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Exploring the demand for retirement planning advice: The role of financial literacy

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Abstract

This research extends previous literature on the relationship between financial literacy and financial advice seeking in three ways: (1) we examine financial planner use specifically within the context of retirement planning, (2) we incorporate Huston's (2010) framework of financial literacy, and (3) we use longitudinal data to investigate the initiation, maintenance, and termination of financial planner use. Results from the 2010 and 2012 National Longitudinal Survey of Youth 1979 (NLSY79) show a positive association between the components of financial literacy and financial planner use for retirement planning.

JEL classification: D14; G20

Keywords: Retirement planning; Financial planner use; Financial advice

1. Introduction

U.S. workers face significant difficulty in adequately planning for retirement. This difficulty is reinforced by the transition from defined benefit (DB) to defined contribution (DC) plans, which places more responsibility and risk on individuals for their saving and investing

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decisions. Planning for retirement requires individuals to make complex financial decisions, with financial literacy becoming critical (Lusardi and Mitchell, 2007; Van Rooij, Lusardi, and Alessie, 2011). The shift to self-funding retirement (i.e., DC plans) has helped spur the growth in demand for financial advice and the financial planning profession. While some research has investigated the relationship between individual financial literacy and general financial advice seeking behavior (Calcagno and Monticone, 2015; Collins, 2012; Moulton, Loibl, Samak, and Collins, 2013; Robb, Babiarz, and Woodyard, 2012), little work has focused on advice related to retirement planning. Further, there are notable limitations in the measures used in previous research, either because of temporal inconsistencies (e.g., the National Financial Capability Survey has a five-year look back) or lack of focus on retirement planning. Consequently, this study uses data from the 2010 and 2012 administrations of the National Longitudinal Survey of Youth 1979 (NLSY79) to investigate the relationship between financial literacy and household demands for retirement planning advice.

Recent retirement adequacy studies have found that more than half of U.S. households are not adequately prepared for retirement. Using data from the 2010 Survey of Consumer Finances (SCF), Kim and Hanna (2015) find only 42% of working households aged 35 to 60 are adequately prepared for retirement, while 46% report that they expect to receive adequate income in retirement. Munnell, Webb, and Golub-Sass (2012) note an increase in the proportion of working households who are at risk of being unable to maintain their preretirement standard of living in retirement between 2007 and 2010 from 44% to 53%. This increase is attributed to the combined effect of poor investment returns, lower interest rates, and the increase in Social Security's Full Retirement Age. Despite positive signs of economic recovery, Munnell, Hou, and Webb (2014) find that 53% of households remain at risk of lowered standards of living in retirement using data from the 2013 SCF.

A growing body of literature indicates that financial planners provide significant benefits, both economic and psychological, in helping individuals prepare for retirement. Two key studies investigating the economic benefit of financial advice are Blanchett and Kaplan (2013) and Grable and Chatterjee (2014). Blanchett and Kaplan (2013) quantify the benefit of retirement planning advice as gamma, a measure of the increased potential retirement income an individual receives from working with an advisor. Their work suggests that, through managing investments, taxes, and retirement withdrawals, an individual's retirement income can be increased by 22.6% by working with an advisor. Similarly, Grable and Chatterjee (2014) introduce zeta, a measure of how a financial advice can limit wealth volatility and loss in times of economic turmoil. They find that individuals who met with a financial advisor experienced significantly less wealth volatility over the Great Recession. In terms of psychological benefits, individuals who meet with a financial advisor are more likely to establish long-term goals and be confident in their retirement plan (Marsden, Zick, and Mayer, 2011). Further, households who receive financial planning advice exhibit greater consistency between risk attitudes and financial behaviors (Park and Yao, 2015).

Given the important role that financial literary and financial planners play in retirement planning, the current study extends previous literature in three ways. First, the NLSY79 provides a specific measure of financial planner use for retirement planning. Second, previous work has not been able to incorporate Huston's (2010) financial literacy framework

by simultaneously exploring financial knowledge, financial confidence, and financial capability. Previous work has also used summated measures of financial knowledge, which may have limited the ability of researchers to detect the *types* of knowledge associated with help-seeking activity. Lastly, the use of longitudinal data allows us to better explore how financial literacy is related to the initiation, maintenance, and termination of financial planner use.

2. Literature review

2.1. Defining financial literacy

The terms financial knowledge and financial literacy have been used when referring to an individual's ability to make financial decisions. However, these terms have often been used interchangeably and with inconsistent definitions. Given this confusion, Huston (2010) has provided a clear definitional and theoretical framework for financial literacy.

According to Huston (2010), financially literate individuals must not only be knowledgeable, but also have the ability to apply that knowledge to specific circumstances. Financial knowledge is defined as a measure of an individual's objective understanding of financial concepts and is typically assessed by asking individuals a series of factual financial questions. An individual's knowledge is then rated based on the number or difficulty of questions they are able to answer correctly. A review of literature indicates that, in many cases, the term financial literacy is used to convey what Huston (2010) defines as financial knowledge.

However, to be financially literate individuals must be able to apply this knowledge. Huston (2010) indicates that an individual must have confidence in his or her knowledge and be capable of applying that knowledge to a financial scenario. Simply put, without confidence in one's ability and the innate capability to translate knowledge into action, financial knowledge alone may be insufficient to spur positive financial behavior. This article's approach is similar to Huston (2010) as we seek to clearly define and distinguish between financial knowledge and financial literacy.

