Financial Literacy and Planning: Implications for Retirement Wellbeing

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Annamaria Lusardi and Olivia S. Mitchell

Recent research indicates that many older Americans may have saved too little to maintain their lifestyles in old age.[1] This fact has generated substantial policy and media concern, and many older workers are far from sanguine about the financial straits in which they may find themselves. Indeed, only a minority of American households feels "confident" about retirement saving adequacy, and a full third of adults in their 50s have failed to develop any kind of retirement saving plan at all (Lusardi 1999, 2003; Yakoboski and Dickemper, 1997). What explains this low level of retirement preparedness in one of the richest countries in the world? Why do people do so poorly when it comes to designing and carrying out retirement saving plans? This paper explores the hypothesis that poor planning may be a primary result of financial illiteracy. That is, we evaluate whether those who report that they are unable to plan for retirement or carry out their retirement saving plans are also those most unaware of fundamental economic concepts driving economic wellbeing during the lifetime and in old age.

Previous studies offer few insights regarding the reasons why people do not plan for retirement and the roles that planning and information costs might play in affecting retirement saving decisions. To gain better insight into these issues, we have devised and fielded a purpose-built module on planning and financial literacy for the 2004 Health and Retirement Study (HRS). The module includes questions that measure how workers make their saving decisions, how they collect the information for making these decisions, and whether they possess the financial literacy needed to make these decisions.

Approach and Data

The "workhorse" economic formulation used to model consumption/saving decisions posits that rational and foresighted consumers derive utility from consumption over their lifetime.[2] In the simplest format, the consumer has a lifetime expected utility, which is the expected value of the sum of per-period utility $U(c_j)$ discounted to the present (using the discount factor β), multiplied by the probability of survival p_j from the worker's current age j to the oldest possible lifetime D:

[1] For instance see Mitchell and Moore (1998) and Mitchell, Moore and Phillips (2000); an alternative view is available in Scholz et al. (2003). For a review of the work on saving, see Browning and Lusardi (1996).

[2] The models usually also allow for taxes and bequests to survivors after the main earner's death.

$$E\left[\sum_{j=s}^{D}\beta^{j-s}U(c_j)\right].$$

Assets and consumption each period (a_j and c_j) are determined endogenously by maximizing this function subject to an intertemporal budget constraint. Thus c_j represents per period consumption, y_j is labor earnings, a_j represents the households' returns on assets, and SS and PP represent the household's Social Security benefits and pensions which depend on the worker's retirement age:

$$y_j = e_j + ra_j, j \in \{S,...,R-1)\}$$

and

$$y_j = SS_j(R) + PP_j(R) + ra_j, j \in [R,...,D].$$

Furthermore, consumption from income, assets, and benefits is set so that:

$c_j + a_{j+1} = y_j + a_j, j \in [S,...,R-1]$ before retirement (R), and

$c_j + a_{j+1} = y_j + a_j, j \in [R,...,D]$ from retirement to death (D). [3]

In other words, the economic model posits that the consumer holds expectations regarding prospective survival probabilities, discount rates, investment returns, gross and net earnings, pensions and Social Security benefits, and inflation. Further, it posits that he uses that information to formulate and execute optimal consumption/saving plans.

This formulation makes it clear that consumers making retirement saving decisions require not only substantial financial literacy, but also the ability and tools needed to plan and carry out their retirement saving plans. Whether and how "real people" behave when confronted with this challenge– that is, whether individuals seem to have knowledge of and the self-control to plan and implement these complex planning tasks – is a topic of substantial current interest.[4] This subject is particularly important in view of the fact that workers are increasingly being given responsibility to save, manage their pension investments, and draw down their retirement assets in the defined contribution pension environment. Accordingly, what is critically needed is new information permitting analysts to investigate the links between financial literacy, patterns

[3] There is also the condition that assets in the last period of life are equal to zero and that the consumer does not die leaving any debt.

[4] See for example Clark and D'Ambrosio (2002); Clark et al. (2003, 2004), EBRI (1996, 2001), Duflo and Saez (2003, 2004), Hancock (2002).

of spending and budgeting, and sources of information that households rely on for their economic decision-making.

To address these questions, the Health and Retirement Study (HRS), a nationally representative longitudinal dataset of Americans over the age of 50, has been designed to track health, assets, liabilities, and patterns of wellbeing older households.[5] Beginning in 1992, a 90-minute core questionnaire has been administered every two years to age-eligible respondents and their spouses. In addition, a random sample of respondents has also been subjected to very short one-time modules in each wave and is aimed to help researchers assess additional topics of substantive interest. For the 2004 HRS wave, we designed and administered a special module on retirement planning, seeking to assess – in relatively few questions – respondents' level financial literacy along with their efforts to budget, calculate, and develop retirement saving plans.

