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Financial Adviser Anxiety, Financial Literacy, and Financial Advice Seeking

Seeking professional financial advice to assist with financial decision making is an important option for consumers faced with increased responsibility for their own financial circumstances. We explore the role of two potential barriers/enablers to accessing financial advice. First, we explore the role of a variety of financial literacy measures to explain observed financial advice consultation. Second, we introduce a newly developed measure of financial adviser anxiety. We define adviser anxiety as (an existing or prospective clients') concerns involving the prospect of meeting with a financial adviser. The notion of adviser anxiety is inspired by evidence from medical settings that suggest individuals may refrain from seeking advice when objectively, it is in their best interests to do so. This anxiety may be due to embarrassment, worry, or other forms of apprehension associated with the consultation process. A new scale is presented which has strong validity and a demonstrated ability to explain reported future levels of professional advice seeking.

INTRODUCTION

Increases in both personal financial responsibility and sophistication of financial products confronting consumers (Davis 2007; Hastings, Madrian, and Skimmyhorn 2013) have made the development of financial literacy “more important than ever” (Lachance 2014). Financial advice can either act as a substitute, complement, or developer of a consumer’s own financial literacy in making these decisions. Consumer willingness to seek financial advice from a financial professional is therefore of considerable interest, and existing empirical research has examined a range of sociodemographic variables associated with accessing financial advice. This type of approach has allowed for the identification of groups of individuals who are unlikely to seek advice. However, as observed in other advice seeking settings,

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“such research offers little direction in terms of viable interventions” (Consedine et al. 2004, 501) to impact advice seeking. What is needed in such cases is to identify variables that influence advice seeking “that are both amenable to change and for which there is room for improvement” (Consedine et al. 2004, 501). This is the innovation of our article as we examine the role of a construct we refer to as financial adviser anxiety. That is, anxiety individuals may have at the prospect of an encounter with a professional financial adviser. We examine the role of financial adviser anxiety as it relates to consumer demand for professional financial advice.

Some 14% of Australian adults (Slade et al. 2009) confront serious anxiety issues each year. This is an incidence rate comparable to that seen in other westernized nations (National Institute of Mental Health 2012). Anxiety disorders tend to be more common among women than men (Slade et al. 2009) and less common among older individuals relative to persons at other stages of the adult lifespan (Kessler et al. 2005). Far more individuals, however, are affected by less serious forms of anxiety that do not qualify as clinically significant psychological disorders.¹ However, as with diagnosable, clinically significant disorders, these milder forms of anxiety are accompanied by a variety of troubling symptoms, including worry, nervousness, discomfort, and apprehension, which are particularly prominent when individuals are confronted by the feared object, circumstance, or event. Anxiety issues can take many different forms and stem from a variety of different sources, but in the present context, we are primarily concerned with anxiety resulting from the prospect of consulting with a professional financial adviser.

The extent to which one is likely to be anxious about meeting with a financial professional will be, at least in part, determined by not only how much one knows about general financial planning practices but also the specific area of interest, such as, retirement savings. Empirical evidence has consistently reported that individuals have low levels of financial literacy, and insufficient financial knowledge, in particular.² While seeking financial advice has more readily been considered to be a choice, this has not generally been viewed to be the case for financial literacy. However, Lusardi, Michaud, and Mitchell (2013) have recently modeled endogenous financial knowledge accumulation, through which they were able to account for considerable differences in wealth inequality. Financial

1. For example, those based on criteria outlined in the *DSM-IV-TR* and *ICD-10*, two recognized classificatory manuals of psychological disorders.

2. Positive money management skills and product awareness are two other important components. Lusardi and Mitchell (2011) provided an overview of evidence which suggests individuals possess low levels of financial literacy.

knowledge acquisition provides the opportunity to access more sophisticated “investment technologies,” which provide increased expected returns. However, financial literacy is costly to acquire and use, and it depreciates as financial and investment vehicles vary over time as do the regulations that govern their use (Lusardi, Michaud, and Mitchell 2013, 13). Within this framework, we can consider financial adviser anxiety as a cost to seeking financial advice. This may prevent the initial seeking of advice, a follow-up consultation, or it may hinder the quality of the advice an adviser might be expected to provide, based on poor information flow from the consumer.

In the professional medical advice setting, emotions related to anxiety have been demonstrated as barriers to advice seeking (Consedine, Krivoshekova, and Harris 2007). Consumer regulators (Australian Securities and Investments Commission 2010) appear conscious of how anxiety may influence the use of financial advisers by identifying “embarrassment and exposure of personal details” as important issues for potential clients. Gennaoili, Shleifer, and Vishny (2015) included anxiety as an important component of the adviser–client relationship, suggesting that advisers who are effective at reducing client anxiety can demand higher fees. However, no direct empirical evidence for this assertion has been offered to date. We grapple with this issue in a head-on manner by exploring the prevalence of financial adviser anxiety, the types of consumers who are prone to it, and the impact it is likely to have on consumers’ willingness to seek professional financial advice. In summary, we address the following key research questions:

- 1 Can financial adviser anxiety be demonstrated as a measurable construct, and what components (if any) can be isolated as constituent factors?
- 2 Do factors currently shown to explain financial advice access also explain financial adviser anxiety among those who have, and have not, accessed the services of a financial professional? Specifically, what is the role of financial literacy (including financial knowledge), financial attitudes, and behaviors on the likelihood of having adviser anxiety?
- 3 Does financial adviser anxiety have a significant role in the likelihood that a consumer will seek financial advice in the future, both for financial advice generally and retirement planning financial advice specifically?

This work extends prior research by measuring, explaining, and quantifying a role for financial adviser anxiety in an individual’s access of

professional financial advice. In addition to extending the range of factors considered by existing theoretical models, we develop and demonstrate the properties of a scale for its measurement. This represents an important step that can be followed by researchers and practitioners who seek to develop interventions designed to mitigate the effects of anxiety among advice-seeking clients.

FINANCIAL ADVICE SEEKING CONCEPTUAL FRAMEWORK

Models of Financial Advice Seeking

The predominant conceptual framework employed for modeling financial advice seeking is based on the trade-off between the costs and benefits of advice provision. Our approach adopts this framework, but it seeks to extend it by placing a greater emphasis on the implicit costs associated with seeking advice. Hackethal, Haliassos, and Jappelli (2011) characterized the current theoretical and policy debate in relation to financial advice as “based on the idea that financial advisers know what is good for individual customers but have an incentive to misrepresent this and to take advantage of their customers, who are typically uninformed and cannot figure out the poor quality of advice” (Hackethal, Haliassos, and Jappelli 2011, 13). The underlying assumption here is that “most people could benefit from access to quality personal or general advice and factual information” (Australian Securities and Investments Commission 2010, 7) due to informational economies of scale, quality of information, and portfolio management advantages that advisers have relative to individual investors (Hackethal, Haliassos, and Jappelli 2011). Other possible benefits include “faster debt reduction or higher investment returns, especially at the time of key life events or transitions” (Australian Securities and Investments Commission 2010) or “ensuring greater risk diversification among less sophisticated households” (Hackethal, Haliassos, and Jappelli 2011, 1). These benefits are weighed against fees, commissions, and agency costs that are shouldered by the consumer (Guiso and Jappelli 2006). The balance of these costs and benefits continues to be a focus of the literature (see Guiso and Jappelli 2006; Hackethal, Haliassos, and Jappelli 2011; Iannicola and Parker 2010; Inderst and Ottaviani 2009).

Grable and Joo (2001) and Joo and Grable (2001) cast financial advice seeking as the final step of a five step proactive process, adapting a much earlier help seeking model developed in a medical care setting (Suchmann 1966). In their adapted process, a consumer proceeds through: (1) exhibiting a financial behavior, (2) evaluating their financial behavior, (3) identifying the causes of financial behavior, (4) making a decision to seek

help, and (5) choosing between help provider alternatives. Step four is critical and Joo and Grable (2001) suggest it can be explained through a cost–benefit information economics model such as the one advanced by Stigler (1961). The decision at step five of whether to seek *professional* advice, having made the decision to seek help, is also critical. Both steps four and five can be influenced by demographic, socioeconomic, and psychosocial factors (Joo and Grable 2001), and it is this final step that this article investigates. In doing so, we have a particular interest in the role of financial adviser anxiety and financial literacy, and whether these two factors, in particular, vary as a function of the timing and scope of the advice received. Joo and Grable (2001) also provide a more nuanced framing of the cost–benefit framework, which links directly to a role for financial adviser anxiety. They highlighted that help seeking involves the risk of being “ridiculed, behaviorally constrained, or reprimanded” (Joo and Grable 2001, 63), thus emphasizing the uncertainty of costs and benefits.

Beyond consideration of competence and the relative technical advantages financial professionals may bring, Iannicola and Parker (2010) described a broader set of factors to explain advice use. These factors are grouped into: individual factors (financial literacy, (mis)understanding of the advice relationship, trust); social factors (advice available from informal sources including family and friends, cultural disconnect); and institutional factors (orientation to affluent profitable clients, product sales focus). Importantly, these factors are not unrelated. For example, social and institutional factors (a product or sales focus) can impact individual factors (reduction in an individual’s trust in the advice relationship).

Gennaoli, Shleifer, and Vishny (2015) presented a model of investment delegation that captures some of the elements we explore in this article. In their model, “investors do not know much about finance, are too nervous or anxious to make risky investments on their own, and hence hire money managers to help them invest.” Furthermore, they consider “anxiety reduction in risk taking as a central function of delegated money management” (Gennaoli, Shleifer, and Vishny 2015, 97). They argue financial advice is a service, similar to medicine, which they capture through the descriptive title for financial advisers as being “money doctors.” Money doctors provide trust derived from “personal relationships, familiarity, persuasive advertising, connection to friends and colleagues, communication and schmoozing,” and thus, trust is not necessarily derived from past performance (Gennaoli, Shleifer, and Vishny 2015, 92). Money doctors “help investors make risky investments and are trusted to do so even when their advice is costly, generic, and occasionally self-serving” (Gennaoli,

Shleifer, and Vishny 2015, 92). Within this model, the nonadvised investor is unwilling to invest in risky assets due to “infinite anxiety.” An investor’s anxiety is reduced through delegation to an adviser and advisers vary in ability to achieve this.

