, and these assets are heavily concentrated among the highly educated. Most importantly, households with lower levels of education are not only less likely to hold high-return assets, but do not even hold basic assets, such as savings and checking accounts.

Table 1: The Distribution of Household Wealth Among Older Households, 1992

Percentile	Liquid Net Worth	IRAs & Keoghs	Housing Equity	Total Net Worth
5	$ (6,000)	$ 0	$ 0	$ 0
25	0	0	0	27,980
50	6,000	0	42,000	96,000
75	36,000	15,000	85,000	222,200
90	110,000	45,000	150,000	475,000
95	199,500	75,000	200,000	785,000
mean	46,171	16,492	61,613	227,483
std. dev.	*178,654*	*49,754*	*100,646*	*521,467*

Note: This table reports the distribution of total net worth and some of its components across households whose head is 50 to 61 years old and not fully or partially retired. The total number of observations is 5,292. The data are from the 1992 Health & Retirement Study, and figures are weighted using survey weights.

Table 2a: How Do You Make Decisions About Saving and Investment?

Sources	Total Sample	Low Education	High Education
Call around	0.25	0.22	0.30
Realtives/friends	0.21	0.21	0.21
Financial planners/ brokers	0.28	0.14	0.45
Accountants	0.07	0.02	0.14
Lawyers	0.03	0.02	0.04
Mag./Newspapers	0.27	0.21	0.35
Material in the mail	0.11	0.08	0.15

Note: This table reports the fraction of households that use the sources of information listed in the first column to make saving and investment decisions. Fractions are reported in the total sample of older respondents (50 to 61 years old) and across high and low education groups. The data are from the 1995 Survey of Consumer Finances, and figures are weighted using survey weights.

Table 2b: Some Unpleasant Facts About Retirement

Worry about retirement	Prosepect of illness & disability	Not doing anything productive	Being bored	Missing people at work
Worry a lot	0.23	0.12	0.09	0.07
Worry somewhat	0.29	0.17	0.16	0.23
Worry a little	0.26	0.19	0.17	0.29
Worry not at all	0.22	0.52	0.58	0.41

Note: This table reports the fraction of households according to how they rated the unpleasant facts about retirement listed in the first row. The data are from the 1992 Health & Retirement Study, and figures are weighted using survey weights.

>>> PLANNING: COSTS AND EVIDENCE

Costs of Planning

One reason why savings vary so widely is that households may differ substantially in how they implement saving plans, because they face different costs of planning and different ways of learning about retirement. There is indirect evidence on this issue both in the SCF and the HRS. In the 1995 SCF, respondents were asked to report what sort of information they use to make decisions about saving and investment (see Table 2a). To be consistent with the HRS sample that is being examined, I restrict the analysis to a limited age group in the SCF, namely those households in which the head is 50 to 61 years old.

Households may make use of several sources of information in their planning decisions. Survey respondents are most likely to report that they rely on planners or brokers and read magazines and newspapers. However, they also rely on less formal channels of information. For example, they "call around" and consult with relatives and friends.[4] Households whose head is relatively highly educated (i.e., more than a high school education) rely most often on planners and brokers, and also make use of accountants and lawyers. They are also more likely than other less educated respondents to rely on magazines and newspapers. Both highly educated and less educated groups rely on relatives and friends to make decisions about saving and investment.

The effort put into searching for information is not only influenced by how hard the task is, but also by how unpleasant it is. First, obtaining and evaluating information can be an unpleasant task for consumers with little financial literacy. Second, retirement is not a pleasant event for every individual. In fact, some may view it as a time when one is unproductive, lonely, or unhealthy. Evidence from the HRS suggests that, for many, retirement is surrounded by worries. Table 2b reports the proportion of respondents in the HRS sample according to how they evaluate a list of facts about retirement. Note that, for a sizable fraction of respondents, retirement is not necessarily an event that they look forward to. The prospect of illness and disability represents a major concern for many respondents. The existence of these costs (i.e., search and information costs as well as psychological costs) can play an important role in affecting household behavior toward planning and saving.