2.2. Financial literacy and financial behavior

The majority of research into financial literacy has focused on financial knowledge. Financially knowledgeable households are consistently found to be more likely to exhibit beneficial financial behaviors, while less financially knowledgeable households tend to exhibit more troubling behaviors. Financial knowledge is negatively associated with high cost debt borrowing instruments (Lusardi and Scheresberg, 2013; Robb et al., 2015) and positively associated with more responsible credit card practices (Allgood and Walstad, 2013; Xiao et al., 2011) and "best practice"[1] financial behavior (Robb & Woodyard, 2011). Financial knowledge is also associated with increased stock ownership (Calvert et al., 2007), the use of lower cost mortgages (Moore, 2003), and retirement planning behavior (Lusardi and Mitchell, 2009). Additionally, Moulton et al., (2013) finds that financially knowledgeable individuals are less likely to underestimate their total household debt.

A more complicated relationship has been found between financial confidence and financial behavior. While financial confidence is positively related to "best practice" financial behaviors (Robb and Woodyard, 2011) and responsible credit card behavior (Allgood and Walstad, 2013), it is also positively associated with high cost borrowing behavior (Robb et al., 2015). This disparity may be somewhat explained by situations in which consumers' financial confidence is misaligned with their actual knowledge and ability. Allgood and Walstad (2013) and Robb et al. (2015) both find that individuals that exhibit high financial confidence and low financial knowledge are more likely to exhibit poor financial decisions. Similarly, Moulton et al. (2013) finds that financially overconfident individuals are more likely to engage in suboptimal mortgage borrowing behaviors.

Financial capability has most often been proxied through cognitive ability or financial sophistication, a measure that blends financial capability, financial behavior, and financial knowledge (Huston, Finke, and Smith, 2012). Individuals with higher levels of cognitive ability are more likely to participate in the stock market (Christelis, Tullio, and Padula, 2010), less likely to overreact to market changes (Browning and Finke, 2015), exhibit fewer behavioral biases (Grinblatt, Keloharju, and Linnainmaa, 2012), and demonstrate more patience when making financial decisions (Benjamin, Sebastian, and Shapiro, 2013). Similarly, financially sophisticated households are more likely to understand and take advantage of Roth IRAs (Smith, Finke, and Huston, 2012), take advantage of mortgage leverage strategies (Kim, Seay, and Smith, 2016), and make more appropriate mortgage decisions (Smith, Finke, and Huston, 2011). Given data availability in the NLSY, this research uses a measure of cognitive ability as a proxy for financial capability.

2.3. Who seeks financial planning advice?

According to a recent project sponsored by the Certified Financial Planner Board of Standards and the Consumer Federation of America, close to nine in 10 American households engage in some type of financial planning, ranging from very informal (i.e., mental budgeting) to very formal (i.e., building a comprehensive financial plan with a professional) with most households falling somewhere in between (Princeton Survey Research Associates International, 2013). The use of professional financial planners in the United States, although not widespread, does seem to be on the rise. An analysis of the SCF shows that that 25% of households reported financial planner use in 2007, up from 21% in 1998 (Hanna, 2011).

Many researchers have explored factors that lead a household to seek professional financial help of some kind. In terms of demographics, wealth and income are the leading indicators followed closely by educational attainment and age (Hanna, 2011). People with more financial knowledge (Collins, 2012; Robb et al., 2012), greater risk tolerance (Hanna, 2011; Robb et al., 2012), and a sense of self-efficacy (Lim, Heckman, Letkiewicz, and Montalto, 2014) are more likely to utilize financial help. Cummings and James (2014) find that people seeking help for emotional problems will also seek help for financial matters and that experiencing the death of a spouse increases the likelihood of seeking help. Finke, Huston, and Winchester (2011) find those who pay for financial advice are more likely to be older, wealthier, college educated, and female.

Recent literature has also identified trust as being an important predictor of financial help-seeking. Gennaioli, Shleifer, and Vishny (2015) develop a theoretical model in which consumer decisions to hire professionals to manage (i.e., invest) their money is mediated by trust. Recent empirical results reinforce the theoretical conclusion that trust plays an important role in financial help-seeking. Lachance and Tang (2012) find that, "controlling for financial exposure,[2] trust and cost are the two most important determinants of financial advice-seeking behavior" (p. 220). They also find that trust is relatively more important in determining saving and investment advice seeking compared to other types of advice, for example, debt counseling. Martin, Finke, and Gibson (2014) explore the relationship between race, trust, and seeking retirement advice. They find lower levels of trust among Black and Hispanic households and that trust is positively associated with seeking retirement advice from financial planner.

Some barriers to seeking professional financial help include low financial risk tolerance (Grable and Joo, 2001), shame and embarrassment, and lack of knowledge about professional sources (du Plessis, Lawton, and Corney 2010). Grable and Joo (2001) also find that individuals with low satisfaction with their financial situation are more likely to seek advice from family, friends, and work colleagues, rather than professional sources.

