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## Asking the Experts: Perception of the Relative Importance of Antecedents of Optimal Financial Behavior

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Asking the Experts: Perception of the Relative Importance of Antecedents of Optimal Financial  
Behavior

by

Chad M. Jones

A dissertation submitted in partial fulfillment  
of the requirements for the degree of  
Doctor of Business Administration  
MUMA College of Business  
University of South Florida

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## DEDICATION

All the glory to my Lord and Savior, Jesus Christ!

To my children, Jackson Everett Jones and Isabel Paola Jones: You are the reasons your mother and I do anything—to hopefully be an example you can look to in faith, love, character, and education. The biggest thank-you goes to my beautiful and amazing wife, Ana Paola Jones. You are my greatest supporter and advocate. This does not happen without your love and constant dedication to me and our family. Thank you to my brother who set the example for me in academics early on and to my parents for making our education a priority.

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## **ABSTRACT**

Although there is ample research on financial behavior, the inclusion of financial planners in the sample frames of such research is rare. This study used certified financial planners (CFPs) as the sole sample population to identify antecedents of optimal financial behavior and their relative importance. Data from a nationally representative sample of 167 CFPs indicated that (a) financial literacy lost relative importance as CFP tenure increased, (b) romantic partnership closely rivaled financial literacy in importance, (c) financial literacy was more weakly correlated with romantic partnership than with the other antecedents investigated, and (d) romantic partnership was universally accepted as a relatively important antecedent. The study also drew on a novel scale for romantic partnership to measure the perceived importance of communicating with a romantic partner as an antecedent of optimal financial behavior. The findings suggest that romantic partnership is a significant yet previously unidentified construct in this context.



## **CHAPTER 1: INTRODUCTION**

I investigated antecedents of optimal financial behavior by surveying Certified Financial Planners (CFPs). Six antecedents were identified through initial qualitative interviews. These antecedents were Financial Literacy, Self-Efficacy, Self-Control, Optimism, Romantic Partner and Past Experience. I sought to determine relative importance of these antecedents to optimal financial behavior via the perception of the financial advising expert.

### **Motivation**

During my coursework, I was searching for literature regarding financial behavior and its antecedents. As a financial advisor and CFP, I was able to identify an obvious gap in the literature regarding sample frames. It appeared that the literature scarcely used financial service professionals, such as financial advisors, among their sample frames in researching optimal financial behavior. Based on requirements for certification, it seemed logical that CFPs would be considered subject matter experts in coaching and advising clients in optimal financial behavior (CFP Board, 2021).

Researchers have seemed to focus largely on financial literacy as an antecedent of optimal financial behavior. While financial knowledge is important, I perceived a need for a conversation extending beyond just financial literacy. Researchers have studied other antecedents, but most have favored investigation of financial literacy. Anecdotal discussions

with my colleagues indicated a bias toward financial literacy among academic researchers and suggested that other antecedents were as important—if not more important.

Fernandes et al. (2014) conducted a comparative meta-analysis of 168 papers covering 201 studies. The authors determined that “interventions to improve financial literacy accounts for less than 0.1% of the variance in financial behaviors studied” (Fernandes et al., 2014, p. 2). This statistic is surprising given the volume of research I found dedicated to understanding and championing financial literacy.

As my original research question began to take shape, I realized that I could explore the antecedents of optimal financial behavior through a set of demographic factors from the perspectives of experts. Researchers have thoroughly researched demographics in connection with financial behavior, but they have rarely considered demographics from the perspective of the advisor. Drawing on a sample of experts had the potential to provide a rare look at some common demographics while introducing new demographics not yet considered.

I aimed to identify any factor with potentially as great an impact on optimal financial behavior as financial literacy has; knowledge of these factors would benefit future research. Taking a fresh look at demographics and their predictive impact on these antecedents could open a new vein of research and raise awareness of ways to improve optimal financial behavior for struggling U.S. households.

### **Research Questions**

Two research questions guided this study:

1. What factors do experts perceive as important in optimizing financial behavior?
2. What impact do demographic factors have on perception of importance of antecedents of optimal financial behavior?

The first research question emerged from a discussion regarding the role that practitioners such as financial advisors and planners should and could have in addressing suboptimal financial behavior. These practitioners possess subject matter expertise that can serve as a rich resource for addressing optimal financial behavior. I also observed from discussions with fellow practitioners that most of them felt financial literacy was not the only important antecedent of optimal financial behavior. This idea ran counter to the focus on financial literacy in existing literature. As the study took shape, I realized that investigation of demographics and their effect on antecedents of optimal financial behavior potentially offered unique insights, given the sample frame. This realization led to the second research question.

### **Findings**

Qualitative interviews and pilot surveys revealed the perceived antecedents of a client's optimal financial behavior as financial literacy, self-efficacy, self-control, optimism, romantic partnership, and past experience. The demographic variables considered when analyzing the data were: CFP tenure, number of clients, net worth of client, age of client, and client education. Analysis of variance (ANOVA) revealed that the longer a CFP had been a CFP, the less importance they placed on financial literacy. Another interesting finding, from mean test within univariate analyses, was that romantic partnership closely rivaled financial literacy in importance across the sample. Romantic partnership was also far less strongly correlated with financial literacy than the other antecedents were. Regression analyses exposed no predictors among the demographic factors for romantic partnership, leading me to conclude that all the CFPs in the sample found romantic partnership important. As part of the study, I created a scale for the relative importance of romantic partnership as an antecedent of optimal financial behavior.

## Contributions

This study makes three main contributions. First, the study highlights for the first time the importance of factors other than financial literacy for driving optimal financial behavior. Second, the findings indicate the need for future work to better understand the rank order of financial literacy and other factors that shape optimal financial behavior. Third, practitioners can benefit from a validated questionnaire that identifies the most impactful factors of optimal financial behavior, which could help them vet prospects and shape client engagement. In addition to these three items the broader implication of this research is profoundly important in recognition of the low US savings rate, providing new insights to optimal financial behavior (<https://www.statista.com/statistics/246268/personal-savings-rate-in-the-united-states-by-month/>).

If romantic partnership is indeed universally important and the importance of financial literacy wanes as a client–advisor relationship lengthens, training of practitioners should address this phenomenon to help enrich relationships and foster optimal financial behavior. Firm managers could use the findings of this research to better evaluate marketing, training of practitioners, and advisor hiring practices. The findings could ultimately lead to a new vein of research culminating in improved curricula, programs and platforms for optimizing financial behavior.

## **CHAPTER 2: LITERATURE REVIEW**

### **Defining Financial Literacy**

The Jump\$tart Coalition for Personal Financial Literacy introduced the concept of financial literacy in 1997, defining it as “the ability to use knowledge and skills to manage one’s financial resources effectively for lifetime financial security” (Stolper & Walter, 2017, p. 588). Huston (2010), in her seminal work on measuring financial literacy, depicted the components of financial literacy as knowledge and capability. Huston surveyed 71 studies based on 52 different data sets and determined that many definitions of financial literacy were in use. Of the studies surveyed, 72% offered no direct definition. Huston (2010) said that financial literacy measures “how well an individual can understand personal finance-related information” (p. 306), and Bapat (2019) defined financial literacy as “an understanding of financial concepts and ability to make sound financial decisions” (p. 45). These various definitions suggest that financial literacy centers around an individual’s ability to act in their best interest given their understanding of basic financial concepts.

### **Definition of Financial Behavior Used for the Study**

In developing their Financial Management Behavior Scale, Dew and Xiao (2011) considered 15 earlier studies focused on measuring financial behavior. They found that two thirds of the studies focused on one or two domains of financial behavior, and the others reflected three or more domains. Dew and Xiao used the following domains to define financial

behavior: cash management, saving and investing, credit use, and insurance. Bapat (2019) reiterated Dew and Xiao's domains. Therefore, I defined financial behavior for this study as an individual's behavior with respect to cash management, saving and investing, credit use, and insurance.

### **Financial Literacy as an Antecedent of Financial Behavior**

Many different researchers have viewed financial literacy as a positively correlated factor of financial behavior (Joo & Grable, 2004; Robb & Woodyard, 2011; Sundarassen et al., 2016; Tang & Peter, 2015). However, the meta-analysis conducted by Fernandes et al. (2014) revealed the effectiveness of financial education programs had little impact in improving financial behavior.

Huston (2010) found that financial literacy is a function of knowledge and ability and that financial literacy affects downstream financial behaviors. However, Huston clarified that although financial literacy predicts financial behavior and outcomes, it does not necessarily predict the optimal behavior described by scholars, policy makers, and educators. A financial literacy measure indicates the intellectual capacity necessary to produce appropriate financial behavior (Huston, 2010). Sundarassen et al. (2016) studied financial management behavior of young adults and identified financial literacy, money management, and wealth optimization as part of "a cradle to grave" (p. 138) process to avoid financial mishaps and achieve financial freedom at the earliest possible stage of life.

Yates and Ward (2011) studied high school students and reported that "most high school students ... lack the basic financial literacy skills to make informed personal financial decisions" (p. 76). Tang and Peter (2015) similarly found that financial knowledge, and thereby financial literacy, can lead to better financial decision making. They used a student's college major as a

proxy for their financial education and investment experience as a proxy for financial experience. Tang and Peter admitted the limitations of this approach, which ignored other interdependent variables that determine financial literacy. In particular, financial education alone has a limited impact on improving financial literacy (Frijns et al., 2014). Fernandes et al. (2014) consulted over 200 papers in their meta-analysis and found that interventions to improve financial literacy explained only 0.1% of the variance in financial behaviors studied.

### **Factors Other Than Financial Literacy as Antecedents of Financial Behavior**

Frijns et al. (2014) claimed that past financial experience has a greater effect on financial literacy and behavior than education does due to the decay of financial education over time. Self-efficacy is, however, the more commonly researched antecedent outside of financial literacy. Bandura (1977) defined self-efficacy as a personal judgment of probable success given a situation. Letkiewicz et al. (2016) examined financial stress and self-efficacy in relation to college students' financial help-seeking behavior using Grable and Joo's (1999) framework finding that self-efficacy leads to help seeking behavior and financial stress does not. However, Lim et al. (2014) found that self-efficacy weakly moderates the relationship between help-seeking behavior and financial behavior. Asebedo and Seay (2018) found that financial self-efficacy is important to saving behavior in the accumulation phase before retirement.

Confidence is an essential component of transferring literacy to behavior (Asaad, 2015). However, overconfidence can have a detrimental impact on financial practice. Letkiewicz et al. (2016) found that a society rich in financial self-efficacy would likely make greater use of financial planning advisors.