Evidence on Planning

A simple way to evaluate whether households look ahead and save for their retirement is to consider the evidence on planning. Little work has been done on this topic so far, but a few studies offer suggestions. Yakoboski and Dickemper (1997) examine data from the 1997 Retirement Confidence Survey, which collected information on American workers' retirement planning and saving behavior. They report that a large proportion of workers have done little or no planning for retirement; only 36 percent of current workers have tried to determine how much they need to save in order to fund a comfortable retirement. Moreover, many of the workers who did the calculations could not give a figure when asked. Thus, according to this survey, as many as three-quarters of the sampled workers have little idea how much money they will need to accumulate for retirement.

When those who did not make a calculation were questioned as to why they did not attempt a calculation, many reported they could not save more or that retirement was too distant to know what they would need. Interestingly, a significant proportion also reported that they did not have the time to plan or that they were afraid of the answer. Other answers included that the process is too complicated, and they did not know how to find help for it.

Benartzi and Thaler (1999) examine data on retirement planning of recently hired (nonfaculty) staff employees at the University of Southern California and report that these respondents also devote little time and effort to planning. For example, most of the respondents did not read material other than that provided by their pension fund company and did not consult with anyone other than family members.

The HRS provides some information on indicators of planning. Respondents are asked to report how much they have thought about retirement. It is useful to first note that not every respondent plans to retire at the standard retirement age, and a few express a desire not to retire at all (see Table 4). Those who report they will never retire completely are not asked to report how much they have thought about retirement. Respondents who expect to retire can choose from four answers, which are reported at the top of Table 3. Approximately one-third of respondents in this sample have "hardly" thought about retirement. This is a large percentage, particularly when considering the age of the respondents (again, the individuals in the sample are ages 50 to 61). Many respondents are only a few years away from retirement.

Because the wording of the question under consideration is rather generic and has several interpretations, I also report the characteristics of respondents across different answer modes (i.e., the figures are the fraction of households in each group). Consistent with the fact that education and financial literacy can be more conducive to planning (e.g., search costs are lower), respondents

Table 3: Who Thinks About Retirement?

Characteristics	How much have you thought about retirement? A lot	Some	Little	Hardly at all	Total sample
Less than high school	0.20	0.13	0.22	0.32	0.22
High school	0.38	0.35	0.37	0.37	0.37
More than high school	0.42	0.52	0.40	0.31	0.41
Family has high education	0.45	0.53	0.46	0.40	0.45
Married	0.64	0.68	0.61	0.53	0.61
No. of siblings older than 62	0.23	0.28	0.22	0.19	0.23
Ability to think quickly	2.29	2.20	2.25	2.42	2.30
Memory	12.90	13.80	12.90	12.60	13.10
Analogy	6.32	7.00	6.40	5.80	6.35
Number of observations	1,331	1,039	681	1,438	4,489

Note: This table reports the characteristics of respondents across different responses to the question: "How much have you thought about retirement?" The data are from the 1992 Health & Retirement Study, and figures are weighted using survey weights.

who do not think about retirement are more likely to have less education. Not only is their education minimal, but so was the education of their parents (e.g., father or mother did not have a high school education). Individuals who have not thought about retirement are also less likely to be married. Additionally, they are less likely to have older siblings (older than 62) who could provide some guidance or experience on what happens during retirement.

The bottom three rows of Table 3 report the average scores on the measures of cognitive abilities available in the HRS: 1) ability to think quickly (the score goes from 1 to 5, where 1 means excellent and 5 poor); 2) memory, which measures the numbers of words one person is able to recall in two subsequent trials (the total number of words is 20, and the total score therefore goes from 0 to 40); and 3) analogy, which measures the ability to report how some things are alike (there are 7 questions totaling 2 points each for a total score of 14). Overall, the people who have not thought about retirement receive the worst average score on all questions. In particular, analogy scores for those who have not thought about retirement are significantly lower than the analogy scores among the other groups of respondents. This is relevant because this ability is one that can be most useful as a skill for planning for the future.