Anxiety and Financial Advice Seeking

Research in the medical sector has established that embarrassment—an emotion that is structurally related to anxiety (Plutchik 1980)—may prevent individuals from seeking professional medical advice. Consedine, Krivoshekova, and Harris (2007) have documented the role of medical embarrassment associated with consulting a physician, and in doing so, they have identified two separable factors: one that taps bodily embarrassment issues and a second that taps judgment concerns (i.e., perceived negative evaluations by the physician). Consedine, Krivoshekova, and Harris (2007) found that individuals with high levels of medical embarrassment were less likely to make general visits to a health professional. They also suggested that judgement concerns might be negatively related to age, income, and education, although only age was significant with embarrassment levels also significantly higher for females. Although not explicitly stated in Consedine, Krivoshekova, and Harris (2007), the prospect of visiting a medical professional (and the embarrassment that could possibly ensue) is likely to lead to the onset of anxiety and psychological distress. Feelings of anxiety are in and of themselves problematic from the perspective of maintaining psychological well-being, but the problem is further compounded by the fact that “avoiders” may forgo medical services that could prove to be beneficial. The impact of anxiety on behavior is not unequivocal, both theoretically and empirically. In a review of the “the construct variously called anxiety, fear, or worry” in relation to health screening behaviors, Consedine et al. (2004) identified evidence for both negative and positive predictors.

The personal financial advice relationship requires disclosure of accurate and complete information. A potential impact of financial adviser anxiety within an advice relationship is that anxiety may prevent full disclosure by a client. For example, poor prior investments, tax liabilities, a ballooning credit card balance, or changed employment circumstances may be withheld which compromise the ability of the professional to provide appropriate personal financial advice. The importance of information flow in this manner has been emphasized by regulators. For example, Financial Industry Regulatory Authority (FINRA) provides guidance for broker–dealers in meeting advice suitability requirements and “reasonable

diligence” obligations in situations in which a client may choose not to provide full information (FINRA 2012). Similarly, in Australia, the Corporations Act (s961H) explicitly acknowledges the possibility that the client may not provide full information, though not addressing why, in which case the adviser is required to warn the client to consider the appropriateness of the advice.

Financial Advice Seeking and Financial Literacy

A succinct characterization of the empirical evidence on the determinants of advice demand is that it is mixed; mixed in the definition of advice, the period over which advice is sought, and the variables employed (and their definitions) in seeking to explain utilization of advice. The empirical literature is generally consistent in identifying a positive relationship between education and accessing advice from a financial professional (Chang 2005; Chatterjee and Zahirovic-Herbert 2010; Collins 2012) with the exception of Hung and Yoong (2010) who found no significant relationship, and Guiso and Jappelli (2006) who found a negative relationship. Similarly, Chatterjee and Zahirovic-Herbert (2010), Collins (2012), Guiso and Jappelli (2006), and Hackethal, Haliassos, and Jappelli (2011) found females more likely to receive financial advice, whereas Hung and Yoong (2010) found no significant difference in advice seeking as a function of gender. While Chang (2005), Chatterjee and Zahirovic-Herbert (2010), and Hackethal, Haliassos, and Jappelli (2011) found a positive age-advice relationship, Collins (2012) and Hung and Yoong (2010) found no significant relationship as a function of age. In fact, Hung and Yoong (2010) found only marital status significant (positive) with advice seeking, with no difference by gender, age, income, education, or financial literacy. Ethnicity as a predictor of financial advice seeking has generally found minority groups less likely to consult, although this finding is dependent upon the type of advice being sought (Collins 2012).

The samples used by Hackethal, Haliassos, and Jappelli (2011) in their German study are quite different from those examined in the predominantly US literature previously discussed. In one sample, they drew on clients of an online brokerage firm and in the second they examined clients of a commercial bank where advice was available on an optional basis. In both samples, males were significantly less likely to have an adviser, as was the case with older clients/customers. Study results also revealed that married clients were significantly less likely to have an adviser, and the size of transactions (as a wealth proxy) and being self-employed were positively related to advice seeking.

Aside from demographics, financial literacy measures have been explored to explain the likelihood of seeking advice. There are distinct parallels in the financial advice and financial literacy literatures in their focus on outcomes. Recent reviews (Fernandes, Lynch, and Netemeyer 2014; Miller et al. 2014), drawn from meta-analyses of financial education interventions, have suggested that the effect size of interventions on subsequent financial behaviors is low, on the order of 0.1% of the variance (Fernandes, Lynch, and Netemeyer 2014). Lusardi, Michaud, and Mitchell (2011, 2013), however, cautioned that large behavioral changes should not be expected for all groups, particularly the least educated. Similarly, in terms of financial advice and subsequent outcomes, Hackethal, Haliassos, and Jappelli (2011) suggested an ambiguous advice–performance relationship. Kramer (2012) found no significant relationship, and Hoechle et al. (2014) suggested advisers hurt trading performance but improve diversification.

Our interest is the role of financial literacy in financial advice seeking, and whether professional advice serves as a substitute or complement for financial literacy. Collins (2012) found a positive relationship between financial knowledge and advice seeking, suggesting they are complements of one another. Calcagno and Monticone (2015) also argued for complementarity, finding that advice demand increases with financial literacy which they explain due to the more literates' ability to anticipate the "informativeness of advice." Von Gaudecker (2015) finds neither a substitute nor a complementary relationship between advice seeking and financial *numeracy*. The emphasis here on financial numeracy echoes the sentiments of Huston (2010), who emphasized the need for clarification of the financial literacy construct as it is crucial in its operationalization and assessment.

Remund (2010) identified the evolution of the concept of financial literacy, and classified the various definitions found in the literature into five main categories: knowledge of financial concepts, the ability to communicate about financial concepts, an aptitude to manage personal finances, skill in making financial decisions, and the confidence to plan effectively for financial needs. The emphasis on financial capabilities in Remund's work appears to extend financial literacy from a strictly knowledge-based measure to include within it dimensions of behaviors such as budgeting practice or information search, and attitudes such as perceived importance of financial planning (Financial Services Authority 2005). OECD-INFE (2011) further incorporated a specific objective into the definition of financial literacy, by defining it as "A combination of awareness, knowledge, skills, attitudes, and behaviors necessary to make sound financial decisions and ultimately achieve individual financial

wellbeing.”³ In the present investigation, we utilize this broader measure of financial literacy, as discussed in the following section.

Literature Summary and Hypotheses

To summarize the discussion thus far, we agree with the suggested role of anxiety in the demand for professional financial advice as suggested by Joo and Grable (2001) and modeled by Gennaoli, Shleifer, and Vishny (2015). We describe this form of anxiety as *financial adviser anxiety*. Following Consedine, Krivoshekova, and Harris (2007), who identify separable components of bodily embarrassment and judgment concerns as barriers to medical consultations, we propose two subconstructs of financial adviser anxiety. *Disclosure anxiety* parallels bodily embarrassment and is defined as concerns regarding the sharing of personal information with a professional adviser. *Evaluation anxiety* parallels judgment concerns and involves concerns about being negatively perceived by a financial professional. We differ, however, from Gennaoli, Shleifer, and Vishny (2015) in that our focus is not on the size or form of the payoff clients receive from an anxiety reducing adviser, but rather, on the role of financial adviser anxiety in the demand for advice itself. The extant literature has neither sought to operationalize a measure of financial adviser anxiety nor quantify its role. We seek to advance the literature by empirically measuring financial adviser anxiety with a newly developed and validated scale. We also demonstrate its importance in future advice demand as a means of substantiating its role. Given the related professional advice seeking literatures, we hypothesize:

H1: Financial adviser anxiety is composed of two separable components, namely disclosure anxiety and evaluation anxiety.

Furthermore, we expect financial adviser anxiety to be predicted by a combination of demographic and psychological variables that have previously been demonstrated to be related to professional help seeking. Specifically we hypothesize that:

H2: Financial adviser anxiety will be negatively related to age, financial resources, education, financial literacy, and risk tolerance.

3. Initially proposed by Financial Services Authority (2005) in the United Kingdom and adopted in the Australian National Financial Literacy Strategy (Australian Securities and Investments Commission 2011). Remund (2010) identifies the Canadian definition as the most comprehensive definition as it further includes “confidence to make responsible financial decisions” (Task Force on Financial Literacy, Office of the Canadian Minister of Finance 2010, 10).

The negative risk tolerance expectation flows from Gennaoli, Shleifer, and Vishny's (2015) argument that reduction in clients' anxiety of risk taking is a key function of an adviser. Hence, if higher financial adviser anxiety reduces the likelihood of seeking advice, it follows that more risk tolerant individuals would have lower financial adviser anxiety.

H3: Financial adviser anxiety will be positively related to financial constraints, being female, and belonging to a minority ethnic group.

We have no a priori expectations regarding the relationships between adviser anxiety, marital status, and future time perspective.

Given the conception of financial adviser anxiety as a cost/barrier to seeking advice, we expect whether an individual has received advice or not to be reflected in the strength of relationships in H2 and H3. One might expect that among those who are currently receiving advice, the factors that increase (decrease) financial adviser anxiety are less (more) important as they have been overcome, whereas among those who have never received advice, the converse is true. More formally:

H4: The negative predictors in H2 will be stronger for those who currently seek financial advice than for those who have never done so. Conversely, the positive relationships in H3 will be stronger for those who have never previously accessed advice.

Consistent with Joo and Grable's (2001) conceptual framework, we view financial adviser anxiety as an expected, immediate, implicit cost of the advice encounter which, consistent with Stigler's (1961) model, is combined with explicit costs (e.g., fees) and then weighed against an uncertain and distant benefit of the advice encounter. More formally:

H5: Financial adviser anxiety will be negatively related to the likelihood of seeking professional financial advice in the future.

SAMPLE AND SURVEY CONSTRUCTION

A survey instrument was developed and piloted using a sample of 30 American men and women, 34–64 years of age. The final survey was administered to a commercially provided online panel of Australian participants, aged 40–75 years. The survey collected information in four key areas: financial advice seeking, financial literacy, financial adviser anxiety, and a range of demographics. A key term requiring clarification was what constitutes financial advice and to whom the labels "financial

planner” and “financial adviser” referred to, as they do not have legislated definitions in many jurisdictions.⁴ To clarify who was being referred to when financial advice was being provided, the following introduction was provided in the survey:

Different titles are used by those who provide personal financial advice, including “financial planner” and “financial adviser” and these titles may describe individuals who carry out different tasks. In this survey, we use the broader phrase of “financial professional” which you can take to mean somebody who provides personal financial advice on a professional basis, most commonly a financial planner or financial adviser.

