Jing Jian Xiao
Editor

Handbook of Consumer Finance Research

Second Edition

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Foreword

While households and families are the bedrock of all economies, they have historically received far less attention by many academics, especially economists. This updated edition of the *Handbook of Consumer Finance Research* begins to redress this situation by summarizing the extant literature on consumer finance from a variety of fields into an accessible volume for a broad audience. The volume makes a contribution to the field, not only by summarizing the current state of our understanding but also by commenting on future needs for research.

To put this topic in perspective, the US Federal Reserve estimates that the household sector held $68 trillion in financial assets at the end of 2014. As of that date, the level of household debt was 78 % larger than the amount of nonfinancial corporate debt.[1] Consumer finance is big business, supporting banking, investment, and insurance sectors. Household's financial decisions matter deeply: We have seen how changes in consumer spending can cause economies to surge and then stumble. With the demographic trends of a graying population, characterizing the USA, Western Europe, China, and Japan, entire economies will be transformed.

One would think household finance would be a central topic in all fields of the social sciences, but alas, it remains a niche area of study. For example, in business schools, which I know quite well, it is rare to find a course devoted to household or consumer finance, and the topic receives little attention in required finance courses. Economics has awoken to households with the burgeoning interest in behavioral economics. Psychologists and sociologists have long appreciated the roles of families, but it is probably fair to note that financial matters were not as central to these fields as other topics.

Against this backdrop, this updated *Handbook of Consumer Finance Research* is a much-appreciated contribution. I won't try to summarize the extensive work reflected across all of the chapters, but rather highlight a few points and then suggest where the field may evolve over time.

First, the 11 chapters that look at the issues of "special" populations indicate that the issues studied here are not special in any sense, but rather pervasive. By considering the youth, college students, senior citizens, women, workers, entrepreneurs, the poor, various ethnic groups, and the military, very few populations are excluded from our consideration. Chapters on healthcare and marriage expand the net to include virtually everyone. While

[1] See http://www.federalreserve.gov/releases/z1/current/z1.pdf for source data.

details vary between groups, the overwhelming message is one of inadequate financial capabilities, less than ideal financial decision-making, and poor financial outcomes for many groups. Few groups are perfectly set up for their futures. The need for research is striking.

Second, a variety of interventions are discussed in this volume. Most of these interventions directly address individuals and families, including financial counseling, financial socialization, financial education, financial social work, financial coaching, financial planning, and financial therapy. Each of these activities implicitly assumes that by improving the knowledge, skills, attitudes, or capabilities of individuals, better financial outcomes will occur. This conclusion is tempered somewhat by the evolving evidence on the link between neuroscience and financial decision-making discussed in one of the chapters, although that research has not yet shown a direct and causal link with specific financial decisions.

In addition to individual/family interventions, there are other institutional levers involving business and government. Most would agree that well-designed financial products and services can help consumers to manage their financial lives, but poorly designed or malicious products may harm consumers. Some products use consumer preferences to support households to make better decisions, while others prey on consumer ignorance. This disparity of practice, as well as the massive differences in consumer information and capabilities, leads to the potential for welfare-enhancing government action, in particular consumer financial protection (and promotion) activities. Interventions that reward high-road businesses, penalize low-road businesses, and simplify consumer decision-making (like well-designed defaults) deserve more attention by consumer finance scholars.

In America, large-scale interventions have led to remarkable results in a generation or two. Seat belt usage has increased from about 14 % in the 1980s to over 87 % recently.[2] Cigarette smoking by adults has dropped from 42 % in 1965 to about 19 % in 2011.[3] These achievements are responses to a combination of research, government action, media campaigns, and other activities. In some areas of consumer finance, we can see this type of dramatic change in behavior. For example, pension plan uptake has responded quickly and positively to the introduction of auto-defaults.

These success stories of behavioral change relate to specific outcomes—smoking, seat belt usage, and defined contribution retirement plan participation. More complex behaviors, such as those leading to obesity, are more resistant to relatively simple social engineering. Obesity and the financial issues studied in this volume have much in common. They reflect a combination of individual choices, the product set offered to consumers, lifestyle constraints, and social factors. While basic research has to establish the causes and consequences of these behaviors, researchers must also contribute to

[2] See http://www.nhtsa.gov/people/injury/airbags/Archive-04/PresBelt/america_seatbelt.html for historical data, and http://www-nrd.nhtsa.dot.gov/Pubs/811875.pdf for recent data.

[3] See http://www.cdc.gov/tobacco/data_statistics/tables/trends/cig_smoking/.

thinking on the multifaceted interventions that will change behavior. The broad participation shown in this volume, bringing together experts from a variety of disciplines, reflects the type of collaboration needed to improve the financial health of households.

Oxford, UK

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Preface

The first edition of the book was published in 2008, during which American consumers were experiencing the great recession (2007–2009). After 6 years, the American economy is still recovering, and consumers are facing similar financial challenges, inadequate savings for long-term goals such as retirement, and lack of control of various types of debts such as mortgages, credit cards, and education loans. More research is needed to better understand consumer financial behaviors and provide professional assistance to economically vulnerable consumers. During the past decade, in the USA and other countries, the social movement of promoting consumer financial literacy is gradually transferring to promoting consumer financial capability. Financial capability implies that consumers need to possess adequate financial knowledge and perform desirable financial behaviors to maintain and improve their financial well-being. In recent years, the research literature on consumer finance has increased greatly because of these social trends. For this reason, this new edition attempts to update research findings and provide newly synthesized information for consumer finance researchers and practitioners who help consumers better manage their finances and enhance their financial well-being. This book will enrich the literature of economics, finance, business, consumer science, family studies, human development, and related fields.

The purpose of this book is to provide an overview of current consumer finance research from multidisciplinary perspectives. The chapters are contributed by leading researchers in consumer finance. American consumers are facing many financial challenges in recent years because of several reasons. The social security system will be likely insolvent in the next 40 years, and private industries are moving from defined benefit pensions to defined contribution retirement plans, which require individual consumers to take more responsibility for their financial future. Rising costs of living is another factor faced by many consumers influencing the need to make many borrowing decisions. Because of easy access to consumer credit, many consumers are deep in debts, individual bankruptcy filings are high, and demands for credit counseling and debt consolidation are going up. These social issues prompted joint efforts of financial education and research sponsored by government and nongovernment organizations. For these reasons, this book summarizes research findings and points out future directions to provide helpful information for consumer finance researchers, policy makers, educators, and practitioners in designing, implementing, and evaluating financial education and research initiatives and virtually improve financial well-being of consumers.

For each chapter, the authors critically review the research publications on the focused topic, assess the status of the research, and provide directions for future research. The authors were asked to search literature in multiple fields for the latest and cutting-edge research in consumer finance, synthesize the research findings, and present it in a manner accessible for people who are not specially trained in the field. The book should be of interests to both researchers and practitioners in consumer finance and related fields.

Compared to the 2008 edition, this edition contains 29 chapters including nine brand new chapters. Most old chapters are updated with substantial new content, and several chapters are totally rewritten. To help improve the quality of the book, all chapters are blind reviewed by peers. The reviewers were selected from the contributors of this book and other qualified researchers. As the editor, I also reviewed all chapters and provided suggestions for authors to further improve the chapters.

The book has three parts. Part I reviews research on basic concepts in consumer finance such as financial capability, financial well-being, risk tolerance, retirement savings, financial education, financial socialization, financial therapy, financial counseling, financial coaching, financial planning, and financial social work. Part II reviews consumer financial issues among special populations such as high school students, college students, older consumers, low-income consumers, business-owning families, women, racially and ethnically minority consumers (Hispanic, black, and Asian Americans), workers, and military families. Part III reviews consumer finance research in various settings such as healthcare, marriage, parenting, credit protection, bankruptcy, neuroscience, online shopping, and financial sustainability.

This book can be used by graduate courses that focus on consumer finance research in departments of business, consumer science, economics, family studies, finance, financial planning, human development, and related fields. This book can also be used for advanced and honor undergraduate courses in similar departments. In addition, the book provides helpful information for policy makers, researchers, educators, and practitioners in public and private sectors relevant to consumer finance.

For readers of this book, I hope you enjoy reading it and find information you need for your study and work. If you have any suggestions and comments on the book, please write to me at: xiao@uri.edu.

Kingston, RI, USA Jing Jian Xiao

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Peter Tufano, the Peter Moores dean of Saïd Business School at the University of Oxford, graciously reviewed the whole book and wrote an informative foreword. His support is much appreciated. Dean Tufano is one of the leaders who started a research group of consumer finance in business schools and economics departments when he was at the Harvard Business School, and that group evolved to the household finance group at NBER. He also designed and taught the first consumer finance course to master's students in business, law, and political science at Harvard.

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About the Editor

Dr. Jing Jian Xiao is a professor of consumer finance in the Department of Human Development and Family Studies at the University of Rhode Island. His research interests include consumer financial literacy, behavior, capability, and well-being. He published numerous research papers in professional journals in consumer finance. He also published books including *The Mathematics of Personal Finance*, *Handbook of Consumer Finance Research*, and *Consumer Economic Wellbeing*. He is the editor in chief of *Journal of Financial Counseling and Planning*. He is also editing a book series entitled *International Series on Consumer Science*. He served as the president of American Council on Consumer Interests and of Asian Consumer and Family Economics Association, among others. He served as consultant and guest speaker for several financial literacy projects sponsored by the US Department of Treasury and National Endowment for Financial Education. He presented his consumer financial research in China, Japan, Malaysia, South Korea, Taiwan, USA, and other countries/areas. In 2005–2007, he was the inaugural take-charge American professor and director of TCA Institute of Consumer Financial Education Research at the University of Arizona. He received his B.S. and M.S. in economics from Zhongnan University of Economics and Law and Ph.D. in consumer economics from Oregon State University.

Contents

Part I Concept and Theories of Consumer Finance

1 **Consumer Financial Capability and Wellbeing** 3
Jing Jian Xiao

2 **Financial Risk Tolerance** 19
John E. Grable

3 **Retirement Savings** 33
Sherman D. Hanna, Kyoung Tae Kim, and Samuel Cheng-Chung Chen

4 **Advancing Financial Literacy Education Using a Framework for Evaluation** 45
Suzanne Bartholomae and Jonathan J. Fox

5 **Financial Socialization** 61
Clinton G. Gudmunson, Sara K. Ray, and Jing Jian Xiao

6 **Financial Therapy** 73
Kristy L. Archuleta, Sonya L. Britt, and Bradley T. Klontz

7 **Financial Counseling and Financial Health** 83
Lucy M. Delgadillo

8 **Financial Coaching: Defining an Emerging Field** 93
J. Michael Collins and Peggy Olive

9 **Conducting Research in Financial Planning** 103
Chris Browning and Michael S. Finke

10 **Financial Social Work** 115
Margaret S. Sherraden, Jodi Jacobson Frey, and Julie Birkenmaier

Part II Consumer Finances of Special Populations

11 **Financial Literacy and Financial Education in High School** 131
William B. Walstad, Ashley Tharayil, and Jamie Wagner

12 **Financial Knowledge and Financial Education of College Students** ... 141
Brenda J. Cude, Donna Danns, and M.J. Kabaci

13 **Financial Issues of Older Adults** ... 155
Sharon A. DeVaney

14 **Consumer Finances of Low-Income Families** ... 167
Robert B. Nielsen, Cynthia Needles Fletcher, and Suzanne Bartholomae

15 **Business-Owning Families: Challenges at the Intersection of Business and Family** ... 179
Sharon M. Danes, George W. Haynes, and Deborah C. Haynes

16 **Financial Issues of Women** ... 195
Cäzilia Loibl and Tahira K. Hira

17 **Financial Issues of Hispanic Americans** ... 205
Nilton Porto

18 **Financial Issues of African Americans** ... 215
Sophia T. Anong

19 **Financial Wellbeing of Asian Americans** ... 225
Rui Yao

20 **Financial Issues of Workers** ... 239
Jinhee Kim

21 **Military Personal Finance Research** ... 251
Mary Bell Carlson, Jeffrey S. Nelson, and William L. Skimmyhorn

Part III Consumer Finance in Various Settings

22 **Consumer Financial Issues in Health Care** ... 267
Deanna L. Sharpe

23 **Revisiting Financial Issues and Marriage** ... 281
Jeffrey P. Dew

24 **Financial Parenting: Promoting Financial Self-Reliance of Young Consumers** ... 291
Joyce Serido and Veronica Deenanath

25 **Consumer Credit Regulation** ... 301
David A. Lander

26 **Consumer Bankruptcy** ... 315
Levi N. Pace and Jean M. Lown

27 **Neuroscience and Consumer Finance** ... 327
Benjamin F. Cummings and Michael A. Guillemette

28 Online Shopping 339
Yi Cai and Brenda J. Cude

29 Financial Sustainability and Personal Finance Education 357
Tahira K. Hira

Erratum E1

Index 367

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Part I

Concept and Theories of Consumer Finance

1 Consumer Financial Capability and Wellbeing

Jing Jian Xiao

Given consumer environment, consumer capability is an important factor for consumer economic wellbeing. Financial capability can be considered an ability of applying appropriate financial knowledge and performing desirable financial behaviors to achieve financial goals and enhance financial wellbeing. Empirical research finds that financial literacy in many countries is much lower than expected. Consumers often engage in less desirable financial behaviors. This chapter first examines the concepts of consumer financial capability, financial literacy, and financial behavior. Next, the concept of financial wellbeing is discussed. Following that, the relationship between financial capability and financial wellbeing is presented. The final section summarizes the chapter and discusses future research directions.