Table 4: Thinking About Retirement and Total Net Worth, 1992

	How much have you thought about retirement?				
Percentile	A lot	Some	Little	Hardly at all	Will never retire completely
5	$ 0	$ 2,010	$ (120)	$ (500)	$ (3,700)
25	41,300	50,500	28,500	8,800	17,575
50	116,200	128,000	92,000	60,000	95,700
75	241,000	266,800	280,000	147,000	259,000
90	437,000	474,500	485,700	346,500	745,000
95	636,500	752,000	1,009,000	613,350	1,335,000
mean	224,252	239,298	245,304	165,367	289,960
std. dev.	*504,987*	*422,639*	*638,957*	*448,924*	*630,551*
Number of observations	1,331	1,039	681	1,438	629

Note: This table reports the distribution of total net worth across different responses to the question: "How much have you thought about retirement?" In the last column, it reports the distribution of wealth for respondents who plan to never retire completely. The data are from the 1992 Health & Retirement Study, and figures are weighted using survey weights.

CONSEQUENCES OF PLANNING: SAVINGS AND PORTFOLIO CHOICE

Does planning have an effect on savings? In Table 4, I report a simple classification of total net worth across how much respondents have thought about retirement. Respondents who have "hardly" thought about retirement stand out as a very different group than those who have thought "a little" or "a lot" about retirement. For example, their median wealth holdings are almost half the size of those who have thought a lot about retirement. Many households in this group report negative or little savings. As previously mentioned, there is also a non-trivial number of respondents in the sample who plan to never retire completely. This group is rather heterogeneous in terms of wealth holdings; some respondents report a high amount of wealth and others very little wealth. Approximately 30 percent of this group are self-employed. It is not simple to interpret this evidence, as there are numerous reasons why households have low wealth holdings close to retirement, and the variable measuring planning could simply be a proxy for economic circumstance or for preferences rather than differences in costs of planning.

In particular, several explanations for low wealth accumulation may be consistent with the life-cycle permanent income model. For example, many households may rely on pensions or Social Security. They may have little savings because they have low lifetime resources or may have experienced unexpected events that have depleted their resources. In addition, they may accumulate little because they do not face high risks (e.g., unemployment or health risks), or they have formal or informal insurance (e.g., through a network of families and friends) against adverse events. Also, tax provisions and public assistance programs may constitute an incentive for some families to hold low wealth, in particular, little or no financial wealth. Many welfare programs are means- tested and provide strong incentives against accumulation. As

Hubbard, Skinner, and Zeldes (1995) document, these programs can have a disproportionate impact on the saving behavior of low-income households. Families may also expect to receive inheritances or enjoy big capital gains on their assets. In addition, they may anticipate a short retirement period, due perhaps to short longevity, or they may simply be impatient and heavily discount the future.

This long but still partial list of explanations serves to emphasize that it is very hard to interpret the evidence on the lack of savings. In particular, one needs detailed data about individual circumstances to address this issue and, fortunately, the HRS contains a great deal of information. The richness of the information provided in the HRS is reviewed below; these data allow researchers to account for many important determinants of household saving. In particular, four important types of information perhaps help most in gaining insights into household saving behavior and in explaining the differences in patterns of accumulation:

1) **Pension and Social Security wealth:** Using the HRS, one can link the respondents' Social Security records to the survey data to calculate Social Security wealth.[5] In addition, one can construct a measure of pension wealth from the self-reported pension information. This information allows a quite complete measure of household wealth accumulation to be obtained.