Shefrin and Thaler (1988) determined that self-control is a necessity because immediate cash consumption can be a tempting alternative to saving for retirement. A person with strong

self-control is more likely to exhibit good financial behavior, save toward retirement from each paycheck, experience low financial stress, and feel at peace with their current and future financial situation (Strömbäck et al., 2017).

Ajzen (1991) noted that attitudes are summary evaluations along dimensions such as good–bad, harmful–beneficial, pleasant–unpleasant, and likeable–dislikeable. Attitudes, as antecedents of financial behavior, are therefore feelings, beliefs, and predispositions influencing the behavior of an individual. Along with self-control, Strömbäck et al. (2017) identified optimism as a characteristic of respondents who demonstrated better financial behavior and less financial stress and felt more secure about their financial situations. Strömbäck goes on to tell us that “optimism has also been shown to be associated with general well-being and may be an important aspect of financial well-being” (2017, p. 31).

Romantic partnership influences financial relationships and financial life satisfaction (Curran et al., 2018). Those in romantic partnerships may be young adults who have received (directly or indirectly) greater financial instruction and have greater knowledge retention. They therefore feel a greater ability than others to influence positive outcomes by engaging in sound financial behavior (Jorgensen et al., 2017). Gudmunson and Danes (2011) said that when a commodity need is strong in a happy marriage, spouses influence each other when making a purchase. Romantic partners use objective reasoning to explain the purchase. In the context of financial advice, “times of family change represent windows of opportunity for educators and practitioners who work with families to influence financial practices” (Gudmunson & Danes, 2011, p. 662). Perceived external financial socialization from a romantic partner is significant for well-being, life satisfaction, relationship satisfaction, and relationship commitment (Curran et al., 2018).



## **Impact of Financial Planners on Financial Behavior**

None of the aforementioned studies included financial planners or advisors. Klontz and Britt (2012), however, studied financial planners and advisors (among others) to determine antecedents of financial behavior. But these practitioners were responding in regards to their own financial behaviors, not that of their clients. Researchers investigating factors that influence financial behavior have seldom included professional financial advisors or their perception of optimal financial behavior in their samples.

Financial planners positively and consistently affect the behaviors of their clients (Park & Yao, 2016). Financial planners are therefore important for improving financial behavior and, as such, can be viewed as experts in its antecedents (Marsden et al., 2011).

Blanchett and Kaplan (2013) developed the gamma concept: When developing an income plan, financial planners can add a mathematical measure—gamma—that depends on expertise and creativity. Blanchett and Kaplan determined that the expertise of a professional financial planner can generate more income for a client from given assets. The authors described gamma as measuring the incremental, additional expected retirement income of an individual investor due to making beneficial financial-planning decisions. Marsden et al. (2011) conducted a study during the Great Recession of 2008–2009 and found that the use of a financial planner positively affected financial behavior. Their major finding was that consulting with an advisor related to several vital financial planning activities, including goal setting, planning of retirement needs, portfolio diversification, use of supplemental retirement accounts, building an adequate emergency fund, positive behavioral responses to the recent economic crisis, and retirement self-efficacy. Marsden et al. also found that financial planners had a positive impact in all domains of the financial behavior (saving and investing, cash, credit, and insurance). Comprehensive wealth

management is better than simple investment portfolio management because personal finance practices and considerations are key to consumers optimal financial behavior (Warschauer & Sciglimpaglia, 2012).

### **Existing Scales and Questionnaires for Financial Behavior**

Klontz et al. (2011) developed scales to assess money scripts, which are “unconscious, trans-generational money beliefs” (p. 1) that the authors claimed are inculcated during childhood and drive financial behaviors in adults:

Once identified, money scripts can be challenged and changed to interrupt destructive financial patterns and promote financial health. Financial planners can assess client money scripts as a part of their data gathering process to provide a shared language to explore the impact of money beliefs on financial behaviors and to predict potential risks to clients’ financial health. (p. 1)

Klontz et al. used financial planning professionals as part of their sample frame while developing their questionnaire, so these professionals were answering questions about their own money behaviors. The authors did not use these professionals to help identify, or give credibility to, the use of money scripts with clients. The professionals therefore did not give their expert opinion on what they saw as antecedents of optimal financial behavior in their clients.

Around the same time that Klontz et al. (2011) were at work on their questionnaire, Dew and Xiao (2011) developed and validated the Financial Management Behavior Scale. Dew and Xiao wanted to create a multidimensional scale with greater reliability than previous measures. Researchers have subsequently assessed a Cronbach’s alpha of .81 for the Financial Management Behavior Scale. Ksendzova et al. (2017) factor-analyzed 205 scaled questions from existing money management measures to select the most reliable items and examine their internal

consistency and convergent validity, resulting in the 18-item Brief Money Management Scale. Ksendzova et al. cited Dew and Xiao and the Financial Management Behavior Scale and discussed how future studies could use this multifaceted measure of money management to better understand the antecedents and consequences of different financial decisions.

### **Conclusion**

I have identified two issues: (a) Researchers have focused on financial literacy and paid relatively little attention to other antecedents of optimal financial behavior, and (b) researchers have largely left practitioners (financial advisors and planners) out of their sample frames.

Few researchers have focused on wealth management experts' opinions on financial behavior. The absence of practitioners has led researchers to potentially ignore a valuable source of information, direction, and depth in research. Researchers should ask the experts who coach and support financial behavior to suggest what determinants of optimal financial behavior are, based on the experts' interactions with their clients. Coupling the opinions of experts with academic research would provide a more complete picture of how to improve the financial behavior and downstream well-being of Americans.

## **CHAPTER 3:**

### **METHOD**

The sample frame of the survey for my research was CFPs, a proxy for experts (Appendix A). The certification process to become a CFP requires a practitioner to complete seven college-level courses, including a capstone exercise covering the following topics: insurance planning, investment planning, income tax planning, retirement planning, estate planning, the financial planning process, cash flow management, ethics, educational planning, financial strategies, financial service regulations and requirements, tax accounting, cost recovery concepts, and charitable contributions. After completing this coursework, candidates must pass a 6-hour exam that has an average pass rate of 62% (CFP Board of Standards, 2019). Once academically qualified, a practitioner must have 3 years of experience in comprehensive wealth management planning before they can use the marks of a CFP.

I distributed the survey to a nationally representative group of CFPs in January 2021 and had collected all respondent results for analysis by March 2021. The main purpose of the survey was to identify antecedents of financial behavior based on experts' (i.e., CFP) opinion.

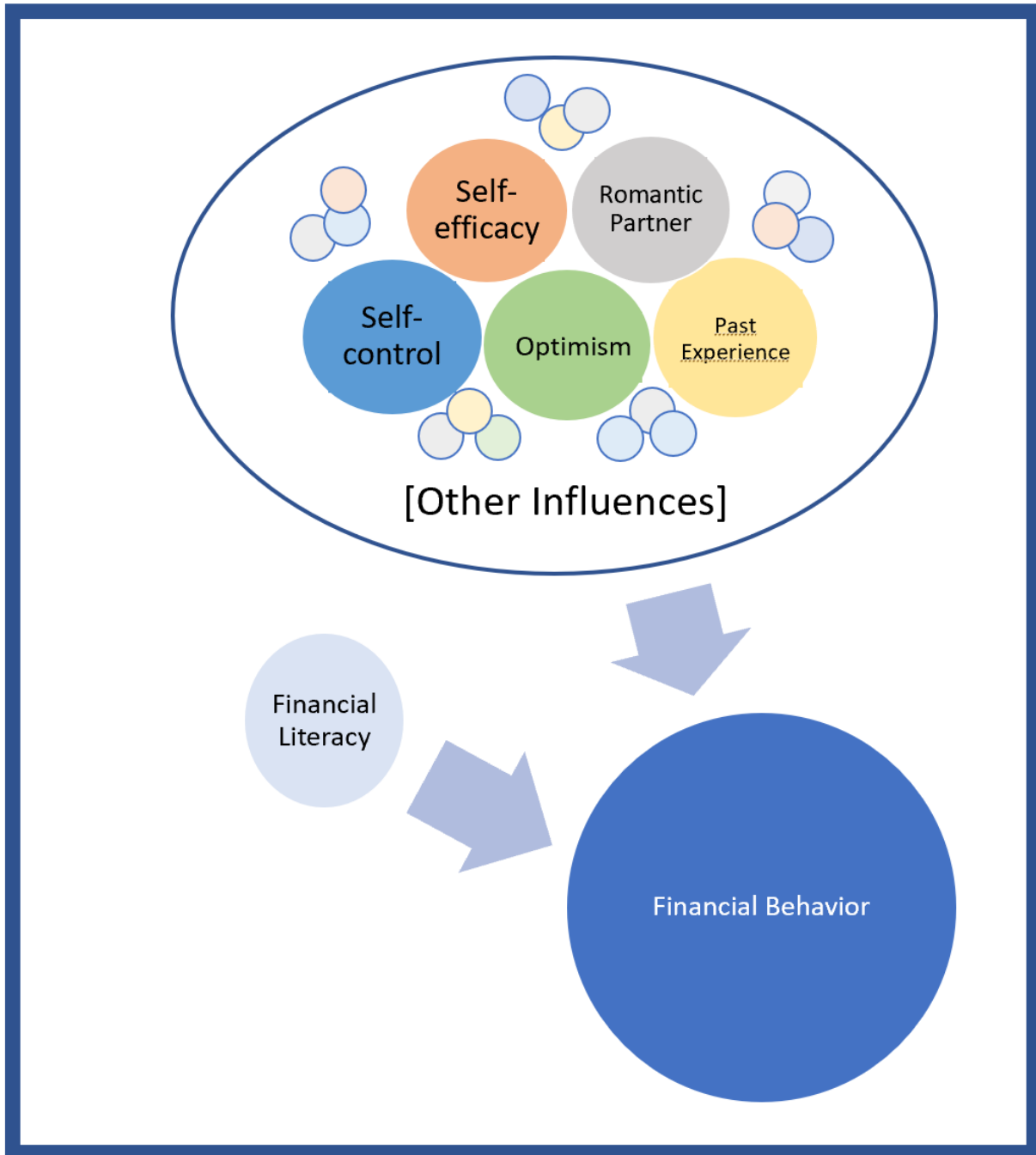
#### **Qualitative Interviews & Pilot Study**

During April 5–16, 2020, I interviewed 7 CFPs before initiating a pilot study that included second-pass interviews. The interviewees were men and women with experience in the industry that ranged from 5 to 35 years. I recorded these interviews using the Otter.ai iPhone application and analyzed them qualitatively using open coding, axial coding, and selective

coding as outlined by Corbin and Strauss (2008, 2014). Initial line-by-line coding of the interview data began the process of identifying concepts and categories of information. Categories, which are groupings of similar codes or concepts, formed during open coding. From this pilot study, I identified the following candidates for antecedents of optimal financial behavior: self-efficacy, self-control, financial literacy, optimism, past experience and romantic partnership.