Financial Literacy Assessment

The “Financial Literacy Measurement Core Questions” (OECD-INFE 2011) were utilized in this study and are best grouped using the five financial capability domains proposed by the Financial Services Authority (2005): financial knowledge (based on a “money quiz”), money management, choosing financial products, planning ahead, and staying informed.

Financial knowledge (Financial Knowledge) was measured using eight questions that cover numeracy within a financial context, compounding, diversification and inflation. In addition, respondents rated their knowledge of investing in financial assets (Self-Assess Financial), and retirement savings⁵ (Self-Assess Retirement) using a seven-point scale (1 = *extremely poor*; 7 = *extremely good*). Data on financial behavior examined whether savings had occurred during the previous 12 months, whether a budget was/is utilized (Budget), and whether they had experienced financial difficulties over the preceding 12 months (Financial Difficulties). A measure combining financial knowledge and behavior was used to complement the financial quiz questions. This measure (Product Awareness) assessed the level of awareness of an inventory of financial products (e.g., superannuation, shares, credit cards, bonds, etc.). Participants’ level of awareness was ranked based on responses to whether they currently or previously owned the product (ranked as a score of two), had heard of the product but not owned it (score of one), or had never heard of the product (scored as zero).

4. In the United States, FINRA (2014) note that labels such as “Financial Adviser (Advisor),” and “Financial Planner” are generic terms or job titles rather than legislated titles. In Australia, “financial planner” and “financial adviser” similarly remain nonregulated terms.

5. Reflecting the terminology understood by the Australian sample, “superannuation” was used in questions relating to retirement savings. Superannuation can be considered equivalent to 401(k) or 403(b) plans with the notable difference that Superannuation is effectively a compulsory, auto-enrolment program mandated by government legislation.

Attitude toward money management (Money Management) was assessed through four questions (Before I buy something, I carefully consider whether I can afford it; I pay my bills on time; I keep a close personal watch on my financial affairs; I set long-term financial goals and strive to achieve them), which were rated using a five-point scale of *never* (1) to *always* (5). A measure of future time perspective was also included (Future Time Perspective) using a previously validated measure developed by Jacobs-Lawson and Hershey (2005). A final question asked respondents whether they thought they had enough money to live comfortably in retirement, or the remainder of their retirement if they were already retired, on a five-point scale from (1) *certainly not* to (5) *certainly (Enough in Retirement)*.

Financial Adviser Anxiety Assessment

A scale to estimate financial adviser anxiety was adapted from the 53-item measure developed by Consedine, Krivoshekova, and Harris (2007), which was designed to assess one's level of medical embarrassment associated with consulting a physician. The initial pilot of the financial adviser anxiety scale contained 15 items, many of which were written to be direct analogues of the items contained on the medical scale. One subset of items was designed to assess what we refer to as *disclosure anxiety*; i.e., the likelihood of being anxious about revealing details about one's money management practices (e.g., "I would be hesitant to show my private financial records to a financial professional"). A second set of items was designed to tap *evaluation anxiety*; i.e., concerns about being negatively judged by a financial professional during the course of a consultation (e.g., "I [would] worry that a financial professional would criticize me for some of the unwise spending and saving decisions I have made"). Ratings for all items on the adviser anxiety scale were made using a 5-point response format (1 = *strongly disagree*; 5 = *strongly agree*).

Pilot testing revealed the internal consistency of the scale to be strong (Cronbach alpha = .81), and two-week test-retest reliability was found to be well above threshold ($r = .88$) using 11 of the 15-items.⁶ Factor analysis suggested a single underlying factor against the hypothesized two-factor structure of disclosure anxiety and evaluation anxiety. Reliability, factor

6. Two of the originally drafted items from this scale were found to have unacceptable loadings and were therefore deleted, and two others were deemed to be redundant with the remaining items, and therefore, omitted.

TABLE 1
Financial Adviser Anxiety Scale Components and Loadings

Item	Loading
1. I (would) find it difficult to ask a financial professional to explain something again, repeat themselves, or use words that I can easily understand.	.71
2. I (would) worry that financial professionals would think I'm silly if I come into their office with a minor financial concern.	.76
3. I (would) find that a financial professional would criticize me for not saving all of the receipts I should.	.82
4. I'm embarrassed I haven't made more of an effort to keep careful financial records.	.75
5. Describing to a financial professional how I spend money on frivolous or unnecessary items is (would be) exceptionally embarrassing for me.	.84
6. I (would) worry that a financial professional would criticize me for some of the unwise spending and saving decisions I have made.	.85
7. If I have financial difficulties I tend to hide this fact from others, even close people, because I am (would be) embarrassed.	.69
8. I am (would be) embarrassed by the fact that I have allowed my financial situation to deteriorate to the point it has.	.68
9. The thought that a financial professional might ask me for detailed transaction information and receipts is humiliating for me.	.86
10. I would be hesitant to show my private financial records to a financial professional.	.76
11. I am generally uncomfortable talking about personal financial matters with others.	.72

structure, and predictive validity confirmed the reduced set of 11 items. Items and factor loadings are presented in Table 1.

SAMPLE OVERVIEW AND SUMMARY STATISTICS

An online commercial panel provider was used to recruit participants with a screening item that restricted the sample to panel members who were at least 40 years of age. Otherwise, no additional inclusionary criteria were imposed. Completion of the survey entitled respondents to a payment of less than five dollars from the panel provider. Of the 2,304 completed surveys, 22 were dropped based on a completion time of less than eight minutes, which was not considered to be a reasonable amount of time to complete the survey. Median completion time for the remaining 2,282 surveys was 19 minutes. The sample breakdown by age compared with the general population of Australians over the age of 40 (Australian Bureau of Statistics 2011) indicates an over-representation of those aged 60–69 years (28% vs. 21%) and an under-representation of those aged 40–49 years (28% vs. 31%) and over 69 years (16% vs. 21%).

A comparison of the sample financial demographics with the Australian population is presented in Table 2. The pattern observed across sample age

TABLE 2
Comparison of Sample Financial Demographics and Australian Household Averages

	Income			Assets			Debt		
	National \$ ^a	Sample \$	Sample ^b > \$100,000	National \$	Sample \$	Sample > \$1 million	National \$	Sample \$	Sample > \$1 million
35–44	116,428	95,086	7.2%	787,600	577,281	13.2%	206,200	175,909	2.8%
45–54	119,912	90,848	4.9%	1,047,500	655,412	17.3%	163,400	136,339	1.0%
55–64	97,812	65,875	1.4%	1,197,400	677,641	14.9%	102,800	81,876	0.6%
65–74	55,380	42,946	0.6%	1,040,900	597,468	9.9%	29,800	28,369	0.0%
75 and over	38,792	39,226	0.0%	792,700	525,476	4.8%	4,800	33,452	0.0%

Source: Australian Bureau of Statistics (2011) values for 2011/12, Reserve Bank of Australia (2015)

^aAustralian dollar estimates (2012). The average exchange rate through 2012 was AUD\$1 = US\$1.04.

^bThe survey question used income, asset, and debt bands rather than exact amounts. Thus, when calculating means of each band, the highest band (> \$100,000 for income and > \$1 million for assets and debt) enters the estimation using the lower band value which biases down the sample estimates depending on the proportion of the sample in the top band. The proportion of respondents within each age group reporting the highest band of income/assets/debt is reported.

groups is consistent with population estimates for both assets and debt. The 55–64 (35–44) year-old age group has the highest average asset (debt) value. The two younger age groups had the highest income in both the sample and the population data. Average debt levels are similar between the sample and population. Average asset values in the sample, by age group, appear smaller than population estimates. However, a direct comparison of assets is restricted, as survey respondents selected an income/asset/debt band rather than a point estimate of each. There was a relatively large proportion of respondents in each age group who selected the highest asset band of \$1 million⁷ or more, which biased the sample average estimate downward relative to the population estimate.⁸ This bias was exacerbated by the heavily skewed distribution of assets in the general population for individuals in the highest percentiles. For example, the average net worth of the top 3% of Australian households is greater than \$3 million (Australian Bureau of Statistics 2011). Therefore, the financial demographics of the sample appear consistent with the distribution in the population, and allowing for the bias in sample estimations, they are consistent with the mean level of income assets and debt.

Table 3 provides a summary of the key variables of interest: financial adviser consultation, financial literacy, and financial anxiety scores. A total

7. All values are in Australian dollars but at the time of the survey the exchange was close to parity AUD\$1 = US\$1.04

8. As the lower value of the band is used when calculating the mean for the age group.

of 18% of respondents indicated that they currently consulted a financial professional, with 41% having previously but not currently consulted, and 41% never having consulted a financial professional.

Financial Literacy Summary

The mean score for the Financial Knowledge scale was 6.6 out of the 8 questions ($SD = 1.39$), which suggests that a ceiling effect was operating with respect to the scale.⁹ A comparison by age and gender shows that males (6.8) performed significantly¹⁰ better on the financial knowledge test than females (6.2) within each age group. There were no significant differences across age groups for females, although there were for males. Older males (>69 years) performed better (7.1 vs. 6.5) than members of the youngest (40–49-year-old) age group. The self-assessed knowledge scores did not exhibit the same ceiling effect as the objective measure. The mean Self-Assess Financial and Self-Assess Retirement scores were found to be in the mid-range of their respective scales. Relative to men, women had significantly¹¹ lower scores in both the self-assessed and objective knowledge areas. No significant differences in scores were evident by age group for Self-Assess Financial. Self-assessed knowledge of retirement savings was found to be significantly lower for women in the over 69 year age group relative to the 60–69 and 50–59 year-old age groups. It is possible that the experience of making financial decisions during retirement, at least for women, highlights a lack of understanding of rules and products available relative to the types of decisions made prior to retirement. No significant differences were found to exist in self-assessed knowledge for males as a function of age.

Approximately half (53%) of the sample indicated they had a household budget, defined as something “used to decide what share of your income will be used for spending, saving and paying bills.” A relatively large proportion (39%) reported that they had experienced financial difficulties over the past 12 months, with members of the youngest age group having the largest proportion of respondents that had experienced difficulties.

A factor analysis of the four money management attitude questions suggested they could be collapsed to one attitude score, therefore, the

9. These scores, although high, are similar to those reported by Atkinson and Messy (2012) for a sample of respondents drawn from 14 countries, in which the modal score was six. This suggests that more recent scales—such as the one developed by Fernandes, Lynch, and Netemeyer (2014)—may be better candidates for measuring this construct.