2.4. The link between financial literacy and help-seeking

Past studies have addressed the relationship between the components of financial literacy and help-seeking behavior with some promising findings. Lusardi and Mitchell (2007) find that greater knowledge increases one's awareness of the need for assistance and Perry and Morris (2005) find that potential costs of poor decisions emboldens individuals to make their own financial decisions. In an analysis of college students, Lim et al. (2014) find that college students who took financial education courses in either high school or college are more likely to seek financial help. Both Collins (2012) and Robb et al. (2012) analyze the 2009 National Financial Capability Study (NFCS) dataset and find a positive correlation between financial knowledge, financial confidence, and the use of a financial planner. In an investigation of an Italian sample, Calcagno and Monticone (2015) find that financially knowledgeable individuals are more likely to seek advice, but no relationship is found between financial confidence and help seeking behavior. Conversely, in a study of first time homebuyers, Moulton et al. (2013) find financial confidence to be positively associated with advice seeking behavior, but found no relationship between financial knowledge and the use of a financial coach. Finke et al. (2011) find a more complicated relationship between financial confidence and financial advice. Overall, those who pay for financial advice have a low level of self-reported knowledge about financial issues. However, among those who pay, those who choose comprehensive management have high self-reported knowledge about financial issues (Finke et al., 2011).

While a variety of studies have sought to investigate the link between financial literacy and advice seeking behavior, most research has been limited in its inclusion of all three components of financial literacy and focus on financial planner use. Using rich data from the NLSY79, this research is able to better measure each component of financial literacy in

investigating its link to financial planner use while controlling for other known predictors of financial advice seeking.

3. Method

3.1. Dataset and sample selection

The NLSY79 is a nationally representative sample of 12,686 young men and women who were between 14 and 22 years old when they were first surveyed in 1979. These individuals were interviewed annually through 1994 and are currently interviewed on a biennial basis. This dataset is particularly appropriate to address the research question because it is longitudinal, has specific questions on the use of a financial planner as well as questions to measure financial knowledge, financial confidence, and financial capability. Of the 7,301 respondents who remained in the survey in 2012, we limit our sample to nonretired individuals that responded to both the 2010 and 2012 administrations of the NLSY79. This provided a final sample size of 5,127.

3.2. Dependent variable

The dependent variables are constructed based on whether or not the respondent "consulted a financial planner about how to plan [your] finances after retirement" in 2010 and 2012. This study uses two different dependent variables. First, a binary dependent variable indicates whether respondents reported using a financial planner for retirement planning in 2012 for a baseline analysis. Further, we define four categories of financial planner use between the two survey waves; those who had a financial planner in both 2010 and 2012; those who did not have a planner in 2010, but adopted one in 2012; those who had a financial planner in 2010, but dropped them in 2012; and those who did not have a planner in either 2010 or 2012.

3.3. Financial literacy variables

3.3.1. Financial knowledge

Objective financial knowledge is measured using five personal finance questions. The financial knowledge questions, administered in the NLSY79 in 2012, asses an individual's understanding of diversification, compound interest, inflation, bond pricing, and mortgages. More important, a "don't know" response option is included to limit the occurrence of random guessing on each question. Researchers have used these items individually (Lusardi and Scheresberg, 2013; Seay et al., 2015), to create a summative scale (Collins, 2012; Robb and Woodyard, 2011; Robb et al., 2012), and to differentiate individuals with high and low objective knowledge (Allgood and Walstad, 2013; Robb et al., 2015). A careful analysis of the questions leads us to conclude that each question is measuring a different aspect of financial knowledge and should not be used in a manner that counts them as one measure.

Using factor analysis, we find the individuals items have low reliability ($\alpha = 0.37$), supporting the notion that these questions should be used as separate measures.

3.3.2. Financial confidence

Three different measures are used to measure confidence: subjective financial knowledge, confidence in ability to manage day-to-day financial matters, and Rotter Locus of Control. Subjective financial knowledge is measured based on a question asking respondents to rate their overall financial knowledge on a scale from 1 to 7. Similarly, individuals are asked to identify, on a scale from 1 to 7, how much they agreed with the statement "I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses." For both of these questions, which are measured in 2012, higher scores are associated with increased confidence levels in financial knowledge and ability to manage finances. Lastly, the Rotter Locus of Control Scale (Rotter, 1966) is used to measure the extent to which an individual believes they are in control of their lives. Scores range from 4 to 16 and have been coded such that higher scores signify a high internal locus of control, indicative of higher self-determination in accomplishing tasks. Individuals with a high internal locus of control may believe in their ability to change their situation and make them more confident to seek information that will help them in their situation (Rotter, 1990).

3.3.3. Financial capability

An individual's capability to apply knowledge is proxied using the Armed Forces Qualification Test (AFQT). The AFQT is commonly used as a general measure of individual's cognitive ability. Originally assessed in 1980, raw scores were converted to percentile scores and normed in 2006 to reflect updated standards.

3.4. Control variables

In addition to financial literacy variables, control variables include age, race (White, Black, or Hispanic), gender (male/female), married (yes/no), education (less than high school, high school education, some college, or college degree), urban area (yes/no), employment status (unemployed, employed, unable to work, or work/other), health insurance (yes/no), chronic health issue in household (yes/no), log of income, log of net worth, log of retirement account balance, participation in a defined benefit retirement plan, stock ownership (yes/no), home ownership (yes/no), risk tolerance, and trust. Risk tolerance is measured on scale from one to 10, with higher scores being associated with an increased willingness to take risks in financial matters. Trust is measured on a scale from 1 to 5, with higher scores indicating that an individual is more trusting of other people. A full table of measures can be found in the appendix.