### **Conceptual Model**

Taken together, Huston's (2010) framework, my review of existing literature, and the findings of my pilot study indicated that some antecedents of optimal financial behavior had received more research interest than others, especially from the practitioner's perspective. In Figure 1, the sizes of the ovals represent the relative perceived impacts of the various antecedents identified during the pilot study. Given the exploratory nature of the research, I created the conceptual model to reflect my findings in coding my initial interview. While financial literacy was mentioned by several interviewees, the other five constructs were also captured as constructs perceived as important. In an homage to the Huston framework, I separated the antecedent of financial literacy from the 'other influences', choosing to represent by size the idea that these five constructs of Romantic Partnership, Optimism, Past Experience, Self-Efficacy and Self-Control were important to the practitioner over many other factors. Therefore, the Conceptual Model below is a representation of the qualitative relationship of the variables. The labeled objects are elements in the model. Recognition of the potential of other variables are represented by small unlabeled circles.



**Figure 1. Practitioner perception.**

I determined that I would use a survey instrument with items based on a 5-point Likert scale (1 = *never important* to 5 = *always important*). I conducted a search of the existing

literature to identify existing instruments and associated items with high internal consistency reliability for the constructs in the model identified in Figure 1.

### **Survey Development**

I found existing scales for financial literacy (Knoll & Houts, 2003), self-efficacy (Sherer & Maddux, 1982), self-control (Tangney et al., 2004), and optimism (Sheier & Carver, 1985). I found no existing scales for past experience or romantic partnership. There is a tradeoff in survey design between maximizing information gathered by including additional measures and maximizing the probability of survey completion by limiting the time required to complete it to 10–15 min. I therefore selected the most impactful measures. The following sections describe the selection of the instruments for the different constructs and selection of specific questions from those instruments.

#### **Likert Scaling**

I determined to use a 5-point Likert scale for the survey instrument. I settled on a 5-point scale to avoid forcing respondents to choose a nonneutral position. In labelling the points on the scale, I adopted terms ranging from “never” to “always” to associate frequency with importance across the client families served by the experts.

#### **Financial Literacy Scale**

Knoll and Houts (2012) created the Financial Knowledge Scale, which offered the best fit for measuring financial literacy based on its credibility and the pilot study interview responses. According to Google Scholar, the scale has been cited over 150 times, and it has a reported Cronbach’s alpha of .85. The scale asks respondents multiple choice and true/false questions about skill topics, such as interest, time value of money, diversification, debt management, and savings. In keeping with my desire to use Likert scales in my survey, I modified the existing

scale items to allow this scaling without losing internal consistency reliability (Knoll & Houts, 2012). In all, 13 of my survey items are derived from the Financial Knowledge Scale. I confirmed the fit of each survey item through the interviews conducted during the pilot study. In other words, since the items were intended originally for first person response, I asked my CFP group that I interviewed to take a look at the small changes I made to allow a response from an outside source perceiving the action.

### **Self-Efficacy Scale**

Sherer and Maddux (1982) published the Self-Efficacy Scale, which fit well with the study based on its credibility and pilot study interview responses. According to Google Scholar, the scale has been cited over 228 times, and it has a reported Cronbach's alpha of .86. The scale asks respondents to complete items using 4-point Likert scales, forcing respondents to make nonneutral selections. For my survey, the 5-point Likert scale used also offered a neutral position. In all, I used seven of the scale's 17 items in my survey. I chose the top seven items based on factor loading within the original scale.

### **Self-Control Scale**

Tangney et al. (2004) offered the General Self-Efficacy Scale to measure self-control, which fit well with the study based on its credibility and pilot study interview responses. According to Google Scholar, the scale has been cited over 5,318 times, and it has a reported Cronbach's alpha of .89. The scale asks for responses using 5-point Likert scales. When incorporating items from the General Self-Efficacy Scale in my survey, I made no changes except to shift the perspective from that of an individual answering for herself or himself to that of an individual answering based on perception of others. In all, I selected nine of the scale's 36



items, which were the nine items requiring the least modification to change from first person response to third person response.

### **Optimism Scale**

Sheier and Carver (1985) offered the Life Orientation Test to measure optimism, which fit the study well based on its credibility and pilot study interview responses. According to Google Scholar, the test has been cited over 8,519 times, and it has a reported Cronbach's alpha of .76. This test asks for responses using 5-point Likert scales, matching my intended scoring system. I did not modify the items in any way other than to shift the perspective from self-perception to perception of others. In all, I chose seven of the test's eight items, which were the seven items that required the least modification.

### **Past Experience and Romantic Partner Scales**

I found no validated scales for past experience or romantic partnership in existing literature. I therefore created corresponding scale items based on the interviews from the pilot study. I then convened a focus group made up of pilot study interviewees to review the items for the purposes of establishing content validity, identifying redundancy, and identifying any omissions that prevented the items capturing the full breadth of the topic from the perspective of the target population. The focus group validated five items for past experience and six items for romantic partnership.

### **Formatting and Demographics**

I used Qualtrics to construct and deploy the survey. Use of skip logic (sending respondents to a future point in the survey based on how they answer a question) allowed respondents to write in their own definitions of financial behavior if they disapproved of the provided definition derived from academic literature. However, the survey reminded respondents

before they answered construct items that they should consider the provided academic definition when answering those items. Demographic questions requested each respondent's gender, location, length of time as an expert relative to their time in industry, and number of client families served. These questions also asked about a few basic qualifying characteristics of their book of business, such as income, net worth, and education level.

### **Deploying the Survey**

I sent a link to the survey to a test group of CFPs at my firm via email. This group recommended changes to three items within the survey. The first change recommended was to modify the phrasing of an item from “understand the unrealized and realized gains/losses of past market extremes” to “understand gains and losses of past market extremes.” This change eliminated superfluous words and awkward phrasing but retained the concept covered by the item. I had created this item to measure past experience, for which no existing scale existed. The second change recommended was to delete an item derived from the Financial Literacy Scale. The item's prompt, “consider interest rates when goal-planning,” made no sense because the term “interest rates” has diverse definitions in comprehensive wealth management. The third change recommended by the test group related to another item from the Financial Literacy Scale, which included the phrase “inflation rates when goal-setting.” This item was removed due to redundancy with another item.

### **Wide Distribution of the Survey**

I analyzed the pilot data of the test group to confirm the process I would use and then discarded the data. I randomly placed three items as attention checkers throughout the construct items in the deployed instrument. The attention checkers asked the respondents to answer with either *always important* or *never important*.

First, I deployed the survey on LinkedIn to CFPs. The process for deployment was to find professional group pages for CFPs. The link was posted and with an ask to participate. I also used the advanced search function on LinkedIn to identify CFPs in my network and in general. I was able to directly send the link to my survey to 60 individuals found through the search. Second, I deployed the survey to a Qualtrics panel of 146 people. A total of 176 participants took the survey, either as part of the Qualtrics panel or by responding to the LinkedIn request. I removed three respondents from the analysis because they failed an attention check item. I removed four respondents from the analysis because they answered that they were not CFPs. I removed two respondents from the analysis because they were located outside the United States. The analysis in Chapter 4 is based on the remaining 167 participants. Of these 167 participants, four disagreed with the provided definition of financial behavior, but they were not removed from the sample.

### **Method of Analysis**

I used univariate analysis to address the first research question regarding the factors that financial experts perceive as important to optimizing financial behavior. Univariate statistics—including means, standard deviations, and confidence intervals of the scores for each construct—allowed assessment of the relative importance of the antecedents of optimal financial behavior that rival financial literacy.

I conducted both univariate and multivariate analyses to address the second research question regarding the impact of demographic factors on perception of importance of antecedents of optimal financial behavior. More specifically, one-way ANOVAs between each categorical variable (the antecedents) and each independent variable (the demographic characteristics) identified general significance. I also assessed the following regression model separately for each

of the six antecedents of optimal financial behavior, using the ordinary least squares method to determine which demographic variable best predicted each antecedent:

$$\begin{aligned} \mathbf{Antecedents} = & \beta_0 + \beta_1\mathbf{gender} + \beta_2\mathbf{CFP\_tenure} + \beta_3\mathbf{num\_clients} \\ & + \beta_4\mathbf{age\_client} + \beta_5\mathbf{client\_worth} + \beta_6\mathbf{education} + \varepsilon \end{aligned} \quad (1)$$

where *Antecedents* denotes one of the antecedents (financial literacy, romantic partnership, optimism, past experience, self-control, or self-efficacy),  $\beta_0$  is the intercept, *gender* is an indicator variable that equals 1 if the respondent is male and 2 otherwise, *CFP\_tenure* denotes tenure in years as a CFP, *num\_clients* denotes the number of clients a CFP works with, *age\_client* denotes client age, *client\_worth* denotes a band of net worth based on clients' assets and liabilities, *education* denotes the overall average education level of the respondent's clients, and  $\varepsilon$  is an error term. CFP tenure was highly correlated with FA tenure, with a Pearson correlation coefficient of .809 ( $p < .001$ ). Annual income was also strongly correlated with net worth, with a Pearson correlation coefficient of .645 ( $p < .001$ ). I therefore left these factors—FA tenure and annual income—out of the regressions to avoid the collinearity problem.

## **CHAPTER 4:**

### **RESULTS**

A total of 176 people responded to the survey, either as part of a Qualtrics panel (131 respondents) or via LinkedIn (45 respondents). The analysis in this chapter is based on responses of the 167 respondents who met the study criteria. Of these 167 participants, only four disagreed with the provided definition of financial behavior.

#### **Demographic Information**

I used 126 responses obtained via Qualtrics and 41 obtained via LinkedIn. Table 1 summarizes the significant demographic variables (Table C1 summarizes the other demographic variables).

Overall, there were 95 male respondents, 69 female respondents, and three respondents who preferred not to answer the gender question. According to the Certified Financial Board of Standards there were 88,726 CFPs, including 20,633 female CFPs (23.3%), in 2018 (<https://www.cfp.net/knowledge/reports-and-statistics/professional-demographics>). My sample was 41% female, more representative of the CFP population than the subsamples were individually (51% female for the Qualtrics subsample and 14% female for the LinkedIn subsample).