Financial Capability

Concept of Financial Capability

Financial capability can be considered a combination of financial literacy and financial behavior to achieve financial wellbeing. In recent years, led by UK (Atkinson, McKay, Kempson, & Collard, 2006), several countries such as Austria (Fessler, Schürz, Wagner, & Weber, 2007), Canada (Arrowsmith & Pignal, 2010), Ireland (O'Donnell & Keeney, 2009), and the USA (Lusardi, 2011) have moved their focus from promoting financial literacy to financial capability among consumers.

Research on financial capability and financial literacy seeks to understand and to improve how consumers make financial decisions. On the one hand, this concerns the financial knowledge of consumers. On the other hand, it concerns the actual behavior of consumers and its prerequisites such as skills and attitudes (Hoelzl & Kapteyn, 2011).

Financial capability is considered a broader concept that also highlights action and behavior of the individual and the relevance of outside institutions and regulations, especially those working with low-income populations (Johnson & Sherraden, 2007). To facilitate low-income consumers to engage in desirable financial behaviors, free or low cost access to financial counseling and planning services are needed.

Financial capability is researched in different ways. Financial capability can be distinguished in three areas that influence behavior: (1) knowledge and understanding, (2) skills, and (3) confidence and attitudes (Kempson, Collard, & Moore, 2005). In the UK survey of financial capability, this concept is measured in five different domains of financial capability: (1) managing money: making ends meet, i.e., having little problems dealing with financial obligations; (2) managing

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money: keeping track, i.e., having an overview of expenses; (3) planning ahead, i.e., being future oriented; (4) choosing products, i.e., deciding reasonably in financial matters; and (5) staying informed, i.e., seeking information about financial products and the economy (Atkinson et al., 2006). Some researchers argue that variations in financial capability are more related to psychological than informational differences. They list several cognitive biases that would hinder the transformation of sufficient information into goal-directed behavior: mental accounting, information overload, status quo bias, procrastination, regret, and loss aversion. These cognitive biases may not be easy to overcome, and more research on debiasing in the financial domain is needed. They argue that financial capability programs should not only rely on education but also take the additional factors into account (De Meza, Irlenbusch, & Reyniers, 2008).

UK is the first country in the world to conduct national financial capability survey. Based on the Baseline Survey of Financial Capability (BSFC), researchers describe the distribution of financial capability and look for groups of people with similar skills (Atkinson et al., 2006). They also explore ways of identifying people most at risk of becoming over indebted (Kempson & Atkinson, 2006). The financial capability of people with literacy and numeracy needs is also analyzed with the BSFC data (Atkinson, 2007). These British researchers have shown that there is considerable diversity in the financial capability scores of adults with literacy and numeracy needs. It would not be appropriate to assume that financial capability needs are an inevitable consequence of literacy or numeracy needs. Their survey results show quite clearly that keeping track of finances is not an area of concern for most of the adults that have been studied. Yet budgeting in particular is an aspect of financial capability that very often gets special attention on courses that cover personal finances.

The US National Financial Capability Study in 2009 consists of three linked surveys: (1) National Survey; (2) State-by-State Survey; and (3) Military Survey. According to Lusardi (2011), the overarching research objectives of the US financial capability survey are to benchmark key indicators of financial capability and evaluate how these indicators vary with underlying demographic, behavioral, attitudinal, and financial literacy characteristics. Financial capability cannot be judged simply by looking at one indicator. Rather, it covers several aspects of behavior. Consistent with the surveys that have been done in other countries, these behavioral aspects include how people manage their resources, how they make financial decisions, the skill set they use in making such decisions, and the search and information elaboration that goes into those decisions. Lusardi (2011) focused on four main areas to assess Americans' financial capability: (1) Making ends meet; (2) Planning ahead; (3) Choosing and managing financial products; and (4) Financial literacy and self-assessed skills. This survey was conducted again in 2012 (FINRAIEF, 2013).

Another UK researcher proposed a second way to measure consumer capability. His measure is to combine items describing both financial behaviors and financial outcomes, which is different from the approach used by (Atkinson et al., 2006). Using data from the British Household Panel Survey, the results show that the lowest financial capability is found among young unemployed single adults living in households with other unrelated non-working adults. In contrast, older men and women in full-time work with an employed spouse have the most financial capability (Taylor, 2011).

The author of this chapter and colleagues use a different approach to measure financial capability. This is a comprehensive measure that includes objective financial literacy, subjective financial literacy, desirable financial behavior, undesirable financial behavior, and perceived financial capability. Using data from the 2009 US State-by-State Survey of Financial Capability, the results indicate a positive association between perceived financial capability and financial satisfaction. The findings suggest that desirable financial behavior increases financial satisfaction, whereas undesirable financial behavior decreases financial satisfaction. Subjective financial literacy is also found to contribute positively to

financial satisfaction. The positive association between objective financial literacy and financial satisfaction is found in bivariate analyses but not in multivariate analyses. The results imply that to enhance consumer financial wellbeing, consumer financial education programs should emphasize action taking and encourage consumers to avoid risky financial behavior, engage in desirable financial behavior, and improve financial self-efficacy (Xiao, Chen, & Chen, 2014).

Using the similar approach, researchers examine age differences in financial capability. In this study, financial capability is measured by five variables: objective financial literacy, subjective financial literacy, desirable financial behavior, perceived financial capability, and financial capability index (a sum of Z scores of the former four variables). Financial capability is expected to increase with age during a person's active life. Data from the 2012 National Financial Capability Study is used for data analyses. Multiple regression results indicate that age differences in four financial capability variables showed similar patterns. After controlling for demographic and economic characteristics, young adults aged 18–24 have the lowest scores of objective financial literacy, subjective financial literacy, perceived financial capability, and financial capability index. Age patterns of financial behavior are complicated. The results have implications for consumer educators to provide effective financial education for all age groups (Xiao, Chen, & Sun, 2015).

The same measure of financial capability is used to examine the association between financial education and financial capability among American consumers. Based on data from the 2012 National Financial Capability Study, results show that, after controlling for demographic and financial variables, respondents who ever received financial education have higher scores in objective financial literacy, subjective financial literacy, desirable financial behavior, perceived financial capability, and financial capability index. In addition, high school, college, and workplace financial education variables also show positive associations with the five financial capability variables. The results imply that financial education in high school, college, and workplace may enhance consumer financial capability (Xiao & O'Neill, 2014).

Financial Literacy

According to the standard economic theory, consumers are fully informed and can make rational choices in long term financial planning to maximize their utilities over life cycle stages. However, empirical research indicates that consumers, in fact, are not fully informed and cannot make rational choices even when the information is available or can be obtained at low/no cost.

Consumer economists have a long history of conducting financial education research (Hira, 2010). For example, many members of the American Council on Consumer Interests (ACCI) have started to teach and write personal finance issues in the early 1980s. The Association for Financial Counseling and Planning Education (AFCPE) was founded by a group of consumer economists in 1983 to focus on consumer financial education (Burns, 2008). In recent decades, researchers in economics, finance, and marketing also pay attention to financial literacy education research. Lusardi (2011), an economics professor and leading researcher on financial literacy, provides a review of economic literature on financial literacy. Over the last 2 decades, researchers have started to explore whether individuals are well equipped to make financial decisions. In the economics literature, studies by Bernheim (1995, 1998) were among the first to document that many US consumers display low levels of financial literacy. Most Americans fail to understand basic financial concepts, particularly those relating to bonds, stocks, and mutual funds (Hilgert, Hogarth, & Beverly, 2003). A study of Washington state residents finds that people frequently fail to understand terms and conditions of consumer loans and mortgages and that this problem may persist over time (Moore, 2003). The National Council on Economic Education's report shows a widespread lack of knowledge regarding fundamental economic concepts among high school students (NCEE, 2005),

confirming similar findings by the Jump$tart Coalition for Personal Financial Literacy (Mandell, 2008). Lack of financial sophistication is not only an American problem; researchers document low levels of financial literacy in several other countries (Smith & Stewart, 2008). Similarly, respondents from a large scale survey in Europe score poorly on financial numeracy and literacy scales (Christelis, Jappelli, & Padula, 2010). Consistent with the findings in the USA, UK borrowers have a poor understanding of mortgages and interest rates (Miles, 2004).

Lusardi and Mitchell (2014) developed a life cycle saving model that addresses the role of financial literacy. This model predicts that financial literacy is endogenously determined over the life cycle. Consumers invest in financial knowledge to the point where their marginal time and money costs of doing so are equated to their marginal benefits. These predictions suggest that consumers who receive financial education would increase their ability to manage their money and perform financially better than their counterparts who do not receive financial education. Previous research also shows that financial education is associated with financial literacy and encourages desirable financial behaviors among consumers (Xiao, Serido, & Shim, 2012; Xiao & O'Neill, 2014; Xiao, Ahn, Serido, & Shim, 2014).

In the research of financial literacy, subjective and objective measures are distinguished by researchers. Research finds that the two types of measures have different effects on consumer financial behaviors. For example, a study based on a sample of first-year college students show that subjective financial knowledge does more to prevent risky credit behaviors than objective financial knowledge (Xiao, Tang, Serido, & Shim, 2011).

Financial Behavior

Financial behavior refers to human behaviors relevant to money management (Xiao, 2008). Common financial behaviors include behaviors related to earning, spending, borrowing, saving, and protecting. Desirable financial behavior should enhance consumer economic wellbeing, while undesirable financial behaviors hurt economic wellbeing. Performing desirable financial behavior implies financial capability. Being able to engage in desirable financial behavior is based on consumer possession of adequate financial literacy.

Research on financial behavior can be categorized as special topic research and general topic research. Specific financial behaviors have been researched extensively such as spending, borrowing, and saving behaviors. Some researchers also treat financial behavior as a construct and have developed scales to measure it. Using data from a nationally representative sample of adults, researchers have developed a scale of financial management behaviors. The scale has four subscales: cash management, credit management, savings and investment, and insurance. They also examine the psychometric properties of the scale and find that the scale is highly associated with other measures of financial management behaviors and is predictive of participants' actual levels of savings and consumer debt (Dew & Xiao, 2011).

Professionals who care about consumer economic wellbeing should better understand consumer financial behaviors and help consumers develop desirable financial behaviors. In the research literature, there are many theories for understanding consumer behaviors and helping consumers develop desirable behaviors. For example, both the theory of planned behavior and transtheoretical model of behavior change have been applied to consumer financial behaviors in recent years (Xiao, 2008).

Theory of Planned Behavior

Description of the Theory The theory of planned behavior (Ajzen, 1991) is an extension of the theory of reasoned action (Fishbein & Ajzen, 1975). The purpose of this theory is to predict and understand human behavior. According to the theory of reasoned action, a person's behavior is determined by her/his behavior intention. Further, intention is determined by this person's attitude toward the behavior, the subjective

norm, and the relative importance between the attitude and the subjective norm. The development of the theory of reasoned action was motivated by the fact that existing attitude theories could not predict behavior (Ajzen & Fishbein, 1980). Later, the theory developer added to the model the component of perceived control to determine the behavior intention and behavior, and renamed the model as the theory of planned behavior (Ajzen, 1991).