3.5. Research hypothesis

Based on previous research indicating that seeking financial advice is a complement for financial literacy (Collins, 2012; Robb et al., 2012), three research hypotheses are proposed:

Hypothesis 1: The components of financial literacy are positively associated with the use of a financial planner.
Hypothesis 2: The components of financial literacy are positively associated with adopting a financial planner when compared to those who never had a financial planner.
Hypothesis 3: The components of financial literacy are negatively associated with dropping a financial planner when compared to those who had a financial planner throughout.

3.6. Empirical specification

Two regression models are employed to test these hypotheses. To test hypothesis one, a binomial logistic regression is conducted to establish a baseline relationship between the financial literacy components and the use of a financial planner. Given that financial knowledge is measured in 2012, the dependent variable for this analysis is financial planner use in 2012.

$$logit(p) = \log\left(\frac{p}{1-p}\right) = \beta_0 + x_1\beta_1 + x_2\beta_2 + \cdots + x_k\beta_k = X\beta$$

Where

p = probability of using a financial planner in 2012
X = a vector of a household's financial literacy variables and characteristics
β = a vector of coefficients to be estimated

To investigate hypotheses two and three, a multinomial logit regression is utilized to compare four groups based on financial planner use across two time periods: (1) those who had a financial planner in both 2010 and 2012 (*throughout*); (2) those who did not have a planner in 2010, but adopted one in 2012 (*adopted*); (3) those who had a financial planner in 2010, but dropped them in 2012 (*dropped*); and (4) those who did not have a planner in either period (*never*). We are interested in two specific comparisons. The first is the difference between those that adopted a planner in 2012 (*adopted*) and those who did not have a planner in either period (*never*). We hypothesize those who decide to adopt a planner to be more financially literate. The second comparison is between those who dropped a planner 2012 (*dropped*) and those who had a planner throughout (*throughout*). We hypothesize those who dropped a planner in 2012 to have lower financial literacy than those who have a planner throughout.

The multinomial logit is specified as follows. The probability that the i^{th} household would choose the j^{th} group is described by:

$$P_{ij} = Pr(R_{ij} > R_{ik}), \text{ for } k \neq j,\ j = 0,\ 1,\ 2,\ 3$$

with R_{ij} is the maximum utility attainable for household i if the household holds j^{th} group, and,

$$R_{ij} = X'_{ij}\,\beta_{ij} + \varepsilon_{ij}$$

where β_{ij} is a vector of coefficients of each of the independent variables. Assuming that the stochastic term, ε_{ij}, is distributed identically and independently across alternatives, the multinomial logit model is expressed by:

$$P_{ij} = \exp(X'_{ij}\beta_{ij}) / \sum(X'_{ij}\beta_{ij})$$

The NLSY79 provides weighting information that researchers can use to make the sample representative of the larger U.S. population. Consequently, normalized sampling weights from 2012 are used in all analyses, providing more representative and generalizable results (Deaton 1997). Unfortunately, complex sampling design information is not included in the publically available version of the NLSY79.

4. Results

4.1. Descriptive results

Table 1 provides descriptive statistics for the sample, as well as for each of the four different groups of financial planner use. Respondent ages range from 47 to 56, an ideal age group in which to investigate retirement planning decisions. The majority of the sample is White (81.5%), male (50.2%), married (67.6%), employed (80.4%), and homeowners (74.6%). Overall, respondents are financially knowledgeable, have high levels of financial confidence, and have relatively internal locus of controls. When comparing financial literacy between groups, reported levels of financial knowledge, confidence and capability are highest for those who had a financial planner in both 2010 and 2012 and lowest for those who did not have a planner in either period.

4.2. Baseline model: binomial logit analysis

Results from the binomial logistic regression predicting use of a planner in 2012 are presented in Table 2. Variance inflation factors were checked to test for any potential multicollinearity issues, but were found to be within the acceptable range (less than 2.5). This baseline analysis provides evidence of the link between financial literacy and seeking retirement planning advice. An understanding of diversification (knowledge), an understanding of mortgages (knowledge), having higher subjective knowledge (confidence), and having a more internal locus of control (confidence) are all associated with planner use. More specifically, correctly answering the diversification and mortgage questions increases the odds that an individual received retirement advice from a financial planner by 45.5% and 42.8%, respectively. Similarly, unit increases in subjective knowledge and locus of control increases the odds of financial planner use by 6.4% and 5.3%, respectively. However, no statistically significant relationship is found between cognitive ability (capability) and advice seeking. Results also indicate that the likelihood of using a financial planner for retirement purposes is positively correlated with education, health insurance coverage, net worth, retirement assets, stock ownership, homeownership, risk tolerance, and trust. By contrast, income, having a chronic health issue in the household, being male, and living in an urban area are negatively related to the likelihood of using a financial planner.