10. Reference to significance is at the 95% confidence level unless otherwise noted.

11. *T*-tests between genders within each age group.

TABLE 3
 Overview of Financial Literacy, Financial Adviser Anxiety, and Financial Adviser Use

	Financial Literacy Components Mean (SD)							Financial Adviser Use				
	Financial Knowledge	Self-Assess Financial	Self-Assess Retirement	Product Awareness	Budget Management	Money Management	Financial Adviser Anxiety Mean (SD)	<i>n</i> (% Within Demographic)				
								Currently Consult	Previously Consulted	Never Consulted	Sample (% Total)	
Overall (<i>n</i> = 2,282)	6.57 (1.39)	4.12 (1.52)	4.39 (1.36)	11.85 (0.64)	0.53 (0.50)	4.22 (0.69)	2.39 (0.79)	421 (18.45)	932 (40.84)	929 (40.71)	2,282 (100.00)	
Gender (<i>t</i> -test, χ^2 test)	10.20 ***	8.83 ***	5.05 ***	1.31	2.94 ***	2.85 ***	0.15	1,19				
Female (<i>n</i> = 1,069)	6.26 (1.43)	3.83 (1.50)	4.24 (1.38)	11.93 (3.02)	0.56 (0.50)	4.26 (0.68)	2.39 (0.80)	190 (17.77)	432 (40.41)	447 (41.81)	1,069 (46.84)	
Male (<i>n</i> = 1,213)	6.84											
Age (<i>F</i> -test, χ^2 test)	4.38 (1.29)	4.52 (1.49)	11.76 (1.33)	0.50 (3.13)	4.18 (0.50)	2.39 (0.70)	2.31 (0.73)	500 (19.04)	482 (41.22)	1,213 (39.74)	53.16 (53.16)	
40–49 years (<i>n</i> = 636)	7.57 ***	0.96	4.02 ***	5.90 ***	2.35 *	32.85 ***	15.10 ***			51.69 ***		
50–59 years (<i>n</i> = 630)	6.36 (1.54)	4.11 (1.54)	4.33 (1.33)	12.06 (3.22)	0.51 (0.50)	4.04 (0.70)	2.55 (0.80)	87 (13.68)	229 (36.01)	320 (50.31)	636 (27.87)	
60–69 years (<i>n</i> = 649)	6.63 (1.36)	4.13 (1.50)	4.42 (1.33)	12.12 (3.02)	0.50 (0.50)	4.15 (0.74)	2.39 (0.80)	101 (16.03)	266 (42.22)	263 (41.75)	630 (27.61)	
>69 years (<i>n</i> = 367)	6.61 (1.31)	4.15 (1.53)	4.51 (1.36)	11.58 (3.15)	0.57 (0.50)	4.36 (0.64)	2.30 (0.80)	150 (23.11)	278 (42.84)	221 (34.05)	649 (28.44)	
Assets (<i>F</i> -test, χ^2 test)	6.76 (1.24)	4.11 (1.50)	4.22 (1.46)	11.50 (2.72)	0.53 (0.50)	4.39 (0.57)	2.29 (0.71)	83 (22.62)	159 (43.32)	125 (34.06)	367 (16.08)	
Low <\$75,000 (<i>n</i> = 510)	60.91 ***	95.42 ***	83.90 ***	160.26 ***	6.57 ***	21.86 ***	54.31 ***			141.91 ***		
	6.09 (1.53)	3.59 (1.57)	3.91 (1.43)	10.12 (3.66)	0.57 (0.50)	4.05 (0.78)	2.59 (0.87)	58 (11.37)	145 (28.43)	307 (60.20)	510 (22.35)	

TABLE 3
Continued.

	Financial Literacy Components Mean (SD)						Financial Advice Use				
	Financial Knowledge	Self-Assess Financial	Self-Assess Retirement	Product Awareness	Budget Management	Money Management	Financial Adviser Mean (SD)	Currently Consult	Previously Consulted	Never Consulted	Sample (% Total)
Medium \$75,000–\$299,999 (<i>n</i> = 819)	6.48 (1.46)	3.90 (1.46)	4.22 (1.33)	11.68 (2.84)	0.55 (0.49)	4.24 (0.68)	2.43 (0.83)	129 (15.75)	346 (42.25)	344 (42.00)	819 (35.89)
High \$300,000 or more (<i>n</i> = 953)	6.90 (1.15)	4.61 (1.40)	4.79 (1.24)	12.93 (2.41)	0.48 (0.50)	4.29 (0.634)	2.16 (0.72)	234 (24.55)	441 (46.27)	278 (29.17)	953 (41.76)
Retirement Savings (<i>F</i> -test, χ^2 test)	43.18 ***	86.45 ***	127.79 ***	142.23 ***	17.89 ***	7.03 ***	28.35 ***		247.58 ***		
Low <\$25,000 (<i>n</i> = 622)	6.21 (1.51)	3.63 (1.56)	3.79 (1.48)	10.28 (3.27)	0.58 (0.49)	4.18 (0.76)	2.49 (0.81)	37 (5.95)	220 (35.37)	365 (58.68)	622 (27.26)
Medium \$25,000–\$149,999 (<i>n</i> = 878)	6.54 (1.38)	4.02 (1.46)	4.36 (1.26)	12.06 (2.94)	0.56 (0.50)	4.18 (0.69)	2.48 (0.80)	136 (15.49)	361 (41.12)	381 (43.39)	878 (38.48)
High \$150,000 or more (<i>n</i> = 782)	6.89 (1.22)	4.64 (1.40)	4.90 (1.16)	12.87 (2.53)	0.44 (0.50)	4.29 (0.62)	2.21 (0.74)	248 (31.71)	351 (44.88)	183 (23.40)	782 (34.27)
Household income (<i>F</i> -test, χ^2 test)	20.12 ***	29.43 **	31.59 ***	79.30 ***	14.95 ***	6.37 ***	4.13 ***		40.73 ***		
Low <\$30,000 (<i>n</i> = 509)	6.20 (1.49)	3.72 (1.52)	3.96 (1.45)	10.42 (3.41)	0.61 (0.48)	4.27 (0.73)	2.46 (0.82)	72 (14.15)	179 (35.17)	258 (50.69)	509 (22.30)
Modest \$30,000–\$59,999 (<i>n</i> = 675)	6.55 (1.41)	4.04 (1.53)	4.34 (1.39)	11.52 (2.99)	0.57 (0.49)	4.28 (0.66)	2.38 (0.79)	137 (20.30)	305 (45.19)	233 (34.52)	675 (29.58)
Moderate \$60,000–\$99,999 (<i>n</i> = 585)	6.70 (1.29)	4.20 (1.47)	4.48 (1.26)	12.44 (2.72)	0.46 (0.50)	4.13 (0.73)	2.43 (0.79)	119 (20.34)	216 (36.92)	250 (42.74)	585 (25.64)
High \$100,000 or more (<i>n</i> = 513)	6.82 (1.29)	4.58 (1.43)	4.76 (1.22)	13.04 (2.54)	0.45 (0.50)	4.20 (4.20)	2.29 (0.76)	93 (18.13)	232 (45.22)	188 (36.65)	513 (22.48)

TABLE 3
Continued.

	Financial Literacy Components Mean (SD)							Financial Advice Use				
	Financial Knowledge	Self-Assess Financial	Self-Assess Retirement	Self-Assess Product Awareness	Budget Management	Money Management	Financial Adviser Mean (SD)	Anxiety	Currently Consult	Previously Consulted	Never Consulted	Sample (% Total)
Household debt (<i>F</i> -test, χ^2 test)	14.51 ***	6.83 ***	3.56 **	81.83 ***	2.10	8.49 ***	4.43 **			17.10***		
Low < \$50,000 (<i>n</i> = 1,565)	6.51 (1.40)	4.08 (1.54)	4.35 (1.39)	11.34 (3.14)	0.54 (0.50)	4.26 (0.69)	2.38 (0.79)	294 (18.79)	616 (39.36)	655 (41.85)	1,565 (68.58)	
Medium \$50,000–\$199,999 (<i>n</i> = 369)	6.45 (1.52)	4.08 (1.50)	4.39 (1.34)	12.54 (2.79)	0.49 (0.50)	4.14 (0.69)	2.50 (0.84)	53 (14.36)	153 (41.46)	163 (44.17)	369 (16.17)	
High \$200,000 or more (<i>n</i> = 348)	6.93 (1.15)	4.40 (1.42)	4.56 (1.24)	13.43 (2.34)	0.50 (0.50)	4.12 (0.66)	2.33 (0.72)	74 (21.26)	163 (46.84)	111 (31.90)	348 (15.25)	
Employment (<i>F</i> -test, χ^2 test)	8.33 ***	10.83 ***	5.66 ***	39.37 ***	2.44 *	22.44 ***	12.32 ***			54.80***		
Self-employed (<i>n</i> = 305)	6.72 (1.25)	4.08 (1.50)	4.41 (1.28)	12.36 (2.85)	0.50 (0.50)	4.13 (0.68)	2.48 (0.80)	63 (20.66)	125 (40.98)	117 (38.36)	305 (13.37)	
Employed (<i>n</i> = 968)	6.56 (6.56)	4.41 (1.48)	4.46 (1.39)	12.43 (2.92)	0.50 (0.50)	4.11 (0.71)	2.35 (0.76)	138 (14.26)	381 (39.36)	449 (46.38)	968 (42.42)	
Not in paid workforce (<i>n</i> = 146)	6.05 (1.59)	3.57 (1.68)	3.94 (1.51)	9.92 (3.93)	0.60 (0.49)	4.24 (0.71)	2.53 (0.93)	15 (10.27)	55 (37.67)	76 (52.05)	146 (6.40)	
Retired (<i>n</i> = 863)	6.61 (1.30)	4.18 (1.49)	4.41 (1.40)	11.41 (3.02)	0.55 (0.50)	4.37 (0.64)	2.28 (0.76)	205 (23.75)	371 (42.99)	287 (33.26)	863 (37.82)	
Education (<i>F</i> -test, χ^2 test)	8.36 ***	8.76 ***	7.51 ***	9.53 **	2.14 **	0.92	3.54 ***			18.39***		
Less than college education (<i>n</i> = 1,681)	6.43 (1.42)	3.96 (1.51)	4.26 (1.36)	27.54 (4.50)	0.54 (0.50)	4.21 (0.71)	2.43 (0.79)	291 (17.31)	662 (39.38)	728 (43.31)	1,681 (73.66)	
College education (<i>n</i> = 601)	6.97 (1.21)	4.59 (1.44)	4.74 (1.30)	29.51 (3.93)	0.49 (0.50)	4.24 (0.64)	2.28 (0.78)	130 (21.63)	270 (44.93)	201 (33.44)	601 (26.34)	

TABLE 3
Continued.