The theory of planned behavior focuses on factors that determine individuals' actual behavioral choices. According to this theory, three factors influence behavioral intention: the positive or negative valence of attitudes about the target behavior, subjective norms, and perceived behavioral controls. In turn, behavioral intention influences one's actual behavior (Ajzen, 1991). An attitude toward a behavior is recognized as a person's positive or negative evaluation of a relevant behavior and is composed of a person's salient beliefs regarding the perceived outcomes of performing a behavior. A subjective norm refers to a person's perception of whether significant referents approve or disapprove of a behavior. To capture non-volitional aspects of behavior, the theory of planned behavior incorporates an additional variable—perceived behavioral control, which is not typically associated with traditional attitude-behavioral models (e.g., Fishbein & Ajzen, 1975). The perceived behavioral control describes the perceived difficulty level of performing the behavior—reflecting both past experience and anticipated barriers. As a general rule, the more favorable the attitude toward performing a behavior, the greater the perceived social approval, and the easier the performance of the behavior is perceived to be, the stronger the behavioral intention will be. In turn, the greater the behavioral intention, the more likely the behavior will be performed. In addition, the perceived control may affect the behavior directly (Ajzen, 1991). The theory of planned behavior and its former version, the theory of reasoned action, have been applied in many subject areas. A comprehensive reference list of papers using the theory of reasoned action and the theory of planned behavior was compiled by Icek Ajzen and posted on his website (http://www-unix.oit.umass.edu/~aizen/index.html).

Evaluation of the Theory Several meta-analyses have been conducted to evaluate the efficacy of the theory of planned behavior and its former version, the theory of reasoned action. An evaluation research examining 185 independent studies indicate that the theory in general is valid (Armitage & Conner, 2001). However, this evaluation research identifies several issues relevant to the application of the theory. First, self-reports are not a reliable information source. If possible, researchers should use objective and observed variables to measure behavior. Second, perceived control is a concept different from self-efficacy, unlike the common assumption that they are the same measure with two different names. Compared to perceived control, self-efficacy is a better predictor of behavior. Third, there are alternative measures for intention, such as desire and self-prediction, in which intention and self-prediction are better predictors for behavior compared to desire. Fourth, subjective norm is a weak predictor of intention compared to two other variables, attitude and perceived control. Therefore, alternative categorizations are needed, such as moral and descriptive norms.

Applying the Theory to Consumer Behavior Several studies have applied the theory of planned behavior to consumer behavior in financial services such as investment decisions, mortgage use, and credit counseling. The theory is used to investigate investment decisions with data from a sample of British consumers. The results show that the influence of friends and relatives (subjective norm) and the importance of easy access to funds (perceived control) strongly contribute to the investment decision (East, 1993). Using data from a sample of mortgage clients, researchers examine customer service switching behavior. They find that interactions between perceived control and intention, between perceived control and attitude, and between attitude and subjective norms significantly affect behavior intention (Bansal & Taylor, 2002). Using survey and account data from a sample of clients of a national

consumer counseling agency, researchers examine factors that are associated with consumer behavior in completing a debt management plan. They find that attitude toward the behavior and perceived control affect the actual behavior, but subjective norm does not. In addition, satisfaction with the service, a factor not specified in the theory, also contributes to the actual behavior (Xiao & Wu, 2008). Researchers have applied the theory of planned behavior to investigate how college students form financial behaviors regarding cash, credit, and saving management (Shim, Xiao, Barber, & Lyons, 2009; Xiao et al., 2011). The theory of planned behavior is also applied to consumer behavior in the setting of e-commerce, such as online shopping (Lim & Dubinsky, 2005; Shim, Easlick, Lotz, & Warrington, 2001) and e-coupon use (Fortin, 2000; Kang, Hahn, Fortin, Hyun, & Eom, 2006).

Transtheoretical Model of Behavior Change

Description of the Theory The transtheoretical model (TTM) of behavior change was developed in the 1970s by Prochaska and his colleagues (Prochaska, 1979; Prochaska, DiClemente, & Norcross, 1992). They formed the model by highlighting major psychological theories in a uniform framework for the purpose of helping people change their undesirable behaviors. "Transtheoretical" in the title means to transform theories into applications, which implies that this model was developed for the applied purpose of counseling. The model was first applied to cessation of smoking and then to a variety of other health-related behaviors, including alcohol abuse, drug abuse, high fat diet and weight control, psychological distress, and sun exposure (Prochaska, Redding, Harlow, Rossi, & Velicer, 1994). A few studies applied TTM to other areas, such as organizational change (Prochaska, 2000) and collaborative service delivery (Levesque, Prochaska, & Prochaska, 1999). More information about this model and its accomplishments can be found from the website of ProChange Behavior Systems: http://prochange.com/.

Major constructs of TTM include stage of change, process of change, self-efficacy, and decisional balance. TTM identifies five stages of behavior change: precontemplation, contemplation, preparation, action, and maintenance. If a person is not willing to change in 6 months, s/he is in precontemplation. If a person is willing to change in 6 months, s/he is in contemplation. If s/he is willing to change in 30 days, s/he is in preparation. If s/he has started to change for less than 6 months, s/he is in action. If s/he has been changing for over 6 months but less than 18 months, s/he is in maintenance. If s/he has changed the behavior for more than 18 months, we consider her/his behavior has been changed. Some people may relapse to previous stages. At times, behavior change may take several cycles. TTM also identifies ten processes of change, in which processes are strategies or interventions for facilitating the behavior change. According to TTM, these strategies could be used more effectively if they are matched with appropriate stages of change.

Two indicators of success of behavior change are decisional balance and self-efficacy (or confidence). When people are at a later stage, they will perceive more benefits and fewer costs of behavior change, and they are more confident in avoiding the targeted, undesirable behavior when they face difficult situations.

Compared to other behavior change models, this model has the following unique features: (1) it integrates essentials of major psychological theories in a framework to offer more effective interventions; (2) it defines multiple stages of behavior change, which is different from an action paradigm, and has the potential to reach both ready and not ready to change the targeted behavior; (3) it matches intervention strategies to different stages of behavior change, which makes it more effective compared to other intervention programs; and (4) it focuses on enhancing self-control (Prochaska, Redding, & Evers, 1996).

Evaluation of the Theory TTM is one of the multi-stage theories. Among five multi-stage theories reviewed by two psychologists, TTM is the one that most empirical studies support. Compared to motivational theories, multi-stage

theories are more sophisticated (Armitage & Conner, 2000). However, these authors raised several questions for multi-stage theories. These questions include: (1) psychologically, what actually happens at each stage, (2) do people go through each stage sequentially when they change their behaviors, and (3) are different stages really different in terms of determinants of the behavior change?

Applying TTM to Financial Behavior Application of TTM to financial behavior started in the last two decades. Kerkman (1998) discussed how to use TTM in financial counseling and presented a case to demonstrate her approach. Bristow (1997) suggested that this model could be used to change people's financial behavior in Money 2000, a USDA Cooperative Extension program. Money 2000 was a successful financial education program, which was adopted by 29 states and reported a total dollar impact of almost $20 million (O'Neill, 2001). Based on data collected in 1998 among the program participants in New Jersey and New York, preliminary evidence indicated that certain processes of change were used more frequently by participants who reported behavioral changes (Xiao, O'Neill, et al. 2004). A group of researchers has applied TTM in the credit counseling setting to develop a measure to help consumers change behaviors to eliminate undesirable credit card debts (Xiao, Newman, Prochaska, Leon, & Bassett, 2004; Xiao, Newman, Prochaska, Leon, Bassett, et al., 2004). TTM is also applied in financial education programs for low-income consumers, in which specific educational strategies under the framework of TTM are developed (Shockey & Seiling, 2004). In addition, TTM is used to provide advice for women on being better investors (Loibl & Hira, 2007), among others.

Financial Wellbeing

Concept of Financial Wellbeing

Financial wellbeing refers to a financial status in that a consumer or family has adequate resources to live a comfortable life. Doing financially well also refers to a financial status that is better than the average compared to a reference group. Financial wellbeing can be measured by both objective and subjective indicators. Common objective indicators of financial wellbeing are income, expenditure, debt, asset, and combinations of these indicators such as net worth and debt/income ratio. Common subjective measures of financial wellbeing are financial satisfaction and satisfaction of specific categories of financial resources such as income satisfaction and saving satisfaction.

Objective Measures of Financial Wellbeing

American consumers may consider whether they are doing well financially by comparing with the national average statistics provided by relevant government agencies such as the US Bureau of Census for income, the Bureau of Labor Statistics for expenditure, and the Federal Reserve Board for debt and asset statistics. For example, based on the latest national statistics, for a family the median income is $51,017 in 2012 (DeNavas-Walt, Proctor, & Smith, 2013), median expenditure is $51,442 in 2012 (U.S. Bureau of Labor Statistics, 2013), and median financial asset amount is $21,500 in 2010 (Bricker, Kennickell, Moore, & Sabelhaus, 2012). In addition, some combined measures can also be used, such as median net worth amount or median debt/income ratio. Generally speaking, if a consumer's financial situation is above national averages, he or she should be considered financially doing well.

Financial wellbeing can also be compared in the time dimension. For example, in 1967 the median household income is $42,934 while in 2012 the amount is $51,017, both in 2012 dollars (adjusted for inflation factors) (DeNavas-Walt et al., 2013). Then financial wellbeing is considered being improved based on the measure of income.

Debt is a special indicator for measuring financial wellbeing. For debt measures, the evaluation is not straightforward. For debt access, the broader access the better. But it is difficult to measure financial wellbeing directly with debt

levels. Several debt-related measures are used to measure financial difficulties or financial ill-being. For example, based on Federal Reserve Board researchers, debt/income ratio being over 40 % is considered an indicator of financial difficulty (Bricker et al., 2012).

Money may bring happiness in most cases. For most indicators of financial wellbeing, the higher the value the happier, which is the case for income, expenditure, and asset based on experts and ordinary consumers. However, the relationship between money and happiness is complicated (Xiao, 2014). Research shows that the association between income and happiness is nonlinear. For low and moderate income consumers, the positive association between income and happiness is stronger than that of high income consumers (Diener & Biswas-Diener, 2002). In addition, associations of money and different types of happiness may differ. Based on a large scale survey, a consumer's happiness level is positively associated with life satisfaction, but the association between income and daily happiness is curvilinear with an optimal point, in which a person with household income of $75,000 is the happiest (Kahneman & Deaton, 2010).

Subjective Measures of Financial Wellbeing: Financial Satisfaction

The most commonly used subjective measure of financial wellbeing is financial satisfaction that measures self-perceived overall financial status. Other subjective measures of financial wellbeing include income satisfaction, retirement saving adequacy, etc., which are used for different research purposes. Financial satisfaction can be used to describe consumer financial wellbeing based on national surveys. Based on the 2012 National Financial Capability Survey, nearly a quarter of respondents (24 %) report being very satisfied with their current personal financial condition (8–10 on a 10-point scale), up from 16 % in 2009, the year of great recession (FINRAIEF, 2013).

Financial satisfaction plays an important role in life satisfaction. Easterlin (2006) examined the association between overall happiness and satisfactions for four life domains (finance, family, health, and work) and found that financial satisfaction contributes most to overall happiness compared to other domain satisfactions. Based on data from the Gallup World Poll, results show that financial satisfaction is the strongest predictor of life evaluation (Ng & Diener, 2014). Controlling for debt and several demographic variables, financial satisfaction is the most important predictor of financial anxiety based on a sample of college students (Archuleta, Dale, & Spann, 2013).

Previous studies have examined factors associated with financial satisfaction. Income is identified as an important determinant of financial satisfaction. For instance, data from General Social Surveys in the USA is used to examine the association between several income definitions and financial satisfaction and results show that income equivalence scales and per capita income are better income predictors of financial satisfaction than family income among of American elders (Hsieh, 2004). Research based on data from a national survey in Spain indicates that not only income but also income expectation affects financial satisfaction (Vera-Toscano, Ateca-Amestoy, & Serrano-del-Rosal1, 2006). A study based on a sample of American consumers finds that perceived income adequacy is positively associated with financial satisfaction (Grable, Cupples, Fernatt, & Anderson, 2013). Japanese data show that the relationship between income satisfaction and others' income is negative, and more negative for those who report greater income comparison intensity (Clark, Senik, & Yamada, 2013).

Research indicates life cycle pattern of financial satisfaction shows a U-shape that is different from income's life cycle pattern being hump shaped. A researcher explores the determinants of this life course financial satisfaction pattern, taking into account not only income but also the possible impact of assets and liabilities. Results based on data from the US National Survey of Families and Households show that while income has the expected positive relation, increasing financial satisfaction at older age can be partly explained by decreases in liabilities and increases in financial assets (Plagnol, 2011). The findings

are consistent with a Norwegian study of older consumers where financial circumstances such as levels of assets and debts affect financial satisfaction (Hansen, Slagsvold, & Moum, 2008). People at different life stages may have different determinants of financial satisfaction. The effect of labor income on financial satisfaction is largely limited to the earliest life stage, with investment income and housing equity playing a more important role later on in the life cycle (Brown, Durand, Harris, & Weterings, 2014).