Table 1 Descriptive statistics of selected variables by changes in financial planner use

Variable	All sample $n = 5{,}127$	Planner in 2010 and 2012 $n = 657$	Adopted a planner in 2012 $n = 369$	Dropped a planner in 2012 $n = 500$	No planner $n = 3{,}601$
Financial literacy measures[a]					
K: Diversification	0.68	0.84	0.77	0.75	0.63
K: Compound Interest	0.74	0.85	0.80	0.78	0.71
K: Inflation	0.82	0.87	0.86	0.87	0.80
K: Bonds	0.31	0.42	0.37	0.36	0.27
K: Mortgage	0.87	0.96	0.92	0.94	0.84
C: Subjective knowledge	4.90	5.19	5.21	5.11	4.77
C: Day-to-day finances	5.73	6.16	5.83	5.91	5.59
C: Rotter locus of control	11.5	12.28	11.62	11.71	11.27
A: AFQT (intelligence)	52.76	68.14	60.13	58.18	47.58
Control variables					
Mean age	51.4	51.6	51.4	51.6	51.4
White	81.5%	90.3%	84.1%	82.2%	79.1%
Black	12.6%	6.3%	10.1%	12.4%	14.4%
Hispanic	5.9%	3.4%	5.8%	5.4%	6.5%
Male	50.2%	45.7%	56.1%	50.7%	50.5%
Female	49.8%	54.3%	43.9%	49.3%	49.5%
Married	67.6%	78.9%	74.1%	71.8%	63.6%
Less than high school	5.6%	0.4%	2.6%	2.3%	7.7%
High school education	39.3%	21.4%	30.5%	33.6%	45.3%
Some college	24.4%	19.7%	27.5%	26.1%	24.9%
College degree	30.7%	58.6%	39.4%	38.0%	22.2%
Urban	74.4%	75.4%	71.0%	77.8%	74.0%
Unemployed	16.7%	10.4%	12.5%	9.7%	19.6%
Employed	80.4%	87.3%	85.3%	87.7%	77.2%
Unable to work	0.8%	0.7%	0.5%	0.7%	0.9%
Work/other	2.1%	1.6%	1.7%	1.9%	2.3%
Has health insurance	86.8%	97.5%	92.5%	91.9%	82.9%
Chronic health issue in household	10.3%	5.0%	7.7%	7.6%	12.3%
Mean income	$398,534	$83,837	$65,814	$69,968	$42,570
Mean net worth	$53,425	$893,340	$604,925	$514,538	$244,280
Mean retirement account	$26,827	$80,237	$37,013	$32,274	$12,608
Defined benefit plan ownership	17.8%	22.4%	22.6%	20.3%	15.8%
Stock ownership	16.3%	33.2%	21.8%	19.3%	11.4%
Homeowners	74.6%	90.8%	85.2%	83.6%	68.3%
Mean score of risk tolerance	3.7	4.4	4.1	4.1	3.4
Trust	2.2	2.5	2.3	2.2	2.1

Source: Restricted sample of the NSLY79, 2010 and 2012 waves. Percentages are weighted proportions.
[a]K = knowledge; C = confidence; A = capability.

4.3. Multinomial logit analyses

Results from the multinomial logit most relevant to our hypotheses are presented in Tables 3 and 4. Table 3 presents the comparison between those who never had a planner and those who adopted a planner in 2012, as this isolates the decision to adopt a planner in 2012. In terms of financial literacy, individuals who are more knowledgeable about diversification and have higher subjective knowledge are more likely to adopt a planner for retirement planning

Table 2 Baseline model: Binomial logistic regression of financial planner use, 2012 NLSY79

Variable	Coeff.	SE	Odds ratio
Financial literacy measures[a]			
K: Diversification	0.3747***	0.0912	1.455
K: Compound Interest	0.1219	0.0953	1.130
K: Inflation	−0.0438	0.1051	0.957
K: Bonds	0.0550	0.0788	1.057
K: Mortgage	0.3563*	0.1514	1.428
C: Subjective knowledge	0.0622*	0.0312	1.064
C: Day-to-day finances	−0.0049	0.0255	0.995
C: Rotter locus of control	0.0519**	0.0163	1.053
A: AFQT (intelligence)	0.00137	0.0019	1.001
Control variables			
Age	0.0092	0.0159	1.009
Male (ref.: female)	−0.2147**	0.0777	0.807
Married (ref.: unmarried	0.1160	0.0877	1.123
Racial/ethnicity (ref.: White)			
Black	0.0974	0.1400	1.102
Hispanic	0.1363	0.1743	1.146
Education (ref.: less than high school)			
High school education	0.6382*	0.2946	1.893
Some college	0.9136**	0.3008	2.493
College degree	1.2329***	0.3064	3.431
Employment status (ref.: employed)			
Unemployed	−0.2642	0.1624	0.768
Unable to work	0.3742	0.4451	1.454
Work/other	−0.2002	0.2864	0.819
Urban (ref.: No)	−0.1848*	0.0848	0.831
Has health insurance (ref.: No)	0.4955**	0.1620	1.641
Chronic health issue in household (ref.: No)	−0.2875*	0.1451	0.750
Income (ln)	−0.0217*	0.0101	0.979
Net Worth (ln)	0.0447***	0.0090	1.046
Retirement assets (ln)	0.0707***	0.0075	1.073
Defined benefit pension ownership	0.0777	0.0895	1.081
Stock ownership	0.3253***	0.0897	1.384
Homeowners	0.2734*	0.1159	1.314
Risk tolerance	0.0780***	0.0161	1.081
Trust	0.1022*	0.0444	1.108
Intercept	−5.8555	0.8912	
Concordance (mean)	77.1%		

Source: Restricted sample of the NSLY79, 2012 wave.

