Trust and Financial Advice

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Abstract

Trust plays an important role in financial decision-making, particularly regarding financial advice. In fact, investors cite "trust" as the most important determinant in seeking a financial service professional for advice (Hung et al., 2010). In this paper, we explore the relationships between financial trust and behaviors, attitudes, knowledge and preferences related to utilizing professional financial advice. Using survey and experiment data from the RAND-USC American Life Panel, we find that financial trust is correlated with advice usage and likelihood of seeking advisory services. Analysis of the experiment shows that trust is an important predictor of who chooses to receive advice, even after controlling for demographic characteristics and financial literacy. However, providing unsolicited advice has little impact on behavior, even for individuals with high levels of trust.

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I. Introduction

Trust plays an essential role in financial decision-making. Investing in the stock market and financial products and services requires a great deal of confidence that the financial sector is fair. Investment options include an increasingly diverse array of complex financial instruments, but the typical investor does not have the knowledge and capacity to evaluate many of these offerings (Hilgert, et al. 2003; Agnew and Szykman 2005; Lusardi and Mitchell 2007, 2011). A professional financial advisor can provide better insight into investment options and help households plan for long-term goals, such as retirement. However, usage of professional financial advice in the United States is relatively low. In a survey of American households, Hung et al. (2008) find that 34% of respondents had received advising, management, or planning services from a financial professional. Likewise, responses to the 2007 Retirement Confidence Survey indicate only half of interviewees would obtain advice from retirement plan managers (Lusardi 2008). In an experimental setting, Hung and Yoong (2013) find that 65% of subjects opt for advice in making financial decisions, even when it is costless. And even when investors receive financial advice, they may not necessary follow it: Two-thirds of respondents in the 2007 Retirement Confidence Survey said they would only follow the advice if it were in line with their own ideas, and one-tenth said they would not follow it at all. Hung and Yoong (2013) find that in their experiment, unsolicited advice has no effect on investment behavior, in terms of behavioral outcomes.

People cite a variety of factors for why they do not consult with a financial advisor, or follow the advice that they receive. According to a 2013 TIAA-CREF survey, 40% of respondents think financial advice is too expensive and one third of respondents report that they don't have time to meet with an advisor. In the same survey, almost half, 48%, of respondents say that they do not know which sources of financial advice to trust. In this paper, we draw from data from the RAND-USC American Life Panel (ALP) to examine how trust in the financial system is related to behaviors, attitudes, knowledge and preferences related to utilizing professional financial advice. Using survey data, we find that financial trust measures an underlying construct separate from other individual characteristics that affect financial behavior, namely financial literacy and risk tolerance. Financial trust is correlated with advice usage and likelihood of seeking advisory services, but we cannot establish causality. We also use data from a hypothetical portfolio allocation experiment in which subjects are offered advice. We find that

trust is an important predictor of who takes up advice, even after controlling for demographic characteristics and financial literacy. However, providing unsolicited advice has little impact on behavior, even for individuals with high levels of trust.

II. Background

Trust

Trust has been defined in the academic literature as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party" (Mayer, Davis, and Schoorman, 1995). Measuring trust is an ongoing, open research question. The most common way to measure trust is using survey measures. Rotter (1967) developed one early version of an interpersonal trust scale. His scale used Likert scale responses to prompts such as "In dealing with strangers one is better off to be cautious until they have provided evidence that they are trustworthy," and "most elected public officials are really sincere in their campaign promises."[1] In the same vein, an American poll, the General Social Survey (GSS), along with a global survey, the World Values Survey (WVS), ask respondents the following question, "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?"

The measure of trust most similar to the one used in this paper comes from the Chicago Booth/Kellogg Financial Trust Index (http://www.financialtrustindex.org), in that it measures trust specific to the financial sector, rather than as a general individual characteristic. The Financial Trust Index is a quarterly survey that tracks public opinion on "institutions in which [Americans] can invest in": the stock market, banks, mutual funds, and large corporations. Early waves of the index also asked about trust in people and institutions such as bankers, brokers, the government, insurance companies, the Federal Reserve Bank, the market system and other people. Since its inception in 2008, the Index estimates that trust in the financial system has ranged from 20% to 27%.

[1] A thread of literature in psychology uses indirect questions to measure trust, such as the Life Optimism Test. See, for example, Scheier, et al. 1994.

Trust and Behavior

The experimental economics literature finds mixed results in the relationships between survey measures of trust and trusting behavior in the laboratory[2]. For example, Glaeser, et al. (2000) and Gachter et al. (2004) find that the GSS survey question does not predict trusting behavior in the trust game. Yet, both papers also find that a survey question about trusting strangers does predict trusting behavior. However, the papers differ on whether self-reported trusting behavior is correlated with trusting actions in experiments: Glaeser et al. (2000) find that previous trusting behavior, such as lending money to friends, did predict trusting behavior in the experiment, whereas Gachter et al (2004) find no significant effect.

There have been a few studies linking trust to financial behaviors. Guiso et al. (2008) show that trust predicts stock market participation. Using Dutch household survey data, they find that those who report that "most people can be trusted" in response to the WVS trust question are significantly more likely to hold stocks. Conditional on participating in the stock market, more trusting people hold more stocks than less trusting people: "Trusting others increases the probability of buying stock by 50% of the average sample probability and raises the share invested in stock by 3.4% points (15.5% of the sample mean)." Importantly, they find that trust is not just a proxy for other predictors of stock market participation, such as risk preferences, loss aversion, or optimism. El-Attar and Poschke (2011) combine data on trust from the European Social Survey with data from the Spanish Survey of Household Finances and, similar to Guiso et al. (2008), find that less trusting individuals invest more in housing, and less in financial assets, especially risky assets, than more trusting individuals. Agnew et al. (2012) use administrative data from Vanguard and data from a phone survey of individuals from the administrative data and find that 401(k) plan participants who do not trust in financial institutions are more likely to drop automatic enrollment in their plans.

[2] In the standard trust game (Berg, et al. 1995), the first player is granted an endowment and can choose how much to transfer to a second player. The transfer is multiplied by a factor greater than one, and the second player can choose how much to return. Trust is measured by the percentage of the endowment transferred by the first player.

Financial Advice

Much of the literature on seeking and following advice looks at advice in general, and is rooted in psychology and organizational behavior. The findings on the propensity to seek advice are mixed and highly-context dependent. Previous studies find results that vary from resistance to advice-seeking, even if it is free (Gibbons, 2003) or nearly universal advice-seeking (Gino, 2008). Uncertainty about decisions, however, is found to predict advice seeking (Gibbons et al. 2003). Although it is difficult to draw conclusions about when individuals seek advice, the literature strongly suggests that individuals who do solicit advice are more likely to follow that advice than individuals who receive unsolicited advice (Gibbons, Sniezek and Dalal, 2003). Indeed, a robust finding is that individuals who receive advice by default tend to significantly discount it (Bonaccio and Dalal, 2006; Yaniv, 2004a; Yaniv, 2004b; Yaniv and Kleinberger, 2000). While explicitly solicited advice is perceived as helpful, unsolicited advice or imposed support is perceived as intrusive and can even lead to negative responses (Deelstra, 2003; Goldsmith, 2000; Goldsmith and Fitch, 1997). In a similar vein, Gino (2008) shows that individuals are significantly more receptive to advice that they pay for, rather than advice they get for free.

Little empirical work has been done that specifically addresses the context of financial advice in terms of predicting advice-seeking and utilization. Hung and Yoong (2013), in an experimental setting, find that less financially literate individuals are more likely to seek financial advice, and that individuals who seek advice are more likely to follow the advice. Sniezek and Van Swol (2001) and Sniezek et al. (2004) find that financial incentives decrease advice discounting but in contrast, Dalal (2001) finds the opposite. In the economics literature, the evidence suggests that although investors often express desire for more advice, it is unclear how and when they implement the advice they are given (Helman et al., 2007).

In this paper, we use both survey and experiment data to examine how trust in the financial system impacts advice-seeking and utilization. We find that financial trust and self-reported financial advice seeking behavior are highly correlated. In a controlled experiment we find that financial trust positively impacts advice-seeking, but has minimal impact on utilization of advice.

III. Survey and Experimental Design

The data for our analysis come from the RAND-USC American Life Panel (ALP). The ALP is an Internet panel of over 5,000 respondents aged 18 and above. Respondents in the panel either use their own computer to log on to the Internet or a Web TV, which allows them to access the Internet using their television and a telephone line. The technology allows respondents who did not have previous Internet access to participate in the panel.

Upon joining, respondents to the ALP complete a separate survey about individual demographic, work history and other household information, which they are prompted to update each time they log in to a new module. This provides a series of self-reported demographic characteristics of interest, including birthdate, gender, education, ethnicity, occupation, state of residence and income. About once or twice a month, respondents receive an email with a request to visit the website and fill out questionnaires. Interviews typically take less than 30 minutes and respondents are paid an incentive of about $20 per 30 minutes of interviewing. For our analysis, we take advantage of the panel nature of the ALP and use data from three surveys.

MS189: Financial trust, financial behaviors, and other individual-level characteristics

We take measures of financial trust and financial behaviors, as well as other individual characteristics such as risk preferences and financial literacy, from wave MS189 of the ALP. 3,048 respondents participated in the survey which was administered between June and August of 2011.

Our measure of trust is composed of five items: trust in the stock market, banks, insurance companies, stock brokers, and investment advisers. In addition to questions about trust, the survey also investigated numerous financial behaviors. Respondents were asked about DC plan participation, contribution behavior, withdrawal behavior, plan balances, and stock ownership (overall and within a DC plan). Importantly for our study, the survey also examined whether respondents received retirement saving and investing advice from numerous sources including financial planners, friends, books, and television programs.

MS189 also posed questions designed to measure financial literacy and risk preferences. Respondents were presented with a series of nine questions drawn from the financial literacy measure developed by Lusardi and Mitchell (2007). Respondents were also presented with a

series of hypothetical gambles, as in Holt and Laury (2002), which can be used to create a measure of risk aversion. Full survey instruments can be obtained from the authors.