Working patterns may affect financial satisfaction. Using the data on financial satisfaction from the European Community Household Panel from 1994 to 2001, the researcher compares married and cohabiting women from five industrialized European countries. Results indicate that it is not relative income or pure employment that matters the most for a woman's financial satisfaction but, more likely, the choice of continuous and full-time labor market involvement. A homemaking career may be as beneficial for a woman's financial satisfaction as continuous employment, while a discontinuous employment path seems to be detrimental for a woman's financial satisfaction (Kulic, 2014).

Financial satisfaction may differ in sexual orientations. Using data from the 1989–2010 General Social Survey, a researcher analyzes disparities in economic outcomes and financial wellbeing that vary by gender and sexuality. The findings show that heterosexual men are the highest paid, followed by gay/bisexual men, then lesbian/bisexual women, and finally heterosexual women. Lesbian/bisexual women have the greatest probability of greater financial satisfaction, and heterosexual women and gay/bisexual men have the lowest probability of greater financial satisfaction (Matthews, 2013).

Financial satisfactions differ among households with different characteristics. Data from nine European countries show that household characteristics explain 30 % of the variances regarding financial satisfaction (Seghieri, Desantis, & Tanturri, 2006). Based on a sample of individual investors in India, the results show that factors such as age, marital status, occupation, work-experience, income, saving rate, nature of household accommodation, and investment tenure are associated with financial satisfaction levels (Sahi, 2013).

Research also identifies other factors associated with financial satisfaction. A study conducted in a transitional economy, Albania, reveals that workers in informal sectors are less financially satisfied than their counterparts in formal sectors (Ferrer-i-Carbonell & Gërxhani, 2011). Researchers test the relative association of three financial ratios on financial satisfaction with data from the 2008 Health and Retirement Study and find that the solvency ratio is most strongly associated with financial satisfaction levels, and changes in the investment asset ratio are most strongly associated with changes in financial satisfaction over time (Garrett & James, 2013).

Financial Capability and Financial Wellbeing

Consumer economists hope that higher financial capability should be associated with financial wellbeing. Based on data from the 2009 US State-by-State Survey of Financial Capability, results indicate the positive association between perceived financial capability and financial satisfaction. Desirable financial behavior increases while undesirable financial behavior decreases financial satisfaction. Subjective financial literacy is also found to contribute positively to financial satisfaction (Xiao, Chen, & Chen, 2014). Data from a sample of individual investors in Malaysia show that financial literacy is found to be a significant antecedent variable of financial planning and financial planning is an important determinant of financial satisfaction (Ali, Rahman, & Bakar, 2014).

Summary and Future Research Directions

Summary of Research

Financial capability refers to the ability to apply appropriate financial knowledge and perform desirable financial behaviors to achieve financial

goals and enhance financial wellbeing. Financial capability can also be shown through consumer financial self-efficacy and perceived financial capability. Financial capability is low as shown in the low level of financial literacy and prevalence of undesirable financial behaviors among many consumers. To improve consumer capability, consumers need to perform more desirable financial behaviors for improving financial wellbeing. Behavior science theories such as the theory of planned behavior and the transtheoretical model of behavior change (TTM) can be applied to help consumers improve their behaviors.

Financial wellbeing can be measured by both objective and subjective indicators. Common objective indicators of financial wellbeing are income, expenditure, and asset, which are usually positively associated with financial wellbeing. Debt-related measures are also used to measure financial wellbeing. For example, net worth (total asset—total debt) is a measure that is positively associated with financial wellbeing. Some debt-related measures, such as debt/income ratio, are considered negatively associated with financial wellbeing. Financial satisfaction is a common subjective measure of financial wellbeing. Other subjective measures are income satisfaction and retirement saving satisfaction among others. Research shows that life course financial satisfaction is in a U-shape that is different from the life course income pattern that is hump shaped. Thus, financial satisfaction is not determined by only income but also other factors. In addition, financial satisfaction is an important factor to determine overall life satisfaction. Research shows that consumer financial capability is positively associated with financial satisfaction.

Future Research on Financial Capability

More research can be conducted to clearly define financial capability and how to effectively measure this important concept. In addition, associations between financial capability, financial literacy, and financial behavior need attention in future research. Theoretically, we assume that the three concepts should be positively associated with each other, an assumption that needs to be validated with empirical data. Also, how the three concepts are associated with consumer financial wellbeing can be examined in future research. Some research evidence shows that financial capability variables such as financial literacy, financial behavior, and perceived financial capability are associated with subjective financial wellbeing (Xiao, Chen, & Chen, 2014).

In many research studies, financial capability is measured by financial behavior. More depth research on financial behaviors can also be conducted. Researchers need to develop an inventory of financial behaviors that covers all aspects of behaviors relevant to consumer finance. In many existing studies, financial behaviors are defined for specific research purposes and many of them are not comprehensive. An inventory of financial behaviors with acceptable reliability and validity would be helpful for financial educators and researchers when they evaluate financial education programs and measure social impacts of the programs on people's behavior change and quality of life. Researchers are also encouraged to partner with commercial and nonprofit organizations to access data of actual financial behaviors.

Future financial capability research could use approaches developed by behavioral economic research. Behavioral economic studies identified many consumer biases in financial behaviors and decisions (Benartzi & Thaler, 2007; Lai & Xiao, 2010). Researchers could use these research results to develop interventions or choice architectures to help consumers enhance financial capabilities and make better financial decisions (Thaler & Sustein, 2009).

Future Research on Financial Behavior and Education

The two theories reviewed in this chapter have been applied to certain financial behaviors and certain populations, and they could be applied to more behaviors and more diverse populations. For example, many states have tax return sites to

help low-income consumers receive tax refunds. Another example is the *Go Direct* campaign launched by the US Department of Treasury, which encourages electronic deposits of benefit checks issued by the US Social Security Administration. Consumer economists could partner with government agencies and financial institutions to apply these theories to design effective education and outreach programs so these social initiatives would have a greater impact.

TTM is considered a multi-stage theory with advantages to help consumers change undesirable behaviors and form positive financial behaviors stage by stage. Strategies based on this theory could be developed to work with mass populations, emphasizing specific strategies for certain behavior change stages for greater social impact, and a cost-effective approach. However, even mass approaches need a degree of personalized design. An example would be online self-assessment tools that could reach millions of people but provide each user with a personalized response, based on their individual responses (O'Neill & Xiao, 2006).

The behavior theories reviewed in this chapter have been tested in numerous scientific studies and are well established. Consumer finance researchers could utilize the strategies, techniques, and tactics based on this line of research to generate practical information for financial policy makers, professionals, educators, and consumers.

Self-help websites based on these theories can be developed to help consumers change their undesirable financial behaviors themselves. Self-help manuals could also be developed for the same purpose. Use of these self-help websites and manuals could be monitored and studied to identify factors that are more effective than others in motivating and facilitating the behavior change. Researchers also need to beware of the self-selection bias since people who really need help may not go to these self-help sites and use the tools.

One of the purposes of research on consumer financial behavior is to better understand factors that affect the formation and change of financial behaviors. Specifically, financial educators are interested in knowing the role of financial education in behavior formation and change. In addition, financial educators need to know the important characteristics of financial education programs that will not only provide financial knowledge but also encourage consumers to form positive financial behaviors and change undesirable financial behaviors. Future research should generate information that has direct implications for financial educators to develop such education programs.

Future research also needs to examine how financial education, financial behavior, and quality of life are associated. The mission of many financial educators, especially those at land grant universities, is to improve people's quality of life by providing effective financial education. They hope the education will have a direct impact on these people's financial behaviors and eventually help improve the financial wellbeing of these people. Data on financial education, financial behavior, and quality of life could be collected to provide insights in to this topic.

There are two issues that are not addressed by the behavior theories reviewed in this chapter: the structure of financial behaviors and interactions between financial behaviors. The first issue asks if there is a pattern when consumers adopt various financial behaviors. Some previous studies suggest the adoption of financial behaviors may have a hierarchical pattern and consumers adopt some financial behaviors before others. According to a study by Federal Reserve staff (Hilgert et al., 2003), it seems consumers adopt cash management behavior first, and then credit behavior, followed by saving and investing behavior. Studies on saving motives (Xiao & Noring, 1994) and financial asset shares (Xiao & Anderson, 1997) also show such a pattern. Is this pattern valid in general? If so, what is the theoretical foundation? The second issue is to ask if positive financial behaviors enhance each other. Do positive financial behaviors beget positive financial behaviors? If so, we may focus on promoting one particular financial behavior and hope the formation of that behavior will influence the formation of other positive financial

behaviors. Some evidence shows that self-perceived financial behavior performance is associated with self-reported positive financial behavior (Xiao, Sorhaindo, & Garman, 2006). More theoretical and empirical studies are needed to address these issues.

Future Research on Financial Wellbeing

The current consumer research literature seems to uphold the assumption that the higher the value of an objective measure such as income or net worth, the better the financial wellbeing outcome. Is there an optimal value that is not the highest but the most appropriate for a consumer? Some theoretical work could be done to address thisissue.

The association between objective and subjective measures of financial wellbeing has also been studied by some researchers. Current research shows that the life course patterns of income and financial satisfaction are inconsistent, asset and debt may play a role in the process. More research could be done to help understand this phenomenon.

Research on financial capability and financial wellbeing has been emerging. Evidence shows that financial literacy, financial behavior, and perceived financial capability are associated with financial satisfaction, the subjective measure of financial wellbeing. More research could be conducted to investigate the effects of financial capability related variables on both subjective and objective measures of financial wellbeing.

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Jing Jian Xiao is a full professor in the Department of Human Development and Family Studies at the University of Rhode Island, teaching courses and conducting research in consumer finance. He is the editor of *Journal of Financial Counseling and Planning*. He is also the editor of a book series *International Series on Consumer Science*. He published numerous research papers in professional journals in consumer finance and several books including the *Handbook of Consumer Finance Research*, *Mathematics of Personal Finance*, and *Consumer Economic Wellbeing*. Professor Xiao received his BS and MS in economics from Zhongnan University of Economics and Law and Ph.D. in consumer economics from Oregon State University.

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2 Financial Risk Tolerance

John E. Grable

The specific study of the way individuals make risky decisions has gained importance over the past two decades as consumers, investment advisers, researchers, and policy makers have come to face new and ever increasingly complex changes in the economic landscape. This is especially true in relation to the consumer finance field's examination and understanding of the role *financial risk tolerance* plays in shaping individual financial behaviors. In general, risk tolerance can be conceptualized as the willingness of an individual to engage in a behavior where there is a desirable goal but attainment of the goal is uncertain and accompanied by the possibility of loss (Kogan & Wallach, 1964; Okun, 1976). Risk tolerance is the inverse of risk aversion, which is an economic term that depicts a person's hesitancy to accept a choice that has an uncertain payoff when an alternative choice with a more certain outcome is available. Weber, Blais, and Betz (2002) stated that risk tolerance is "a person's standing on the continuum from risk aversion to risk seeking" (p. 264). Within the domain of financial decision making, financial risk tolerance is generally defined as the maximum amount of uncertainty someone is willing to accept when making a financial decision (Grable & Joo, 2004) or the willingness to engage in a financial behavior in which the outcomes are uncertain with the possibility of an identifiable loss (Irwin, 1993).

Risk tolerance is an important factor that influences a wide range of personal financial decisions (Snelbecker, Roszkowski, & Cutler, 1990). Risk tolerance is an underlying factor within financial planning models, investment suitability analyses, and consumer decision frameworks. The debt versus savings decision individuals regularly make, the type of mortgage selected, and the use and management of credit cards are examples of situations where a person's financial risk tolerance can influence behavior (Campbell, 2006). Financial risk tolerance also affects the way people invest their resources for short- and long-term goals, such as saving for a significant purchase and retirement. It is reasonable to expect that people with varying levels of risk tolerance should act differently when making investment decisions, with those having a high risk tolerance (i.e., low aversion to risk) investing more aggressively.

Much of the early theoretical and empirical research conducted on the topic of risk tolerance involved testing and assessing individuals' perceptions and susceptibility to health, environmental, and physical risks (MacCrimmon & Wehrung, 1986; Slovic, 2004) as evaluated through experimental economics methodologies (e.g., Bateman & Munro, 2005; Kahneman & Tversky, 1979). Outside of economics, the study of risk tolerance has been diverse. The earliest

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work on the recognition of risk and the willingness to engage in risky activities was concentrated in the area of consumer behavior (MacCrimmon & Wehrung, 1984). Researchers in the fields of finance (e.g., Cohn, Lewellen, Lease, & Schlarbaum, 1975; Markowitz, 1952; Siegel & Hoban, 1982), business (e.g., Fitzpatrick, 1983), natural hazards (e.g., Kunreuther, 1979), and natural and man-made disasters (e.g., Newman, 1972; Slovic, Fischhoff, & Lichtenstein, 1978) have also given attention to measuring risky situations and surveying propensities of individuals to take risks. Over the past quarter century there has been a growing movement to better understand risk tolerance from a household financial and consumer psychological perspective (e.g., Dixon, Hayes, Rehfeldt, & Ebbs, 1998; Gilliam, Chatterjee, & Grable, 2010; Guillemette & Finke, 2014; Yao & Curl, 2011).