Specifically, our module includes three questions on **financial literacy,** as follows:

- Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow: more than $102, exactly $102, less than $102?
- Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, would you be able to buy more than, exactly the same as, or less than today with the money in this account?
- Do you think that the following statement is true or false? "Buying a single company stock usually provides a safer return than a stock mutual fund."

The first two questions, which we call "Compound Interest" and "Inflation," help us evaluate whether respondents display knowledge of fundamental economic concepts for saving decisions as well as possess competence with basic financial numeracy. The third question, which we dub "Stock Risk," evaluates respondents' awareness of asset volatility and risk diversification, crucial elements of an informed investment decision.

The module also asks respondents to discuss what they do to calculate their retirement saving needs. Other surveys, including those devised by EBRI in its Retirement Confidence Survey and questionnaires developed by TIAA-CREF have previously asked respondents whether they "plan for retirement," a question we replicate here.[6] More insight into this issue is

[5] http://hrsonline.isr.umich.edu/

[6] See Ameriks, Caplin and Leahy (2003), and the RCS questionnaire.

available by our questions investigating not only whether people had ever assessed their retirement saving needs but also what followed from such assessment. These three questions we term the retirement planning **calculation** questions, which are:[7]

- Have you ever tried to figure out how much your household would need to save for retirement? Did you develop a plan for retirement saving?
- How often were you able to stick to this plan: Would you say always, mostly, rarely, or never?

Finally, we also seek to assess what **planning tools** people rely on to devise and carry out their retirement saving plans. Specifically, we inquired whether respondents contacted friends, relatives, or experts, and whether they used retirement calculators. In addition, we asked whether respondents tracked their spending to see whether these factors appear correlated. The specific question phrasing is as follows:

- Tell me about the ways you tried to figure out how much your household would need.
  - Did you talk to family and relatives?
  - Did you talk to co-workers or friends?
  - Did you talk to co-workers or friends?
  - Did you use calculators or worksheets that are computer or Internet-based?
  - Did you consult a financial planner or advisor or an accountant?

The module also asks to the total sample of respondents:

- How often do you keep track of your actual spending: would you say always, mostly, rarely, or never?
- How often do you set budget targets for your spending: would you say always, mostly, rarely, or never?

In what follows, we tabulate the prevalence of financial literacy, retirement calculations, and the planning tools people report they deploy to devise and execute their plans. In addition, we evaluate whether those who lack insight into simple economic facts also prove to be those who have particular difficulty devising plans and carrying them out in practice. The idea is to evaluate whether those who are more financially literate are also more likely to plan or be successful planners.

[7] By incorporating questions linked to financial literacy, planning, and subjective expectations, the module should also be of interest to sociologists, psychologists and those interested in studying aging and well-being after retirement.

Preliminary Results

In this section we present preliminary findings from our 2004 HRS module which included 1,269 respondents.[8] We have not merged the module responses with other data from the core HRS file as it has not yet been released. Consequently, our findings pertain to the module variable only, at the present time. In the future, we will undertake a more complex analysis including more controls.

Financial Literacy

Turning first to the results on **financial literacy**, the simple tabular results prove far from comforting (Table 1). The compound interest question has a 67% correct response rate, though this was such an easy question that it is rather astounding that one-third of the sample cannot respond correctly, particularly because the sample include mostly older respondents. The inflation question has a higher correct response rate, with three-quarters (75%) answering correctly that they would be able to buy less after a year if the interest rate were 1% and inflation were 2%. By contrast, only 52% of the respondents understand correctly that one single company stock offers a riskier return than a stock mutual fund.

Further analysis of the literacy questions distinguishes between those offering correct answers on the one hand, compared on the other hand with those giving an incorrect answer *versus* responding "don't know" (abbreviated DK). The proportion of those responses varies according to the question. For example, regarding interest compounding, only 9% did not know but over one-fifth (22%) gave an incorrect answer. On the inflation question, 10% did not know, while 13% gave a wrong answer. The question about stock risk elicited the most DKs: 34% of the sample did not know, while a smaller fraction (13%) gave a wrong answer.