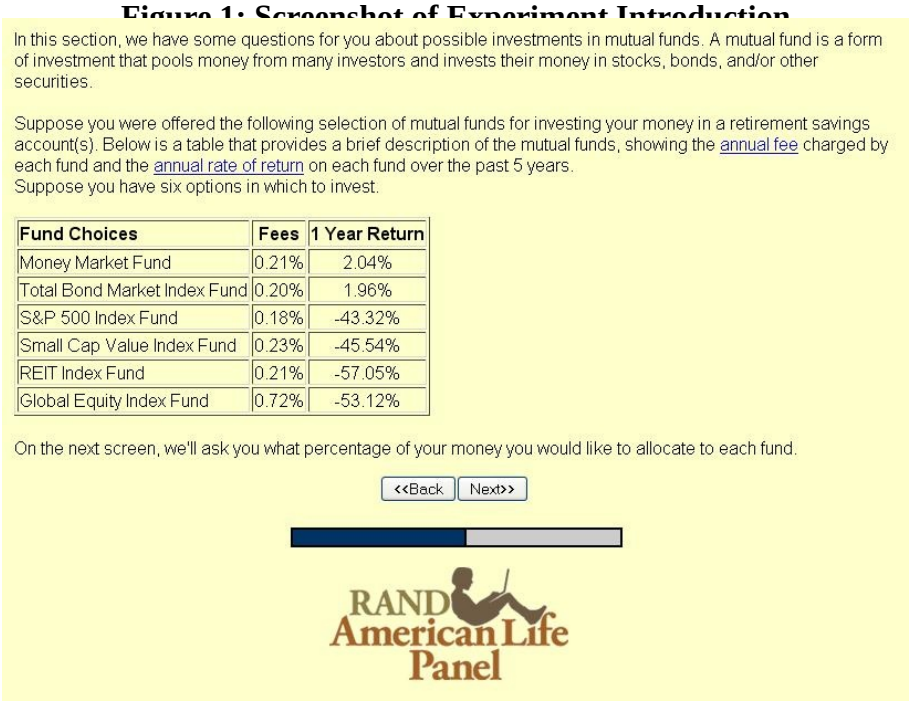
In this wave of the survey, 2,946 respondents answered the questions on financial trust, financial literacy, and risk preferences. Our analysis is based on this sample.

MS73: Financial advice survey and experiment

We use data on financial advice behavior from a survey and experiment that were administered to 2,224 respondents as wave MS73 of the ALP in June of 2009. MS73 respondents who are enrolled in an employer-sponsored defined contribution plan were asked about whether they had used a financial advisor for defined-contribution related advice the previous year, and whether they planned to do so in the current year.

Along with these self-reported survey items on advice seeking, we also examine data from an experiment conducted on advice seeking and usage. In the context of a hypothetical portfolio allocation task, participants were presented with six investment options: a money market fund, a bond market index fund, an S&P 500 index fund, a small cap value index fund, a REIT index fund, and a global equity index fund. Participants received basic information on the funds, namely fees and returns, and were then asked to allocate the funds among a hypothetical portfolio. Figure 1 shows a sample screenshot of the task description for the control group.

Figure 1: Screenshot of Experiment Introduction



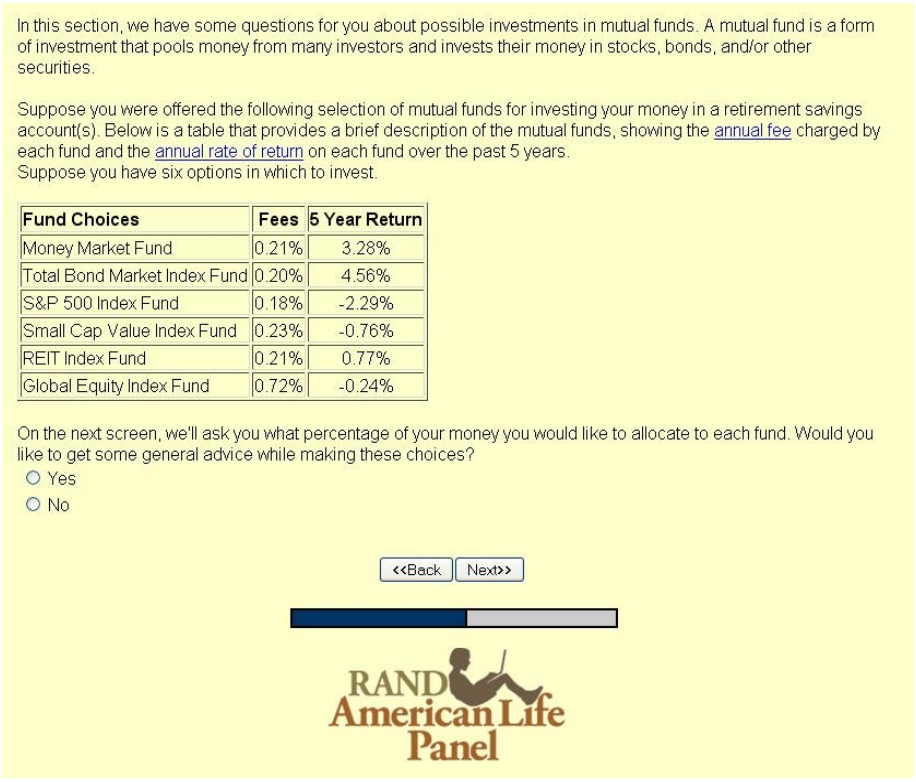
Choice Treatment: Defaults and Affirmative Decisions

Participants were randomly assigned to either a control group or one of two experimental conditions. In all conditions, participants were informed that they would be asked to allocate their portfolio. The control group received no further information or support before performing the task. In one treatment, the *default treatment,* all participants received advice regarding optimal portfolio allocation. In the other treatment, the *affirmative decision treatment*, participants were given a choice and received advice only if they chose to do so. Figure 2 shows the task description for the affirmative decision treatment.

Participants who received advice were given simple rules based on avoiding common portfolio "mistakes" described by Mottola and Utkus (2009): 1) A zero balance in equities is not recommended; 2) An equity balance of less than 40% is considered overly conservative; 3) Holding more than 95% equity is considered overly aggressive; 4) A portfolio that is 100% in a single asset class may be underdiversified. [3]

[3] The experiment also had two additional treatments: one varying the rate of return, and the other varying the method of advice presentation. The focus of our additional analysis is not on these additional treatments, but we do control for them in the analyses. For more details on the additional treatments as well as further discussion of the experiment, see Hung and Yoong (2013).

Figure 2: Screenshot of Advice Choice in Affirmative Decision Treatment



In this section, we have some questions for you about possible investments in mutual funds. A mutual fund is a form of investment that pools money from many investors and invests their money in stocks, bonds, and/or other securities.

Suppose you were offered the following selection of mutual funds for investing your money in a retirement savings account(s). Below is a table that provides a brief description of the mutual funds, showing the annual fee charged by each fund and the annual rate of return on each fund over the past 5 years.
Suppose you have six options in which to invest.

Fund Choices	Fees	5 Year Return
Money Market Fund	0.21%	3.28%
Total Bond Market Index Fund	0.20%	4.56%
S&P 500 Index Fund	0.18%	-2.29%
Small Cap Value Index Fund	0.23%	-0.76%
REIT Index Fund	0.21%	0.77%
Global Equity Index Fund	0.72%	-0.24%

On the next screen, we'll ask you what percentage of your money you would like to allocate to each fund. Would you like to get some general advice while making these choices?

○ Yes
○ No

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RAND American Life Panel

MS13: Financial advice survey

Lastly, we use data on individuals' knowledge about legal distinctions between types of financial advisors, experiences interacting with the financial service industry, likelihood of seeking financial advice, and level of trust in financial advice from wave MS13 of the ALP. MS13 was administered from September 26 through November 6, 2007. During this time, 654 households completed the survey. Because we use trust measures from MS189, we restrict our analysis of MS13 to the 562 households who responded to MS189.

Respondents were asked about the legal distinctions associated with investment professionals. Next, respondents were asked whether they currently use a financial service provider for advice. Those who answered affirmatively were asked detailed questions about their interactions with their providers. Finally respondents were presented with definitions of broker and investment adviser, including a description of common job titles, legal duties, and typical compensation. Respondents were then asked to report the likelihood of their seeking services (in

general) from a broker or investment adviser, the likelihood of seeking investment advice (in particular) from a broker or investment adviser, and the degree to which they would trust investment advice from a broker or an investment adviser.

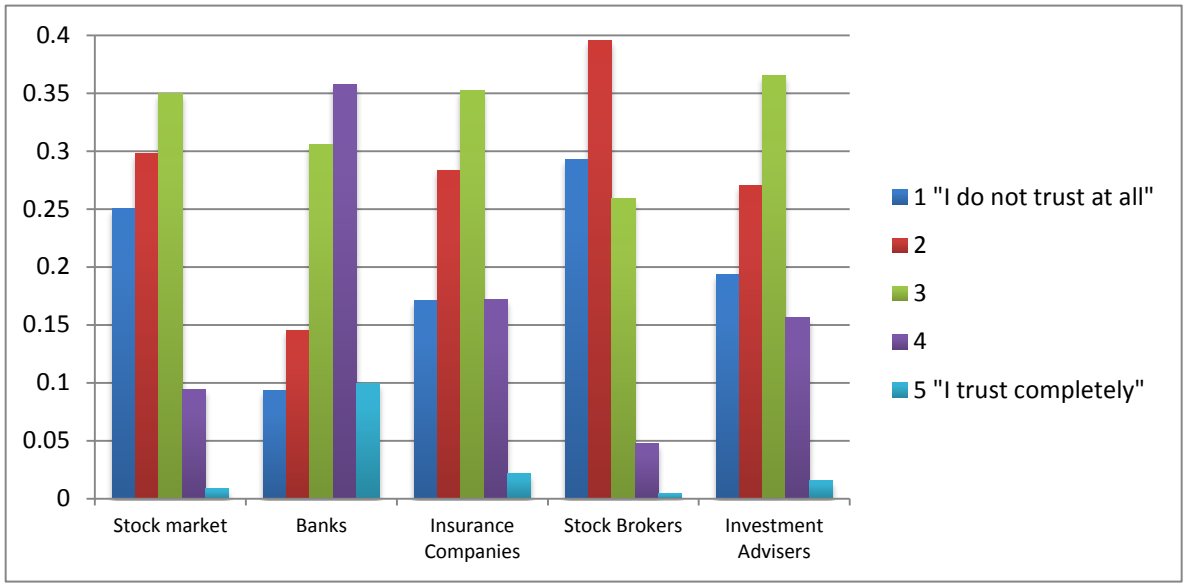
IV. Trust Measures

As previously described, participants in MS189 were asked to rate how much they trust the stock market, banks, insurance companies, stock brokers, and investment advisers on a five point scale from "I do not trust at all" (1) to "I trust completely" (5).