Researchers and theorists have attempted to explain risk tolerance, the likelihood of taking risks, and outcomes from risky actions through normative and descriptive models. Normative models describe how people ought to make decisions, whereas descriptive models attempt to explain how and why individuals actually make risk evaluations. The primary normative model is Expected Utility Theory (EUT). Descriptive models, on the other hand, tend to be based on varied behavioral and/or psychosocial perspectives. EUT and a sampling of descriptive frameworks are reviewed below.

The Expected Utility Theory Framework

EUT models form the primary basis in which researchers attempt to describe how risk tolerance is theoretically linked with risk-taking behaviors. The concept of EUT was advanced by Von Neumann and Morgenstern (1947). They argued that consumers should select choices with the highest expected outcomes. A consumer's utility function is typically assumed to resemble a constant relative risk aversion utility function (Hanna, Gutter, & Fan, 2001). "In the expected utility framework, risk preference is operationalized as risk attitudes that are descriptive labels for the shape of the utility function presumed to underlie a person's choices. Choice of a sure amount of money over a lottery with equal expected value would classify a person as risk averse" (Weber & Milliman, 1997, p. 124). Constant relative risk aversion is generally represented graphically so that as wealth increases, marginal utility slowly increases but at an ever slowing rate. In its most basic form, EUT assumes that consumers are rational and that risk preferences remain constant. As such, a consumer should make the same choice (trade-off) in terms of riskiness regardless of the situation or event.

Modern Portfolio Theory (MPT) was originally conceptualized by Markowitz (1952) as an extension of EUT to facilitate the analysis of investment portfolios. According to Mayo (2003), "The Markowitz model is premised on a risk-averse individual constructing a diversified portfolio that maximizes the individual's satisfaction (generally referred to as utility by economists) by maximizing portfolio returns for a given level of risk" (p. 170). Within MPT, investors develop risk and return trade-offs. Economists depict these trade-offs with indifference curves where investors prefer high returns with low risks. Trading off risks for returns is one way investors maximize utility. In general, MPT predicts that investors should only be willing to take additional risk if the return associated with the risk is high.

The shape of the utility function used within EUT and MPT frameworks is generally measured using a person's response to a series of hypothetical income gambles. For example, Hanna and Lindamood (2004) asked a progression of questions similar to the following:

> "Suppose that you are about to retire, and have two choices for a pension:
>
> Pension A gives you an income equal to your pre-retirement income.
>
> Pension B has a 50 % chance your income will be double your pre-retirement income, and a 50 % chance that your income will be 20 % less than your pre-retirement income.
>
> You will have no other source of income during retirement, no chance of employment, and no other family income ever in the future.
>
> All incomes are after tax.
>
> Which pension would you choose?" (p. 37)

Using their approach, additional questions ask respondents to choose among different percentage changes in income. The result allows for the calculation of a person's relative risk aversion. Risk aversion, or the theoretical opposite—risk tolerance—can then be used to help explain household portfolio allocations. In its most basic form, risk tolerance is important within the context of EUT because only measures of risk tolerance based on hypothetical gambles have been directly linked to the theory. For example, Hanna and Chen (1997) showed that risk aversion has little impact for consumers investing for the long run, but does make a significant difference for those investing with shorter time horizons. The normative implication of this result is substantial. The long-run riskiness of stocks turns out to be less than commonly thought. Further, because wealth accumulation is positively associated with high return investments (e.g., equities and derivatives), it is important for everyone, even those with low risk tolerance, to invest a portion of investment assets in equities and other high volatility assets.

Behavioral Finance and Psychosocial Descriptive Frameworks

Even though EUT has traditionally been a favorite method for conceptualizing risk tolerance and risk-taking behaviors among economists, groups of researchers, primarily those housed in departments of psychology, behavioral sciences, and financial planning have pointed out discrepancies within EUT that have called into question many of the assumptions related to risk tolerance and traditional economic utility frameworks (Olson, 2006). There is a growing body of evidence to suggest the assumption that "risk is an immutable attribute of a decision alternative that is perceived the same way by different decision makers" (Weber & Milliman, 1997, p. 129) may be incorrect. The conflict between what consumers should do and what they actually do has been widely studied. Friedman and Savage (1948) were the first to challenge the standard utility function assumption by showing that few people have a constant risk aversion throughout the entire domain of wealth. They noted a paradox among consumers who purchase insurance but also gamble. Others have documented similar inconsistencies of behavior linked to differences in risk tolerance. One of the first to note such a paradox was Allais (1953). He asked individuals to choose a preference in each of two circumstances. The first choice was between a sure payoff and a payoff with three probabilities that left the individual with a zero return or a gain. The second choice required a selection between two options with varying probabilities of success. When offered the choice in his experiment, nearly all individuals chose the sure gain in the first choice scenario; however, in the second situation most people chose the low probability payoff. In effect, participants in the experiment exhibited a violation of the relative risk aversion assumption within EUT (Schoemaker, 1980). Similar evidence showing a conflict between normative theory and actual behavior has been noted by other researchers (e.g., Bell, 1982; Coombs, 1975; Ellsberg, 1961; Kahneman & Tversky, 1979; Loomes & Sugden, 1982; Payne, Laughhunn, & Crum, 1984; Shefrin & Statman, 1985, 1993; Tversky, 1969; Tversky & Kahneman, 1981). This growing body of empirical evidence led to the development of a new sub-discipline within economics and finance—behavioral economics/finance (Kahneman & Tversky, 1979).

Kahneman and Tversky (1979) noted that "the magnitudes of potential loss and gain amounts, their chances of occurrence, and the exposure to potential loss contribute to the degree of threat (versus opportunity) in a risky situation" (p. 266). This observation led them to conclude that people are consistently more willing to take risks when certain losses are anticipated and to settle for sure gains when absolute rewards are expected. This insight is the fundamental tenet of Prospect Theory, which has since become the primary behavioral finance framework used to study risk attitudes and behaviors (Statman, 1995; Tversky & Kahneman, 1981).

Prospect Theory

Although there have been a number of conceptual frameworks based on behavioral observations (e.g., Regret Theory, Ellsberg's Paradox, Satisficing Theory), Prospect Theory (Kahneman & Tversky, 1979) continues to be the primary descriptive alternative to EUT. Within the Prospect Theory framework, value, rather than utility, is used to describe gains and losses. A value function, similar to a utility function, can be derived; however, "the value function for losses (the curve lying below the horizontal axis) is convex and relatively steep. In contrast, the value function for gains (above the horizontal axis) is concave and not quite so steep" (Plous, 1993, p. 95). One of the primary outcomes associated with Prospect Theory is that a person's risk tolerance will depend on how a situation or event is framed. Essentially, consumers demonstrate risk-averse behavior when asked to make a choice in which the outcome is framed as a gain, while the same consumer will often choose the risk-seeking alternative when the choice if framed as a loss (DellaVigna, 2009).

Risk-as-Feelings Hypothesis

One argument critical of EUT, Prospect Theory, and behavioral frameworks is that each is consequential in nature. A unifying and underlying assumption within these frameworks is that individuals make decisions based on an ordered assessment of consequences. A relatively new way of conceptualizing risk tolerance and risk taking suggests that this assumption may not be entirely correct. According to Loewenstein, Weber, Hsee, and Welch (2001), existing frameworks "posit that risky choice can be predicted by assuming that people assess the severity and likelihood of the possible outcomes of choice alternatives, albeit subjectively and possibly with bias or error, and integrate this information through some type of expectations-based calculus to arrive at adecision. Feelings triggered by the decision situation and imminent risky choice are seen as epiphenomenal—that is, not integral to the decision-making process" (p, 267). In response, Loewenstein and his associates proposed a "risk-as-feelings" theoretical perspective.

The risk-as-feelings hypothesis puts forward the notion that emotional reactions to risky situations often diverge from reasoned assessments. When this happens, emotional reactions directly influence behavior. Within the framework, emotional responses, such as worry, fear, dread, and anxiety influence judgments and choices. For example, people in good moods tend to view risky situations with less threat than individuals in a bad mood (Loewenstein et al., 2001; Olson, 2006). The risk-as-feelings framework is unique in terms of acknowledging the influences of cognitive and emotional factors on risk tolerance and risk-taking behaviors. The risk-as-feelings hypothesis offers a fresh approach to understanding both risk tolerance and risk-taking behaviors.

Risk-Tolerance Measurement Issues

The formal assessment of risk tolerance can take on many forms (Roszkowski & Grable, 2005). In practice, risk tolerance tends to be measured and assessed using one of six methods: (a) personal or professional judgment, (b) heuristics, (c) objectively, (d) single item questions, (e) risk scales, or (f) mixed measures.

Those who rely on personal or professional judgments have a tendency to use one of three methods to assess the risk tolerance of other people. A judgment can be made based on the assumption that others have the same risk tolerance as the judge. It is also possible to perceive others as less risk tolerant. This is known as risk-as-value, where the judge perceives his or her own risk perception as being more desirable. An alternative is to predict that others have only slight differences in risk tolerance compared to the judge. The final approach involves relying on stereotypes to arrive at a judgment. Unfortunately, the literature on personal and professional judgment has shown that the use of stereotypes is not particularly accurate (Roszkowski & Grable, 2005).

The use of heuristics is another way that some attempt to assess risk tolerance. A heuristic is a simplified rule that results in a mental shortcut to solve a problem. Imagine, for example, that a snake was sunning itself on a busy sidewalk. Most people would not stop and evaluate the situation and then make a reasoned choice to either move forward or alter direction. Instead, the average person would quickly fall back on preformed notions of snakes and alter direction quickly. In terms of risk attitude assessment, for instance, some people believe that, holding all other factors constant, occupational choice can be used as a substitute measure of a person's risk-taking preferences. In fact, this risk-tolerance heuristic is only weakly predictive of financial behavior. While there is some evidence to suggest that people are relatively consistent in their willingness to take risks across domains (Grable & Rabbani, 2014), the preponderance of research on the topic of heuristic validity indicates that the majority of risk-tolerance heuristics can lead to potentially serious miscalculations and incorrect categorizations of individuals into risk-tolerance groups (Grable, 2000; Grable & Lytton, 1998, 1999a).

Another technique that is sometimes used to describe a person's risk attitude involves objectively assessing an individual's current investment approach and inferring risk tolerance from the observation. Using this method, someone who holds the majority of their investment assets in equities would be assumed to have a relatively high risk tolerance. Researchers and investment professionals who use this approach measure relative risk tolerance by looking at the ratio of risky assets to wealth (Riley & Chow, 1992). The validity of this assessment method has been questioned (Campbell, 2006; Cordell, 2001). Unless sufficient information is known prior to the judgment, this type of objective measure cannot account for the effect of outside influences, such as allocations based on the recommendations of advisers or friends and emotional biases at the time the portfolio allocation decision was made. Actual stock market results obtained by investors, compared to average market returns, suggest that objective measures are a weak substitute to more valid measures. When compared to the markets, investors tend to underperform indices in both up and down markets (Barber & Odean, 2001; Odean, 1998). This implies that investors do not always actually make investment decisions that align perfectly with their underlying tolerance for risk.

Another approach often used to assess risk tolerance involves the use of a valid and reliable scale. In some situations, however, a scale is either not available or requires too much time to administer. In these cases, single item questions are sometimes used to assess risk tolerance. One risk-tolerance question is widely used among those interested in consumer finance issues—the Survey of Consumer Finances (SCF) risk-tolerance item. The question is simple to use and evaluate, as shown below:

Which of the following statements on this page comes closest to the amount of financial risk that you are willing to take when you save or make investments?

1. Take substantial financial risk expecting to earn substantial returns.
2. Take above average financial risks expecting to earn above average returns.
3. Take average financial risks expecting to earn average returns.
4. Not willing to take any financial risks.

This question is popular among researchers because it is one of the only direct measures of risk-tolerance attitudes asked in national surveys of consumers. This allows responses to the item to be compared to national averages. The downside associated with the use of this, or any other single item, is that it may not be a "good proxy for people's true risk aversion" (Chen & Finke, 1996, p. 94). Historical response patterns indicate that a large percent of those answering the question have no risk tolerance (Hanna & Lindamood, 2004). This skewed response pattern toward maximum risk aversion conflicts with actual risk-taking behaviors observed in everyday financial situations. Grable and Lytton (2001) also noted that the question does not fully represent the spectrum of financial risk tolerance.