2) **Past economic circumstances:** The HRS provides information on past economic circumstances, such as past events affecting wealth. For example, respondents are asked whether they have been unemployed in the past or received inheritances, money from insurance settlements, or financial assistance from relatives and friends. These positive and negative "wealth shocks" can be another important explanation for the vast differences in wealth holdings that is observed empirically.

3) **Expectations about the future:** In addition to the past, it is important to have information about future resources. In the HRS, respondents are asked to report the probability that home prices will increase more than inflation and that Social Security will become less generous in the future. This is important information, because these two assets are the most prominent components of household portfolios.

   Respondents are also asked to report the probability of living to age 75 and the probability of living to age 85. In addition, respondents report the chance they will have to give major financial aid to family members in the next 10 years. Most important, respondents are asked about the probability of losing their job next year. As in some previous work (Lusardi, 1998), this variable can be used to construct a measure of income variation. Households may care not only about the decline in income at retirement, but also about the variability of their income. This is another potentially significant explanation for why wealth differs so much across households.

4) **Preferences:** Another not yet well-explored dimension along which households can differ is preferences. While it is very hard to measure individual preferences, characteristics such as tolerance for risk and impatience can also play a pivotal role in many models of savings. The HRS data provide information that allows a researcher to estimate these aspects of preferences, therefore accounting for variation in preferences when explaining household wealth holdings. In particular, the analysis provided in Barsky, Kimball, Juster, and Shapiro (1997) enables the construction of a measure of the aversion to risk based on the respondent's willingness to take particular risks. Data on smoking, drinking, caring about one's health, and exercising regularly are also used to proxy for the degree of impatience. Finally, demographic variables related to impatience, such as education, race, and country of origin, are also included in the empirical estimation.

Summary of Formal Regression Analysis

In two recent academic studies (Lusardi 1999, 2000), I examine household behavior by considering several regressions of household savings and asset ownership on this extensive set of variables. Multivariate regression analysis and related statistical methods are employed in an attempt to assess how well differences in planning and saving across households are explained by this rich set of information. Most important, the study addresses whether lack of planning still plays a role in explaining the differences across households after accounting for many other factors that can explain savings.

The analysis considers two ways of measuring the extent of planning. First, planning is measured by responses to the question shown in Table 4. Respondents are classified

as planners or nonplanners on the basis of their responses; those who have "hardly" thought about retirement are nonplanners, those who have thought at least "a little" about retirement are planners. Second, planning is measured through the construction of a "planning index." Thinking about retirement is only one potential measure of the extent of retirement planning; much more information is available in the HRS concerning aspects of planning.

The index is constructed by assigning "points" to respondents. First, points are given depending on how much the respondent has thought about retirement (those who have "hardly" thought about retirement get 1 point, while the ones who have thought "a lot" about retirement get 4 points), and points are added for each additional planning activity. For example, a point is added if respondents have asked the Social Security Administration to calculate their retirement benefits and another point if they have ever attended a retirement seminar.

The results of this empirical analysis show that households not planning for retirement end up having much lower savings than households that have thought (a little or a lot) about retirement. Thus, planning continues to have an effect, even after accounting for many of the variables that can explain savings. These results obtain even when using different measures of accumulation (i.e., financial or total net worth) and different proxies for planning.

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Additionally, as has been discussed, planning may have an effect not only on wealth, but also on portfolio choice. If much effort has to be exerted to obtain information about complex investment assets such as stocks, families facing high costs will be less likely to invest in those assets. Thus, the question of whether planning affects stock ownership is also important, and can be examined using regression methods. As in the regressions on household savings, a large set of controls that proxy for both household resources and preferences are incorporated into the analysis. In addition, rather than considering a measure of total pension wealth, the analysis distinguishes among those who have defined contribution, defined benefit, and other types of pensions. (Respondents with defined contribution plans can usually choose how to invest their pension assets, and this may also affect the allocation of their nonpension assets). The results of this analysis show that lack of planning is also a strong determinant of portfolio choice. Households that do not plan are less likely to invest in stocks; this result is unchanged when the control variables discussed above are included in the analysis.