Overall, trust in the financial system is quite low among the respondents. The distributions of responses shows that respondents tend to distrust the stock market, insurance companies, stock brokers, and investment advisers (Figure 3). For the stock market, insurance companies, and investment advisers, the modal response is the midpoint of the scale. Respondents report the most trust in banks, for which the modal response leans toward trusting, and report the least trust in brokers, for which the modal response leans toward distrusting.

Figure 3: Distributions of responses to trust questions

(Source: RAND-USC ALP, Wave MS189)



Looking at average trust scores across financial institutions and professionals, we see a similar pattern: trust in the stock market, insurance companies, brokers, and investment advisers all tend toward the distrust end of the scale. Banks are most trusted, and stock brokers are least trusted. Trust is fairly stable across demographic characteristics, with a few notable exceptions. On average, those with a college degree or an annual family income (AFI) above $50,000 are more trusting than their less educated or financially well-off counterparts. Additionally, men are about twice as likely as women to place a large amount of trust in the stock market. Further, minorities and unmarried individuals place less faith in banks than whites and married persons.

Table 1: Financial Trust

(Source: RAND-USC ALP, Wave MS189)

	Stock Market	Banks	Insurance Companies	Stock Brokers	Investment Advisers
Overall	2.31	3.23	2.59	2.08	2.53
Female	2.20	3.23	2.58	2.07	2.54
Male	2.48	3.22	2.60	2.09	2.52
Married	2.37	3.27	2.62	2.10	2.57
Not Married	2.21	3.15	2.54	2.05	2.47
Age < 45	2.20	3.18	2.56	2.04	2.55
Age >= 45	2.38	3.25	2.60	2.10	2.52
College Degree	2.60	3.36	2.72	2.23	2.72
No College Degree	2.12	3.14	2.50	1.97	2.41
AFI < $50,000	2.06	3.13	2.49	1.94	2.36

AFI > $50,000	2.55	3.31	2.68	2.20	2.70
White	2.34	3.26	2.60	2.08	2.56
Minority	2.15	3.02	2.51	2.05	2.41
N	2946	2946	2946	2946	2946

As expected, numerical levels of trust across categories are positively correlated (Table 2). As a result, we summarize respondents' levels of trust into a "trust index" by aggregating the trust information collected in the five questions of interest through factor analysis using the iterated principal factor method. The factor analysis suggests there is one main factor, representing overall trust in the financial system. A table of factor loadings is in the Appendix. Using these factor loadings, we create factor scores using the regression method.

Table 2: Correlation in Trust Across Financial Sectors

(Source: RAND-USC ALP, Wave MS189)

	Stock Market	Banks	Insurance Companies	Stock Brokers	Investment Advisers
Stock Market	1				
Banks	0.3084	1			
Insurance Companies	0.3327	0.5437	1		
Stock Brokers	0.56	0.3438	0.4252	1	
Investment Advisers	0.4421	0.3302	0.3719	0.6583	1

Trust and Stock Market Participation

How does trust relate to asset market participation? Using Dutch household survey data, Guiso et al. (2008) finds that less trusting individuals are less likely to buy stock and have less conditional on ownership. To further validate our trust measure, we conduct a similar analysis and find similar results with a sample of U.S. households.

Participants in MS189 were asked if they owned any shares of stock or stock mutual funds. If a participant responded affirmatively, he was then asked for the approximate value. A little over one-third of our sample indicated that they participated in the stock market. Similar to solicitation of professional advice, respondents who are male, married, older, have higher incomes, college educated, and white are more likely to own stock than their respective counterparts.

As in Guiso et al. (2008), we find that trust in the financial system is highly predictive of stock ownership. Further, conditional on owning stock, those with higher trust in the financial system hold more in stocks. In addition, the analysis shows that individuals who are risk averse are less likely to participate in the stock market while individuals with higher investment knowledge are more likely to participate. Controlling for financial literacy, risk aversion and trust, older, college educated, higher income, and white individuals are more likely to participate in the stock market.

Table 3: Stock Market Participation and Trust

Source: RAND-USC ALP MS189

VARIABLES	(1) Stock Ownership	(1) Stock Portfolio Value
Trust	0.074***	41.038***
	(0.009)	(10.944)
Risk Aversion	-0.010*	5.157
	(0.006)	(6.288)
Basic Fin Lit	-0.006	-3.041
	(0.008)	(12.446)
Investing Fin Lit	0.081***	53.022***
	(0.009)	(12.083)
Female	-0.014	-7.289
	(0.017)	(17.900)
Age < 45	-0.132***	-133.232***
	(0.017)	(14.653)
College	0.117***	76.847***
	(0.019)	(15.477)
AFI < $50,000	-0.156***	-30.243**
	(0.018)	(15.344)
Minority	-0.116***	-67.775***
	(0.019)	(21.858)
Constant	0.491***	95.483***
	(0.032)	(30.163)

Observations	2,941	963
R-squared	0.211	0.108

Note: We excluded the top 1% of observations, corresponding to individuals who claimed to own more than $2.3 million in stock

Relationships between Trust, Knowledge, Financial Literacy and Risk Preferences

It is possible that financial trust is simply a proxy for other individual characteristics such as knowledge, financial literacy or risk preferences. For example, it is possible that we are measuring familiarity with the financial system rather than trust. Likewise, it is possible that our financial trust measure is measuring the degree of perceived riskiness associated with each of the sectors, rather than underlying trust.

Since the focus of the paper is how trust impacts professional financial advice-seeking, we want to know whether there is correlation between financial trust and knowledge about the financial advice industry. Respondents to wave MS13 were asked knowledge questions about the legal distinctions associated with investment professionals. They were asked: "What types of financial service professionals are required by law to act in the client's best interest?" and "What types of financial service professionals are required by law to disclose to clients any conflicts of interest?" Respondents were asked to check all that apply from a list of: Brokers, Investment Advisers, Financial Advisors or Financial Consultants, Financial Planners or given the option of None of the Above. Very few respondents had correct answers for these two questions: 3% knew that only investment advisers have a fiduciary duty to act in a client's best interest, and 5% knew that only investment advisers are required to disclose conflicts of interest. When we compare correct responses by trust scores, we find that respondents whose financial trust scores are below the median are more likely to get these questions correct than respondents whose financial trust scores are above the median, but these differences are small (Table 4). Only the difference in response pattern to the question on conflicts of interest is significant at the 10% level.

Table 4: Knowledge about Financial Advisors

(Source: RAND-USC ALP MS13 and MS189)

	% correct		
	Financial trust score below median	Financial trust score above median	T-test of equality (p-value)
What types of financial service providers are required by law to act in the client's best interest?	4% (241)	2% (320)	0.1341

What types of financial service providers are required by law to disclose any conflicts of interest?	6% (241)	3% (320)	0.0574*

Next we use data from MS189 to examine correlations between our financial trust index and financial literacy and risk preferences to investigate whether our measure of trust is measuring a construct independent of financial literacy and risk preferences.

For financial literacy, we first conducted a factor analysis on all 9 financial literacy questions. Consistent with the underlying knowledge the questions attempted to measure, the factor analysis indicates there are two main factors with loadings on the two series of questions: the four basic financial literacy questions and the five investment related questions. As a result, we constructed two separate indices, one attempting to measure basic knowledge and one attempting to measure investment knowledge, similar to the construction performed by van Rooij, Lusardi, and Alessie (2011).

For all questions, a considerable portion of respondents answered "Don't know."[4] Since incorrect answers may connote different levels of financial sophistication than responses of "Don't know" (Lusardi and Mitchell, 2011), we explicitly account for the differences between these two types of responses when creating our indices. Specifically, we constructed 2 dummy variables for each question; one indicating whether the respondent answered correctly and the other indicating whether the respondent chose "Don't know". Thus, we performed one factor analysis on 8 variables corresponding to the 4 basic financial literacy questions and another factor analysis on the 10 variables corresponding to the 5 investment related questions. In both cases, we used the iterated principal factor method.

On the basis of the sequence of hypothetical gambles, we created a risk aversion index ranging from 1 to 6, where 1 represents accepting the risky asset under any presented gamble and 6 represents never accepting the risky asset regardless of the possible payout. A sizeable portion of the sample appears to be fairly risk averse with 31% unwilling to accept any gamble.

[4] For each question, over 10% of respondents indicated that they did not know the correct answer, except for the first two basic financial literacy questions, where 7.5% and 9.4% responded "Don't know" respectively.

Table 5 presents the correlation between each of our measures. As one might expect, the correlation between basic and investment financial knowledge is fairly strong, but the correlation between trust and the other measures is quite low. Although there is a positive correlation between trust and financial literacy, and a negative correlation between trust and risk aversion, trust appears to be accounting for underlying characteristics separate and apart from financial knowledge or risk tolerance.

Table 5: Correlation between Trust, Financial Literacy, and Risk Aversion

(Source: RAND-USC ALP MS189)

	Basic Fin Lit	Investing Fin Lit	Risk Aversion	Trust
Basic Fin Lit	1			
Investing Fin Lit	0.6093	1		
Risk Aversion	-0.1959	-0.2076	1	
Trust	0.2008	0.2641	-0.1642	1

V. Trust and Financial Advice

A. Reported Experiences with Financial Advice

Financial Advice Seeking

In all three waves of the ALP, respondents were asked about usage of financial professionals for advice. Questions were different in each wave, however. Respondents to ALP module MS189

who had not yet retired were asked what sources of information they rely upon when making financial decisions concerning retirement[5]:

> "How do you make decisions about saving and investment related to retirement? Choose all that apply"
>
> 1. Ask relatives/friends
> 2. Talk to financial planners/brokers
> 3. Talk to lawyers
> 4. Read magazines/newspapers/books
> 5. Get advice from television
> 6. Other (please specify)

Respondents in MS73 who were enrolled in an employer-sponsored defined contribution (DC) plan were asked "In 2008, did you consult a financial advisor for individual recommendations regarding your defined contribution plan?"