	Financial Literacy Components: Mean (SD)					Financial Advice Use				
	Financial Knowledge	Self-Assess Financial	Self-Assess Retirement	Product Awareness	Money Management	Financial Adviser Anxiety Mean (SD)	Currently Consult	Previously Consulted	Never Consulted	Sample (% Total)
Ethnicity (<i>F</i> -test, χ^2 test)	1.69 (1.40)	9.38 *** 4.08	5.85 *** 4.36	2.32 * 11.85	0.83 0.54	3.72 *** 2.41	352 (20.94)	38.32*** 648	681 (40.51)	1,681 (73.66)
Australian/New Zealand (<i>n</i> =244)	6.53 (1.40)	4.08 (1.52)	4.36 (1.36)	11.85 (3.09)	0.54 (0.50)	2.41 (0.80)	352 (20.94)	38.32*** (38.55)	681 (40.51)	1,681 (73.66)
British (<i>n</i> = 244)	6.73 (1.35)	3.86 (1.49)	4.17 (1.40)	11.69 (2.70)	0.49 (0.50)	2.27 (0.78)	38 (15.57)	115 (47.13)	91 (37.30)	244 (10.69)
Asian (<i>n</i> =90)	6.64 (1.38)	4.80 (1.34)	4.74 (1.16)	12.76 (3.20)	0.52 (0.50)	2.57 (0.65)	9 (10.00)	36 (40.00)	45 (50.00)	90 (3.94)
European (<i>n</i> = 202)	6.69 (1.41)	4.41 (1.54)	4.66 (1.29)	11.74 (3.22)	0.52 (0.50)	2.30 (0.78)	16 (7.92)	103 (50.99)	83 (41.09)	202 (8.85)

Notes: This table summarizes key variables. Financial Knowledge is scored out of eight questions. Self-Assess Financial and Self-Assess Retirement are self-assessed scores to the questions "How do you rate your knowledge of investing in financial assets (such as shares, bonds, etc.);" and "Knowledge of superannuation and retirement savings;" on 1 (*extremely poor*) to 7 (*extremely good*). Product Awareness scores ten products on a 0 (*never heard of it*) to 2 (*currently or previously owned*). Budget is yes (1) to the question "Do you have a household budget?" Money Management is an average of four money management statements scored on scale of *never* (1) to *always* (5). Financial Anxiety scores 1 (low) to 5 (high) scale. *T*-tests (*F*-tests) for differences in financial literacy and financial anxiety score by gender (all other demographics) are reported. Chi-square tests for differences in consultation (columns eight to ten) by each demographic are also reported in italics.

p* < .1, *p* < .05; ****p* < .01.

four questions were averaged.¹² With regard to product awareness, a factor analysis found support for a unitary factor structure, although the savings account item loaded poorly on the latent construct and was deleted. Given the nine remaining products on the product awareness measure, a total score of zero reflected that the respondent had heard of none of the products, and therefore, had the lowest possible level of awareness. A score of 18 would indicate an individual had currently, or previously, owned each product, thus having the highest possible level of product awareness. The mean score for the sum of raw rankings was 11.2; the correlation of this score with the financial knowledge score was 0.27.¹³

The Jacobs-Lawson and Hershey (2005) future time perspective scale was supported as a unidimensional latent construct with a Cronbach alpha of .88. A final question asked respondents whether they thought they had enough money to live comfortably in retirement, or the remainder of their retirement if they were already retired (Enough for (remainder) Retirement). On a scale of: certainly not (1); probably not (2); maybe (3); probably (4); and certainly (5), those who were not retired had a significantly lower score (2.7) than those already retired (3.2).

Financial Adviser Anxiety—Summary

The full 15-item financial adviser anxiety scale tested during the pilot was administered to the full sample, but again, an 11-item version of the scale was found to be equivalent. As was the case in the pilot testing, which used American data, the Australian data suggested that the scale had strong psychometric properties. Consistent with findings from the pilot investigation, the internal consistency reliability of the scale based on 2,282 Australian respondents was 0.93.

Next, an exploratory factor analysis of the scale was carried out using a principal components analysis extraction followed by varimax rotation. This analysis revealed two factors with eigenvalues greater than one; however, inspection of the scree plot revealed the existence of a single dominant factor. Therefore, a subsequent factor analysis was computed in which only a single factor was extracted, which accounted for 59.3% of the variation in item scores. All factor loadings were found to exceed 0.68. Thus, although two distinct sets of items were crafted to test the hypothesis of separable factors for disclosure anxiety and evaluation anxiety (i.e.,

12. Cronbach alpha for the 4-item Money Management scale was .75. A predicted score based on factor analysis correlated highly with the simple average so the simpler average was used.

13. Cronbach alpha for the 9-item Awareness scale was .75.

H1), the empirical findings suggest the existence of a single overarching factor that captures the anxiety associated with consulting a financial professional. In sum, the findings from both the pilot study and the full sample provide strong psychometric support for the adequacy of the newly developed measure of financial adviser anxiety. The scale was shown to demonstrate a high degree of internal consistency, strong test–retest reliability, and an unambiguous unitary factor structure.

On the 5-point adviser anxiety scale, members of the youngest age group (40–49 years) had a significantly higher mean score (2.55) than the remaining respondents collectively (2.29). This significant difference is reflected in a breakdown by those retired (2.23) compared to their nonretired counterparts (2.43). An examination of each question on the scale, not tabulated, suggests that gender differences were not pervasive, but could be identified for three questions. Women have a higher anxiety about the prospect of encountering complicated financial words, and overall this item had the highest mean score on the scale. This question is also the only question where no significant age differences were found to be evident. Men had a higher mean score about “not having kept careful financial records” as well as for “allowing their situation to deteriorate.”

Financial adviser anxiety scores were not found to be significantly different by marital status (not tabulated). A breakdown by educational level indicates that financial adviser anxiety scores were negatively related to years of schooling. Those with a college education had a significantly lower anxiety score than those without. A final breakdown of financial adviser anxiety is presented by ethnicity. An *F*-test rejects equality of mean scores and a Bonferroni multiple-comparison test isolates significant differences between: Australian (2.38) and British respondents (2.23); Asian (2.55) and British respondents (2.23); and Asian (2.55) and European respondents (2.26).

To assist in further analyses, the financial adviser anxiety score was categorized into four levels. Those with a score of less than two, which accounted for 28% of the sample, were classified as having “Little or No” financial adviser anxiety. Those with a score between two and less than three, 46% of sample, were classified as having “Mild” financial adviser anxiety. Those with a score between three and less than four, 21%, were classified as having “Moderate” financial adviser anxiety. Those with higher anxiety scores, 4% of the sample, were classified as having a “Severe” anxiety level.

A comparison of objective financial knowledge scores by the four financial adviser anxiety levels (not tabulated) suggests a declining trend with the mean knowledge score for those with little or no financial anxiety

6.8, mild 6.73, moderate 6.08, and severe 5.78. An *F*-test rejects equality of mean scores across the anxiety classifications.

ANALYSIS

In this section, we first consider financial adviser anxiety and characteristics that can explain its variation. Next, we consider current or prior professional financial advice consultation with a focus on financial literacy. A final analysis considers the role of financial adviser anxiety in explaining future financial advice consultation for general financial advice and for retirement savings advice.

Financial Adviser Anxiety

In light of the observed variation in financial adviser anxiety scores, we now investigate the factors that lead some individuals (but not others) to feel anxious at the prospect of visiting a financial professional. A one-way ANOVA of financial adviser anxiety by prior professional financial advice use identifies a significant difference between those who had never accessed advice (2.57), had received advice in the past (2.28), and those who currently access advice (2.05). A hierarchical regression model was estimated for each of these three groups to explain financial adviser anxiety scores. Estimates were computed separately for the three groups rather than pooling and including an indicator for current/prior consultation due to the possible endogeneity the latter approach likely introduces. It is likely that perceptions of advisers (and accordingly the financial adviser anxiety score) could be colored by virtue of past consultation experiences. The models were estimated using two separate sets of predictor variables: (1) a set of ten demographic variables, primarily used as controls, and (2) a series of eight psychological variables thought to possibly be related to the criterion. The former includes gender (female base category) and age (40–49 years base category). Ethnicity was included as a predictor with four groups compared (Australian/New Zealanders base category). Marital status comprised three groups: married/partnered (base category), single/widowed, and separated/divorced. A dummy variable was included for those with a college education and three employment status groups were included: employed (base), not in paid workforce, and retired. Household finances were included through household income, assets, retirement savings, and debt.

The set of psychological variables include financial literacy components, assessments of savings adequacy, risk tolerance, and future time

perspective. Using the labels defined in the previous section, the financial literacy components include: an objective financial knowledge measure (Financial Knowledge), a subjective knowledge measure (Self-Assess Financial), awareness of financial products (Product Awareness), and attitudes toward money management (Money Management). Retirement savings adequacy (Enough for Retirement), Risk Tolerance, and Future Time Perspective comprised the remaining variables.

Estimated results are summarized in Table 4. Incremental R^2 values reveal that the impact of psychological predictors on financial adviser anxiety was significantly greater than demographic predictors, which is not surprising given the psychological nature of the dependent variable. Given the number of possibly correlated variables included as explanatory variables, notably household finances, an assessment of the impact of collinearity was made. Variance inflation scores did not exceed 2.80 and were above two for only four of the regressors for each of the regressions. This suggests that collinearity was not an overly influencing factor in these computations.¹⁴

There is support for Hypothesis 2 that financial adviser anxiety is negatively related to age, financial resources, education, and financial literacy. The negative age and financial adviser anxiety relationship are supported for those who currently consult or have previously consulted a financial professional. The size of the age relationship is large relative to other estimated effects for those who currently consult, particularly for the over 69-year age bracket relative to the youngest age group. For those who had consulted in the past, only those in the 60–69 age group had a significantly lower score relative to the youngest. However, there was no significant age relationship for those who had never consulted a financial adviser. The hypothesis of a negative relationship between financial resources and financial adviser anxiety was generally supported, with negative coefficients for assets, retirement assets, or income in each of the separate consultation groups. A strong significant negative relationship was also identified among those who believed they had sufficient resources for retirement.