**Table 1***Frequencies for Gender, Tenure, and Number of Clients Served*

Category	<i>f</i>	%	Valid %	Cumulative %
Gender (LinkedIn sample)				
Male	35	85.366	85.366	85.366
Female	6	14.634	14.634	100.000
Missing	0	0.000		
Total	41	100.000		
Gender (Qualtrics sample)				
Male	60	47.619	48.780	48.780
Female	63	50.000	51.220	100.000
Missing	3	2.381		
Total	126	100.000		
Certified financial planner tenure (years)				
<5	60	35.928	35.928	35.928
6–10	51	30.539	30.539	66.467
11–15	30	17.964	17.964	84.431
16–20	14	8.383	8.383	92.814
21–25	12	7.186	7.186	100.000
Missing	0	0.000		
Total	167	100.000		
Financial advisor tenure (years)				
<5	50	29.940	29.940	29.940
6–10	52	31.138	31.138	61.078
11–15	30	17.964	17.964	79.042
16–20	16	9.581	9.581	88.623
21–25	10	5.988	5.988	94.611
>26	9	5.389	5.389	100.000
Missing	0	0.000		
Total	167	100.000		
Number of clients served				
<100	64	38.323	38.323	38.323
100–249	62	37.126	37.126	75.449
250–499	27	16.168	16.168	91.617
500–999	8	4.790	4.790	96.407
>1,000	6	3.593	3.593	100.000
Missing	0	0.000		
Total	167	100.000		

Table 1 shows that the distributions for CFP tenure and financial advisor tenure were similar. Over 90% of respondents reported having 500 or fewer clients, with 75% reporting having fewer than 250 clients. It is unclear whether respondents were counting clients as individual accounts or client families (considering several accounts within a single household as one client). Location (Table C1 in Appendix C) led to no significant findings, and I wholly excluded it from the regression models. Because there was no way to treat location as either an ordinal or a continuous variable, its addition to the regression models would have added five independent variables (via dummy coding). I thus removed it from consideration. I ran one-way ANOVAs between each categorical variable and each of the dependent variables.

### **Univariate Statistics**

The survey measured all items for the six constructs (financial literacy, self-efficacy, self-control, romantic partnership, optimism, and past experience) on a Likert scale that ranged from 1 (*never important*) to 5 (*always important*).

Table 2 shows the mean scores for each construct for the overall sample, the LinkedIn subsample, and the Qualtrics subsample. The top three constructs (financial literacy, romantic partnership, and self-control) were the same across these samples, but their ranks within the top three differed across the samples. There were some overlaps between the confidence intervals of the top three in the overall sample.

#### **Financial Literacy**

The survey measured financial literacy with 13 items. Cronbach's alpha was .89 for the 13 items. Internal consistency reliability did not increase when I removed any item. There was a significant difference between the means of the LinkedIn sample and the Qualtrics sample,  $t(165) = 14.10, p < .01$ .

**Table 2***Per Item Sample Means*

Variable	Overall sample		LinkedIn subsample		Qualtrics subsample	
	<i>M</i>	95% CI	<i>M</i>	95% CI	<i>M</i>	95% CI
Financial literacy	4.50	[4.42, 4.58]	3.83	[3.68, 3.98]	4.71	[4.66, 4.77]
Optimism	4.08	[3.97, 4.20]	3.56	[3.37, 3.75]	4.25	[4.12, 4.38]
Past experience	4.21	[4.11, 4.31]	3.63	[3.42, 3.83]	4.40	[4.30, 4.50]
Romantic partnership	4.39	[4.30, 4.48]	4.14	[3.99, 4.30]	4.47	[4.38, 4.57]
Self-control	4.36	[4.28, 4.43]	3.95	[3.82, 4.09]	4.49	[4.41, 4.56]
Self-efficacy	4.25	[4.17, 4.33]	3.73	[3.57, 3.85]	4.42	[4.34, 4.50]

*Note.* CI = confidence interval.

**Optimism**

The survey measured optimism with five items. Cronbach's alpha was .85 for the five items. Internal consistency reliability did not increase when I removed any item. There was a significant difference between the means of the LinkedIn sample and the Qualtrics sample,  $t(165) = 5.45, p < .01$ .

**Past Experience**

The survey measured past experience using five items. Cronbach's alpha was .74. Internal consistency reliability did not increase when I removed any item. There was a significant difference between the means of the LinkedIn sample and the Qualtrics sample,  $t(165) = 7.36, p < .01$ .

**Romantic Partnership**

The survey measured romantic partnership using six items. Cronbach's alpha was .76 for these six items. Internal consistency reliability did not increase when I removed any item. There was a significant difference between the means of the LinkedIn sample and the Qualtrics sample,



$t(165) = 3.39, p < .01$ , although this was the smallest such difference among the dependent variables.

### **Internal Consistency Reliability Results for Romantic Partnership Scale**

No scale for romantic partnership existed, so I created one. A panel of advisors who were part of the original pilot study vetted the scale, and I included the items from the scale in the survey. Table 3 shows the results of analysis of internal consistency reliability for these items. Reliability was not improved by dropping any of the items.

**Table 3**

*Single-Test Reliability Analysis*

Item	Description	Cronbach's $\alpha$
Frequentist scale reliability point estimate		
Scale		.763
Frequentist individual item reliability if item dropped		
RP1	Attend financial meetings with their significant other	.749
RP2	Consider the romantic partner's emotions	.711
RP3	Communicate with their romantic partner over budget constraints	.681
RP4	Take part in making the financial decisions together	.751
RP5	Make sure their long-term goals are aligned as a couple	.762
RP6	Communicate with their romantic partner over budget goals	.698

### **Self-Control**

The survey measured self-control using seven items. Cronbach's alpha for this construct, .68, was lower than for the other constructs. Removing Item SC1 ("not change their mind very often") had the greatest effect and improved alpha to .73. However, I did not remove the item because doing so would have been arbitrary and intended only to game the Cronbach's alpha

outcome. There was a significant difference between the means of the LinkedIn sample and the Qualtrics sample,  $t(165) = 7.11, p < .01$ .

### **Self-Efficacy**

The survey measured self-efficacy using eight items. Cronbach's alpha was reasonably good for this construct ( $\alpha = .77$ ). Removing Item 5 ("not give up when learning something new") increased alpha to .79. I did not remove the item because doing so seemed arbitrary and intended only to game the Cronbach's alpha outcome. There was a significant difference between the means of the LinkedIn sample and the Qualtrics sample,  $t(165) = 8.60, p < .01$ .

### **Independent Samples *t* Tests of Variables of Interest by Gender**

I ran independent samples *t* tests for each of the antecedents to examine gender differences for these variables. There were statistically significant gender differences for three of the six variables: financial literacy, past experience, and self-control.

#### ***Financial Literacy***

There was a significant difference between the means for men ( $M = 56.88, SD = 7.39$ ) and women ( $M = 60.65, SD = 4.97$ ),  $t(162) = 3.68, p < .01$ .

#### ***Past Experience***

There was a significant difference between the means for men ( $M = 20.39, SD = 3.62$ ) and women ( $M = 22.01, SD = 2.69$ ),  $t(162) = 3.15, p < .01$ .

#### ***Self-Control***

There was a significant difference between the means for men ( $M = 30.06, SD = 3.30$ ) and women ( $M = 31.12, SD = 3.29$ ),  $t(162) = 2.02, p < .05$ .

## Correlation

Table 4 displays the correlation coefficients for the complete sample.

**Table 4**

*Pearson's Correlation Coefficients for Complete Sample*

Variable	1	2	3	4	5	6
1. Financial literacy	—					
2. Optimism	.502	—				
3. Past experience	.657	.625	—			
4. Romantic partnership	.370	.354	.543	—		
5. Self-control	.642	.508	.562	.403	—	
6. Self-efficacy	.742	.669	.635	.443	.669	—

*Note.* For all coefficients,  $p < .001$ .

The statistical significance of a correlation depends on sample size; with 167 respondents the six constructs were all significantly correlated with each other. These correlation results, together with the sample means in Table 2, suggest that, when considering factors of optimal financial behavior, CFPs believe that both financial literacy and romantic partnership are important but not as strongly related to each other ( $r = .37$ ) as financial literacy is to the other constructs. This suggests that romantic partnership could account for a considerable part of the variance of optimal financial behavior beyond financial literacy. Self-efficacy and financial literacy are also strongly correlated, suggesting that measurement of both may be unnecessary when predicting optimal financial behavior. Correlation matrices of the demographic variables (Table C2) and all the variables (Table C3) can be found Appendix C.

## Regression Results

I treated each of gender, CFP tenure, number of clients served, client age, average net worth of clients, and education level of clients as independent variables in multiple regression models to determine which variables best predicted the six dependent variables: financial literacy, self-efficacy, self-control, optimism, romantic partnership, and past experience. Because CFP tenure was strongly correlated with financial advisor tenure ( $r = .809$ ) and annual income was strongly correlated with net worth ( $r = .645$ ), I excluded financial advisor tenure and annual income from the regression models.

Given that my objective was to evaluate the relative importance of each of the six demographic variables, I relied on standardized coefficients. Standardized coefficients, also known as beta coefficients, are estimates from regression analyses that are standardized to have a mean of 0 and a variance of 1. Tables 5–7 display the results of the linear regression analysis. Table 8 summarizes the linear regression results.

### Financial Literacy

The six independent variables predicted 22.6% of the variance of the perceived importance of financial literacy, and three were significant predictors: gender, net worth of clients, and average age of clients.

**Table 5***Linear Regression Model Summaries*

Model	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	RMSE
Financial literacy				
<i>H</i> <sub>0</sub>	.000	.000	.000	6.726
<i>H</i> <sub>1</sub>	.475	.226	.196	6.031
Romantic partnership				
<i>H</i> <sub>0</sub>	.000	.000	.000	3.321
<i>H</i> <sub>1</sub>	.263	.069	.034	3.264
Optimism				
<i>H</i> <sub>0</sub>	.000	.000	.000	3.864
<i>H</i> <sub>1</sub>	.341	.117	.083	3.701
Past experience				
<i>H</i> <sub>0</sub>	.000	.000	.000	3.350
<i>H</i> <sub>1</sub>	.474	.224	.195	3.006
Self-control				
<i>H</i> <sub>0</sub>	.000	.000	.000	3.330
<i>H</i> <sub>1</sub>	.377	.142	.109	3.142
Self-efficacy				
<i>H</i> <sub>0</sub>	.000	.000	.000	4.328
<i>H</i> <sub>1</sub>	.377	.142	.109	4.085

*Note.* RMSE = root mean square error.

**Romantic Partnership**

The six independent variables predicted only 6.9% of the variance of the perceived importance of romantic partnership, and none were significant predictors.

**Optimism**

The six independent variables predicted 11.7% of the variance of the perceived importance of optimism, and one, average age of clients, was a significant predictor.