Respondents in MS13 were asked "Do you currently use any professional service providers for: 1) Conducting stock market and/or mutual fund transactions; and/or 2) Advising, management and/or planning?"

For ease of exposition, we describe respondents whose financial trust scores are below the median as less trusting of the financial system, and those whose financial trust scores are above the media as more trusting of the financial system. Respondents who rate their trust in brokers or investment advisers as either 1 or 2 are described as distrusting of brokers or advisers, respectively.

Despite low levels of trust in the financial system, and in brokers and financial advisors in particular, a substantial proportion of respondents report using professional advice: over 40% of MS189 respondents have consulted with a broker or financial planner when deciding how to save and invest for retirement; 19% of DC plan holders in MS73 for whom we have a financial trust score consulted a financial advisor for individual recommendations regarding their DC plan in the year previous to the survey; and 34% of MS13 respondents for whom we have a financial

[5] Results of a similar analysis conducted using retired respondents are qualitatively unchanged and available upon request.

trust score were currently using a financial professional for "advising, management, and/or planning" (Table 6).

Across all survey modules, we find that those who have less trust in the financial sector are less likely to seek professional financial advice. Of MS189 respondents whose trust scores were below the median, only 34% reported seeking retirement-related advice from planners or brokers, whereas 53% of respondents whose trust scores were above the median reported seeking retirement-related advice (Column i). We find a similar pattern when we use individual trust items on brokers and investment advisers. Of respondents who reported that they do not trust brokers, 37% consult financial planners or brokers when making retirement savings decisions, compared to 55% of respondents who do not distrust brokers. We find the widest disparity by comparing those who distrust investment advisers to those who do not distrust investment advisers: 29% compared to 54%. We find similar results when comparing advice seeking behavior by levels of trust across MS73 and MS13 (Columns ii and iii).

We also observe variation across demographic characteristics. Individuals who are married, older than 45, college educated, or have incomes above the national median are more likely to seek financial advice from a professional than their respective counterparts.

Table 6: Reported Advice Seeking Behavior

	(i)	(ii)	(iii)
	Talk to planners/brokers to make retirement-related decisions Source: ALP MS189	Talked to financial advisor for DC plan advice Source: ALP MS73	Used professional service providers for: Advising, management and/or planning Source: ALP MS13
Overall	43%	19%	34%
Less trusting of finance sector	34%	16%	24%
More trusting of finance sector	53%	22%	40%
Distrust brokers	37%	17%	28%
Don't distrust brokers	55%	22%	43%
Distrust investment advisers	29%	14%	19%

Don't distrust investment advisers	54%	22%	43%
Female	41%	20%	34%
Male	45%	18%	33%
Married	46%	20%	36%
Not Married	37%	16%	30%
Age < 45	34%	18%	20%
Age >= 45	49%	20%	36%
College Degree	55%	17%	38%
No College Degree	35%	20%	29%
AFI < $50,000	30%	16%	25%
AFI > $50,000	54%	20%	38%
White	45%	18%	34%
Minority	33%	24%	29%
N	*2436*	*494*	*562*

Given the variation in behavior across demographic characteristics, we also investigate how trust impacts advice seeking using regression analysis. Specifically, we use linear probability models with the propensity to seek advice as our binary outcome variable. The coefficients may be interpreted as the best linear predictor (BLP) of changes in the probability of the outcome associated with a unit change of each regressor.[6] We use OLS to estimate the equation:

$$Y_i = \alpha + \beta\, trust_i + X_i'\delta + \varepsilon \quad (1)$$

where Y_i represents the source of information (taking a value of 1 if an advisor is consulted), X_i, is a vector of commonly-used observable demographic and individual characteristics, *trust* denotes our trust index, and ε is an individual error term.

[6] Throughout this paper, we use LP models for simplicity. In robustness checks, probit regressions delivered qualitatively and quantitatively similar results.

The multivariate analysis (Table 7) yields similar insights to the descriptive statistics in Table 6. As we found in the descriptive statistics, individuals with higher levels of trust in the financial system are more likely to seek professional financial advice for retirement decisions, for DC plan advice, and in general. Note that trust in the financial system and financial literacy were measured in 2011 while MS73 was completed in 2009 and MS13 was completed in 2007. Consequently, it is likely that our trust index and measures of financial literacy are only noisy proxies at the time of the previous two surveys. As a result, it is likely that our analytical results are attenuated.

Investing knowledge is also highly related to use of a planner or broker for retirement-related decisions, similar to the result found in van Rooij, Lusardi, and Alessie (2011). Furthermore, we find that older respondents and higher income respondents are more likely to consult professionals when making retirement saving and investing decisions or for general planning (Columns i and iii).

Table 7: Trust and Propensity to Seek Professional Advice

	(i)	(ii)	(iii)
	Talk to planners/brokers to make retirement-related decisions	Talked to financial advisor for DC plan advice	Used professional service providers for: Advising, management and/or planning
VARIABLES	Source: ALP MS189	Source: ALP MS73	Source: ALP MS13
Financial Trust	0.095***	0.043**	0.103***
	(0.011)	(0.022)	(0.022)
Basic Fin Lit	-0.007	-0.004	0.005
	(0.011)	(0.029)	(0.027)
Investing Fin Lit	0.064***	0.031	0.034
	(0.012)	(0.033)	(0.029)
Risk Aversion	-0.000	0.005	0.002
	(0.007)	(0.014)	(0.015)
Female	0.014	0.031	0.055
	(0.020)	(0.037)	(0.041)
Married	0.027	0.051	0.035
	(0.020)	(0.038)	(0.042)
Age < 45	-0.102***	-0.017	-0.167***
	(0.020)	(0.039)	(0.050)
College	0.095***	0.022	0.045
	(0.022)	(0.038)	(0.042)
AFI < $50,000	-0.115***	-0.000	-0.094**
	(0.022)	(0.045)	(0.045)

Minority	-0.028	0.069	0.030
	(0.025)	(0.067)	(0.070)
Constant	0.495***	0.085	0.103***
	(0.037)	(0.075)	(0.022)
Observations	2436	493	562
R-squared	0.135	0.019	0.086

Standard errors are reported in parentheses. ***indicates the coefficient is different from zero at the 1% level, ** at the 5% level, and * at the 10% level.

Satisfaction with Financial Advice

Respondents to MS13 who use financial service providers for advisory services were asked about the length of their relationship(s) with their financial service provider(s) as well as satisfaction with their financial service provider(s).

Table 8: About how long have you been doing business with this financial service provider?

(Source: RAND-USC ALP, MS13 and MS189)

	All responses	Less trusting of financial sector	More trusting of financial sector	Distrust brokers	Don't distrust brokers	Distrust IAs	Don't distrust IAs
less than 1 year	8.1%	6.8%	8.9%	7.3%	8.4%	4.2%	9.3%
1-5 years	28.9%	33.0%	26.6%	30.7%	27.1%	37.5%	25.6%
5-10 years	27.2%	22.7%	29.7%	25.5%	29.9%	20.8%	30.2%
more than 10 years	35.8%	37.5%	34.8%	36.5%	34.6%	37.5%	34.9%
N	246	88	158	137	107	72	172

We find that, compared to their respective counterparts, those who are more distrustful of the financial sector, brokers and investment advisers are more likely to have long relationships (more than 10 years) with their advice provider, though these differences are not statistically significant (Table 8).

Respondents who are more distrustful of the financial sector, brokers and investment advisers are less satisfied with the service that they receive from their financial service providers and less likely to believe that their financial service provider acts in their best interest or provides a valuable service (Figures 4-6)