Instead, the item is most closely linked with investment choice attitudes. The reliability of the item has also been examined. Grable and Schumm (2010) estimated the item's reliability (i.e., Cronbach's alpha) as falling between 0.52 and 0.59, which indicates a relatively high degree of random error should be associated with the item's use (Gilliam et al., 2010).

Another method used to assess risk tolerance involves the use of a psychometrically designed scale (Roszkowski, Davey, & Grable, 2005). The history of risk scales can be traced back to the late 1950s (Atkinson, 1957). A major advancement in the study of choice in risky situations occurred in the late 1950s and early 1960s. Wallach and Kogan (1959, 1961) developed the widely used Choice Dilemmas Questionnaire to measure risk preferences in everyday life situations. The original questionnaire required subjects to advise other individuals regarding 12 choices with two outcomes: a sure gain or a sure loss. Choice dilemmas were commonly used to measure risk-taking propensities for three decades. Beginning in the early 1980s, the choice dilemma approach came under increased scrutiny for lack of validity and reliability. MacCrimmon and Wehrung (1986) showed that one dimensional questions (e.g., "how risk tolerant are you?") measure only a small part of the multidimensional nature of risk and that most people overestimate their risk preferences in these situations. MacCrimmon and Wehrung also concluded that "there is no particular reason to believe that a person who takes risks in one area of life is necessarily willing to take risks in all areas" (p. 51).

The development of more accurate risk-tolerance scales took a leap forward in the 1980s and 1990s. Researchers concluded that a scale should, at a minimum, gauge a person's attitude toward and behavior regarding the following dimensions: (a) general risk-taking propensities, (b) gambles and speculations, (c) losses and gains, (d) experience or knowledge, (e) comfort, and (f) investing. Grable and Lytton (1999b) collapsed these diverse factors into three core risk-tolerance dimensions: (a) investment risk, (b) comfort and experience, and (c) speculation.

While there are few publicly available scales that have been designed to measure the multidimensional nature of risk tolerance, there have been a small number of open access research attempts to measure risk attitudes using scaling methods (e.g., Barsky, Juster, Kimball, & Shapiro, 1997 Grable & Lytton, 1999b; Guillemette, Finke, & Gilliam, 2012; Hanna & Lindamood, 2004; Roszkowski, 1999; Weber et al., 2002). One of the most reliable scales developed to date is known as the *Survey of Financial Risk Tolerance*© that was originally created by Roszkowski for The American College. The survey, which is no longer available commercially, attempted to measure risk tolerance directly through a combination of closed- and open-ended questions. The survey included 40 items. Some items required multiple responses, while others were phrased as multiple-choice questions. Roszkowski reported a reliability coefficient for this measure of 0.91, which is exceptionally high. The validity of the items also appeared high; however, there are no published data describing the survey's criterion (i.e., concurrent) validity. Questions and concepts from this scale have since been commercialized by an Australian firm. The Finametrica® risk-profiling system is used by thousands of financial advisers. A publicly available alternative is a 13-item risk scale developed by Grable and Lytton (1999b). This multiple-choice question scale has been tested and shown to offer acceptable levels of validity and reliability ($\alpha = 0.75$). A more traditional Likert-type scale was designed by Weber et al. (2002). The instrument, using a five-point likelihood agreement scale, is intended to be used to assess risk tolerance in five content areas, including investing versus gambling, health/safety, recreation, ethical, and social decisions. Alternative scales include experimental measures using hypothetical questions based on percentage changes in income. These scales are most often used to derive a person's relative risk aversion within EUT frameworks. Two of the most popular instruments were developed by Barsky et al. (1997) and Hanna and Lindamood (2004). In the case of the later measure, Hanna and Lindamood noted a statistically significant positive correlation between scale scores and risk-tolerance levels as measured with the SCF item.

The final method for assessing risk tolerance involves using a combination of the approaches listed above (Guillemette et al., 2012). Although there is scant research to support the idea that multiple measures may lead to more accurate descriptions of a person's risk tolerance, the logic of doing so is apparent. The concept of triangulation, where an answer to a complex question is derived from multiple perspectives (Lytton, Grable, & Klock, 2013), used in the social sciences indicates that a combination of approaches may produce meaningful results.

Table 2.1 Factors associated with financial risk tolerance

Individual characteristic	Assumed to be more risk tolerant	Level of support in the literature[a]
Gender	Male	High
Age	Younger	Moderate
Marital status	Single	Moderate
Marital/Gender interaction	Single male	High
Ethnicity	Non-Hispanic white	Moderate
Income	High	Moderate
Net worth	High	High
Financial satisfaction	High	High
Financial knowledge	High	High
Education	Bachelor's degree or higher	Moderate
Employment status	Employed full-time	Moderate
Occupation	Professional	Moderate
Income source	Business owner	High
Income variability	Stable and predictable	High
Household size	Large	Moderate
Homeownership	Owner	Low
Religiosity	Less religious	Moderate
Self-esteem	High	High
Locus of control	Internal	Low
Personality	Type A	High
Sensation seeking	High	High
Mood	Happy	High

[a]Statistics compiled from a review of 144 studies published between 1960 and 2014. Some studies dealt only with one or a few characteristics. In some cases, the number of studies was small (e.g., $n<5$)

Note: Coding: (Approximate percent of reviewed articles supporting assumed relationship): high: 80–100 %; moderate: 50–79 %; low: 0–49 %

A Conceptual Model of the Factors Affecting Financial Risk Tolerance

An issue of particular importance to consumers, investment advisers, researchers, and policy makers involves understanding the factors associated with risk tolerance. Because a person's tolerance for risk has such a significant impact on the way individuals make decisions it is important to have a conceptual understanding of the factors that influence risk tolerance (Campbell, 2006). There are a number of demographic, socioeconomic, psychosocial, and other factors generally thought to be associated with financial risk tolerance. Table 2.1 summarizes consensus findings from the literature regarding the influence of certain individual characteristics on risk tolerance.

Based on relationships shown in Table 2.1, and additional risk-tolerance research conducted throughout the last two decades, it is possible to better understand, conceptually, how financial risk tolerance is influenced by personal and environmental factors. Figure 2.1 presents a conceptual model of the principal factors affecting financial risk tolerance. The framework is an adaptation of an intervention model developed by Irwin (1993) who was among the first to illustrate the relationship between risk tolerance and risk-taking behaviors. Building upon a causal model of adolescent risk-taking behavior created by Irwin and Millstein (1986), Irwin determined that there are a number of predisposing factors that influence both risk tolerance (i.e., attitude toward risk) and risk taking (i.e., risky behavior). The model is based on life cycle and adolescent developmental theory. It is interesting that even though Irwin's conceptualization was grounded in biological, cognitive, psychological, and social domains, the definitions, assumptions, and hypothesized associations within the model are similar to those in the personal, consumer, and household finance fields. In general, Irwin's research showed that many of the demographic, socioeconomic, attitudinal, and psychological factors shown in Table 2.1, as well as other factors, can be used to better understand and explain risk tolerance. The model

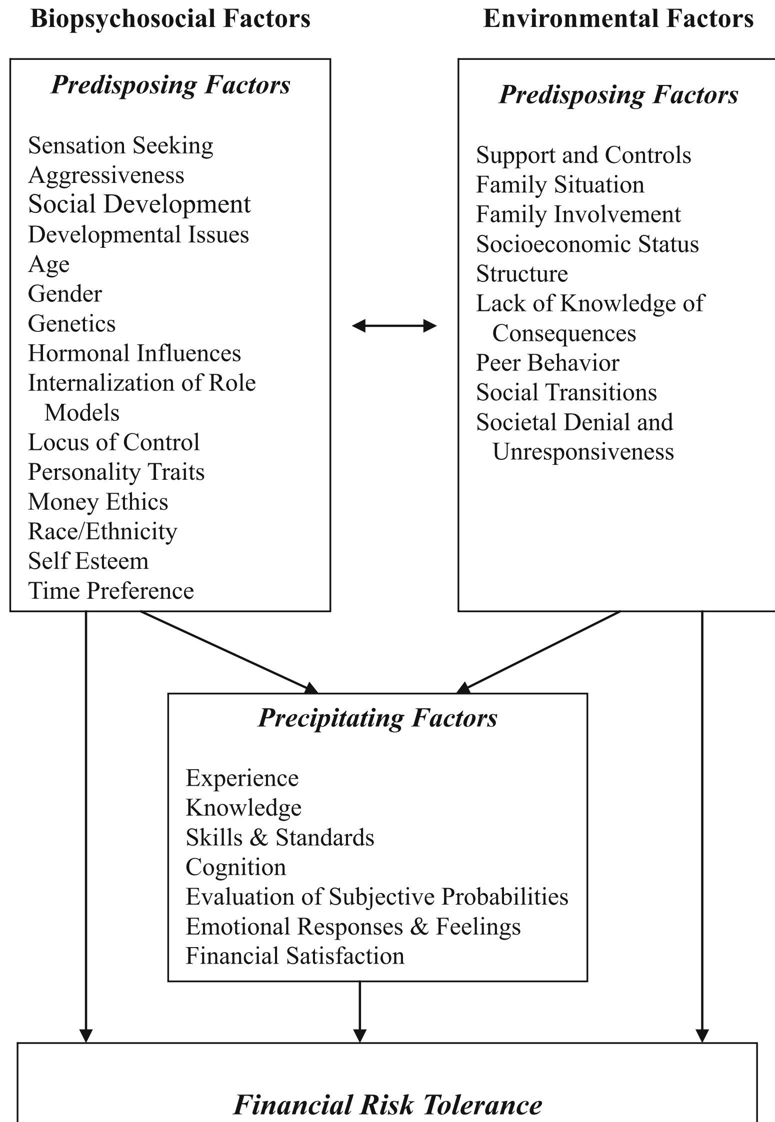

Fig. 2.1 Principal factors affecting financial risk tolerance. Adapted and modified from Irwin, 1993

presented here uses comparable terminology to that first suggested by Irwin (Fig. 2.1).

Similar to Irwin's (1993) model, the framework "highlights the importance of biopsychosocial factors which are primarily endogenous and environmental factors that are primarily exogenous" (p. 21). The model also delineates the role of predisposing and precipitating factors, both of which may lead to increased or decreased levels of risk tolerance, which, in turn, can cause a person to initiate, change, or terminate a risky behavior. Additionally, the model borrows language from Loewenstein et al. (2001) by showing that certain factors, such as cognition, emotion, and probability assessment, precipitate a person's willingness to take risks. A brief description of the primary factors in the model is presented below.

Biopsychosocial Factors

Predisposing biopsychosocial factors include beliefs, gender, sensation seeking traits, aggressiveness, self-esteem, personality, locus of control, social development, developmental issues, age, genetics, hormonal influences, time prefer-

ence, internationalization, money ethics, and ethnicity. According to Irwin (1993), “attitudes, perceptions, motivations, and intentions all predict the onset of behaviors” (p. 22). As suggested in Fig. 2.1, these biopsychosocial factors are predisposing characteristics, meaning that they are inherent traits or personality dimensions over which a person has little or no initial control.

Environmental Factors

Predisposing environmental factors differ from biopsychosocial characteristics in one significant way; rather than being innate traits unique to a person or individual, these factors result from influences in the social environment. Examples include family situation, socioeconomic status, and peer behavior. As suggested by Irwin (1993), “the protective role of supportive environment must be acknowledged” (p. 23). As shown in Fig. 2.1, environmental factors interact with biopsychosocial factors and together these predisposing personal elements help shape precipitating factors and financial risk tolerance.

Precipitating Factors

As the model indicates, biopsychosocial and environmental factors are predisposing characteristics that influence an individual’s tolerance for financial risk. Tolerance for financial risk plays a key role in a person’s assessment of the risks and benefits associated with a course of action; however, before assessing and engaging in a risky financial behavior, individuals are often subject to precipitating factors. These are aspects of a person’s life that impact the assessment of risk by influencing the decision-making process or causing a person to adjust their core level of risk tolerance prior to or when engaging in a behavior.

Lack of experience or knowledge and lack of skills are examples of factors that influence both risk tolerance and risk taking (Campbell, 2006). For example, a person’s tolerance for risk may be very low when it comes to investing in stocks or stock mutual funds; however, when confronted with evidence from a salesperson or a neighbor who appears to be more knowledgeable and wealthy, the person may conclude that the risks associated with high risk investing are lower than they really are. The person in this example may make a risky purchase, even though this behavior runs counter to the person’s true level of risk tolerance.