[a]K = knowledge; C = confidence; A = capability.

*$p < .05$, **$p < .01$, ***$p < .001$.

advice than otherwise similar households. In particular, correctly answering the diversification question increases the odds of adopting a planner by 33.4%, while a one unit increase in subjective knowledge increases the odds of adopting a planner by 16.5%. Adopting a planner is also found to be positively associated with homeownership, net worth, retirement assets, and risk tolerance.

Table 4 presents the comparison between those had a planner in each time period and those who dropped a planner in 2012. This comparison is important as it isolates the decision

Table 3 Multinomial logistic regression of financial planner use (reference category: no planner)

	Adopted a planner in 2012		
	Coeff.	SE	Odds ratio
K: Diversification[a]	0.2882*	0.1335	1.334
K: Compound interest	0.0587	0.1391	1.060
K: Inflation	0.0409	0.1579	1.042
K: Bonds	0.0823	0.1185	1.086
K: Mortgage	0.2970	0.2106	1.346
C: Subjective knowledge	0.1529***	0.0461	1.165
C: Day-to-day finances	−0.0621	0.0353	0.940
C: Rotter locus of control	0.00127	0.0241	1.001
A: AFQT (intelligence)	0.00354	0.00289	1.004
Control variables			
Age	0.0005	0.0237	1.001
Male (ref.: female)	0.0481	0.1167	1.049
Married (ref.: unmarried	0.0666	0.1299	1.069
Racial/ethnicity (ref.: White)			
Black	0.2244	0.1977	1.252
Hispanic	0.3217	0.2379	1.380
Education (ref.: less than high school)			
High school education	0.2403	0.3387	1.272
Some college	0.5929	0.3505	1.809
College degree	0.5961	0.3656	1.815
Employment status (ref.: employed)			
Unemployed	0.0285	0.2310	1.029
Unable to work	−0.1170	0.7842	0.890
Work/other	0.0251	0.4199	1.025
Urban (ref.: no)	−0.2493*	0.1242	0.779
Has health insurance (ref.: no)	0.2358	0.2095	1.266
Chronic health issue in household (ref.: no)	−0.1334	0.2016	0.875
Income (ln)	0.0066	0.0154	1.007
Net Worth (ln)	0.0376**	0.0124	1.038
Retirement assets (ln)	0.0608***	0.0117	1.063
Defined benefit pension ownership	0.1150	0.1344	1.122
Stock ownership	0.1593	0.1424	1.173
Homeowners	0.3313*	0.1674	1.393
Risk tolerance	0.0628**	0.0235	1.065
Trust	0.0127	0.0647	1.013
Intercept	−5.1226	1.2942	

Source: Restricted sample of the NSLY79, 2010 and 2012 waves.
Reference category is no planner in 2010 and 2012.
[a]K = knowledge; C = confidence; A = capability.
*$p < .05$, **$p < .01$, ***$p < .001$.

to drop a planner in 2012. Dropping a planner is negatively associated with an understanding of diversification (knowledge) and having an internal locus of control (confidence). Specifically, correctly answering the diversification question decreases the odds of dropping a planner by 26.0%, while a one unit increase in the locus of control decreases the odds of dropping a planner by 6.3%. Dropping a planner is also negatively associated with health insurance coverage, education, net worth, retirement assets, stock ownership, and trust but positively associated with income.

Table 4 Multinomial logistic regression of financial planner use (reference category: planner in 2010 and 2012)

	Dropped a planner in 2012		
	Coeff.	SE	Odds ratio
K: Diversification[a]	−0.3007*	0.1487	0.740
K: Compound interest	−0.1235	0.1549	0.884
K: Inflation	0.2542	0.1747	1.289
K: Bonds	0.0272	0.1246	1.028
K: Mortgage	0.0299	0.2657	1.030
C: Subjective knowledge	0.0693	0.0507	1.072
C: Day-to-day finances	−0.0468	0.0422	0.954
C: Rotter locus of control	−0.0655*	0.0261	0.937
A: AFQT (intelligence)	0.0011	0.0031	1.001
Control variables			
Age	0.0102	0.0254	1.010
Male (ref.: female)	0.2006	0.1242	1.222
Married (ref.: unmarried	−0.0961	0.1401	0.908
Racial/ethnicity (ref.: White)			
Black	0.1771	0.2230	1.194
Hispanic	0.0999	0.2863	1.105
Education (ref.: less than high school)			
High school education	−1.0003	0.6584	0.368
Some college	−1.0990*	0.6653	0.333
College degree	−1.5323	0.6712	0.216
Employment status (ref.: employed)			
Unemployed	0.2152	0.2725	1.240
Unable to work	−0.5110	0.6859	0.600
Work/other	0.3456	0.4579	1.413
Urban (ref.: no)	0.2268	0.1398	1.255
Has health insurance (ref.: no)	−0.5687*	0.2884	0.566
Chronic health issue in household (ref.: no)	0.2553	0.2390	1.291
Income (ln)	0.0453**	0.0167	1.046
Net Worth (ln)	−0.0468**	0.0145	0.954
Retirement assets (ln)	−0.0370**	0.0119	0.964
Defined benefit pension ownership	−0.0851	0.1430	0.918
Stock ownership	−0.3316*	0.1434	0.718
Homeowners	0.0961	0.1927	1.101
Risk tolerance	−0.0280	0.0258	0.972
Trust	−0.2285**	0.0709	0.796
Intercept	2.3093	1.5134	

Source: Restricted sample of the NSLY79, 2010 and 2012 waves.
Reference category is planner in 2010 and 2012.
[a]K = knowledge; C = confidence; A = capability.
*$p < .05$, **$p < .01$, ***$p < .001$.