Figure 4

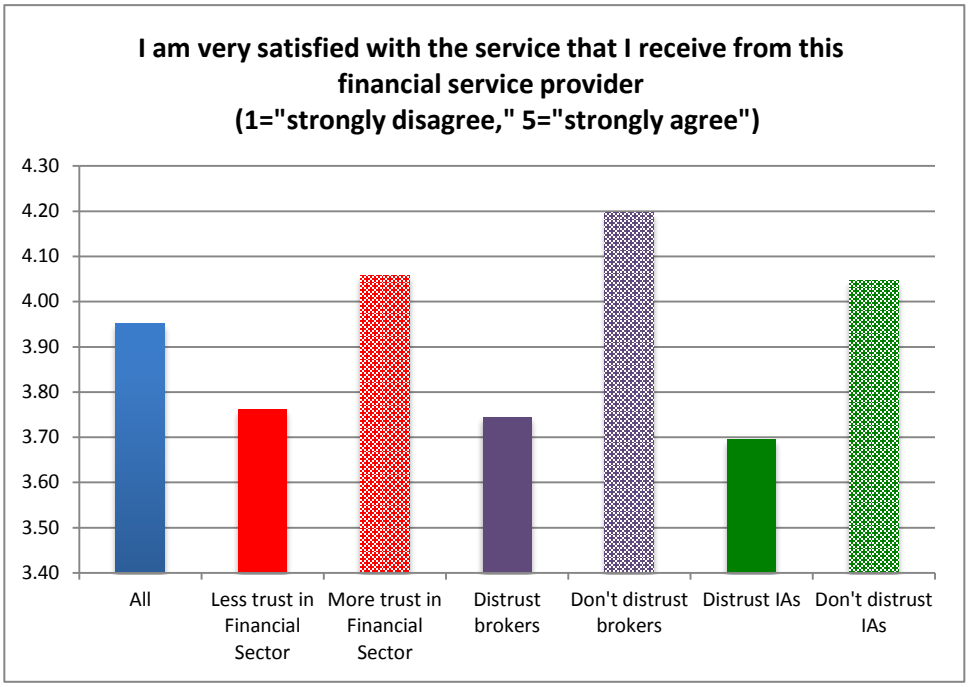


Figure 5

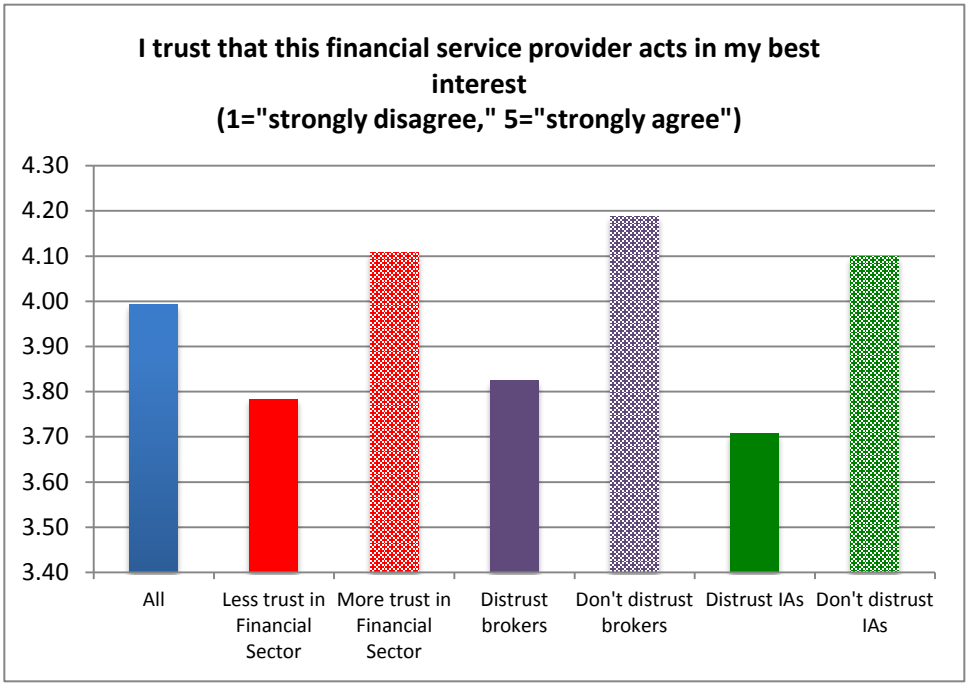
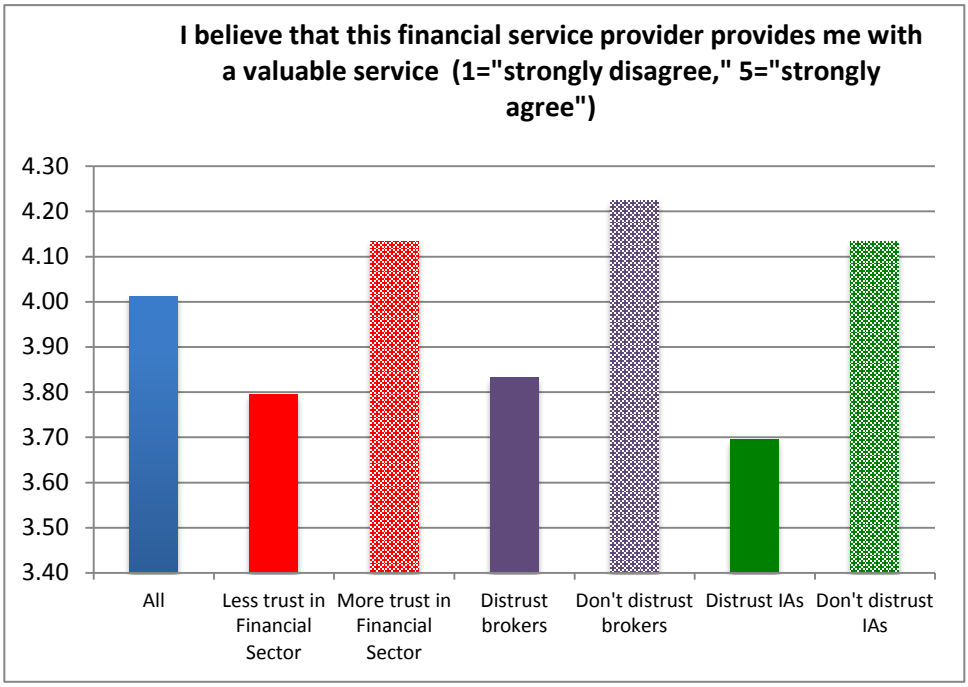


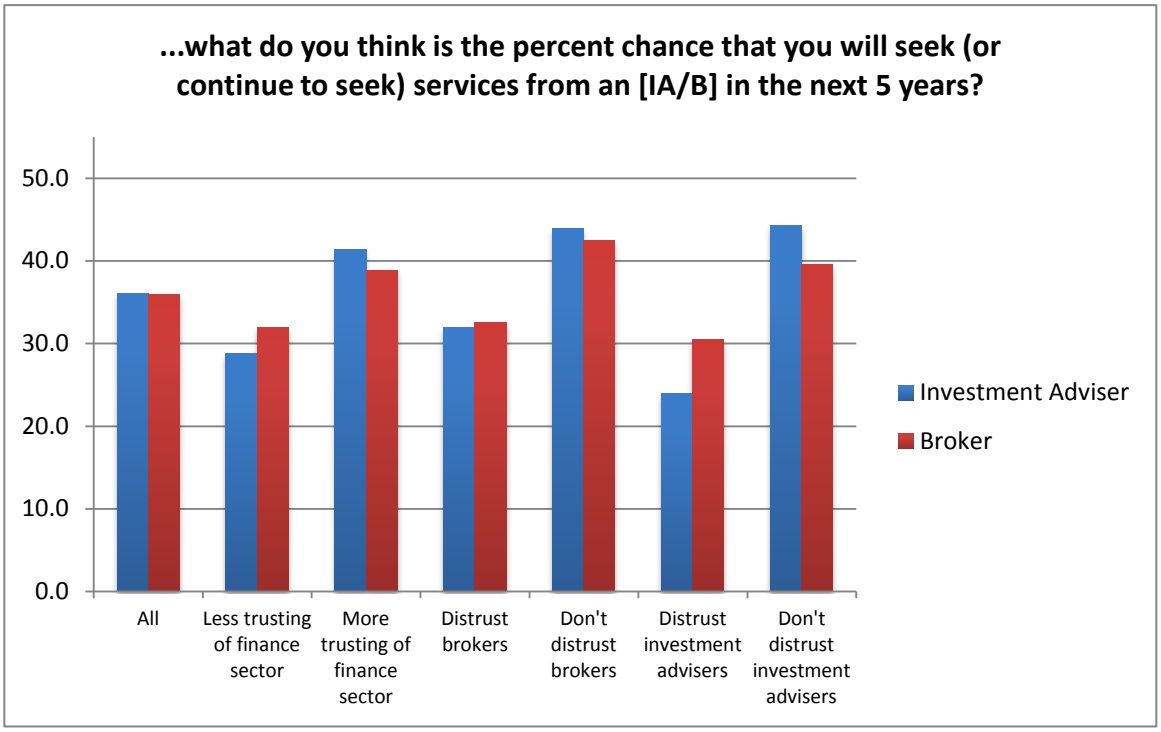
Figure 6



Likelihood of Seeking Financial Advice

Not surprisingly, we also find large differences in inclination to seek out investment advice depending on trust scores: respondents with lower trust scores, respondents who distrust brokers, and respondents who distrust investment advisers are all less likely to seek out services from either an investment adviser or a broker (Figure 7). These differences are significant at the 5% or 1% level (Table 9). These differences in likelihood of seeking financial services between those who have more trust compared to those who have less trust are notable, particularly because these survey items were preceded by descriptions of brokers and investment advisers and their legal duties, including an explanation of investment advisers' fiduciary duties.

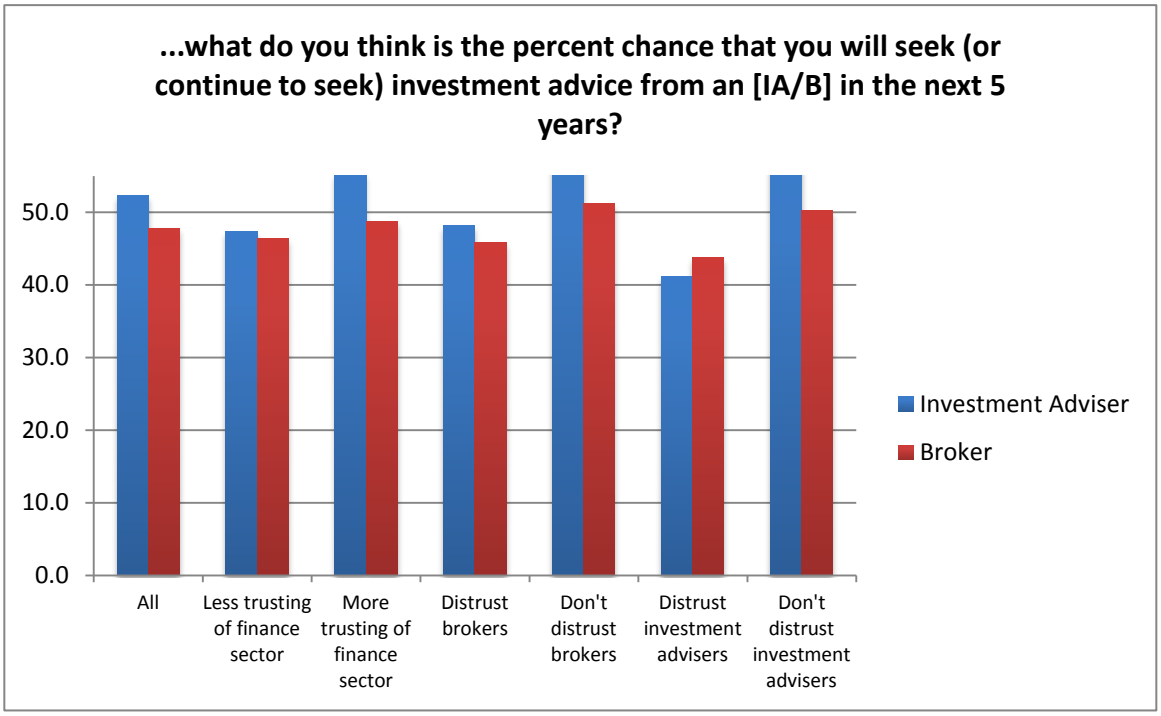
Figure 7



Of respondents whose trust scores were below the median, 38% reported that there was 0% chance that they would seek services from an investment adviser in the next five years; in contrast, 25% of respondents whose trust scores were above the median reported that there was 0% chance of seeking investment advisory services.

Respondents who reported a non-zero probability of seeking services from a broker or investment adviser were then asked their likelihood of seeking investment advice in particular. Again, we find a similar, albeit less pronounced, response pattern (Figure 8). The differences between likelihood of seeking investment advice from an investment adviser depending on whether the respondent trusts the financial sector, brokers, and advisers are significant at the 5% and 1% level (Table 9).