The use of predisposing and precipitating factors within a single framework offers a unique conceptual vantage point to better understand financial risk tolerance. Although many of the factors shown in Fig. 2.1 can be measured directly or through scaling methods, there have been few unified research attempts to predict a person’s risk tolerance using predisposing and precipitating personal characteristics concurrently. Grable and Joo (2004) and Grable, Britt, and Webb (2008) did test broad aspects of the model and found it to be useful. The need exists, primarily from a descriptive rather than normative perspective, to continue to evaluate financial risk tolerance using all or most of the factors shown in Fig. 2.1. Additionally, the following challenges remain in the development and application of this and other models of the principal factors that attempt to both explain and predict financial risk tolerance:

(a) Specification and standardization of predisposing and precipitating factor measures;
(b) Further specification of possible mediators, modifiers, and interaction effects with factors not specified in the current model;
(c) Detailed specification of factor relationships through path analyses;
(d) Standardization of “positive” and “negative” outcomes from risk-taking behavior; and
(e) Development of cohort, cultural, and historical influence measures.

Future Research Directions

Over the past two decades great strides in the consumer finance field’s knowledge about and appreciation of risk tolerance have been made.

These strides have led to a better understanding of the role risk tolerance plays when people make risky financial decisions; however, additional theoretical and empirical studies are needed. Such research can help elevate the field of consumer finance and the practice of financial planning from the use of hit-and-miss assessment techniques and qualitative assessments into a world of quantified practice standards. To borrow from Campbell (2006), a better understanding of risk tolerance may contribute to definitions of financial literacy, as well as help explain why certain households maximize wealth accumulation over time while others do not.

Future research devoted to the fusing of financial risk-tolerance insights into useful tools for consumer finance researchers may require additional refinement of existing measures of predisposing and precipitating factors affecting risk tolerance and the development of new measures (Webley, 1995). Ultimately, four distinct, yet related, research programs are needed. The first program ought to be devoted to the testing of the relationships between and among predisposing factors, precipitating factors, and a person's tolerance for financial risk. The second program should be devoted to creating a universally accepted standardized measure of financial risk tolerance. This second research agenda needs to build upon research conducted in the first program by creating scale items or multidimensional measures that incorporate the multifaceted nature of financial risk tolerance with known predispositions of individual decision makers. The third program should focus on clearly differentiating between constructs commonly associated with financial risk tolerance and those that are synonymous with risk tolerance. For example, Carr (2014) provided evidence that while risk tolerance is related to constructs such as risk perception, risk preference, risk need, and risk capacity, these concepts are not substitutes for each other. Finally, more work is needed to better understand how risk attitudes impact actual risk-taking behavior (Corter & Chen, 2005). A growing body of evidence now suggests that risk attitudes may not be as stable as previously thought (Hoffmann, Post, & Pennings, 2013; Yao & Curl, 2011), and as a result, investor behavior may vary based on market conditions; however, others have noted that while variations in risk tolerance may exist, such changes may not be meaningful (Guillemette & Finke, 2014; Van de Venter, Michayluk, & Davey, 2012). More work in this area is needed. These four programs of study should eventually lead to a more comprehensive appreciation for and understanding of a person's overall tolerance for financial risk. This, in turn, will lead to a better understanding of how and why individuals engage in certain risky financial behaviors. Ultimately, a unified model of risk tolerance can emerge from such research. It is also possible that a theory of financial risk tolerance could emerge from this work.

Researchers interested in consumer finance issues, as they relate to risk tolerance, have much work to do in upcoming years to fully understand the normative and descriptive relationships between risk tolerance and financial behaviors. Future research directions include determining all of the following:

(a) How do individuals define risk tolerance in everyday financial situations?
(b) What factors influence a person's willingness to engage in everyday financial risk-taking behaviors?
(c) Does risk tolerance remain constant across domains and activities?
(d) Do experts define risk situations differently than non-experts?
(e) Does risk tolerance change over time?
(f) How do individuals evaluate risky actions?
(g) How does a person's nationality and/or cultural background affect risk tolerance?
(h) Do people living in free-market economies act differently in terms of willingness to take risks than individuals who live in economically restricted nations?
(i) Does financial education influence risk tolerance?
(j) How do emotional responses and feelings influence risk tolerance?
(k) How do time preferences relate to risk tolerance?
(l) Does financial risk tolerance mediate the relationship between individual characteristics and risk-taking behavior?

The interconnection between financial risk tolerance and risk-taking behaviors, within the field of consumer finance, is one that offers many research opportunities. Information from forthcoming studies will most certainly improve the lives of consumers and help researchers and policy makers better understand how and why people make risky choices.

About the Author

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Retirement Savings

3

Sherman D. Hanna, Kyoung Tae Kim, and Samuel Cheng-Chung Chen

Prescriptions for Retirement Savings

Goal-Directed Planning

Robinson (2000) and Ho, Perdue, and Robinson (2006) described goal-directed planning and provided a formula to describe the usual approach that financial planners and many households use to reach goals. Applying their concept to retirement planning, the fundamental equation for financial planning is based on the idea that the household should set its spending in each future period so that it will have enough wealth when it reaches retirement to meet its goal. The following formula shows what the household needs to accomplish:

$$W_n = W_0(1+r)^n + \sum_{t=1}^{n}(E_t - C_t)(1+r)^{n-t} \quad (3.1)$$

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We discuss the formula in terms of annual periods, though it could be applied to monthly periods. W_n = wealth in terms of investment assets in the year n when the household reaches retirement, W_0 = initial investment assets, r = rate of return per year, t = year, n = number of years until retirement, E = net earnings in a year, C = consumption or spending in a year.

For instance, assume that a household wants to have its assets at retirement, W_n, equal to \$1,000,000. It currently has investments, W_0, equal to \$50,000. The rate of return it can obtain on investments, r, is equal to 6 % per year. Retirement is n years away, where n = 30. The calculation of the amount needed to be saved out of earnings each year, $(E_t - C_t)$, can be easily done with a financial calculator, if the amount is assumed to be constant. If the amount to be saved each year is allowed to vary, a spreadsheet is needed for the calculation. If all amounts are in inflation-adjusted dollars and a constant amount is to be saved at the end of each year, $(E_t - C_t)$ is \$9,016.

The calculations are more complicated with amounts expressed in nominal dollars. If a household saves the same nominal amount each year, the inflation-adjusted amount to save each year would be much greater at younger ages than it would be at older ages when real income might be higher. Even if all amounts are expressed in inflation-adjusted dollars, the projected earnings might change with anticipated career advancement and changes in labor force participation of

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the household members. A spreadsheet can be used to find the amount to save each year, if there is a simplifying assumption, for instance, that the household should have constant spending each year before retirement. Some textbooks (e.g., Dalton & Dalton, 2014) suggest doing calculations to obtain needed contributions in nominal amounts, but the standard approach by economists is to do all calculations in inflation-adjusted amounts and use inflation-adjusted rates of return (e.g., Scholz, Seshadri, & Khitatrakun, 2006).

The goal-directed approach does not provide us directly with how much should be saved each year for retirement, as a complete solution requires a specification of the retirement spending goal. For instance, a household might have a goal of having a particular standard of living in retirement, perhaps the same as before retirement. Given a particular retirement spending goal, it is easy to calculate the amount of retirement assets necessary to generate enough investment income to supplement other sources of retirement income, including Social Security, employer provided defined benefit pensions, and employment income of household members. One important question is whether to purchase an immediate life annuity at retirement or to withdraw some amount from investment assets each year. An immediate life annuity is a contract from a financial company that agrees to pay a person a fixed amount per year as long as that person lives. The annuity can also be written for a couple or other type of household so that if one person dies, the surviving household members continue to receive some income. Poterba (2014) presents annual payouts available from annuities as of 2013, and the payouts for annuities that would provide some inflation protection imply that a single 65-year-old female wanting to generate income of $50,000 per year with purchasing power maintained would have accumulated over 1 million dollars if she planned to buy an immediate annuity at retirement.

If a life annuity is not purchased, there is a possibility that a retiree who lives much longer than average would eventually run out of investment assets, especially with high inflation and/or poor investment performance. Finke, Pfau, and Blanchett (2013) concluded that it would not be prudent to withdraw more than 3 % per year of the portfolio value at retirement, which would imply that almost 1.7 million dollars would be needed to generate an income of $50,000 per year with inflation protection. A very conservative portfolio would be more likely than a stock portfolio to be depleted because loss of purchasing power for the conservative portfolio would be likely to have a greater impact than stock market declines on a stock portfolio (Finke et al., 2013; Ho et al., 2006). There have been a number of analyses of portfolio strategies during retirement, including starting retirement with lower stock allocations if stock valuations are elevated, and letting the stock percentage of the total portfolio increase during retirement (Kitces & Pfau, 2015).

It is simpler to consider calculating the amount needed based on the assumption of purchase of an immediate annuity at retirement. Consider a worker expecting a Social Security pension of P dollars per year at retirement, at which time he would have a life expectancy of n years. The worker wants to spend C dollars per year in retirement, and does not plan to work during retirement. If C is greater than P, the worker needs to generate $(C-P)$ dollars per year from investments during retirement. If money withdrawn from retirement investments is subject to income taxes, some adjustment is needed to account for that, but in the rest of our example we will ignore income taxes, which might be appropriate for someone who had invested in a Roth IRA for a long time. If the worker could obtain a life annuity with an inflation-adjusted rate of return of r, the amount he would need to accumulate by retirement would be equal to the present value (PV) of a payment of $(C-P)$ dollars per year for n years at an interest rate of r:

$$PV = (C-P)(1+(1-1/(1+r)^{(n-1)})/r) \qquad (3.2)$$

Equation (3.2), based on receiving the annuity payments at the beginning of each year, would produce a PV of $696,987, given desired annual spending, C, of $50,000, a Social Security pension, P, of $15,000 per year, expected remaining lifetime, n, of 25 years, and an after tax inflation-adjusted interest rate r of 2 %. For the

financial planning approach, the remaining calculations could be based on Eq. (3.1), with W_n equal to the PV calculated from Eq. (3.2). For instance, consider a 35-year-old worker with no accumulated retirement savings, with 30 years until retirement, who could obtain an inflation-adjusted rate of return of 6 % per year on investments before retirement, and would contribute the same amount per year in constant dollars. The amount at the end of each year to contribute, A, would be

$$A = rW_n / ((1+r)^n - 1) \tag{3.3}$$

For the assumptions listed above and the goal of accumulating $696,987 by the start of retirement, the worker would need to contribute $8,816 at the end of the first year, and then increase the annual contribution with inflation each year. At the end of 30 years the worker would have accumulated $696,987 in terms of purchasing power at age 35, so it would be possible to spend $50,000 per year during retirement.

In general, one should estimate what current investments and projected contributions to retirement investments will grow to by retirement, and compare the estimated accumulation to the amount needed to fill the gap between desired spending and the Social Security or other defined benefit pensions. There are many more complications to consider, including the fact that it is difficult to purchase an annuity that would provide a true payment adjusted for inflation, but this example provides the essence of the calculations needed for advice to households. If a worker would be unwilling to use accumulated investments to purchase an immediate annuity at retirement, the amount needed to accumulate would be higher than the amount calculated using Eq. (3.3), and there would be challenges in terms of safe withdrawals during retirement (e.g., see Finke et al., 2013; Kitces & Pfau, 2015).

Households that can start investing 20–30 years before retirement should initially invest very aggressively in diversified mutual funds with stocks and perhaps real estate. If they can avoid using retirement investments for other purposes, they should be able to accumulate enough for a comfortable retirement. The assumptions made about pre-retirement consumption patterns are arbitrary without some additional assumptions. For instance, there is the well-known idea that because of the power of compounding, early saving is much more powerful than later saving. However, typically inflation-adjusted household income increases substantially with age until about age 50, and then decreases slightly until retirement. Therefore, it may be very difficult for a 25 year old to save and also achieve a desired current standard of living. Table 3.1 shows the pattern of US household income in 2013, and the percent of income spent, by age. The pattern is based on a cross-section of US households and therefore does not represent any particular household's pattern over time. The pattern does suggest that households typically do not try to save a constant percent of income, but instead save a higher percent of income when income is high. In the 35–44 age range, when mean income is highest, the percent of income saved (not spent) is the highest. The pattern is consistent with the life cycle savings model, discussed in the next section.

The Life Cycle Savings Model

Modigliani (1986) reviewed research that attempted to explain patterns of spending and saving, including Milton Friedman's permanent income model and the life cycle savings model. The life cycle savings model, though developed to explain household saving patterns, is a prescriptive theory that assumes a household will maximize expected lifetime utility from consumption. Modigliani (1986) noted that in the original version, a number of simplifying assumptions were made, including zero real interest rates. Given the assumptions, households would have the goal of having the same consumption each year, and assuming constant real income before retirement, a household should save the same percent of income each year, and should accumulate enough investment assets so that it would be able to maintain the same consumption in retirement as it could have before retirement.