The hypothesis that education and financial literacy would also be negatively related to financial adviser anxiety was generally supported. The college education indicator was negative, although it was only significant for those who had consulted a financial professional in the past. The financial literacy measures, excluding product awareness, provided the

14. Caution is noted when relying on rules of thumb for variance inflation factors or tolerance (O'Brien 2007).

TABLE 4
Financial Adviser Anxiety Hierarchical Regression

	Never Consulted	Consulted in Past	Currently Consulting
Demographic variables			
Age 50–59 (base 40–49)	–0.0170 (0.0721)	–0.1089 (0.0756)	–0.2528** (0.1090)
Age 60–69	–0.0497 (0.0942)	–0.2035** (0.0921)	–0.3078** (0.1328)
Age > 69	–0.1330 (0.1172)	–0.1114 (0.1092)	–0.3573** (0.1451)
Male (base female)	–0.0041 (0.0544)	0.0765 (0.0502)	–0.0259 (0.0633)
British (base Australian)	–0.0974 (0.1028)	–0.1670** (0.0741)	–0.0581 (0.1085)
Asian (base Australian)	0.0347 (0.1014)	0.2913*** (0.1123)	0.0343 (0.3340)
European (base Australian)	–0.1595 (0.1005)	–0.0631 (0.0809)	–0.3541** (0.1734)
Other (base Australian)	–0.2711** (0.1271)	0.0165 (0.1468)	0.3328 (0.2578)
College educated	–0.0581 (0.0721)	–0.1258** (0.0583)	–0.0203 (0.0804)
Income	–0.0530 (0.0393)	0.0042 (0.0379)	–0.1209** (0.0486)
Assets (exc. retirement)	–0.1358*** (0.0341)	–0.0622* (0.0337)	–0.0695 (0.0458)
Retirement assets	–0.0613 (0.0397)	–0.0274 (0.0302)	–0.0726* (0.0403)
Debt	0.0729** (0.0327)	–0.0256 (0.0280)	0.0208 (0.0368)
Single, widowed (base married)	0.1069 (0.0725)	–0.0409 (0.0765)	0.0198 (0.1137)
Separated, divorced (base married)	0.0333 (0.0810)	0.0259 (0.0763)	–0.1897 (0.1183)
Not working (base employed)	–0.1542 (0.1242)	0.0559 (0.1380)	–0.1245 (0.2053)
Retired (base employed)	–0.1513* (0.0876)	–0.0712 (0.0803)	–0.1213 (0.1027)
Psychological variables			
Financial knowledge	–0.0642** (0.0280)	–0.0877*** (0.0317)	–0.0287 (0.0441)
Self-assess financial	–0.1088*** (0.0322)	–0.1743*** (0.0312)	–0.0790* (0.0448)
Product awareness	–0.0219 (0.0298)	0.0687 (0.0318)	–0.0382 (0.0489)
Money management	–0.0682** (0.0317)	–0.0812*** (0.0324)	–0.1076** (0.0430)
Financial difficulties (base no)	0.1780*** (0.0601)	0.1770*** (0.0577)	0.1007 (0.0864)

TABLE 4
Continued

	Never Consulted	Consulted in Past	Currently Consulting
Enough for (remainder) retirement	-0.1119*** (0.0334)	-0.0854*** (0.0323)	-0.1733*** (0.0427)
Risk tolerance	0.0892*** (0.0337)	0.0462 (0.0289)	0.0926** (0.0418)
Future time perspective	-0.0360 (0.0347)	0.0579* (0.0324)	-0.0058 (0.0460)
Constant	2.3971*** (0.0724)	2.3210*** (0.0767)	2.4339*** (0.0959)
Demographics only R^2 (F -test)	0.0724 (5.02***, 17 df)	0.0446 (2.87***, 17 df)	0.1038 (3.24***, 17 df)
Demographics and psychological R^2 (F -test)	0.1606 (10.18***, 8 df)	0.1414 (10.89***, 8 df)	0.2223 (6.82***, 8 df)
N	929	932	421

Notes: This table presents results of a hierarchical regression explaining financial adviser anxiety estimated separately for those who have currently, previously, and never consulted a financial professional. Two blocks of variables are included with coefficients reported for when the block is first entered. Coefficients for age, gender, ethnicity, college education, marital status, working status, and financial difficulty are referenced to their respective base category. All remaining variables are standardized so that coefficients represent the change in financial adviser anxiety given a one standard deviation in the respective variable. Robust standard errors are shown in brackets. F -test for full model relative to demographics only model.

* $p < .1$; ** $p < .05$; *** $p < .01$.

most robust negative relationship with financial adviser anxiety. Positive money management attitudes and financial knowledge (self-assessed) were significant and negative for each of the three consultation groups. Objective knowledge was similarly negative and significant, except for members of the current consultation group. The estimated effects for self-assessed and objective financial literacy components, notably money management attitudes, largely suggest that financial training interventions could serve to stem the onset of adviser anxiety associated with consulting a financial professional.

The hypothesis that financial adviser anxiety would be negative for females was not supported for any of the regressions. Marital status was also not found to be significant amongst all three groups. The hypothesis of a negative relationship for “minority” ethnic groups was found to be mixed. There was no significant relationship estimated for members of the never consulted group. Financial adviser anxiety scores were significantly lower for British, and significantly higher for Asian respondents, among those who had consulted in the past, whereas among members of the

currently consulting group scores were significantly lower for Europeans. Whether British and European citizens in the sample can be viewed as “minority” ethnic groups is perhaps questionable. “Asian” also captures a wide range of peoples, including, predominantly those from China, India, and Vietnam.

The hypothesis that financial adviser anxiety is higher among those who are more financially constrained was generally supported, which complements the negative relationship between financial adviser anxiety and financial resources discussed previously. Those reporting difficulties making ends meet over the previous 12 months were found to have higher adviser anxiety scores, although this effect was not significant among members of the currently consulting group. In the never consulted group, increased levels of debt were also positively, and significantly, associated with financial adviser anxiety scores.

The estimated effects discussed above do not appear uniform across the three professional advice consultation groups and we now turn to the hypotheses which propose relative differences and formal tests of these. The fourth hypothesis proposed that negative relationships would be stronger for the currently consulting group, and the positive relationships would be stronger for the never consulted group. This is consistent with the view of financial adviser anxiety as a cost or barrier to demand for professional financial advice. A test of the equality of coefficients for a pooled estimation of all three groups rejects pooling at a 90% confidence level ($\chi^2(50 \text{ df})=0.0648$). Each variable was then tested for equality (not tabulated) between each of the three group pairings. Examining first the negative coefficients, for each of the age categories, income, enough in retirement, and positive money management attitudes, the largest negative coefficient was observed for the currently consulting group, which is consistent with Hypothesis 3. This statistical significance was observed for all predictors except for retirement assets and positive money management attitudes. However, there was conflicting evidence in that for assets, education, objective knowledge, and self-assessed knowledge, in that predictors were negative among members of the currently consulting group but were not the largest coefficients. Among positive coefficients, debt and having financial difficulties were largest for members of the never consulted group, which is consistent with Hypothesis 4, although only the debt coefficient was significantly higher for the never consulted group. In summary, the role of each variable did appear to be sensitive to whether the individual currently consults, has consulted in the past, or had never consulted with a professional adviser. The evidence is also consistent with a view of financial adviser anxiety serving as a cost or barrier to demand

for advice. However, some effects are persistent across all groups, which suggest that they can be overcome for those who seek advice.

Likelihood of Future Consultation and the Role of Financial Adviser Anxiety

Attention now turns to the likelihood of professional financial advice consultation *in the future* and the role of financial adviser anxiety. Before examining future advice demand, *existing* professional financial advice demand was reviewed to check the consistency of the role of demographic and psychological variables in the present sample with findings from the existing literature. A breakdown of current and past consultation was previously presented in Table 3. A multinomial logit regression of the likelihood of consulting a financial professional was estimated using the three categories for advice demand: currently consulting, previously consulted, and never having consulted (which served as the base category). The same explanatory variables that were utilized in predicting financial adviser anxiety were employed. Because our focus is on the role of financial adviser anxiety in seeking *future* professional advice, we summarize here the discussion of results of existing advice demand, and provide a more detailed discussion in the online supplementary material along with tabulated results.

To summarize the findings, the analysis of existing advice use supports the view that consultation of a financial professional is more likely for: older (Chang 2005; Chatterjee and Zahirovic-Herbert 2010; and Hacketh, Haliassos, and Jappelli 2011); wealthier (Hacketh, Haliassos, and Jappelli 2011); and more financially literate individuals. The latter is consistent with the argument of professional financial advice being a complement, rather than substitute, for financial literacy (Calcagno and Monticone 2015; Collins 2012). These results are stronger for members of the currently consulting group relative to those who had never consulted, but are also consistent with those who have consulted in the past. While males were generally less likely to seek professional advice, this was not significant as Hung and Yoong (2010) also found.

The sample therefore broadly presents similarly to those previously reported in terms of the demand for professional financial advice. This allows the opportunity to examine the role of financial adviser anxiety as it relates to the future demand for professional financial advice. To this end, respondents were asked to rate the likelihood of consulting a financial professional for general financial planning advice (e.g., investments, tax planning, savings goals), and separately for financial planning

for retirement/the rest of your retirement in the future. Responses were on a scale of certainly not (1); probably not (2); maybe (3); probably (4); and certainly (5).

A larger proportion of individuals (38%) indicated they would not (probably or certainly) seek advice in the future against 32% that would (probably or certainly). The mean response was not significantly different from the midpoint (maybe). There was no significant difference in the likelihood of future consultation by gender. Moreover, mean scores significantly decreased as a function of age, with those aged over 69 years being the least likely to consult in the future (mean score 2.8), compared with those aged 40–49 years (mean score 3.1). Complementing this result was a lower mean score among those who were retired (2.8) as compared to those not retired (3.1).

In terms of consulting a financial professional for retirement planning purposes, responses were similarly distributed. A marginally larger proportion (37%) reported they probably or certainly would consult, as compared to 35% who answered that they probably or certainly would not. However, the overall mean score for this variable was 3.10, which was significantly greater than the midpoint of the 5-point scale. Again, there was no significant difference in the likelihood of consultation as a function of gender, and those aged over 69 were the least likely to consult (2.8), although there was no significant difference between those 40–49 years of age and those aged 50–59 years. Those respondents who had retired had a significantly lower likelihood of consulting (2.9) relative to those who had not yet retired (3.2).