Figure 8



Lastly, we find that respondents report that they would generally trust investment advice from an investment adviser more than they would trust advice from a broker, but again, those who have less trust in the financial system, brokers, and investment advisers report lower trust in investment advice (Figure 9). These are differences are all significant at the 1% level (Table 9).

Figure 9

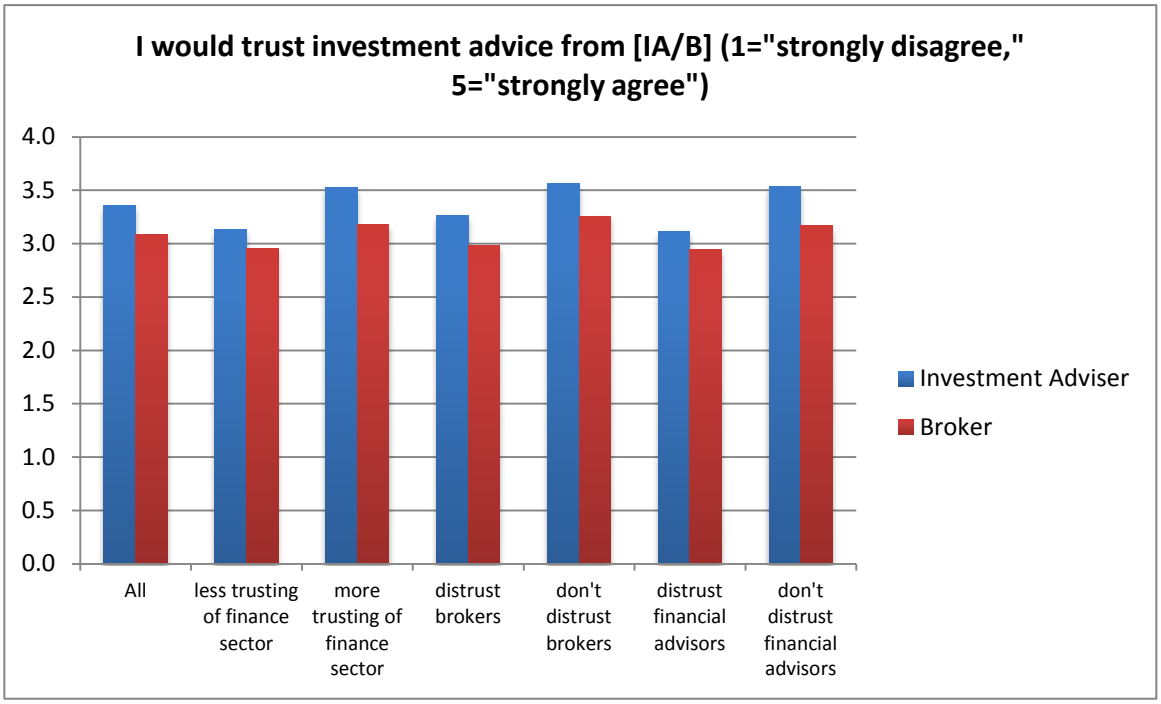


Table 9 displays the same information as in Figures 7-9 in tabular format.

Table 9: Likelihood of Seeking Financial Advice

What do you think is the percent chance that you will seek (or continue to seek) services from an [IA/B] in the next 5 years?				
	Investment Adviser	**T-test of equality (p-value)**	**Broker**	**T-test of equality (p-value)**

All	36.2		36.0	
Less trusting of finance sector	28.9	0.000***	32.0	0.040**
More trusting of finance sector	41.6		38.9	
Distrust brokers	32.1	0.001***	32.5	0.005***
Don't distrust brokers	43.9		42.4	
Distrust investment advisers	24.0	0.000***	30.6	0.008***
Don't distrust investment advisers	44.3		39.6	
What do you think is the percent chance that you will seek (or continue to seek) investment advice from an [IA/B] in the next 5 years?				
	Investment Adviser	**T-test of equality (p-value)**	**Broker**	**T-test of equality (p-value)**
All	52.4		47.9	
Less trusting of finance sector	47.4	0.032**	46.6	0.558
More trusting of finance sector	55.5		48.9	
Distrust brokers	48.1	0.002***	45.9	0.176
Don't distrust brokers	59.7		51.2	
Distrust investment advisers	41.1	0.000***	44.0	0.113
Don't distrust investment advisers	58.4		50.2	
I would trust investment advice from [IA/B] (1="strongly disagree," 5="strongly agree")				
	Investment Adviser	**T-test of equality (p-value)**	**Broker**	**T-test of equality (p-value)**

All	3.37		3.08	
Less trusting of finance sector	3.14	0.000***	2.96	0.004***
More trusting of finance sector	3.54		3.17	
Distrust brokers	3.27	0.000***	2.99	0.001***
Don't distrust brokers	3.56		3.26	
Distrust financial advisors	3.12	0.000***	2.95	0.003***
Don't distrust financial advisors	3.53		3.17	

***indicates the means are different from each other at the 1% level, ** at the 5% level, and * at the 10% level.

B. Experimental Evidence

Across different waves of the ALP, we have consistently found that respondents' trust of the financial sector is positively correlated with seeking professional financial advice. We have also found positive correlation with satisfaction with financial advisors, inclination to seek advice in the near future, and level of trust in investment advice. However, it is impossible to establish causality with these survey data. Does trust lead to the solicitation of advice, or does the relationship with a financial advisor lead to higher levels of trust, or both? We examine the experiment conducted in MS73 to shed light on the issue. While the analysis can't rule out the possibility that a relationship with a financial advisor engenders trust, it can address whether trust influences the receipt of advice.

Of the 2,224 respondents who participated in module MS73, 2,070 completed the hypothetical portfolio allocation experiment. Of these respondents, we have a trust score for 1,774 of them from MS189. In our analyses, we also control for financial literacy as Hung and Yoong (2013) found strong evidence of selection based on financial literacy[7,8]. We have a measure of both trust and financial literacy for 1,266 respondents.

[7] When analyzing the experiment, we adopt the measures of financial literacy used in Hung and Yoong (2013). Compared to the measures created using MS189, the questions used to create the measures in Hung and Yoong (2013) were more comprehensive, and fielded closer in time to the decisions made in the experiment. As a result, it is likely they are measured with less error.

Despite the fact that advice was free, not all individuals in the *affirmative decision treatment* chose to get advice: only 65% of the participants in that treatment chose to receive advice. Hung and Yoong (2013) find that those who are less financially literate, both objectively and self-assessed, were more likely to accept the offer of advice. Furthermore, older individuals and those with higher incomes were more likely to solicit advice. Importantly we find that trust is a significant predictor of advice solicitation (Table 10).[9] Those with higher levels of trust in the financial system were much more likely to accept the offer of free advice.

Table 10: Takeup of Advice by Trust and Financial Literacy

	Affirmative Decision: Chose Advice	N	Affirmative Decision: Chose No Advice	N	T-test of equality (p-value)	*Default Advice*	*N*
Financial Trust Score	0.17	469	-0.09	252	0.00***	*0.08*	*721*
Measured Financial Literacy Index	0.22	406	0.35	178	0.09 *	*0.24*	*584*
Self-Assessed Financial Literacy Index	2.62	406	2.95	178	0.00 ***	*2.65*	*584*

Source: RAND-USC ALP MS64, MS73, MS189

Table 11 shows the propensity to accept advice in the *affirmative decision treatment* estimated using equation (1). After controlling for demographic characteristics, returns and advice presentation treatments, and financial literacy, trust remains highly significant, indicating that trust in the financial sector is an important predictor of who takes up advice. However, the relatively low R-squared indicates that a large amount of variation in the solicitation remains unaccounted for even after including our measure of trust.

Table 11: OLS Regression, Propensity to Seek Advice (Affirmative Decision Treatment)

Source: RAND-USC ALP MS64, MS73, MS189

	(1)	(2)	(3)

[8] Information on financial literacy is available for 1,466 of the 2,070 respondents.

[9] Note that trust in the financial system was measured in 2011 while the experiment was completed in 2009. Consequently, it is likely that our trust index is only a noisy proxy for trust at the time of the experiment, and that our analytical results are attenuated.

VARIABLES	Choose Advice	Choose Advice	Choose Advice
Financial Trust	0.073***	0.063***	0.071***
	(0.020)	(0.024)	(0.024)
Fin Lit		-0.064**	
		(0.030)	
Self Assessed Fin Lit			-0.092***
			(0.025)
Married	0.041	0.002	0.008
	(0.043)	(0.051)	(0.050)
Female	0.070*	0.025	-0.000
	(0.037)	(0.045)	(0.044)
Age < 45	-0.101***	-0.061	-0.065
	(0.039)	(0.052)	(0.051)
AFI < $50,000	-0.074*	-0.113**	-0.110**
	(0.043)	(0.053)	(0.053)
Black or Hispanic	0.002	-0.039	-0.026
	(0.065)	(0.082)	(0.081)
College	-0.033	-0.057	-0.035
	(0.037)	(0.045)	(0.044)
Has DC Plan	-0.001	0.038	0.039
	(0.040)	(0.045)	(0.044)
Constant	0.646***	0.737***	0.969***
	(0.064)	(0.075)	(0.102)
Observations	719	504	504
R-squared	0.042	0.046	0.063

Note: regressions control for additional experimental treatments that are not the focus of this analysis

Standard errors are reported in parentheses. ***indicates the coefficient is different from zero at the 1% level, ** at the 5% level, and * at the 10% level.

Trust and use of advice

The previous section established that individuals with higher levels of trust are more likely to request advice. But are they more likely to follow the advice they receive? We examine this question by investigating how the receipt of advice, both solicited and unsolicited, affects performance on the hypothetical portfolio selection task. As in Hung and Yoong (2013), we measure performance, by the absence of "mistakes" as defined by Mottola and Utkus (2009).[10]

[10] In the analysis below, we omit respondents whose allocation totals did not sum to 100%.