**Table 6***Analysis of Variance for Linear Regression Models*

Source	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Financial literacy $H_1$					
Regression	1665.001	6	277.500	7.630	<.001
Residual	5709.846	157	36.368		
Total	7374.848	163			
Romantic partnership $H_1$					
Regression	124.673	6	20.779	1.950	.076
Residual	1673.132	157	10.657		
Total	1797.805	163			
Optimism $H_1$					
Regression	283.645	6	47.274	3.452	.003
Residual	2149.983	157	13.694		
Total	2433.628	163			
Past experience $H_1$					
Regression	410.340	6	68.390	7.568	<.001
Residual	1418.782	157	9.037		
Total	1829.122	163			
Self-control $H_1$					
Regression	256.686	6	42.781	4.332	<.001
Residual	1550.308	157	9.875		
Total	1806.994	163			
Self-efficacy $H_1$					
Regression	434.151	6	72.358	4.336	<.001
Residual	2619.752	157	16.686		
Total	3053.902	163			

*Note.* The intercept models are omitted because no meaningful information can be shown.

**Table 7***Linear Regression Coefficients*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>p</i>
Financial literacy					
<i>H</i> <sub>0</sub> intercept	58.470	0.525		111.319	<.001
<i>H</i> <sub>1</sub>					
Intercept	58.525	3.087		18.958	<.001
Gender	2.724	1.038	.201	2.624	.010
CFP tenure	-0.081	0.455	-.015	-0.178	.859
Number of clients	0.882	0.496	.135	1.778	.077
Client net worth	-1.137	0.493	-.215	-2.306	.022
Client education	1.112	0.866	.101	1.284	.201
Client age	-2.165	0.755	-.243	-2.866	.005
Romantic partnership					
<i>H</i> <sub>0</sub> intercept	26.415	0.259		101.857	<.001
<i>H</i> <sub>1</sub>					
Intercept	28.253	1.326		21.308	<.001
Gender	0.457	0.562	.068	0.814	.417
Certified financial planner tenure	0.075	0.246	.028	0.303	.762
Number of clients	0.339	0.268	.105	1.261	.209
Client age	-0.602	0.409	-.137	-1.472	.143
Client net worth	-0.358	0.267	-.137	-1.341	.182
Client education	-0.284	0.469	-.052	-0.605	.546
Optimism					
<i>H</i> <sub>0</sub> intercept	20.409	0.302		67.64	<.001
<i>H</i> <sub>1</sub>					
Intercept	21.993	1.231		17.872	<.001
Gender	0.655	0.631	.084	1.038	.301
Certified financial planner tenure	0.102	0.277	.032	0.367	.714
Number of clients	0.545	0.301	.146	1.81	.072
Client age	-1.549	0.468	-.303	-3.31	.001
Client net worth	-10.48	0.366	-.049	-4.05	.686
Past experience					
<i>H</i> <sub>0</sub> intercept	21.073	0.262		80.561	<.001
<i>H</i> <sub>1</sub>					
Intercept	20.973	1.000		20.981	<.001
Gender	1.639	0.513	.242	3.198	.002
Certified financial planner tenure	0.370	0.225	.135	1.646	.102
Number of clients	0.668	0.244	.206	2.732	.007
Client age	-1.567	0.380	-.354	-4.122	<.001
Client net worth	-0.190	0.297	-.072	-0.640	.523
Self-control					
<i>H</i> <sub>0</sub> intercept	30.506	0.260		117.334	<.001
<i>H</i> <sub>1</sub>					
Intercept	33.252	1.276		26.052	<.001
Gender	0.451	0.541	.067	0.833	.406
Certified financial planner tenure	-0.196	0.237	-.072	-0.827	.409
Number of clients	0.347	0.258	.108	1.341	.182
Client age	-1.293	0.394	-.293	-3.284	.001
Client net worth	-0.181	0.257	-.069	-0.704	.482
Client education	0.005	0.451	.001	0.011	.991
Self-efficacy					
<i>H</i> <sub>0</sub> intercept	34.024	0.338		100.665	<.001
<i>H</i> <sub>1</sub>					
Intercept	36.233	1.659		21.838	<.001
Gender	0.587	0.703	.067	0.835	.405
Certified financial planner tenure	0.274	0.308	.078	0.891	.375
Number of clients	0.631	0.336	.151	1.877	.062
Client age	-1.361	0.512	-.238	-2.661	.009
Client net worth	-0.710	0.334	-.209	-2.125	.035
Client education	0.275	0.587	.039	0.469	.639

*Note.* *B* denotes coefficient estimates.  $\beta$  denotes standardized coefficient estimates.

**Table 8***Linear Regression Summary*

Variable	Financial literacy	Romantic partnership	Optimism	Past experience	Self-control	Self-efficacy
Gender	.201** (2.624)	.068 (0.814)	.084 (1.038)	.242*** (3.198)	.067 (0.833)	.067 (0.835)
CFP tenure	-.015 (-0.178)	.028 (0.303)	.032 (0.367)	.135 (1.646)	-.072 (-0.827)	.078 (0.891)
Number of clients	.135* (1.778)	.105 (1.261)	.146* (1.81)	.206*** (2.732)	.108 (1.341)	.151 (1.877)
Client age	-.243*** (-2.866)	-.137 (-1.472)	-.303*** (-3.31)	-.354*** (-4.122)	-.293*** (-3.284)	-.238*** (-2.661)
Client net worth	-.215** (-2.306)	-.137 (-1.341)	-.049 (-0.405)	-.072 (-0.640)	-.069 (-0.704)	-.209** (-2.125)
Client education	.101 (1.284)	-.052 (-0.605)	-.048 (-0.575)	-.052 (-0.653)	.001 (0.011)	.039 (0.469)
Adjusted $R^2$	.196	.034	.083	.195	.109	.109

*Note.*  $N = 163$ . Standardized coefficients are reported. Numbers in parentheses are  $t$  values. All  $p$  values are two tailed. CFP = certified financial planner.

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

**Past Experience**

The six independent variables predicted 22.4% of the variance of the perceived importance of past experience, and three were significant predictors: gender, number of clients, and average age of clients.

**Self-Control**

The six independent variables predicted 14.2% of the variance of the perceived importance of self-control, and one, average age of clients, was a significant predictor.



## **Self-Efficacy**

The six independent variables predicted 14.2% of the variance of perceived importance of self-efficacy, and two were significant predictors: net worth of clients, and average age of clients.

## **CHAPTER 4:**

### **CONCLUSION AND DISCUSSION**

Financial behavior has many drivers, including financial literacy (Huston, 2010). Researchers have widely investigated this association between financial literacy and financial behavior, but the many other factors impacting financial behavior have received less attention, which has possibly inflated the perceived impact of financial literacy on financial behavior (Strömbäck et al., 2017). Fernandes et al. (2014) found support for this possibility in their meta-analysis, reporting that “interventions to improve financial literacy accounts for less than 0.1% of the variance in financial behaviors studied” (p. 2). Robb and Woodyard (2011) found that although financial knowledge is clearly an important component of financial behavior, other factors can play a significant role as well. Wealth management experts at my firm, in their responses during my qualitative interviews, not only did not emphasize financial literacy among important influences on financial behavior but tended to claim that several other factors have a much greater influence.

This study yielded four significant findings and a developed scale. The research questions were exploratory, and statistical analysis of the data revealed interesting and potentially useful information regarding the expert perception of antecedents of optimal financial behavior. First, romantic partnership closely rivaled financial literacy in perceived importance. Second, the ANOVA model of CFP tenure and financial literacy indicated that the longer a CFP had been a CFP, the less importance they placed on financial literacy. Third, correlation showed that

financial literacy was far less strongly correlated with romantic partnership than with any of the other antecedents studied, and romantic partnership could therefore be considered as a standalone construct in need of a way to measure its relative importance. Fourth, regression analyses revealed no predictors of romantic partnership among the demographic factors of the respondents, leading me to conclude that the CFPs in this sample all found the construct to be important.

When I began the study, I expected that the importance to the respondents of self-efficacy would be at least be as great as that of financial literacy. Although the pilot study did not settle this question, the descriptive statistics showed that self-efficacy was not as important as expected. Additionally, self-efficacy and financial literacy were highly correlated and therefore, arguably, are the same construct.

### **Romantic Partnership Closely Rivalled Financial Literacy in Perceived Relative Importance**

Romantic partnership ( $M = 4.39$ ) came in second to financial literacy ( $M = 4.50$ ) in comparisons of mean scores in the overall sample, which was the sample most representative, demographically, of the industry. The upper limit of the 95% confidence interval was lower for financial literacy (4.42) than for romantic partnership (4.48; see Table 2).

### **CFPs Find Financial Literacy Less Important the Longer They Practice**

One-way ANOVAs run between CFP tenure and financial literacy and between financial advisor tenure and financial literacy revealed that the importance CFPs placed on financial literacy was lower the longer they had been practicing. Because financial advisor tenure and CFP tenure were strongly correlated ( $r = .81$ ), and because I was seeking only CFP respondents, I decided to use CFP tenure in my linear regressions from Chapter 4.

The results in Table C4 indicate a significant effect of CFP tenure on the importance of financial literacy (see Appendix C). Post hoc comparisons using the Tukey honestly significant difference test indicate that the mean score for tenure of 6–10 years was significantly different than that for tenure of 11–15 years (Table C5 in Appendix C). However, there were no significant differences among the other tenure categories. This may be because relatively few respondents had tenures longer than 10 years. Combining these groups yielded a value of  $n$  closer to that of the two categories for the shortest tenures. Examination of the means indicates that financial literacy was most important to CFPs with the shortest tenures as CFPs. I did not cover this phenomenon directly in the literature review as one of the gaps I sought to address with this study, but it appears to augment existing literature. Further research may show that longer advisor tenure and longer client–advisor relationships lead to greater influence of advisors on clients, perhaps because advisor experience subordinates financial literacy or elevates the importance of other antecedents. The findings indicate that this a new vein of inquiry worth exploring, and such exploration could assist the larger movement to learn how academics and practitioners can best influence optimal financial behavior.

### **Romantic Partnership Is an Important Antecedent That Is Poorly Correlated with Financial Literacy**

The romantic partnership construct emerged clearly during coding of the pilot study interviews, along with the other five antecedent constructs. Unexpectedly, respondents across all samples (Overall, LinkedIn, and Qualtrics) rated romantic partnership in the top three antecedents (besting financial literacy in the LinkedIn sample). The correlation matrix in Table 3 indicates that romantic partnership correlated poorly with the other constructs, particularly financial literacy, which correlated less strongly with romantic partnership than with any of the

other constructs. These poor correlations mean that romantic partnership is unlikely to be conflated with any of the other constructs.

Because no scale existed for measuring romantic partnership as an antecedent of financial behavior, I developed my own six-item scale. Cronbach's alpha for these six items was .76, indicating acceptable internal consistency reliability. Romantic partnership also exhibited the fewest differences among subsamples.