Table 5: Retirement and Planning

How is your retirement compared to the years just before you retire?	How much have you thought about retirement?			
	A lot	Some	Little	Hardly at all
Better	0.57	0.44	0.35	0.18
About the same	0.22	0.31	0.36	0.24
Not as good	0.11	0.15	0.22	0.54
Retired less than one year ago	0.10	0.10	0.07	0.04
No. of observations	343	217	92	520

Note: This table reports the fraction of respondents according to how they rate their retirement experience and how much they have thought about retirement. The data are from the 1992 Health & Retirement Study, and figures are weighted using survey weights.

CONSEQUENCES OF PLANNING: WELL-BEING AFTER RETIREMENT

While planning has an impact on savings and portfolio choice, households that do not plan may still manage a comfortable retirement. This could occur because some variables are difficult to control for (help from children, other sources of support, etc.). Also, it is hard to measure pension and Social Security accurately. Alternatively, the specification of preferences may not be accurate.

However, much evidence shows that consumption falls sharply at retirement—much more than can be rationalized by explanations consistent with traditional models of saving. For example, Bernheim, Skinner, and Weinberg (1997), among others, document a sharp drop in consumption at the time of retirement. This drop is much greater for households that arrive at retirement with little wealth. As the authors report: "...[our results] appear to suggest that on average individuals who arrive at retirement with few resources experience a 'surprise'—they take stock of their finances only to discover that their resources are insufficient to maintain their accustomed standards of living (e.g. because pension income is less than expected, or because they recognize that savings will go less far than they had hoped)..."

Some information in the HRS assesses the experience of households whose respondent is already (partially or fully) retired. Those respondents are also asked how much they thought about retirement. As for the sample of nonretired respondents, a large proportion had not thought about retirement (520 out of 1,172 observations report that they had "hardly" thought about retirement, as reported in Lusardi, 2000).

Respondents are also asked to rate their retirement experience and state how retirement compares to their working years (Table 5). More than 54% of respondents who had not thought about retirement rate their retirement years as not as good as their pre-retirement years. Similarly, a large proportion of respondents (79%) who have thought "a lot" about retirement rate their retirement years as better than or about the same as their preretirement years. This evidence is only suggestive, but is consistent with the evidence on the low amount of accumulation for nonplanners provided in the previous sections. These households may indeed be likely to experience a negative "surprise" after retirement.

POLICY IMPLICATIONS AND CONCLUSIONS

There is much debate among policy makers on the effectiveness of saving incentives and whether, for example, tax breaks boost saving. The evidence from this empirical work suggests that there are other routes to influence saving. For example, programs that provide investment advice as well as information for saving decisions (i.e., replacement rates of Social Security, future pension benefits, expected consumption needs at retirement, etc.) can also have an effect on saving. By reducing the costs of planning, such programs could give individuals greater incentive to start making the calculations necessary to establish how much they need to save. Some demographic groups, such as women, singles, people with low income and low education, may particularly benefit from such programs.

Several firms have started offering retirement seminars, and there is some evidence that workers who attend those seminars increase their savings. Data from the HRS indicate a very strong correlation between total net worth and attending a retirement seminar offered by employers. It is difficult to establish, however, which is the direction of causality. Additional research is much needed on this important topic. The growing importance of defined contribution pension plans will likely call into attention the potential role of employers in helping workers provide for their retirement. Similarly, the government and, in particular, the Social Security Administration, may also have a role in affecting saving via the information provided to households.

An additional advantage of providing formal sources of information is that households may rely less on crude rules of thumb for their saving decisions. They may also be able to rely on more informed and reliable sources of help. Overall, the design of any programs aimed to foster saving critically hinges on the reasons why households lack any retirement planning. Research is much needed on this important topic.