Since the first two questions are key to respondent financial numeracy, it is disturbing that only slightly over half (56%) of the sample get both questions right. This is a remarkably low figure if we contemplate the complex financial calculations that these households must have engaged in over their lifetimes. Also disturbing is the fact that only one-third (34%) of respondents answered correctly to all three questions. Another interesting finding is that the "DK" responses are highly correlated: that is, financial illiteracy is systematic across areas examined. For instance, there is a 70% correlation between those who cannot answer both the

[8] These results are preliminary as they are unweighted; sample weights were not available as of the time of the writing of this paper. Furthermore, we use "alpha" release data with the explicit permission of the Director of the HRS project. Links to the core HRS dataset should be feasible in the near future.

interest compounding question and the inflation question. Erroneous answers are more scattered, with mistakes having a correlation of only 11%.

These results reinforce survey findings about financial literacy from Bernheim (1995, 1998) and Moore (2003), who report that most respondents do not understand financial economics concepts, particularly those relating to bonds, stocks, mutual funds, and the working of compound interest; in focus groups, they also confirmed that people often say they fail to understand loans and interest rates.[9] Such findings extend beyond the US: for instance, Miles (2004) shows that UK borrowers display poor understanding of mortgages and interest rates. Jappelli et al. (2005) use SHARE surveys conducted in more than a dozen European countries to show that respondents there also score very low on financial numeracy and literacy scales.[10] In 2005, The National Council on Economic Education (NCEE) published results from a study focused on high school students and working-age adults showing a general lack of knowledge of fundamental economic concepts. It is interesting that our three financial literacy questions show a similar lack of knowledge, even though our questions are quite a bit simpler and asked to older respondents who would have had some exposure to financial contracts (for example, mortgages, bank accounts, credit cards, investments, and the demands of planning for retirement accumulation and consumption). Nevertheless, the news remains bad – levels of financial literacy are low among older Americans. Future work will permit evaluation of household education as well as difference in financial knowledge across gender and race and ethnicity.

Prevalence of Retirement Planning Calculations

We now turn to evaluating other predictions of the basic economic model – namely, that people will look ahead and calculate how much they need to save for retirement, taking expectations and other variables into account. Accordingly, we ask HRS respondents whether they ever tried to figure out how much they need to save for retirement, and Table 2 (Panels A and B) provide the results. A minority of respondents in the sample (31%) indicate that they attempted to do a retirement saving calculation; these we call the *simple planners*. The small size of this group confirms Lusardi's analysis (1999, 2002, 2003) of previous HRS waves where she reports that many people say they have given little thought to retirement – even if they are

[9] Other surveys also find similar results, in particular concerning knowledge regarding properties of bonds, stocks, and mutual funds (cf Agnew and Szykman 2004)

[10] We have also inserted the module questions into a survey of Dutch households to permit a direct comparison of American and Dutch respondents in the near future.

just a few years away from leaving the workforce. Our results also confirm findings from the Retirement Confidence Survey and TIAA-CREF, which indicated that few undertake retirement planning, even among the educated (Yakobosky and Dickempers, 1997; Ameriks, Caplin and Leahy, 2003). It is also consistent with the work of Mitchell (1988) and Gustman and Steinmeier (2004) that workers display little knowledge about their Social Security and pensions benefits, two of the most important components of a retirement saving plan. In fact, close to half of workers in the HRS sample analyzed by Gustman and Steinmeier (2004) do not even know which type of pensions they have, and an even larger portion displays little information about Social Security benefits. Recent RCS (2001) further show that many workers are often erroneous about the rules governing Social Security.

A key advantage of our module, compared to core HRS questions and other surveys, is that we are able to probe respondents further, to inquire about the outcomes of their calculations. Thus Panel A of Table 2 shows that only 58% of those who tried to develop a plan actually did so, while another handful "more or less" developed a plan (9%). Both of these we refer to below as the *Serious Planners*. The high failure rate, so far as developing a plan is concerned, underscores the fact that retirement calculations are not an easy task. If we consider those who responded yes to the question, basically as much as half of simple planners do not succeed in developing a plan, a rather grim figure. Furthermore, of the serious planners, about one-third (38%) was always able to stick to the plan, while 50% was "mostly" able to stick to the plan (we dub these respondents *Successful Planners*). For the sample as a whole, this represents a meager 19% rate of successful planning. Of course, households may face unexpected shocks making them deviate from plans, but the fact remains that few respondents do what the economic models suggest that they should. Clearly planning for retirement is difficult, and few believe they get it right.