As discussed in Chapter 2, researchers have reported that a person's romantic partner influences their financial relationships and financial life satisfaction (Curran et al., 2018; Gudmunson & Danes, 2011). The strength of my findings and support from existing literature suggest that romantic partnership is an important antecedent of optimal financial behavior that warrants further research. The new and viable scale that I created to measure romantic partnership in connection with financial behavior may help with this research.

### **Collected Demographics Do Not Predict the Importance of Romantic Partnership**

Romantic partnership rivaled financial literacy as the antecedent of optimal financial behavior perceived as most important across the samples. The correlation between the two constructs was relatively weak, and the model described in Tables 4–7 shows that none of the demographic variables were significant predictors of romantic partnership. This may mean that romantic partnership is universally accepted as an important antecedent regardless of the collected demographics. This finding should catalyze research focused on romantic partnership as an antecedent of optimal financial behavior and contribute to advisor training. In particular, advisors may be able to have their clients complete questionnaires related to romantic partnership to help the advisors in their coaching efforts.

## **Limitations**

When I first deployed the survey on LinkedIn, I hoped to attract 100 respondents. I quickly realized that I was not going to reach this goal in a timely manner. I therefore decided to bolster the sample using Qualtrics. Even with the small sample of 41 respondents who responded through LinkedIn, I identified obvious differences between the demographics of the two subsamples. Compared to the population, the Qualtrics subsample had a disproportionately high number of female respondents and a disproportionately high number of respondents with short CFP tenures. The findings discussed in this chapter derived from the overall sample, but those findings do not hold when considering the subsamples individually. For the LinkedIn subsample, this may simply be because the subsample was small. In the Qualtrics subsample, the skewed demographic distributions may have been responsible. The demographics of the overall sample were closer to those of the population than those of either subsample on its own, and this was the sample I used to draw inferences.

The  $R^2$  values might be improved by exploring additional variables and alternative function forms. This is an area for future inquiry.

## **Future Research**

The disparities between the subsamples indicate that a concerted effort to obtain more respondents from LinkedIn or by visiting firms may lead to clearer data from a more representative sample. Because the findings indicate that CFPs consider romantic partnership almost as important as financial literacy, further research is needed into romantic partnership as an antecedent of optimal financial behavior. Romantic partnership may be of value not only for training in the financial services industry but also for families seeking education about personal finances and for updating courses from high school to college. The changing perceptions of

CFPs of the relative importance of antecedents based on tenure, net worth of clients, and age of clients are also intriguing. Almost universally, as client–advisor relationships lengthen (and advisors spend longer in their positions, the ages of their clients increase, and the net worth of their clients increases), the importance of antecedents as perceived by advisors drops, with the exception of romantic partnership. Much deeper investigation of this dynamic relationship may indicate how to best educate both financial advisors and Americans generally to manage personal wealth. A redesign of the survey may also be in order to support multivariate analyses and more robust assessment of the relative importance of antecedents of optimal financial behavior.

## REFERENCES

- Azjen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), 179-211.
- Tokar Asaad, C. (2015). Financial literacy and financial behavior: Assessing knowledge and confidence. *Financial Services Review*, 24(2).
- Asebedo, S. D., & Seay, M. C. (2018). Financial self-efficacy and the saving behavior of older pre-retirees. *Journal of Financial Counseling and Planning*, 29(2), 357–368.  
<https://doi.org/10.1891/1052-3073.29.2.357>
- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological review*, 84(2), 191.
- Bapat, D. (2019). Exploring antecedents to financial management behavior for young adults. *Journal of Financial Counseling and Planning*, 30(1), 44–55.  
<https://doi.org/10.1891/1052-3073.30.1.44>
- Blanchett, D., & Kaplan, P. (2013). Alpha, beta, and now ... gamma. *The Journal of Retirement*, 1(2), 29–45.
- Certified Financial Planner Board of Standards. (2018). *The 7 Step Financial Planning Process*.  
<https://www.cfp.net/ethics/compliance-resources/2018/11/focus-on-ethics---the-7-step-financial-planning-process>
- Certified Financial Planner Board of Standards. (2021). *About The Exam*.  
<https://www.cfp.net/get-certified/certification-process/exam-requirement/about-the-cfp-exam>
- Certified Financial Planner Board of Standards. (2021). *The Certification Process*.  
<https://www.cfp.net/get-certified/certification-process>
- Corbin, J., & Strauss, A. (2008). Strategies for qualitative data analysis. *Basics of Qualitative Research. Techniques and procedures for developing grounded theory*, 3.
- Corbin, J., & Strauss, A. (2014). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage publications.



- Curran, M. A., Parrott, E., Sun Young, A., Serido, J., & Shim, S. (2018). Young adults' life outcomes and well-being: Perceived financial socialization from parents, the romantic partner, and young adults' own financial behaviors. *Journal of Family and Economic Issues*, 39(3), 445–456. <https://doi.org/10.1007/s10834-018-9572-9>
- Dew, J., & Xiao, J. J. (2011). The financial management behavior scale: Development and validation. *Journal of Financial Counseling and Planning*, 22(1), 43. [https://www.afcpe.org/wp-content/uploads/2018/10/vol\\_22\\_issue\\_1\\_dew\\_xiao.pdf](https://www.afcpe.org/wp-content/uploads/2018/10/vol_22_issue_1_dew_xiao.pdf)
- Fernandes, D., Lynch, J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management science*, 60(8), 1861–1883. <https://pubsonline.informs.org/doi/abs/10.1287/mnsc.2013.1849>
- Frijns, B., Gilbert, A., & Tourani-Rad, A. (2014). Learning by doing: The role of financial experience in financial literacy. *Journal of Public Policy*, 34(1), 123–154. <https://doi.org/10.1017/S0143814X13000275>
- Gill, T. G. (2011). When What is Useful is Not Necessarily True: The Underappreciated Conceptual Scheme. *Informing Science*, 14. <http://inform.nu/Articles/Vol14/ISJv14p001-032Gill589.pdf>
- Grable, J. E., & Joo, S. H. (1999). Financial help-seeking behavior: Theory and implications. *Journal of Financial Counseling and Planning*, 10(1), 14. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.506.9877&rep=rep1&type=pdf>
- Gudmunson, C. G., & Danes, S. M. (2011). Family financial socialization: Theory and critical review. *Journal of Family and Economic Issues*, 32(4), 644–667. <https://doi.org/10.1007/s10834-011-9275-y>
- Huston, S. J. (2010). Measuring financial literacy. *Journal of Consumer Affairs*, 44(2), 296–316. <https://doi.org/10.1111/j.1745-6606.2010.01170.x>
- Joo, S. H., & Grable, J. E. (2004). An exploratory framework of the determinants of financial satisfaction. *Journal of family and economic Issues*, 25(1), 25-50.
- Jorgensen, B. L., Rappleyea, D. L., Schweichler, J. T., Fang, X., & Moran, M. E. (2017). The financial behavior of emerging adults: A family financial socialization approach. *Journal of Family and Economic Issues*, 38(1), 57–69. <https://doi.org/10.1007/s10834-015-9481-0>
- Klontz, B. T., & Britt, S. L. (2012). How clients' money scripts predict their financial behaviors. *Journal of Financial Planning*, 25(11), 33–43.
- Klontz, B., Britt, S. L., Mentzer, J., & Klontz, T. (2011). Money beliefs and financial behaviors: Development of the Klontz Money Script Inventory. *Journal of Financial Therapy*, 2(1), 1. <https://newprairiepress.org/jft/vol2/iss1/1/>

- Knoll, M. A., & Houts, C. R. (2012). The financial knowledge scale: An application of item response theory to the assessment of financial literacy. *Journal of Consumer Affairs*, 46(3), 381-410. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1745-6606.2012.01241.x>
- Ksendzova, M., Donnelly, G. E., & Howell, R. T. (2017). A brief money management scale and its associations with personality, financial health, and hypothetical debt repayment. *Journal of Financial Counseling and Planning*, 28(1), 62-75. <https://psycnet.apa.org/record/2017-36582-004>
- Letkiewicz, J. P., Robinson, C. P. C., & Domian, D. P. C. (2016). Behavioral and wealth considerations for seeking professional financial planning help. *Financial Services Review*, 25(2), 105-126.
- Lim, H., Heckman, S., Montalto, C. P., & Letkiewicz, J. (2014). Financial stress, self-efficacy, and financial help-seeking behavior of college students. *Journal of Financial Counseling and Planning*, 25(2), 148-160.
- Marsden, M., Zick, C. D., & Mayer, R. N. (2011). The value of seeking financial advice. *Journal of Family and Economic Issues*, 32(4), 625-643.
- Park, E., & Yao, R. (2016). Financial risk attitude and behavior: Do planners help increase consistency? *Journal of Family and Economic Issues*, 37(4), 624-638.
- Robb, C. A., & Woodyard, A. S. (2011). Financial knowledge and best practice behavior. *Journal of financial counseling and planning*, 22(1), 60-70. <https://eric.ed.gov/?id=EJ941903>
- Seay, M., Kim, K. T., & Heckman, S. (2016). Exploring the demand for retirement planning advice: The role of financial literacy. *Financial Services Review*, 25(4), 331-350. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3057597](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3057597)
- Shefrin, H. M., & Thaler, R. H. (1988). The behavioral life-cycle hypothesis. *Economic Inquiry*, 26(4), 609.
- Scheier, M. F., & Carver, C. S. (1985). Optimism, coping, and health: assessment and implications of generalized outcome expectancies. *Health psychology*, 4(3), 219.
- Sherer, M., Maddux, J. E., Mercandante, B., Prentice-Dunn, S., Jacobs, B., & Rogers, R. W. (1982). The self-efficacy scale: Construction and validation. *Psychological reports*, 51(2), 663-671. <https://journals.sagepub.com/doi/abs/10.2466/pr0.1982.51.2.663>
- Stolper, O. A., & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. *Zeitschrift für Betriebswirtschaft*, 87(5), 581-643. <https://doi.org/10.1007/s11573-017-0853-9>

- Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance*, 14(N), 30–38. <https://doi.org/xxxxxxxxxxxxxxxxxxx>
- Sundarasan, S. D. D., Rahman, M. S., Othman, N. S., & Danaraj, J. (2016). Impact of financial literacy, financial socialization agents, and parental norms on money management. *Journal of Business Studies Quarterly*, 8(1), 137–153.
- Tang, N., & Peter, P. C. (2015). Financial knowledge acquisition among the young: The role of financial education, financial experience, and parents' financial experience. *Financial Services Review*, 24(2), 119–137.
- Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of personality*, 72(2), 271-324. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.0022-3506.2004.00263.x>
- Warschauer, T. P. C. F. P., & Sciglimpaglia, D. P. (2012). The economic benefits of personal financial planning: An empirical analysis. *Financial Services Review*, 21(3), 195–208.
- Yates, D., & Ward, C. (2011). Financial literacy: Examining the knowledge transfer of personal finance from high school to college to adulthood. *American Journal of Business Education (AJBE)*, 4(1). <https://clutejournals.com/index.php/AJBE/article/view/1274>

**APPENDIX A:**  
**THE ADVISOR/PRACTITIONER AND THE “EXPERT” PROXY**

An advisor enters the industry with the immediate requirement of passing exams approved by the Financial Industry Regulatory Authority. Most are mandated to pass the Series 7 (General Securities Representative) and Series 66 (Uniform Combined State Law), allowing them to broker market securities and related solutions and give investment advice. The Series 7 allows an advisor to buy and sell securities on the secondary markets. The Series 66 allows the advisor to plan and make recommendations for a client’s portfolios. Additional licensing may include, among other things, the 215, which allows an advisor to recommend and sell life insurance, health insurance, and variable annuities. These licenses, altogether, give an advisor the skills and knowledge needed to serve most clients and their needs for basic financial planning.