We first examine whether advice itself has an effect and whether those with higher levels of trust are less likely to make "mistakes". We compare the performance of the control group (no advice) with that of the default (unsolicited advice) and affirmative decision (optional advice) treatment groups using the following equation[11]:

$$Y_i = \alpha + \beta trust_i + \beta_d \, default_i + \beta_a \, affirmative_i + X_i'\delta + \varepsilon \quad (2)$$

where *default* and *affirmative* are dummy variables capturing treatment assignment. Consequently, β_d and β_a measure the intent-to-treat estimate of the default and affirmative decision treatments respectively.

Table 12 shows that after controlling for trust, neither advice treatment had an effect on investment allocation performance. Interestingly, participants in the low return treatment are less likely to hold zero equity or be too conservative, but more likely to be under-diversified. Importantly, those with higher levels of trust perform better. They are less likely to hold no equity, be under-diversified, or too conservative.[12]

Table 12: Trust and Portfolio Quality

Source: RAND-USC ALP MS64, MS73, MS189

VARIABLES	(1) Zero Equity	(2) Under-Diversified	(3) Too Aggressive	(4) Too Conservative
Financial Trust	-0.052***	-0.049***	0.002	-0.027**
	(0.014)	(0.009)	(0.003)	(0.014)
Default	-0.011	-0.021	0.002	0.010
	(0.034)	(0.023)	(0.007)	(0.033)
Affirmative Choice	-0.038	-0.028	0.008	-0.050
	(0.034)	(0.023)	(0.009)	(0.033)
Married	-0.040	-0.015	-0.002	-0.011
	(0.027)	(0.018)	(0.006)	(0.026)

[11] We also control for two additional treatments, one varying the rate of return, and the other varying the method of advice presentation

[12] The results are unchanged when also controlling for financial literacy and are available upon request.

Female	0.066***	-0.011	-0.006	0.083***
	(0.024)	(0.015)	(0.005)	(0.023)
Age < 45	-0.047*	-0.008	0.014**	-0.090***
	(0.025)	(0.016)	(0.007)	(0.026)
AFI < $50,000	0.053*	-0.006	-0.007	0.048*
	(0.027)	(0.018)	(0.005)	(0.026)
Black or Hispanic	-0.037	-0.024	-0.006	-0.008
	(0.043)	(0.025)	(0.007)	(0.043)
College	-0.061**	-0.011	-0.002	-0.047**
	(0.024)	(0.015)	(0.006)	(0.024)
Has DC Plan	-0.000	0.020	0.015**	-0.053**
	(0.026)	(0.017)	(0.007)	(0.026)
Low-returns	-0.052**	0.052***	0.004	-0.105***
	(0.023)	(0.015)	(0.005)	(0.023)
Portfolio Meter	-0.017	-0.008	-0.008	-0.032
	(0.026)	(0.016)	(0.006)	(0.026)
Constant	0.434***	0.128***	0.009	0.734***
	(0.045)	(0.031)	(0.010)	(0.043)
Observations	1,705	1,705	1,705	1,705
R-squared	0.037	0.030	0.013	0.049

Standard errors are reported in parentheses. ***indicates the coefficient is different from zero at the 1% level, ** at the 5% level, and * at the 10% level.

Individuals who adherently followed advice would allocate a significant fraction of their portfolio to stocks, but not more that 95%. Table 13 shows that when controlling for trust, participants in the affirmative choice treatment assigned a larger percentage of their portfolios to stocks than those in the control group, though the result is only significant at the 10% level. Further, those who have higher levels of trust also tended to allocate a larger fraction of their portfolio to equities.

Table 13: Trust and Stockholding

Source: RAND-USC ALP MS64, MS73, MS189

VARIABLES	(1) % Allocated to Stock
Trust	2.285***
	(0.750)
Default	0.280
	(1.786)
Affirmative Choice	3.534*
	(1.826)
Married	1.698
	(1.377)
Female	-5.746***
	(1.268)

Age < 45	4.068***
	(1.411)
AFI < $50,000	-3.081**
	(1.377)
Black or Hispanic	0.825
	(2.162)
College	4.682***
	(1.304)
Has DC Plan	3.274**
	(1.457)
Low-returns	5.626***
	(1.232)
Portfolio Meter	0.351
	(1.387)
Constant	19.882***
	(2.301)
Observations	1,705
R-squared	0.070

Standard errors are reported in parentheses. ***indicates the coefficient is different from zero at the 1% level, ** at the 5% level, and * at the 10% level.

Heterogeneous effects in the Default Treatment group

The previous section suggests that those who have higher trust in the financial system performed better on the portfolio allocation task, but that the treatment groups didn't perform any better, on average, than the control group. The average effect, however, might mask important differences across subgroups. In particular, although providing compulsory advice didn't improve decision making on average, it is possible that those with higher levels of trust paid more attention to the advice and improved their performance.

To investigate this possibility we focus on individuals in the default and control groups, and create dummy variables interacting trust and default treatment status. For this analysis, we characterize individuals with "high trust" as those who lie above the median on our trust index.

Table 14: Heterogeneous Treatment Effects (Default Treatment vs. Control)

Source: RAND-USC ALP MS64, MS73, MS189

	(1)	(2)	(3)	(4)
VARIABLES	Zero Equity	Under-Diversified	Too Aggressive	Too Conservative
High Trust	-0.050**	-0.056***	0.005	-0.063***
	(0.024)	(0.016)	(0.004)	(0.022)

Default X High Trust	-0.027	0.020	-0.002	0.031
	(0.049)	(0.031)	(0.009)	(0.047)
Default	-0.013	-0.036	-0.000	-0.008
	(0.045)	(0.031)	(0.007)	(0.042)
Married	-0.003	-0.003	-0.005	0.005
	(0.034)	(0.023)	(0.008)	(0.032)
Female	0.053*	-0.008	-0.006	0.066**
	(0.031)	(0.020)	(0.006)	(0.030)
Age < 45	-0.070**	-0.020	0.012	-0.097***
	(0.034)	(0.022)	(0.009)	(0.034)
AFI < $50,000	0.054	-0.005	-0.005	0.056*
	(0.035)	(0.023)	(0.005)	(0.033)
Black or Hispanic	-0.014	-0.004	0.000	0.038
	(0.055)	(0.035)	(0.011)	(0.052)
College	-0.069**	-0.015	0.001	-0.008
	(0.032)	(0.021)	(0.006)	(0.031)
Has DC Plan	-0.003	0.034	0.015**	-0.038
	(0.034)	(0.023)	(0.008)	(0.033)
Low-returns	-0.067**	0.053***	-0.008	-0.121***
	(0.030)	(0.019)	(0.006)	(0.029)
Portfolio Meter	0.013	0.005	-0.000	-0.027
	(0.037)	(0.024)	(0.007)	(0.036)
Constant	0.434***	0.117***	0.015	0.716***
	(0.054)	(0.037)	(0.011)	(0.051)
Observations	1,018	1,018	1,018	1,018
R-squared	0.040	0.031	0.015	0.050

Standard errors are reported in parentheses. ***indicates the coefficient is different from zero at the 1% level, ** at the 5% level, and * at the 10% level.

Once again we find that those with higher levels of trust make better decisions, but we do not find that those who are more trustful of the financial system perform better than those who are less trustful when unsolicited advice is provided. This result is rather remarkable. Even amongst individuals prone to soliciting advice, mandatory advice seems to have little impact on behavior.

Heterogeneous effects in the Affirmative Decision Treatment group

As shown in Table 12, controlling for trust, individuals offered the opportunity to receive advice performed no better, on average, on the allocation task than individuals in the control group. However, within the affirmative decision treatment did those who chose to receive advice perform better than those who did not? Table 15 shows that after controlling for trust and other

covariates, those who chose to receive advice were significantly less likely to hold zero equity, be under-diversified and be over-conservative than their counterparts. Additionally, those who received advice didn't improve performance on these dimensions by becoming excessively aggressive, as they were no more likely to be over-aggressive than those who did not receive advice.

Table 15: Heterogeneous Treatment Effects
(Affirmative Decision Treatment)

	(1)	(2)	(3)	(4)
VARIABLES	Zero Equity	Under-Diversified	Too Aggressive	Too Conservative
Choose Advice	-0.192***	-0.172***	-0.020	-0.124***
	(0.039)	(0.029)	(0.013)	(0.038)
Trust	-0.032	-0.035**	-0.002	0.019
	(0.021)	(0.014)	(0.007)	(0.022)
Married	-0.099**	-0.028	0.002	-0.027
	(0.043)	(0.028)	(0.010)	(0.042)
Female	0.101***	-0.004	-0.004	0.109***
	(0.037)	(0.024)	(0.011)	(0.038)
Age < 45	-0.028	-0.006	0.016	-0.090**
	(0.039)	(0.024)	(0.011)	(0.040)
AFI < $50,000	0.029	-0.022	-0.011	0.031
	(0.044)	(0.028)	(0.011)	(0.043)
Black or Hispanic	-0.078	-0.051	-0.018**	-0.077
	(0.068)	(0.037)	(0.008)	(0.072)
College	-0.055	-0.009	-0.006	-0.103***
	(0.037)	(0.022)	(0.010)	(0.038)
Has DC Plan	-0.001	-0.004	0.014	-0.078*
	(0.040)	(0.025)	(0.012)	(0.042)

Low-returns	-0.033	0.051**	0.022**	-0.087**
	(0.035)	(0.021)	(0.010)	(0.036)
Portfolio Meter	-0.046	-0.017	-0.015	-0.034
	(0.035)	(0.022)	(0.009)	(0.037)
Constant	0.550***	0.236***	0.025	0.795***
	(0.068)	(0.049)	(0.015)	(0.066)
Observations	687	687	687	687
R-squared	0.078	0.108	0.028	0.068

Standard errors are reported in parentheses. ***indicates the coefficient is different from zero at the 1% level, ** at the 5% level, and * at the 10% level.

Although there are large differences in behavior between those who chose to receive advice and those who did not, these differences may be due to selection rather than the receipt of advice. Indeed, the intent-to-treat analysis described above found no differences between the control group and the affirmative decision group on average, suggesting that the behavioral differences observed between those who chose to receive advice and those who chose not to may be largely driven by selection on unobservable characteristics that influence both receipt of advice and performance on the allocation task, such as motivation or interest.

To further investigate this possibility, we examine the effect of advice on those who chose to receive it by estimating the impact of treatment on the treated. The average effect of treatment on the treated is simply the average intent-to-treat effect divided by the fraction of participants who receive treatment. In a regression framework, this can be accomplished by estimating the following equation

$$Y_i = \alpha + \beta trust_i + \beta_1 advice_i + X_i'\delta + \varepsilon \quad (3)$$

for both the affirmative decision treatment and the control group, where assignment to the affirmative decision treatment is used as an instrument for receipt of advice.