Financial Literacy and Calculation Behaviors

One reason people fail to plan for retirement, or do so unsuccessfully, may be because they are financially illiterate; hence they may fail to appreciate the role of (or may have a hard time solving problems with) compound interest, inflation, and risk. Table 3 reports the proportion of correct, incorrect, and DK responses to the financial literacy questions for the full sample, as well as among those who make some effort to plan as described above. We interpret these as associations rather than causal relationships, though it would be reasonable to assume

that the direction of causality goes from financial literacy to retirement planning and execution of these plans.[11]

The results show that two-thirds of planners answer all the financial literacy questions correctly, in all cases more than the overall sample (column 1). This shows that financial knowledge and planning are clearly interrelated. Looking across planning groups, it is interesting that the three subgroups are just about as likely to give correct answers to the financial literacy questions. Turning next to those who do not give correct answers, we also note interesting patterns. For instance, planners are more likely to respond with a wrong answer to the two financial numeracy questions than the stock market question – that is, they seem more confident about the numerical questions than they are about relative risk, where DK is a more prevalent answer. Nevertheless, comparing the Overall column with the others, we see that few planners, and fewer still *Successful Planners*, give DK as a response. Below we offer a multivariate analysis of these findings in more detail. But first we evaluate what households report they do when planning for retirement.

Financial Literacy and Use of Planning Tools

To further evaluate what planning means and what people actually do when planning for retirement, we ask respondents to indicate which tools they use in this process. To the extent that they use crude or inaccurate tools, this may explain the low planning success rates in the population. Panel A of Table 4 shows that respondents use a wide variety of tools to calculate their retirement needs (note that these questions are asked only of those who reported they attempted a retirement saving calculation).[12]

We find that between a quarter and a fifth of respondents talked to family/relatives or co-workers/friends, while one-third or more used formal means such as retirement calculators, retirement seminars, or financial experts. *Successful Planners* were more likely to use formal means (over 40%), whereas *Simple Planners* – some of whom tried and failed – were more likely to use less formal approaches. The table also shows that financial literacy is correlated with tool use, even though unevenly. Those who were correct regarding compound interest and inflation were more likely to have attended a retirement seminar, suggesting that such seminars may

[11] The causality may also go the other way: that is, those who plan also develop financial literacy and an ability to do retirement calculations.

[12] The list of tools does not exhaust what people might do; in fact, as many as one quarter of planners did not use any of the listed tools.

provide information (without further control variables we cannot hold constant other background variables). Those knowledgeable about risk diversification also use formal rather than informal tools for planning.

Turning to the sample as a whole, Panel B of Table 4 reveals for the planners what the correlations were between their level of financial literacy and the tools they used in their planning efforts. Those who used more sophisticated tools were always more likely to get the literacy questions right, as compared to those who relied on personal communications; furthermore, the knowledge gap was relatively the greatest for the compound interest question. Panel C shows that a very large segment – almost three-quarters (74%) of the respondent pool – indicates that it always or mostly tracks its spending, and over half (51%) always or mostly tries to set spending budget targets. This is impressive given the low level of planning for retirement revealed below. It is not clear whether those undertaking the spending budget efforts do so simply to get through the month without running out of money, or whether these efforts indicate a larger consciousness of retirement saving needs and plans. Below we will evaluate this question in a multivariate setting.

Regression Analysis

The multivariate analysis in Table 5 sheds more light on the importance of financial literacy and the tools that people use when planning. The three dependent variables show who was a planner, who developed a plan, and who was able to stick to a plan. We use a multivariate Probit as the outcomes are qualitative (0,1) variables, and we report marginal effects. Column I in each case takes on a value of 1 if the respondent was correct regarding the literacy variables (else, = 0); Column II adds an indicator equal to 1 if the respondent indicated he did not know the answer to the question (else, = 0); and Column III has the same dependent variable but adds two additional controls for whether the respondent kept track of spending and/or set up a spending budget. Though causality can obviously go in either direction, the multivariate setting offers a better picture of partial correlation than can be gleaned from the tabular analysis above.

The regression estimates suggest several interesting findings. First, financial literacy is strongly and positively associated with planning, and the results are by and large statistically significant at conventional levels. That is, planners of all types are much more likely to give a correct answer to the numeracy and risk questions. Second, knowledge about risk diversification best differentiates between sophisticated versus unsophisticated respondents and it has a much

larger estimated marginal effect than being able to correctly answer the interest and the inflation questions. Third, lack of knowledge also matters. Those who cannot answer the questions are also much less likely to plan and to succeed in their planning effort. Most crucial appears to be lack of knowledge about interest compounding, which makes sense as this is crucial to saving for retirement.