While advisors work to find leads, set appointments, and attract clients, they must also stay on top of an ever-changing landscape of industry knowledge and guidelines. Most will also pursue certification both to better serve their identified market and to differentiate themselves from competitors. With respect to planning, the CFP designation is considered the most respected and exhaustive. The CFP certification requires a seven-course college-level curriculum, 3 years of experience in the industry, a passing score on a 6-hr proctored exam, and a continual effort to uphold the CFP board’s ethical standards. The ethical standards include recognition of fiduciary obligations to clients engaged in financial planning. An advisor must

also pay annual fees and log several hours of continuing education to maintain the CFP certification. Clients can quickly verify, through the CFP board's website, any advisor's claim to have the CFP certification. Clients can also file formal complaints against CFP professionals, which, if substantiated, can lead to a public letter of admonition or suspension of certification. In extreme cases, CFP certification may be permanently revoked. Advisors earn CFP certification in addition to any minimum licensing requirements imposed by state and federal regulators. The average pass rate of the exam, up to and including 2019, has hovered around 62% (CFP Board of Standards, 2021).

**APPENDIX B:**  
**FINANCIAL ADVISOR ENGAGEMENT**

**Advisors**

According to the CFP Board of Standards, planners must, and advisors without the designation should, follow a simple process for onboarding and servicing new clients. An advisor should identify a client's goals and risk profile, determine current their financial disposition, develop a plan, determine recommendations to support the plan, then present, implement, and monitor the plan. As part of their recommendations, an advisor must disclose the prospectuses of the various solutions (e.g., mutual funds, exchange-traded funds, managed products, and insurance-based products) and how compensation is derived. Advisors must explain asset allocation and diversification necessary to reach the stated goals, given historical performance, while reducing risk exposure where possible. When done correctly, gross portfolio changes are based on plan changes and life events rather than market timing and speculation. Once a plan is established and a portfolio is aligned with a client's time horizon and risk tolerance, ongoing engagement largely centers around shaping and coaching financial behaviors. A CFP will urge their client to keep savings available for emergency situations, maintain the proper amount of insurance, budget monthly expenses, and consistently save into their employer plan or individual retirement account. When swings in the market register highs or lows, it is the advisor who helps the client with perspective to keep them from making emotionally charged changes to the investments or plan (CFP Board, 2018).

## Clients

Individuals and couples typically seek out the help of a financial advisor to meet with a fiduciary who can coach and counsel them toward stated short- and long-term goals and provide recommendations to that end. What is surprising to most is that those with high self-efficacy (Bandura, 1977) tend to seek help from financial planners (Letkiewicz, 2016). That is, those with higher confidence in expected outcomes tend to be those who seek out help to meet their envisioned goals. If someone has a healthy degree of self-efficacy in running, they are more likely to seek out a group or coach to help them meet goals. Similarly, those who are confident that they will be successful with their finances (not overconfident) are more likely to seek help from a financial advisor or planner (Asaad, 2015).

The more obvious characteristics determining who seeks help are wealth, income, and education (Seay et al., 2016). Most clients seek help determining what to do with their qualified employer plan assets (i.e., 401k, 403b, 457, savings incentive match plan for employees of small employers, simplified employee pension, etc.) as they contemplate retirement and other life events. This is the typical catalyst that begins a relationship. Most clients are unsure at what age they can retire and the level of saving needed to produce the assets to fund retirement. Most clients also require education to help them understand their choices within their employers' plans or their personal individual retirement accounts and make informed decisions about how and where to invest. Clients typically have some level of debt, lack an adequate emergency fund, lack an adequate insurance portfolio, do not keep a personal budget, and do not understand asset allocation. The services of an advisor are therefore complementary and justifiable.

The simplest expectation of a client is to learn how to properly save, protect their assets and family, and position themselves adequately for the future at a cost that is fair and not

impeditive to growth. The onus is on the client to find the right relationship in which they feel their advisor understands their needs, listens well, and has the heart of an educator, providing the environment needed to properly coach the client's financial behaviors and shape outcomes.



**APPENDIX C:**

**TABLES**

**Table C1**

*Demographic Statistics*

Category	<i>f</i>	%	Cumulative %
Average age of clients (years)			
21–35	38	22.754	22.754
36–55	82	49.102	71.856
55–70	44	26.347	98.204
≥71	3	1.796	100.000
Total	167	100.000	
Net worth of clients (\$)			
<150,000	28	16.766	16.766
150,000–249,999	39	23.353	40.120
250,000–499,999	41	24.551	64.671
500,000–999,999	39	23.353	88.024
>1,000,000	20	11.976	100.000
Total	167	100.000	
Client education level			
High School	27	16.168	16.168
Bachelor’s	103	61.677	77.844
Master’s	37	22.156	100.000
Total	167	100.000	
Average client annual income (\$)			
<50,000	24	14.371	14.371
50,000–149,999	62	37.126	51.497
150,000–249,999	52	31.138	82.635
250,000–399,999	17	10.180	92.814
>400,000	12	7.186	100.000
Total	167	100.000	
Location where respondent lives			
Northeast	35	20.958	20.958
Southeast	50	29.940	50.898
Midwest	38	22.754	73.653
Southwest	19	11.377	85.030
West	23	13.772	98.802
Outside United States	2	1.198	100.000
Total	167	100.000	

*Note.* For these categories, all responses were valid, and no responses were missing.

**Table C2***Pearson's Correlation Matrix for Demographic Variables*

Variable	1	2	3	4	5	6	7	8	9
1. Gender	—								
2. CFP tenure	-.316 <sup>***</sup>	—							
3. FA tenure	-.389 <sup>***</sup>	.809 <sup>***</sup>	—						
4. Number of clients	-.192 <sup>**</sup>	.314 <sup>***</sup>	.274 <sup>***</sup>	—					
5. Client age	-.230 <sup>***</sup>	.333 <sup>***</sup>	.473 <sup>***</sup>	.204 <sup>***</sup>	—				
6. Client net worth	-.289 <sup>***</sup>	.428 <sup>***</sup>	.457 <sup>***</sup>	.228 <sup>***</sup>	.507 <sup>***</sup>	—			
7. Client education	-.199 <sup>**</sup>	.080	.029	.200 <sup>**</sup>	.017	.352 <sup>***</sup>	—		
8. Client annual income	-.168 <sup>**</sup>	.247 <sup>***</sup>	.156 <sup>**</sup>	.214 <sup>***</sup>	.171 <sup>**</sup>	.645 <sup>***</sup>	.487 <sup>***</sup>	—	
9. Location	-.017	-.018	-.047	-.189 <sup>**</sup>	.045	-.072	-.209 <sup>***</sup>	-.087	—

*Note.* CFP = certified financial planner; FA = financial advisor.

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

**Table C3***Pearson's Correlation Matrix for All Variables*

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. CFP tenure	—													
2. FA Tenure	.809 <sup>****</sup>	—												
3. Gender	-.316 <sup>****</sup>	-.389 <sup>****</sup>	—											
4. Number of clients	.314 <sup>****</sup>	.274 <sup>****</sup>	-.192 <sup>**</sup>	—										
5. Client age	.333 <sup>****</sup>	.473 <sup>****</sup>	-.230 <sup>***</sup>	.204 <sup>***</sup>	—									
6. Client net worth	.428 <sup>****</sup>	.457 <sup>****</sup>	-.289 <sup>****</sup>	.228 <sup>***</sup>	.507 <sup>****</sup>	—								
7. Client education	.080	.029	-.199 <sup>**</sup>	.200 <sup>***</sup>	.017	.352 <sup>****</sup>	—							
8. Client annual income	.247 <sup>***</sup>	.156 <sup>**</sup>	-.168 <sup>**</sup>	.214 <sup>***</sup>	.171 <sup>**</sup>	.645 <sup>****</sup>	.487 <sup>****</sup>	—						
9. Financial literacy	-.200 <sup>***</sup>	-.437 <sup>****</sup>	.277 <sup>****</sup>	.013	-.374 <sup>****</sup>	-.334 <sup>****</sup>	.018	-.007	—					
10. Optimism	-.061	-.230 <sup>***</sup>	.121	.073	-.298 <sup>****</sup>	-.151 <sup>*</sup>	-.034	-.013	.502 <sup>****</sup>	—				
11. Past experience	.015	-.208 <sup>***</sup>	.240 <sup>***</sup>	.145 <sup>*</sup>	-.334 <sup>****</sup>	-.121	-.025	.067	.657 <sup>****</sup>	.625 <sup>****</sup>	—			
12. Romantic partnership	-.059	-.235 <sup>***</sup>	.121	.051	-.188 <sup>**</sup>	-.194 <sup>**</sup>	-.089	-.059	.370 <sup>****</sup>	.354 <sup>****</sup>	.543 <sup>****</sup>	—		
13. Self-control	-.181 <sup>**</sup>	-.367 <sup>****</sup>	.157 <sup>**</sup>	-.001	-.344 <sup>****</sup>	-.232 <sup>***</sup>	-.006	.016	.642 <sup>****</sup>	.508 <sup>****</sup>	.562 <sup>****</sup>	.403 <sup>****</sup>	—	
14. Self-efficacy	-.057	-.246 <sup>***</sup>	.121	.081	-.301 <sup>****</sup>	-.260 <sup>****</sup>	-.007	-.005	.742 <sup>****</sup>	.669 <sup>****</sup>	.635 <sup>****</sup>	.443 <sup>****</sup>	.669 <sup>****</sup>	—

*Note.* CFP = certified financial planner; FA = financial advisor.

\*  $p < .1$ . \*\*  $p < .05$ . \*\*\*  $p < .01$ . \*\*\*\*  $p < .001$ .