Table 16 shows that after controlling for self-selection, receipt of advice has a negligible impact on performance on the portfolio allocation task. Compared with the estimates presented

in Table 15, the actual treatment effect is far more muted, and not statistically significant on any of the four dimensions. This implies that the sizeable gap in behavior observed between those who choose to receive advice and those who choose against it is driven largely by self-selection, rather than the receipt of advice.

Table 16: IV Regression: Treatment on the Treated
(Affirmative Decision Treatment and Control Group)

	(1)	(2)	(3)	(4)
VARIABLES	Zero Equity	Under-Diversified	Too Aggressive	Too Conservative
Choose Advice	-0.035	-0.034	0.018	-0.075
	(0.056)	(0.037)	(0.015)	(0.055)
Trust	-0.046***	-0.047***	-0.001	-0.011
	(0.017)	(0.012)	(0.005)	(0.018)
Married	-0.081**	-0.023	0.001	-0.018
	(0.035)	(0.023)	(0.007)	(0.034)
Female	0.079***	-0.020	-0.004	0.087***
	(0.030)	(0.020)	(0.008)	(0.031)
Age < 45	-0.020	0.004	0.017*	-0.077**
	(0.032)	(0.021)	(0.010)	(0.033)
AFI < $50,000	0.050	0.002	-0.009	0.035
	(0.035)	(0.022)	(0.008)	(0.034)
Black or Hispanic	-0.118**	-0.061**	-0.016***	-0.080
	(0.056)	(0.030)	(0.006)	(0.060)
College	-0.049	-0.029	-0.001	-0.083***
	(0.031)	(0.020)	(0.008)	(0.031)
Has DC Plan	-0.017	0.021	0.020**	-0.099***
	(0.033)	(0.021)	(0.009)	(0.033)

Low-returns	-0.038	0.049**	0.015**	-0.065**
	(0.029)	(0.019)	(0.008)	(0.029)
Portfolio Meter	-0.046	-0.018	-0.015	-0.036
	(0.036)	(0.023)	(0.010)	(0.037)
Constant	0.446***	0.144***	-0.000	0.754***
	(0.054)	(0.036)	(0.013)	(0.052)
Observations	1,033	1,033	1,033	1,033
R-squared	0.050	0.052	0.010	0.059

Instrument for advice = assignment to affirmative decision treatment

Standard errors are reported in parentheses. ***indicates the coefficient is different from zero at the 1% level, ** at the 5% level, and * at the 10% level.

VI. Discussion

Even though financial advice can be beneficial to households looking to make important financial decisions, financial advice usage is relatively low. Few empirical studies have investigated who seeks financial advice. Previous work has found that certain demographic characteristics such as age, education, and income, and individual characteristics such as financial literacy can help explain advice-seeking. At the same time, there are few studies that investigate the impact of trust on financial behaviors. In the literature, stock market participation has been the main financial behavior of interest in investigating the impact of trust, and evidence shows that trust has a positive impact on stock market participation (Guiso et al., 2008). In this paper, using both survey and experiment data, we find that trust in the financial sector is an important predictor of financial advice-seeking behavior. We show that, across three different survey waves that span 2007 to 2011, our measure of financial trust is highly correlated with different types of financial advice-seeking: specifically related to retirement advice, specifically related to DC plan advice, and in general. With survey data, it is difficult to determine causality,

and so we supplement our survey evidence with experiment data. Our analysis of a hypothetical choice experiment shows that higher levels of trust do indeed increase one's propensity to seek advice. Moreover, individuals who actively solicited advice performed better on the hypothetical portfolio task, though our analysis suggests this effect was driven primarily by self-selection rather than the receipt of advice. Indiscriminately providing unsolicited advice, however, has little impact on behavior, even for individuals that place a significant amount of trust in the financial system.

References

Agnew, Julie R., and Lisa R. Szykman. 2005. "Asset Allocation and Information Overload: The Influence of Information Display, Asset Choice, and Investor Experience." *The Journal of Behavioral Finance* 6: 57-70.

Agnew, Julie R., Lisa R. Szykman, Stephen P. Utkus and Jean A. Young. 2012. "Trust, plan knowledge and 401(k) savings behavior." *Journal of Pension Economics and Finance*, 11: 1-20

Ben-Ner, Avner, and Freyr Halldorsson. 2009. "Measuring Trust: Which Measure Can Be Trusted?" *Working paper 02007*.

Berg, Joyce, John Dickhaut, and Kevin McCabe. 1995. "Trust, Reciprocity, and Social History." *Games and economic behavior* 10: 122-42.

Bonaccio, Silvia, and Reeshad S. Dalal. 2006. "Advice Taking and Decision-Making: An Integrative Literature Review, and Implications for the Organizational Sciences." *Organizational Behavior and Human Decision Processes* 101: 127-51.

Deelstra, Janna T.; Peeters, Maria C. W.; Schaufeli, Wilmar B.; Stroebe, Wolfgang; Zijlstra, Fred R. H.; van Doornen, Lorenz P. 2003. "Receiving instrumental support at work: when help is not welcome." *Journal of Applied Psychology* 88: 324–331.

El-Attar, Mayssun and Markus Poschke. 2011. "Trust and the Choice Between Housing and Financial Assets: Evidence from Spanish Households." *Review of Finance* 15 (4): 727-756

Gächter, S., B. Herrmann, & C. Thöni. (2004). "Trust, Voluntary Cooperation, and Socio-Economic Background: Survey and Experimental Evidence." *Journal of Economic Behavior & Organization*, 55, 505-531.

Gibbons, A. M. 2003. "Alternative forms of advice in natural decision settings". Unpublished master's thesis, University of Illinois, Urbana-Champaign.

Gibbons, A. M., Sniezek, J. A., & Dalal, R. S. 2003. "Antecedents and consequences of unsolicited versus explicitly solicited advice". In D. Budescu (Chair), Symposium in Honor of Janet Sniezek. Symposium presented at the annual meeting of the Society for Judgment and Decision Making, Vancouver, BC.

Gino, F. 2008. "Do we listen to advice just because we paid for it? The impact of advice cost on its use." *Organizational Behavior and Human Decision Processes*, 107(2), 234-24

Glaeser, Edward L., David I. Laibson, Jose A. Scheinkman, and Christine L. Soutter. 2000. "Measuring Trust." *Quarterly Journal of Economics* 115: 811-46.

Goldsmith, D.J. 2000. “Soliciting advice: the role of sequential placement in mitigating face threat”, *Communications Monographs* 67:1–19.

Goldsmith, D.J. and K. Fitch. 1997. “The normative context of advice as social support.” *Human Communication Research* 23: 454–476.

Guiso, Luigi, Paola Sapienza, and Luigi Zingales. 2008. "Trusting the Stock Market." *The Journal of Finance* 63: 2557-600.

Helman, R. and VanDerhei, J. and Copeland,C. 2007. “The Retirement System in Transition: The 2007 Retirement Confidence Survey.” *EBRI Issue Brief*. No. 304.

Hilgert, Marianne A., Jeanne M. Hogarth, and Sondra G. Beverly. 2003. "Household Financial Management: The Connection between Knowledge and Behavior." *Federal Reserve Bulletin* 89: 309.Holt, C.A. and S. Laury. 2002. "Risk Aversion and Incentive Effects in Lottery Choices" *American Economic Review*, 92: 1644-55.

Hung, Angela A, Noreen Clancy, Jeff Dominitz, Eric Talley, and Claude Berrebi. 2008. *Investor and Industry Perspectives on Investment Advisers and Broker-Dealers*. Vol. 767: Rand Corporation.

Lusardi, Annamaria. 2008. "Household Saving Behavior: The Role of Financial Literacy, Information, and Financial Education Programs." *NBER Working Paper 13824*.

Lusardi, A., & Mitchell, O.S. 2007. “Financial literacy and retirement planning: New evidence from the RAND American Life Panel.” *MRRC Working Paper No. 2007-157*.

Lusardi, A. and O. Mitchell .2011. “Financial Literacy and Planning: Implications for Retirement Well-being,” in A. Lusardi and O Mitchell (eds), *Financial Literacy. Implications for Retirement Security and the Financial Marketplace*. Oxford University Press. 17-39.

Mayer, Roger C., James H. Davis, and F. David Schoorman. 1995. "An Integrative Model of Organizational Trust." *Academy of Management Review* 20: 709-34.

Mottola, Gary R., and Stephen P. Utkus. 2008. *Red, Yellow, and Green: Measuring the Quality of 401 (K) Portfolio Choices*. Chicago: University of Chicago Press.

Rotter, Julian B. 1967. "A New Scale for the Measurement of Interpersonal Trust." *Journal of Personality* 35: 651-65.

Sniezek, J.A., G.E. Schrah and R.S. Dalal. 2004. “Improving judgment with prepaid expert advice”, *Journal of Behavioral Decision Making* 17 (2004), pp. 173–190

Sniezek, J.A. and L.M. Van Swol. 2001. “Trust, confidence, and expertise in a judge–advisor system”, *Organizational Behavior and Human Decision Processes* 84 pp. 288–307.

https://www.tiaa-cref.org/public/pdf/TIAA-CREFAdviceSurveyExecutiveSummary2013.pdf

Van Rooij, M., A. Lusardi and R. Alessie. 2011. "Financial Literacy and Stock Market Participation." *Journal of Financial Economics*. 102 (2): 449-472

Yaniv, I. 2004a. "The Benefit of additional opinions", *Current Directions in Psychological Science* 13, pp. 75–78.

Yaniv, I. 2004b. "Receiving other people's advice: influence and benefit", *Organizational Behavior and Human Decision Processes* 93: 1–13.

Yaniv , I. and E. Kleinberger. 2000. "Advice taking in decision making: egocentric discounting and reputation formation." *Organizational Behavior and Human Decision Processes* 83: 260–281

Appendix

Table A1: Factor Loadings Corresponding to Trust in the Financial System

Trust in Financial System	Factor Loadings
Market	0.6246
Banks	0.5388
Insurance	0.6020
Brokers	0.8137
Financial Advisors	0.7116