A comparison of mean scores was made (not tabulated) for the likelihood of consulting a financial professional in the future (for general advice and for retirement planning) in relation to financial adviser anxiety category levels. As would be expected, respondents with lower levels of financial adviser anxiety had higher mean consultation likelihood scores. One-way ANOVA tests for both financial and retirement advice support a significant difference in means scores by adviser anxiety level, which is a finding that warrants further investigation.

To better assess the relationship between variables and their association with likely future consultation, an ordered probit regression was estimated using assessed level of financial adviser anxiety as the key independent variable of interest. The same set of control variables employed as in the analysis of current and past consultation were also included as covariates. To better facilitate interpretation, the reported bands of income, assets, and debt were collapsed into groups that mapped onto the

broader population.¹⁵ The four income groups account for: the bottom 20% of income households (low, <\$30,000); the next 20% (modest, \$30,000–\$59,999), the next 30% (moderate \$60,000–\$99,999), and the top 30% (high, \$100,000 or more). Three asset groups were formed. The first contained asset values representing those in the bottom 20% of net worth households (low <\$75,000). Those with assets between \$75,000 and less than \$300,000 were grouped into the medium category, which correspond to the second and third net worth quintiles. The high asset group contains households with assets of at least \$300,000. Similarly, for retirement savings assets (superannuation) the low group represents households with less than \$25,000, which accounts for approximately one third of households. The Medium retirement assets group represents those with assets of up to \$150,000, and the high group represents those with \$150,000 or more. For comparison purposes, the average household balance for the highest net worth quintile in the population is \$406,000, and the fourth highest net worth quintile is \$130,000. In point of fact, the distribution of debt among Australian households is very skewed, with a median of \$20,000 and a mean of \$150,000. A low household debt group was formed based on households that had <\$50,000 of debt. The medium group contained those with \$50,000 to less than \$200,000 in debt, and the high group contained households with debt levels of \$200,000 or more.

Finally, the ordered probit analysis included an indicator of whether the respondent currently consults with a financial professional. A variation of the self-reported financial knowledge measure was included that focused on knowledge of retirement savings. For the regression related to advice for retirement savings, the respondent's assessment (enough for [remainder] retirement) of whether they believed they would "have enough money to live comfortably throughout retirement/remainder of retirement" was also included as a covariate.

Table 5 presents the coefficients and marginal effects for financial adviser anxiety with panels for the two separate types of advice. Panel A reports results for the likelihood of future consultation for general financial planning advice, and panel B reports anticipated future consultation for retirement planning advice. Before the full model was estimated, a restricted regression was estimated that only included financial adviser anxiety as an explanatory variable, which is reported in the first column. The second column reports estimated coefficients for the full model, and

15. Population averages are based on 2011/2012 estimates taken from the Australian Bureau of Statistics (2013).

TABLE 5
Likelihood of Financial Professional Consultation in the Future

Panel A: General Advice Marginal Effects							
	Coefficient	Anxiety Only	Coefficient Full Model	Certainly Not	Probably Not	Maybe	Certainly
Adviser anxiety: base—little or none							
Mild anxiety	-0.1978*** (0.0579)		-0.1266** (0.0571)	0.0167** (0.0075)	0.0221** (0.0105)	-0.0042** (0.0018)	-0.0149** (0.0070)
Moderate anxiety	-0.3851*** (0.0630)		-0.1301* (0.0721)	0.0172* (0.0095)	0.0227* (0.0127)	-0.0044* (0.0025)	-0.0153* (0.0086)
Severe anxiety	-0.5404*** (0.1191)		-0.3037** (0.1296)	0.0443** (0.0210)	0.0500** (0.0200)	-0.0147* (0.0087)	-0.0357** (0.0153)
Additional controls	No						
				Yes: gender, age, ethnicity, marital status, education, wealth, fin. literacy, fin. difficulty risk tolerance, future time perspective, currently consult			
N					2,282		
Nagelkerke Pseudo-R ² (full model)					0.3807		
Panel B: Retirement Savings Advice Marginal Effects							
	Coefficient	Anxiety Only	Coefficient Full Model	Certainly Not	Probably Not	Maybe	Certainly
Adviser anxiety: base—little or none							
Mild anxiety	-0.1407** (0.0579)		-0.0812 (0.0600)	0.0101 (0.0073)	0.0130 (0.0097)	-0.0004 (0.0005)	-0.0083 (0.0061)
Moderate anxiety	-0.3567*** (0.0619)		-0.1208* (0.0723)	0.0153* (0.0091)	0.0192* (0.0116)	-0.0010 (0.0009)	-0.0125* (0.0075)
Severe anxiety	-0.4595*** (0.1172)		-0.2236* (0.1294)	0.0290 (0.0186)	0.0336* (0.0195)	-0.0035 (0.0040)	-0.0226 (0.0138)

TABLE 5
Continued

	Panel B: Retirement Savings Advice Marginal Effects						
	Coefficient	Anxiety Only	Coefficient Full Model	Certainly Not	Probably Not	Probably	Certainly
Additional controls	No		Yes: gender, age, ethnicity, marital status, education, wealth, fin. literacy, fin. difficulty, risk tolerance, future time perspective, currently consult, adequate savings				
<i>N</i>					2,282		
Nagelkerke Pseudo- <i>R</i> ² (full model)					0.4228		

Notes: This table presents the results of an ordered probit regression of the likelihood of consulting a financial professional in the future for General Advice (Panel A) and Retirement Savings Advice (Panel B). The first column of results presents the estimated coefficients for estimation with adviser anxiety alone. The second column reports the coefficient for the full model and the remaining columns present average marginal effects. The full model includes all variables reported in Table 4 as noted here but not tabulated. Robust standard errors are included in parentheses.

p* < .1, *p* < .05, ****p* < .01.

the remaining columns report the average marginal effects for each likelihood category.

The full set of regression coefficients for remaining variables is contained in the Supporting Information. These reveal broadly consistent results when compared to the estimation for current or prior consultation. Those with higher assets (especially retirement assets), higher debt, positive money management attitudes, greater product awareness, higher risk tolerance, and a greater future time perspective all reported being more likely to consult in the future for general advice. Higher financial knowledge was additionally significant and positive for the likelihood of seeking retirement advice in the future. Those not in the workforce, or retired, were significantly less likely to seek advice, and those who were self-employed reported being less likely to seek retirement advice. Variations by marital status were estimated, with single/widowed respondents being more likely to seek retirement advice and those who were separated/divorced being more likely to seek general advice, in the future. In both cases, current behavior was a very strong predictor of future advice seeking.

Turning to the predictive role of financial adviser anxiety, the coefficients reported in the first column of Table 5 suggest an increasingly negative impact of higher financial adviser anxiety on the likelihood of consulting for both areas of financial advice. Results in Panel A for general financial advice (full model) indicate that, relative to the little or no financial adviser anxiety base category, all levels of assessed financial adviser anxiety are significantly negative and increase in magnitude. This provides clear support for Hypothesis 5. Having controlled for an exhaustive set of variables, financial adviser anxiety has a significantly negative marginal effect on the likelihood of consulting a financial professional in the future. For example, the predicted probability that a respondent with little or no financial adviser anxiety will *certainly* (*probably*) consult a financial professional in the future is 14.8% (20.0%), whereas for an individual assessed as having moderate financial adviser anxiety, the comparable probability is 10.3% (16.4%).

The results in Panel B for retirement specific advice are comparable to the general financial advice regression. Marginal effects for financial adviser anxiety are again negative and increase in magnitude with each category, though the “mild” classification was not found to be significant. The explanatory power of the full model is good. A likelihood ratio test of successively built models (not tabulated), for both estimations, which first include demographics only, a second with demographics, financial literacy, risk tolerance, future time perspective and current consultation, and a final model that adds financial adviser anxiety were each significant. This again

supports the role of financial adviser anxiety in explaining the observed variation in likelihood of professional financial advice consultation.

CONCLUSION

An argument was advanced to suggest that financial adviser anxiety may prevent individuals from seeking financial advice. Based on evidence from the health services arena, we have developed a measure of financial adviser anxiety to assess this psychological dynamic within the confines of the financial advising arena. The new financial adviser anxiety scale was shown to have strong psychometric properties. The results support the model of financial advice delegation of Gennaoli, Shleifer, and Vishny (2015), which posits a central role for anxiety specific to the financial adviser. Estimates of the factors that can explain this measure suggest that psychological variables explain more variability in the construct than individual demographic indicators.

In examining the prospective role of financial adviser anxiety in the decision to seek professional financial advice *in the future*, a clear negative relationship is evident after having controlled for an extensive set of demographic indicators, financial literacy, risk tolerance, future time perspective, and current consultation. Those classified as having a moderate or severe level of financial adviser anxiety reported having a lower likelihood of consulting a financial professional in the future. To provide a sense of magnitude, the predicted probability of (probably or certainly) seeking advice for an individual with little or no financial adviser anxiety is on the order of 35%. For an individual with a severe level of financial adviser anxiety, the average probability is some 25% lower, at 26%.

Financial literacy components retain a positive relationship with the likelihood of seeking financial advice in the future, for both general financial planning advice and retirement savings advice. This suggests that an associated benefit of improved financial literacy may be an awareness of the need for specialized advice. The flipside of this assertion is that those with lower levels of financial literacy remain less likely to seek professional financial advice. This suggests benefits both in highlighting what the financial advice process involves, as well as overall attempts to improve financial literacy. Furthermore, it is clear that financial jargon represents an issue of focus. The language of the financial discussion produced the highest mean adviser anxiety scores, which were significantly higher for women and not different by age. The focus of adviser anxiety revealed some subtle differences by gender; namely, men are more concerned about

the quality of records maintained and on allowing their financial situation to deteriorate.

The findings from this investigation can be viewed as an extension to existing theoretical models of financial help-seeking behavior. We believe that as a construct, financial adviser anxiety provides additional explanatory power over and above existing demographic, socioeconomic, and psychosocial constructs when it comes to explaining *why* some clients fail to make initial contact with an adviser, and potentially why others fail to keep follow-up appointments when doing so would arguably be in their best interests. As an individual-level attribute (cf., Iannicola and Parker 2010), financial adviser anxiety could potentially be reduced through the use of institutional-level interventions, such as sales and marketing approaches specifically aimed at reducing anxiety and building trust. Indeed, Gennaioli, Shleifer, and Vishny (2015) view the process of client anxiety reduction as one of the chief objectives of professional financial advisers. However, from an applied perspective, the manner in which this anxiety reduction is best carried out remains an open question.