**Table C4***Financial Literacy Analysis of Variance*

Case	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p</i>
Certified financial planner tenure	516.037	4	129.009	3.036	.019
Residuals	6883.639	162	42.492		

*Note.* Type III sum of squares.

**Table C5***Financial Literacy Descriptive Statistics*

Certified financial planner tenure category	<i>M</i>	<i>SD</i>	<i>N</i>
0-5 years	59.233	5.910	60
6-10 years	60.196	5.618	51
11-15 years	55.933	7.978	30
16-20 years	57.000	7.452	14
21-25 years	55.500	7.845	12

**Table C6***Post Hoc Comparisons for Certified Financial Planner Tenure*

Tenure categories	Difference			
	<i>M</i>	<i>SE</i>	<i>t</i>	<i>p</i>
1				
2	-0.963	1.242	-0.775	.937
3	3.300	1.458	2.264	.162
4	2.233	1.935	1.154	.777
5	3.733	2.061	1.811	.371
2				
3	4.263	1.500	2.842	.040
4	3.196	1.967	1.625	.484
5	4.696	2.091	2.245	.169
3				
4	-1.067	2.110	-0.506	.987
5	0.433	2.227	0.195	1.000
4				
5	1.500	2.564	0.585	.977

*Note.* The *p* values are for the Tukey test.

**APPENDIX D:**  
**SURVEY**

## **Factors of Financial Behavior (Expert Opinion)**

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Start of Block: Block 1

### **Q47 Informed Consent to Participate in Research**

**Overview:** You are being asked to take part in a research study. The information in this document should help you to decide if you would like to participate. The sections in this Overview provide the basic information about the study. More detailed information is provided in the remainder of the document.

Study Staff: This study is being led by Chad Jones who is a doctoral candidate in Muma College of Business' Doctor of Business Administration program. This person is called the Principal Investigator. He is being guided in this research by Robert Hammond, DBA. Other approved research staff may act on behalf of the Principal Investigator.

Study Details: This study is being conducted at the Muma College of Business. The purpose of the study is to identify expert opinion on antecedents of financial behavior.

Participants: You are being asked to take part because you are an expert within your industry as a CERTIFIED FINANCIAL PLANNER™.

Voluntary Participation: Your participation is voluntary. You do not have to participate and may stop your participation at any time. There will be no penalties or loss of benefits or opportunities if you do not participate or decide to stop once you start. Your decision to participate or not to participate will not affect your job status, employment record, employee evaluations, or advancement opportunities.

Benefits, Compensation, and Risk: We do not know if you will receive any benefit from your participation. You will not be compensated for your participation. This research is considered minimal risk. Minimal risk means that study risks are the same as the risks you face in daily life.

Confidentiality: Even if we publish the findings from this study, we will keep your study information

private and confidential. Anyone with the authority to look at your records must keep them confidential.

**Why are you being asked to take part?** You are being asked to take part because you are a CERTIFIED FINANCIAL PLANNER™

**Study Procedures** If you take part in this study, you will be asked to complete an online Qualtrics survey that should take approximately 10-15 minutes.

**Alternatives / Voluntary Participation / Withdrawal** You do not have to participate in this research study. You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study.

**Benefits and Risks** You will receive no benefit from this study. This research is considered to be minimal risk.

**Compensation** There is no compensation for completing this research survey.

**Privacy and Confidentiality** We will do our best to keep your records private and confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Certain people may need to see your study records. The only people who will be allowed to see these records are: Chad Jones, Robert Hammond, DBA. (major advisor), David Howard, M.A. (statistician), and the University of South Florida Institutional Review Board (IRB). It is possible, although unlikely, that unauthorized individuals could gain access to your responses because you are responding online. Confidentiality will be maintained to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet. However, your participation in this online survey involves risks similar to a person's everyday use of the Internet. If you complete and submit an anonymous survey and later request your data be withdrawn, this may or may not be possible as the researcher may be unable to extract anonymous data from the database.

**Contact Information** If you have any questions, concerns or complaints about this study, call Chad Jones at 813-756-7949. If you have questions about your rights, complaints, or issues as a person taking part in this study, call the USF IRB at (813) 974-5638 or contact the IRB by email at [RSCH-IRB@usf.edu](mailto:RSCH-IRB@usf.edu).

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. You can print a copy of this

consent form for your records.

I freely give my consent to take part in this study. I understand that by proceeding with this survey, I am agreeing to take part in research and I am 18 years of age or older.

- I consent
- I do not consent

*Skip To: End of Block If Informed Consent to Participate in Research Overview: You are being asked to take part in a re... = I do not consent*

**End of Block: Block 1**

---

**Start of Block: Default Question Block**

Q1 Are you a Certified Financial Planner?

- Yes
- No

*Skip To: End of Block If Are you a Certified Financial Planner? = No*

*Skip To: Q38 If Are you a Certified Financial Planner? = Yes*

---

Q38 How long have you been a Certified Financial Planner?

- 0-5 years (1)
  - 6-10 years (2)
  - 11-15 years (3)
  - 16-20 years (4)
  - 21-25 years (5)
-



Q2 How long have you been a financial advisor?

- 0-5 years (1)
  - 6-10 years (2)
  - 11-15 years (3)
  - 16-20 years (4)
  - 21-25 years (5)
  - 26+ years (6)
- 

Q36 What is your gender? [OPTIONAL]

- Male (1)
  - Female (2)
- 

Q3 How many clients do you serve?

- Less than 100 client families (1)
  - 100 - 249 client families (2)
  - 250 - 499 client families (3)
  - 500 - 999 client families (4)
  - 1,000+ client families (5)
-

Q30 What is the average age of your clients?

- 21-35 (1)
  - 36-55 (2)
  - 55-70 (3)
  - 71+ (4)
- 

Q31 What is the average net worth of your clients?

- \$0 to \$149,999 (1)
  - \$150,000 to \$249,999 (2)
  - \$250,000 to \$499,999 (3)
  - \$500,000 to \$999,999 (4)
  - \$1,000,000+ (5)
- 

Q32 What is the average education level of your clients?

- High School graduate (1)
  - Bachelor's degree (2)
  - Master's degree and above (3)
-

Q33 What is the average annual income of your clients?

- \$0 to \$49,999 (1)
  - \$50,000 to \$149,999 (2)
  - \$150,000 to \$249,999 (3)
  - \$250,000 to \$399,999 (4)
  - \$400,000+ (5)
- 

Q27 Where do you live?

- US - Northeast (1)
  - US - Southeast (2)
  - US - Midwest (3)
  - US - Southwest (4)
  - US - West (5)
  - Outside the US (6)
- 

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Q4 **Financial Behavior** is defined in the existing academic literature as behavior relevant to money management typically including practices regarding cash, credit, insurance, savings and investing. Do you agree with this definition of financial behavior?

Agree

Disagree

*Skip To: Q5 If Financial Behavior is defined in the existing academic literature as behavior relevant to money m... = Agree*

*Skip To: Q35 If Financial Behavior is defined in the existing academic literature as behavior relevant to money m... = Disagree*



Q35 You disagreed with the academic literature's definition of financial behavior. Please write in your definition of **Financial Behavior** below.

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Q5 For the purposes of the rest of this survey, **please use the academic literature's definition of financial behavior**. Again, that is behavior relevant to money management typically including practices regarding cash, credit, insurance, saving and investing. Your response should reflect **your perspective** on the relative importance of each item's affect on your clients' financial behavior.

*To optimize financial behavior, it is important that my clients:*

	<b>Never important (1)</b>	<b>Rarely important (2)</b>	<b>Sometimes important (3)</b>	<b>Very often important (4)</b>	<b>Always important (5)</b>
Try harder in the face of failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Deal with problems that come up in life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Believe things will work out in their favor over time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand basic compounding interest scenarios	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not change their mind very often	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consider their actions in previous market extremes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expect the best, even in uncertain times	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q44 To optimize financial behavior, it is important that my clients:**

	<b>Never important (1)</b>	<b>Rarely important (2)</b>	<b>Sometimes important (3)</b>	<b>Very often important (4)</b>	<b>Always important (5)</b>
Attend financial meetings with their significant other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand personal finance priorities (e.g. Dave Ramsey Baby Steps)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not lose their temper easily	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consider the romantic partner's emotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand the differences between security types (stocks, bonds, mutual funds, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achieve important goals they set for themselves	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please select 'Always important'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Skip To: End of Block If To optimize financial behavior, it is important that my clients: != Please select 'Always important' [ Always important ]*

Page Break

Q45 *To optimize financial behavior, it is important that my clients:*

	<b>Never important (1)</b>	<b>Rarely important (2)</b>	<b>Sometimes important (3)</b>	<b>Very often important (4)</b>	<b>Always important (5)</b>
Understand gains and losses during past market extremes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Try things even if they look complicated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can overcome impulses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consider inflation rates when goal-setting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Believe every cloud has a silver lining	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand debt management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicate with their romantic partner over budget constraints	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q39 To optimize financial behavior, it is important that my clients:**

	<b>Never important (1)</b>	<b>Rarely important (2)</b>	<b>Sometimes important (3)</b>	<b>Very often important (4)</b>	<b>Always important (5)</b>
Take part in making the financial decisions together	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand the difference between whole and term life insurance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please select 'Never important'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do not expect that things will go wrong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand what an annuity is used for	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use time value of money when weighing options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are not easily discouraged	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Skip To: End of Block If To optimize financial behavior, it is important that my clients: != Please select 'Never important' [ Never important ]*

Page Break



**Q40 To optimize financial behavior, it is important that my clients:**

	<b>Never important (1)</b>	<b>Rarely important (2)</b>	<b>Sometimes important (3)</b>	<b>Very often important (4)</b>	<b>Always important (5)</b>
Not give up when learning something new	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Remember their asset allocations from past market extremes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effectively work toward long-term goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make sure that their long-term goals are aligned as a couple	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand the difference in interest paid on 15 vs. 30-year mortgage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Make plans work once they are made	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q41 *To optimize financial behavior, it is important that my clients:*

	<b>Never important (1)</b>	<b>Rarely important (2)</b>	<b>Sometimes important (3)</b>	<b>Very often important (4)</b>	<b>Always important (5)</b>
Recall their emotions from market extremes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communicate with their romantic partner over budget goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand diversification of risk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Can resist temptation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand time value of money	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Always look on the bright side of things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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**Q42 To optimize financial behavior, it is important that my clients:**

	<b>Never important (1)</b>	<b>Rarely important (2)</b>	<b>Sometimes important (3)</b>	<b>Very often important (4)</b>	<b>Always important (5)</b>
Recall the effects on their parents/guardians going through market extremes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Understand Individual Retirement Accounts limits and penalties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use a monthly budget	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are able to break bad habits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please select 'Always important'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Optimistic about their future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not get carried away by emotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Default Question Block

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