5. Discussion

The purpose of this article is to expand the body of knowledge related to the relationship between financial literacy and a financial planner use for retirement planning advice. This is accomplished by incorporating Huston's (2010) framework for financial literacy, using a retirement specific measure of financial planner, and using longitudinal data that allows exploration of the initiation, maintenance, and termination of financial planner use.

Evidence is found to support hypothesis one, as elements of financial knowledge and financial confidence are associated with seeking retirement planning advice from a financial planner. This analysis is conceptually similar to Collins (2012) and Robb et al. (2012), and builds upon their work by using a measure of receiving retirement planning advice in the current year and by controlling for trust, a variable that was unavailable in the data on which their analyses were based. Our results indicate a more nuanced relationship between financial knowledge and advice seeking behavior than previously understood. Collins (2012), Calcagno and Monticone (2015), and Robb et al. (2012) each use composite measures of financial knowledge, which does not allow exploration of the specific elements of financial knowledge that contribute to advice seeking behavior. Results of this study indicate that an understanding of higher level concepts (i.e., diversification and mortgages) are key contributors to advice seeking behavior, while no relationship is found for understanding of compound interest, inflation, and bonds. The positive relationship between subjective financial knowledge and seeking advice is similar to previous results in Collins (2012), Calcagno and Monticone (2015), and Robb et al., (2012). The relationship between confidence and behavior is reinforced, as individuals with a more internal locus of control are found to be more likely to seek advice from a financial planner. No relationship is found between cognitive ability (capability) and financial planner use. This is surprising, but may be because of the use of a general measure of capability as opposed to one specifically related to finances.

Supporting evidence is also found for hypotheses two and three. Among those who did not have a planner in 2010, individuals who are more knowledgeable about diversification (knowledge) and had higher subjective knowledge (confidence) are more likely to adopt a financial planner for retirement planning advice. Similarly, among those who had a planner in 2010, discontinuing planner use in 2012 is negatively associated with an understanding of diversification (knowledge) and an internal locus of control (confidence). These results reinforce the importance of higher level financial knowledge in the decision to seek retirement planning advice, as well as highlighting that different components of financial knowledge may be more or less important in different behaviors. Evidence is also provided related to the importance of financial confidence, although depending on the analysis the specific measure of confidence that impacted behavior differed. Once again, no relationship is found between cognitive ability (i.e., our proxy for capability) and advice seeking.

While the current analysis provides more information about the relationship between financial literacy and financial planner use within the context of retirement planning than in previous literature, care should still be taken in interpreting the current results. Data availability limited the measurement of financial knowledge to 2012, while ideally knowledge in 2010 would be used to predict behavior in 2012. This measurement issue severely limits the ability to determine the causal relationship between literacy and planner use is limited. Further, given that financial planners often explain financial concepts to clients (i.e., they educate their clients), there may be reverse causality in our model as seeking financial help may improve financial capability. This issue can be addressed upon the release of future waves of the NLSY79. Lastly, there are limitations to the measure of financial planner use itself. The term financial planner is not clearly defined in the survey and, consequently, respondents may consider a variety of different individuals (e.g., financial advisor, stockbroker, agents, etc.) to be financial planners. Similarly, the financial planner question does

not clearly indicate a time boundary, which may lead to some inconsistency in the temporal proximity of the planner visit to the question response.

6. Conclusions

This study reinforces the important role financial advice plays as a compliment to financial knowledge; higher (lower) levels of financial knowledge are associated with initiating and maintaining (dropping) use of a financial planner for retirement planning. Results point specifically to the importance of diversification knowledge as a predictor of financial planner use. Historically, financial planning services have emphasized investment management and return on investment, only recently expanding value propositions to include multiple aspects of an individual's financial life (Kitces, 2015). As the profession evolves, it will be interesting to see if the relevance of other areas of financial knowledge become more or less important relative to diversification knowledge. However, current clients that are better equipped to understand the value of investment advice are more likely to adopt and use a financial planner, while also being less likely to stop using a financial planner. This suggests that planners should continue to educate clients on the value of diversification and asset allocation.