The last two rows of the Table evaluate whether people who report they track their spending and set spending budgets are more likely to be planners, even after accounting for financial literacy. The results confirm that both of these variables are positive, quite significant, and similar in magnitude. Further, those who pay attention to their budget are not only planners but also successful planners. This may indicate that good spending and budgeting habits are also conducive to retirement saving. We also note that the significance and quantitative importance of the financial literacy variables are not sensitive to adding these two budgeting variables, so they are not measuring the same thing. This would imply that simple budgeting techniques may be quite useful in helping people devise and carry out retirement planning efforts. These results are consistent with Ameriks, Caplin and Lehay (2004) findings that those who budget and keep track of expenses are better able to keep consumption low and this may explain why these variables are related to being not only a planner but also a successful one.

Implications and Conclusions

As the Baby Boomer generation moves into retirement, it is crucial to learn whether this cohort knows how to plan for retirement and whether it can execute these plans effectively. Whether and how people behave when confronted with this challenge– that is, whether individuals seem to have knowledge of and the self-control to plan and implement these complex planning tasks – is a topic of substantial current interest.

Our module for the 2004 HRS first asks about people's basic financial literacy – that is, whether they understand compound interest rates and the effects of inflation, along with the more nuanced concept of risk diversification. We find that only half of the respondents can answer correctly two simple questions regarding interest compounding and inflation, and only one-third understands these and also stock market risk. In other words, financial illiteracy is widespread among older Americans. Second, we evaluate whether people tried to figure out how much they need to save for retirement, whether they devised a plan, and whether they succeeded at the plan. We find that retirement calculations are not an easy task: only 31% of these older people had

ever tried to devise a retirement plan, and only two thirds of these succeeded. For the sample as a whole, only 19% engaged in successful retirement planning. Third, we find that financial knowledge and planning are clearly interrelated. Fourth, we evaluate the planning tools people use, and the respondents who did plan were less likely to talk to family/relatives or co-workers/friends, than they were to use formal means such as retirement calculators, retirement seminars, or financial experts. Fifth, keeping track of spending and budgeting habits appear conducive to retirement saving.

Inasmuch as planning is an important predictor of saving and investment success, we may have uncovered an important explanation for why household wealth holdings differ, and why some people enter retirement with very low wealth (Venti and Wise 2001, Lusardi 1999). In future work, we will examine whether particular subgroups – for example, women – are less financially literate and plan less for retirement. Most importantly, we will examine whether financial literacy has an effect on both saving and portfolio choice and whether this effect is mediated by the effect of financial literacy on planning.

Our work has important implications on several public policy frontiers. Throughout the 1990s, there was been an explosion of products and programs for financial planning. The government has instituted several programs to foster financial education and employers are increasingly offering retirement seminars to their workers (Lusardi 2004). While some researchers contend that these programs have only minimal effects on saving, this may be due to the lack of well-targeted content. For example, if financial illiteracy is widespread among particular employees, a one-time financial education lesson is likely to be insufficient to influence planning and saving decisions. Similarly, education programs targeted specifically to particular subgroups may be better suited to address large differences in preferences and saving needs.

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Table 1. Financial Literacy Patterns

(HRS 2004, Planning Module - preliminary, unweighted data)

Panel A: Distribution of Responses to Financial Literacy Questions

	Responses			
	Correct	*Incorrect*	*DK*	*Refuse*
Compound Interest	67.1%	22.2%	9.4%	1.3%
Inflation	75.2%	13.4%	9.9%	1.5%
Stock Risk	52.3%	13.2%	33.7%	0.9%

Panel B: Joint Probabilities of Being Correct to Financial Literacy Questions

	All 3 responses correct	*Only 2 responses correct*	*Only 1 response correct*	*No responses correct*
Proportion	34.3%	35.8%	16.3%	9.9%

Note: DK = respondent indicated "don't know"

Table 2. Prevalence of Retirement Planning Calculations

(HRS 2004, Planning Module - preliminary, unweighted data)

Panel A. Proportion of Planners in Respective Sub-Groups

Did you try to figure out how much to save for retirement?				
Yes			*No*	*Refuse/DK*
31.3%			67.8%	0.9%

Did you develop a plan?			
Yes	*More or Less*	*No*	*Refuse/DK*
58.4%	9.0%	32.0%	0.6%