We believe that a scale designed to assess individuals' financial adviser anxiety could be a valuable tool not only for personal finance investigators but also for financial practitioners and financial therapists. A new client's anxiety level could easily be assessed using this short scale as part of a holistic intake interview, alongside other relevant psychological dimensions such as risk tolerance, financial literacy, and future time perspective. Moreover, attention to client responses for particular subsets of items could provide insights into whether a client's anxiety stems from disclosure concerns or concerns about being negatively evaluated by the advisor (Gutierrez, Hershey, and Gerrans 2011). In either case, answers to individual adviser anxiety questions could provide a jumping-off point for discussions designed to simultaneously build trust and reduce client anxiety levels. By taking steps to ensure clients experience lower levels of worry, nervousness, apprehension, and feelings of discomfort in the financial arena, their decisions should be better informed, more rational, and less susceptible to a variety of cognitive biases (Ganesan 2013; Nofsinger 2001).

SUPPORTING INFORMATION

Additional supporting information may be found in the online version of this article:

Appendix S1. Current and Previous Professional Financial Advice Consultation.
Table S1. Likelihood of Having Consulted a Financial Professional.

Table S2. Likelihood of Financial Professional Consultation in the Future—General Advice.

Table S3. Likelihood of Financial Professional Consultation in the Future—Retirement Advice.

REFERENCES

- Atkinson, Adele and Flore-Anne Messy. 2012. *Measuring Financial Literacy: Results of the OECD/International Network on Financial Education (INFE) Pilot Study*, OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing. 10.1787/5k9csfs90fr4-en.
- Australian Bureau of Statistics. 2011. *Population by Age and Sex, Australian States and Territories, Catalogue No. 3201.0*. Canberra: Commonwealth of Australia.
- . 2013. *Household Wealth and Wealth Distribution, Australia, 2011–12*, Cat. No. 6554.0. Canberra: Commonwealth of Australia.
- Australian Securities and Investments Commission. 2010. *Access to Financial Advice in Australia*. Sydney: Australian Securities and Investments Commission.
- . 2011. *National Financial Literacy Strategy*. Sydney: Australian Securities and Investments Commission.
- Calcagno, Riccardo and Chiara Monticone. 2015. Financial Literacy and the Demand for Financial Advice. *Journal of Banking and Finance*, 50: 363–380.
- Chang, Mariko L. 2005. With a Little Help from My Friends (and My Financial Planner). *Social Forces*, 83 (4): 1469–1498.
- Chatterjee, Swarn and Velma Zahirovic-Herbert. 2010. Retirement Planning of Younger Baby Boomers: Who Wants Financial Advice? *Financial Decisions*, 22 (2): 1–12.
- Collins, J. Michael. 2012. Financial Advice: A Substitute for Financial Literacy. *Financial Services Review*, 21 (4): 307–322.
- Consedine, Nathan S., Yulia S. Krivoshekova, and Christine R. Harris. 2007. Bodily Embarrassment and Judgment Concern as Separable Factors in the Measurement of Medical Embarrassment: Psychometric Development and Links to Treatment-Seeking Outcomes. *British Journal of Health Psychology*, 12: 439–462.
- Consedine, Nathan S., Carol Magai, Yulia S. Krivoshekova, Lisa Ryzewicz, and Alfred I. Neugut. 2004. Fear, Anxiety, Worry, and Breast Cancer Screening Behavior: A Critical Review. *Cancer Epidemiology, Biomarkers and Prevention*, 13 (4): 501–510.
- Davis, Kevin. 2007. Increasing Household Financial Risk – An Increasing Social Risk. *Dialogue*, 26 (3): 19–32.
- Fernandes, Daniel, John G. Lynch Jr., and Richard G. Netemeyer. 2014. Financial Literacy, Financial Education, and Downstream Financial Behaviors. *Management Science*, 60 (8): 1861–1883.
- Financial Services Authority. 2005. *Measuring Financial Capability: An Exploratory Study*. Consumer Research Study. London: Financial Services Authority.
- FINRA. 2012. Suitability. *Financial Industry Regulatory Authority*. <https://www.finra.org/web/groups/industry/@ip/@reg/@notice/documents/notices/p126431.pdf>.
- . 2014. Rules and Resources. *Financial Industry Regulatory Authority*. <http://www.finra.org/Investors/ToolsCalculators/ProfessionalDesignations/RulesandResources/>.
- Ganesan, Balaji. 2013. Understanding Behavioural Biases in Finance & Investing: Recognizing and Managing Biases in Investment Decision Making. <http://www.safalniveshak.com/wp-content/uploads/2013/11/Understanding-Behavioural-Biases-in-Finance-Investing.pdf>.
- Gennaioli, Nicola, Andrei Shleifer, and Robert Vishny. 2015. Money Doctors. *Journal of Finance*, 70 (1): 91–114.
- Grable, John E. and So-Hyun Joo. 2001. A Further Examination of Financial Help-Seeking Behavior. *Financial Counseling and Planning*, 12: 55–65.

- Guiso, Luigi and Tullio Jappelli. 2006. Information Acquisition and Portfolio Performance. CSEF Working Papers 167. Naples, Italy: University of Naples Centre for Studies in Economics and Finance (CSEF).
- Gutierrez, Helen, Douglas Hershey, and Paul Gerrans. 2011. What to Do When Clients Are Reluctant to Share. *CSA Journal*, 49: 39–44.
- Hackethal, Andreas, Michael Haliassos, and Tullio Jappelli. 2011. Financial Advisors: A Case of Babysitters? *Journal of Banking and Finance*, 36 (2): 509–524.
- Hastings, Justine S., Brigitte C. Madrian, and William L. Skimmyhorn. 2013. Financial Literacy, Financial Education, and Economic Outcomes. *Annual Review of Economics*, 5: 347–373.
- Hoehle, Daniel, Ruenzi Stefan, Nic Schaub, and Markus M. Schmid. 2014. The Impact of Financial Advice on Trade Performance and Behavioral Biases. University of St.Gallen, School of Finance Research Paper No. 2014/19. <http://ssrn.com/abstract=2537368> or 10.2139/ssrn.2537368.
- Hung, Angela A. and Joanne K. Yoong. 2010. *Asking for Help: Survey and Experimental Evidence on Financial Advice and Behavior Change*. Working Paper Series WR-714-1. RAND Corporation.
- Huston, Sandra J. 2010. Measuring Financial Literacy. *The Journal of Consumer Affairs*, 44 (2): 296–316.
- Iannicola, Dan Jr. and Jonas, Parker. 2010. Barriers to Financial Advice for Non-affluent Consumers. Society of Actuaries - The Financial Literacy Group. <https://www.soa.org/researchbarriers>.
- Inderst, Roman and Marco Ottaviani. 2009. Misselling through Agents. *American Economic Review*, 99 (3): 883–908.
- Jacobs-Lawson, Joy M. and Douglas A. Hershey. 2005. Influence of Future Time Perspective, Financial Knowledge, and Financial Risk Tolerance on Retirement Saving Behaviors. *Financial Services Review*, 14 (4): 331–344.
- Joo, So-Hyun and John E. Grable. 2001. Factors Associated with Seeking and Using Professional Retirement Planning Help. *Family and Consumer Sciences Research Journal*, 30 (1): 37–63.
- Kessler, Ronald C., Wai.T. Chiu, Olga Demler, and Ellen E. Walters. 2005. Prevalence, Severity, and Comorbidity of Twelve-Month DSM-IV Disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry*, 62 (6): 617–627.
- Kramer, Marc M. 2012. Financial Advice and Individual Investor Portfolio Performance. *Financial Management*, 41: 395–428.
- Lachance, Marie-Eve. 2014. Financial Literacy and Neighbourhood Effects. *The Journal of Consumer Affairs*, 48 (2): 251–273. DOI: 10.1111/joca.12024.
- Lusardi, Annamaria, Pierre-Carl Michaud, and Olivia S. Mitchell. 2011. Optimal Financial Literacy and Saving for Retirement. Wharton School Pension Research Council Working Paper WP2011-20.
- . 2013. *Optimal Knowledge and Wealth Inequality*. NBER Working Paper Series Working paper 18669. Cambridge, MA: National Bureau of Economic Research.
- Lusardi, Annamaria and Olivia S. Mitchell. 2011. Financial Literacy Around the World: An Overview. *Journal of Pension Economics and Finance*, 10 (4): 497–508.
- Miller, Margaret, Julia Reichelstein, Christian Salas, and Bilal Zia. 2014. *Can You Help Someone Become Financially Capable? A Meta-Analysis of the Literature*. Policy Research Working Paper Series 6745, The World Bank.
- National Institute of Mental Health. 2012. Anxiety Disorders. <http://www.nimh.nih.gov/health/topics/anxiety-disorders/index.shtml>.
- Nofsinger, John.R. 2001. *Investment Madness: How Psychology Affects Your Investing ... and What to Do About It*. New York: Prentice Hall.
- O'Brien, Robert M. 2007. A Caution Regarding Rules of Thumb for Variance Inflation Factors. *Quality and Quantity*, 41: 673–690.
- OECD-INFE. 2011. *Measuring Financial Literacy: Questionnaire and Guidance Notes for conducting an Internationally Comparable Survey of Financial literacy*. Paris: OECD.
- Plutchik, Robert. 1980. *Emotion: A Psychoevolutionary Synthesis*. New York: Harper and Row.
- Remund, David L. 2010. Financial Literacy Explicated: The Case for a Clearer Definition in an Increasingly Complex Economy. *Journal of Consumer Affairs*, 44 (2): 276–295.

- Slade, Tim, Amy Johnston, Maree Teesson, Harvey Whiteford, Phillip Burgess, Jane Pirkis, and Suzy Saw. 2009. *The Mental Health of Australians 2*. Canberra: Commonwealth of Australia.
- Stigler, George J. 1961. The Economics of Information. *Journal of Political Economy*, 69: 213–223.
- Suchmann, Edward A. 1966. Health Orientation and Medical Care. *American Journal of Public Health*, 56 (1): 97–105.
- Task Force on Financial Literacy, Office of the Canadian Minister of Finance. 2010. *Canadians and Their Money*. Ottawa: Department of Finance Canada.
- Von Gaudecker, Hans Martin. 2015. How Does Household Portfolio Diversification Vary with Financial Literacy and Financial Advice? *Journal of Finance*, 70 (2): 489–507.