This article also highlights the importance of incorporating Huston's (2010) framework for financial literacy in future research. The inclusion of the three elements of financial literacy provides a better conceptual understanding of one's ability to evaluate financial scenarios and implement financial planning decisions. Similarly, results highlight the importance of carefully evaluating the use of scales to measure financial knowledge. The most prominent studies investigating financial help-seeking behavior have employed a summated scale (Collins, 2012; Calcagno and Monticone, 2015; Robb et al., 2012). By including items individually, this research was able to identify the aspects of financial knowledge that were most critical to seeking retirement planning advice from a financial planner. Notably, the summated scale used in previous literature was found to have extremely poor reliability ($\alpha = 0.37$) within the sample of interest. Given this result, researchers should be cautious in constructing measures of financial knowledge and be more inclusive of the other components of financial literacy to permit a more complete understanding of phenomenon. Omitting the capability and confidence aspects of financial literacy may lead to invalid conclusions.

Notes

1 Robb and Woodyard identify best practice financial behaviors as having an emergency fund, obtaining a personal credit report, not overdrafting checking accounts, paying off credit cards in full, having a retirement plan, and owning appropriate insurance.
2 Lachance and Tang distinguished between five areas of financial advice: saving or investments, tax planning, insurance, mortgage or loan, and debt counseling. Their use of the term "financial exposure" is meant to capture how the relevance of each type of advice varies among consumers based on their financial position. For example, debt counseling is most relevant to someone who has debt.

Appendix
Variable coding and descriptive statistics

Variable name	Description	Year collected
Dependent variables		
Use of financial planner	= 1 if respondent answered yes to "consulted a financial planner about how to plan [your] finances after retirement."	2010, 2012
Controls		
Age	Age of respondent at interview date. Continuous variable ranging from 40 to 56.	2012
Gender		
Male	= 1 if respondent's reported sex was male.	1979
Marital status		
Married	= 1 if respondent reported being married.	2012
Race/ethnicity		
White	= 1 if respondent's reported race/ethnicity was White only.	2012
Black	= 1 if respondent's reported race/ethnicity was Black only.	2012
Hispanic	= 1 if respondent's reported race/ethnicity was Hispanic.	2012
Education		
Less than high school	= 1 if highest education level of respondent was less than a high school diploma.	2012
High school	= 1 if highest education level of respondent was a high school diploma or equivalent.	2012
Some college	= 1 if highest education level of respondent was less than four years of college.	2012
College degree	= 1 if highest education level of respondent was four years of college or more.	2012
Employment status		
Unemployed	= 1 if respondent reported being temporarily laid off or unemployed and looking for work.	2012
Employed	= 1 if respondent reported working now.	2012
Unable to work	= 1 if respondent reported being disabled and unable to look for work.	2012
Work/other	= 1 if respondent reported being retired, a homemaker, or other.	2012
Other control variables		
Urban area	= 1 if respondent reported that residence was located in an urban area.	2012
Health insurance	= 1 if respondent reported being covered by health insurance/health plan.	2012
Chronic health issue in household	= 1 if respondent reported that at least one member of the household was disabled or chronically ill.	2012

Appendix (Continued)
Variable coding and descriptive statistics

Variable name	Description	Year collected
Family income (log)	Log of total family income.	2012
Family net worth (log)	Log of total family net worth.	2012
Retirement assets (log)	Log of total family retirement assets.	2012
Defined benefit pension plan participation	= 1 if respondent reported that benefits from any pension/retirement plans were based on a formula.	2012
Stock ownership	= 1 if respondent reported self or spouse/partner owning any shares of stock.	2012
Home ownership	= 1 if respondent reported that residence was owned or being bought by self or spouse/partner.	2012
Risk tolerance	Measured as a continuous variable, "Rate yourself from 0 to 10, where 0 means 'unwilling to take any risks' and 10 means 'fully prepared to take risks.'"	2012
Trust	Measured as a continuous variable on a scale of 1 to 5, "Generally speaking, how often can you trust other people."	2008
Key predictors		
Financial knowledge		
Diversification	= 1 if respondent correctly answered the question, "Buying a single company stock usually provides a safer return than a stock mutual fund."	2012
Compound interest	= 1 if respondent correctly answered the question, "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, or less than $102?"	2012
Inflation	= 1 if respondent correctly answered the question, "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?"	2012
Bonds	= 1 if respondent correctly answered the question, "If interest rates rise, what will typically happen to bond prices? They will rise, they will fall, they will stay the same, there is no relationship between bond prices and the interest rate"; = 0 if answered incorrectly, answered "don't know," or refused to answer.	2012

Appendix (Continued)
Variable coding and descriptive statistics

Variable name	Description	Year collected
Mortgage	= 1 if respondent correctly answered the question, "Do you think that the following statement is true or false? A 15-year mortgage typically requires higher monthly payments than a 30-year mortgage, but the total interest paid over the life of the loan will be less."	2012
Financial confidence		
Subjective knowledge	Measured as a continuous variable from the question "on a scale from 1 to 7, where 1 means very low and 7 means very high, how would you assess your overall financial knowledge?"	2012
Day-to-day finances	Measured as a continuous variable from the question "How strongly do you agree or disagree with the following statements? Please give your answer on a scale of 1 to 7, where 1 means "strongly disagree" 7 means "strongly agree," and 4 means "neither agree nor disagree." "I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses."	2012
Rotter locus of control	Measured as a continuous variable with scores ranging from 4 to 16.	1979
Financial capability		
Armed services vocational aptitude battery	Percentile score created by the NLS, measured as a continuous variable ranging from 0% to 100%.	Assessed in 1980 and converted to percentile scores in 2006 to reflect updated standards

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