Were you able to stick to the plan?				
Always	*Mostly*	*Rarely*	*Never*	*Refuse/DK*
37.7%	50.0%	8.0%	2.6%	1.0%

Panel B. Proportion of Planners in the Full Sample

Question	*Proportion of Sample*
Simple Planners Yes to "tried to figure out how much to save for retirement"	31.3%
Serious Planners Replied Yes/More or less to "developed a plan"	21.1%
Successful Planners Replied Always/Mostly to "able to stick to the plan"	18.5%

Table 3. Links between Financial Literacy and Retirement Calculation Behaviors *(HRS 2004, Planning Module - preliminary, unweighted data)*

Compound Interest	***Overall*** n = 1269	*Simple Planners* n = 397	*Serious Planners* n = 268	*Successful Planners* n = 235
• Correct	67.1%	75.3%	78.0%	78.7%
• Incorrect	22.2%	21.7%	20.5%	20.0%
• DK	9.4%	2.5%	1.5%	1.3%
Inflation	***Overall***	*Simple Planners*	*Serious Planners*	*Successful Planners*
• Correct	75.2%	84.4%	85.8%	86.8%
• Incorrect	13.4%	11.3%	11.2%	10.2%
• DK	9.9%	3.8%	3.0%	3.0%
Stock Risk	***Overall***	*Simple Planners*	*Serious Planners*	*Successful Planners*
• Correct	52.2%	67.5%	73.1%	73.6%
• Incorrect	13.2%	11.6%	11.2%	11.1%
• DK	33.6%	19.9%	15.3%	14.9%

* Note: Correct, Incorrect, and DK responses do not sum to 100% because of refusals.

Table 4. Links between Planning Tools, Planning Success, and Financial Literacy

(HRS 2004, Planning Module - preliminary, unweighted data)

Panel A: Tools Planners Report Using

Tools	*Simple Planners* n = 397	*Successful Planners* n = 235
Talk to family/friends	21.1% (.409)	17.4% (.380)
Talk to coworkers/friends	24.7% (.432)	21.3% (.410)
Attend retirement seminar	35.3% (.479)	40.4% (.492)
Use calculator/worksheet	37.8% (.485)	43.4% (.497)
Consult financial planner	39.0% (.488)	49.4% (.501)

Panel B: Correlation Between Planning, Tools Used, and Financial Literacy

	Simple Planners n = 397	*Talk to family/ friends* n = 84	*Talk to coworkers/ friends* n = 98	*Attend retirement seminar* n = 140	*Use calculator/ worksheet* n = 150	*Consult financial planner* n = 155
Correct on Compound Interest	75.3%	65.5%	69.4%	77.9%	83.3%	80.6%
Correct on Inflation	84.4%	82.1%	88.8%	88.6%	89.3%	86.5%
Correct on Stock Risk	52.2%	65.5%	71.4%	80.0%	79.3%	73.5%

Panel C. Budgeting Questions: All Respondents

	Always	*Mostly*	*Rarely*	*Never*	*Do not know/Refuse*
Track spending	43.2%	30.8%	14.7%	11.0%	0.3%
Set spending budget	23.6%	27.6%	22.4%	26.0%	0.5%

Table 5. Probit Analysis of Simple, Serious, and Successful Planners: Marginal effects reported
(HRS 2004, Planning Module - preliminary, unweighted data)

	Simple Planners n = 1269			*Serious Planners* n = 1269			*Successful Planners* n = 1269		
	I	**II**	**III**	**I**	**II**	**III**	**I**	**II**	**III**
Correct on Compound Interest	.068**	.032	.037	.064**	.037	.040	.061**	.037	.039*
Correct on Inflation	.104***	.079**	.072*	.073***	.057*	.051	.072***	.062**	.056**
Correct on Stock Risk	.165***	.109***	.112***	.155***	.101***	.103***	.137***	.088***	.086***
DK Compound Interest		-.171**	-.153**		-.138**	-.124**		-.130**	-.117**
DK Inflation		.025	.027		.036	.040		.057	.060
DK Stock Risk		-.071*	-.069		-.070*	-.067*		-.064*	-.061*
Keeps track of spending			.114**			.092***			.104***
Sets budget			.131**			.105***			.091***
Pseudo R^2	.048	.056	.091	.060	.069	.108	.060	.069	.116

* estimated coefficient significant at the 10% level; ** estimated coefficient significant at the 5% level; *** estimated coefficient significant at the 1% level.