Concluding Remarks

A large percentage of U.S. households that are nearing retirement age have little or no wealth. Although many explanations can be found for this behavior, people have often simply not thought about retirement and have done little or no planning. Lack of planning results in low wealth holdings and in portfolios that are less likely to contain high-return assets, such as stocks.

Much research is needed to determine the reasons why households do not plan for retirement, and whether the provision of information (e.g., on Social Security and pension benefits) can play a role in affecting household decision making and, ultimately, the financial security of many American households.

An important topic to be explored is the effect of health on savings. There are several directions to consider, and a potentially relevant one is the relationship between health and retirement planning. Additionally, there are several ways in which households can learn to save for retirement. The interaction with older siblings, parents, and colleagues represents another interesting area of research.

ENDNOTES

[1] Several are surveyed in Browning and Lusardi (1999).

[2] See Gustman and Steinmeier (2000).

[3] Analysis reported elsewhere (Lusardi, 1999) indicates that these disparities persist even when accounting for household characteristics, such as income, race, and education.

[4] The figures reported in Table 2a are the proportion of respondents who have indicated the specific source of information listed in the first column (all figures are weighted to take account of oversampling of high-income households in the SCF). Since multiple answers are possible, the proportions sum to more than one. The remaining (minor) categories mentioned by respondents refer to not saving or investing, not getting advice, using other sources such as investment seminars and clubs, material from work, television, etc.

[5] Special authorization is needed to link to the Social Security records. In addition, not every household has allowed access to their Social Security records and imputed Social Security data must be used for those households.

REFERENCES

Barsky, Robert, Miles Kimball, Thomas Juster and Matthew Shapiro (1997), "Preference Parameters and Behavioral Heterogeneity: An Experimental Approach in the Health and Retirement Survey," *Quarterly Journal of Economics*, 62, pp. 537-579.

Benartzi, Shlomo and Richard Thaler (1999), "Risk Aversion or Myopia? Choices in Repeated Gambles and Retirement Investments," *Management Science*, 45, pp. 364- 381.

Bernheim, Douglas, Jonathan Skinner and Steven Weinberg (1997), "What Accounts for the Variation in Retirement Wealth Among U.S. Households?," NBER Working Paper n. 6227.

Browning, Martin and Annamaria Lusardi (1996), "Household Saving: Micro Theories and Micro Facts," *Journal of Economic Literature*, 34, pp. 1797-1855.

Gustman, Alan and Thomas Steinmeier (2000), "What People Don't Know about their Pensions and Social Security," forthcoming in William Gale, John Shoven , and Mark Warshawsky (eds.), *Public Policies and Private Pensions*, Washington D.C.: Brookings Institution.

Hubbard, Glenn, Jonathan Skinner and Stephen Zeldes (1995), "Precautionary Saving and Social Insurance," *Journal of Political Economy*, 103, pp. 360-399.

Lusardi, Annamaria (2000), "Explaining Why So Many Households Do Not Save," Working Paper, Irving Harris Graduate School for Public Policy Studies, University of Chicago.

Lusardi, Annamaria (1999), "Information, Expectations, and Savings for Retirement," in H. Aaron (ed.), *Behavioral Dimensions of Retirement Economics*, Washington, D.C.: Brookings Institution and Russell Sage Foundation, pp. 81-115.

Lusardi, Annamaria (1998), "On the Importance of the Precautionary Saving Motive," *American Economic Review Papers and Proceedings*, 88, pp. 449-453.

Venti, Steven and David Wise (1991), "Aging and the Income Value of Housing Equity," *Journal of Public Economics*, 44, pp.371-*395*.

Venti, Steven and David Wise (1990), "But They Do Not Want to Reduce Housing Equity," in D. Wise (ed.), *Issues in the Economics of Aging*, Chicago: University of Chicago Press, pp. 13-29.

Yakoboski, Paul and Jennifer Dickemper (1997), "Increased Saving but Little Planning: Results of the 1997 Retirement Confidence Survey," *EBRI Issue Brief*, 191, November.

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