Table 3.1 Household Aftertax income and expenditures as percent of Aftertax income, 2013

	Age of householder						
	Under 25	25–34	35–44	45–54	55–64	65–74	>74
Income after taxes	24,406	48,000	62,361	60,743	56,719	45,909	31,912
Average annual expenditure	28,220	42,909	51,993	53,219	49,299	43,924	33,550
Expenditures/Aftertax income	115.6 %	89.4 %	83.4 %	87.6 %	86.9 %	95.7 %	105.1 %

Calculated by authors based on data at bls.gov. Results for 2013 Consumer Expenditure Survey, with contributions to Social Security and pension plans excluded from income and expenditure amounts

Applying the Life Cycle Model to Retirement Planning

The life cycle model is concerned with maximizing utility from consumption over a lifetime, so some types of spending should be excluded from consideration, such as some employment-related expenses. Some types of consumption may be related to the household's leisure time, for instance, a household with limited vacation time might not be able to enjoy travel until retirement, so the household might want to plan for higher total consumption in retirement. Medical expenses typically are much higher in retirement, so a household might want to plan for higher total spending in retirement to maintain the quality of life. Financial planning textbooks specify retirement income goals as proportions of pre-retirement gross income, e.g., 60–80 %, and as an alternative, also suggest detailed analyses of a household's budget before and after retirement (e.g., Dalton & Dalton, 2014). Most of the difference between pre-retirement gross income and after-retirement gross income needed is typically assumed to be based on differences in taxes and saving for retirement each year before retirement, plus some employment-related expenses before retirement, so that the implicit goal might be to maintain the same level of spending after retirement as the household had before retirement. There have been many extensions to the life cycle model, including some reviewed by Hanna, Fan, and Chang (1995), who noted that a 20 year old might not want to plan for as much consumption at age 80 as now, simply because the chance of being alive at age 80 might only be about 50 %. It may be rational for consumers to plan for somewhat lower consumption in retirement, especially in the later years of retirement. However, as Hanna and Kim (2014) suggested, in giving advice to households on saving, it may be prudent to assume no discounting of future consumption beyond that based on mortality risk.

There are many complexities to applying the life cycle model to analysis of the adequacy of retirement savings, but the standard approach is used by Engen, Gale and Uccello (2005, p. 39), who noted, "A household that is saving adequately is defined as one that is accumulating enough wealth to be able to smooth its marginal utility of consumption over time." The implications of this approach depend on various assumptions, but in general, a household should try to plan so that basic spending does not have to drop substantially after retirement.

Sources of Retirement Income in the USA

The standard way to categorize retirement income in the USA includes three pillars: Social Security, employment based plans such as Defined Benefit (DB) and Defined Contribution (DC) plans, and private saving. In addition, some people work past normal retirement age, or work part-time after retirement from a full-time job, and some households might have one partner retired and the other employed.

Social Security

Social Security is a mandatory social insurance system operated by the Social Security Administration, an agency of the federal government. It provides retirement, disability, and survivor benefits to almost all workers in the USA

except for state and local governments that opted out of the federal system. Under the Social Security pension system, a worker can start receiving benefits as early as age 62, although benefits are reduced by 5/9th of 1 % per month for each month before the "normal" retirement age benefits are started. For workers born in 1960 or later, starting benefits at age 62 rather than the normal retirement age of 67 will result in a one-third cut in monthly benefits. Delayed Retirement Credits beyond the normal retirement age until age 70 will result in an 8 % increase for each year.

Social Security is funded by a payroll tax that is regressive to the extent that there is a limit on the amount of wages that are subject to the tax. In 2015, a 6.2 % payroll tax was used to fund the retirement, disability, and survivor benefit system and applied to the first $118,500 of a worker's wage, though the Medicare program's 1.45 % tax was applied to an unlimited range of wages. Social Security benefits have a progressive structure, in that very low wage workers have a high percent of wages replaced by benefits upon retirement or in the case of death or disability, and high wage workers have low percent of wages replaced. For instance, a worker aged of 40 in 2015 who made a wage of $10,000 and retires at age 67 in 2042 would receive a Social Security pension replacing over 87 % of his wage, but one who had a wage of $120,000 would have only 28 % replaced by the Social Security pension (based on calculations on the Quick Calculator at SocialSecurity.gov.)

Social Security provides the most important source of income for most elderly households in the USA. In the aggregate in 2011, Social Security provided 36 % of the income of households age 65 and older, compared to 9 % from private pensions, 32 % from earnings, and 11 % from asset income (Social Security Administration, 2013). Butrica, Smith, and Iams (2012) estimated that for members of GenX (born 1966 to 1975) in the middle income quintile, Social Security would provide 37 % of total income at age 67, whereas for GenX members in the highest income quintile, Social Security would provide 9 % of total income. For those in the lowest income quintile, Social Security would provide 62 % of income at age 67.

Fears about the future of Social Security frequently are expressed in the popular press. If the US Congress does not make substantial changes in benefits and/or taxes, the combined Old-Age and Survivors Insurance and Federal Disability Insurance Trust Fund would be depleted by 2033, and income would be sufficient in the combined fund to pay only 77 % of scheduled benefits (Social Security Administration, 2014). However, even with such cuts, benefits in real terms for "medium wage" workers in 2045 might be similar to benefits in 2005 for medium wage workers. Because real wages would be much higher, the Social Security retirement benefit would replace a lower percent of final wages in 2045 than the same benefit replaced in 2005.

Defined Benefit Pensions

In the past, many employers offered defined benefit pensions (Costo, 2006), which are also referred to as formula pensions, because in many cases the level of benefits is determined by a formula involving the number of years worked and the average or final salary. Defined benefit pensions require no choices by the worker until retirement, and then may require only a few choices related to payouts, for instance, the choice of a joint payout for couples. The Pension Benefit Guarantee Corporation (PBGC) provides protection to most workers with defined benefit pension plans (U.S. Department of Labor, 2014a). Only 19 % of all workers with private employers in 2014 had access to a defined benefit pension plan, and only 8 % of workers of employers with fewer than 100 employees had access to such plans (U.S. Department of Labor, 2014b). Almost all (87 %) of government workers were eligible for an employer sponsored pension plan (Herz, Meisenheimer, & Weinstein, 2000). Butrica et al. (2012) estimated that for members of GenX (born 1966–1975) in the middle income quintile, defined benefit pensions would provide only 3 % of total income at age 67, compared to 19 % of income of the "War Babies" generation born 1936–1945, for 67 year olds in the middle income quintile.

Employer Sponsored Defined Contribution Plans

Many employers offer defined contribution retirement plans, including 401(k) accounts, which typically require a worker to make a number of choices, including how much to contribute and how the worker's contributions and any employer contributions will be invested (U.S. Department of Labor, 2014a). Of all workers with private employers in 2014, 56 % had access to a defined contribution pension plan, and 65 % of workers of employers with 100 or more employees had access to such plans (U. S. Department of Labor, 2014b). Butrica et al. (2012) projected that retirement accounts, including employer sponsored defined contribution plans and individual retirement accounts, would provide 15 % of total income for the GenX households in the middle income quintile at age 67. However, for 67-year-old GenX households in the top income quintile, retirement accounts provide a higher proportion of income than Social Security.

Household Savings, Including Individual Retirement Accounts

Most workers can contribute to an individual retirement account (IRA) and may be able to reduce their wages subject to federal income taxes by contributing to a traditional IRA. Many workers can make a non-deductible contribution to a Roth IRA, and there are other types of plans for individuals, such as the Simple IRA (Internal Revenue, 2006). For IRAs, investments grow with no income taxes imposed, but at retirement, all funds withdrawn from traditional IRAs are subject to federal income taxes, but no funds withdrawn from Roth IRAs are subject to federal income taxes. There are income limits for contributing to a Roth IRA. The optimal strategy for choosing a traditional IRA versus a Roth IRA depends on a number of factors, including the projected tax bracket in retirement versus now (Horan & Zaman, 2009). Some households also have investments outside of retirement accounts. Butrica et al. (2012) estimated that for members of GenX (born 1966–1975) in the middle income quintile, income from assets other than retirement accounts would provide 13 % of total income at age 67, whereas for GenX members in the highest income quintile, such income would provide 54 % of total income.

Wages

In 2011, earnings accounted for 32 % of the aggregate income of elderly households (Social Security Administration, 2013). Labor force participation decreases as people get older, with a 78 % participation rate for those age 50–54, a 55 % rate for age 60–64, a 32 % rate for age 65–69, and a 19 % rate for age 70–74 (U. S. Bureau of Labor Statistics, 2014). However, with rising life expectancies, the labor force participation rates for men and women have increased in the last 2 decades, leading to an increased importance of earnings as a source of retirement income for the elderly (Poterba, 2014). Butrica et al. (2012) estimated that for members of GenX in the middle income quintile, earnings would provide 24 % of total income at age 67.

Empirical Studies on Retirement Adequacy

Overview

Are American households on track to achieve an adequate retirement? There have been a number of studies that analyzed large, national datasets to project whether the resources that working households would have at retirement, including Social Security, defined benefit (DB) pensions, defined contribution (DC) pensions, and the income possible from accumulated assets, would provide a level of spending in retirement that would maintain the pre-retirement standard of living. There are a number of assumptions that

need to be made, including when retirement will take place, whether household members will still be employed after retirement, what level of spending is adequate and discount rate.

Table 3.2 summarizes selected studies of retirement adequacy. Yuh, Montalto, and Hanna (1998) found that 52 % of households in 1998 would have enough resources. Scholz et al. (2006) used a rigorous life cycle model and concluded that 80 % of households would achieve an optimal consumption level in retirement, and only a small proportion would fall substantially short of an optimal level.

From the New Beneficiary Survey (NBS), Haveman, Holden, Wolfe, and Sherlund (2006) found that about 60 % households would meet an earnings standard based on having at least 70 % of earnings, while half of new retirees have sufficient resources to enable the full maintenance of estimated pre-retirement consumption in retirement. Love, Smith, and McNair (2008) found about 82 % of households would have enough wealth to generate 1.5 times poverty-line income over their expected future lifetimes, and 87 % of households would experience replacement rates of at least 50 % of pre-retirement earning.

Hurd and Rohwedder (2012) performed simulations of consumption and wealth paths of a sample of 66–69 year olds by using data from the Health and Retirement Study (HRS) and data from the 2001–2007 Consumption and Activities Mail Survey (CAMS). They concluded that 71 % of persons in the target age group were adequately prepared for retirement, but there was substantial variation by observable characteristics, for instance, 80 % of married persons were adequately prepared compared with just 55 % of single persons.

Munnell, Webb, and Golub-Sass (2012) estimated the national retirement risk index defined as "at risk" of being unable to maintain their pre-retirement standard of living in retirement. They reported that only 47 % of American households are likely to be able to maintain their standard of living in retirement. The percentage of households with adequacy decreased by 9 percentage points between the 2007 and the 2010 SCF dataset. Kim, Hanna, and Chen (2014) found that the

Table 3.2 Selected retirement adequacy studies

Author	Adequacy proportion and brief summary	Dataset
Yuh et al. (1998)	52 % of households are on track to accumulate enough to maintain current predicted spending, assuming investment assets earn historical mean returns. However, based on pessimistic projection of investment returns, only 42 % are on track	1995 SCF
Scholz et al. (2006)	80 % of American households are well prepared for retirement, based on a life cycle model, and small proportions fall substantially short of what they need	1992–2004 HRS
Haveman et al. (2006)	Only about one-half of new retirees have sufficient resources in retirement, and about 60 % will have 70 % of earnings	1982 & 1991 NBS
Love et al. (2008)	About 82 % of households have more wealth than would be needed to generate 150 % of poverty-line income over their expected future lifetimes	1998–2006 HRS
Hurd and Rohwedder (2012)	About 70 % of individuals age 66–69 are adequately financially prepared for retirement. 80 % of married persons are adequately prepared compared with just 55 % of single persons	2001–2007 CAMS
Munnell et al. (2012)	47 % of American households will be likely to maintain their standard of living in retirement. The percentage of households with adequacy decreased by 9 percentage points between the 2007 and 2010 surveys	2010 SCF
Kim et al. (2014)	The proportion of households with retirement adequacy ranges from 44 % in 1995 to 58 % in 2007. Ignoring retirement income stages results in adequacy proportions being 23–28 percentage points higher	1995–2007 SCF

CAMS consumption and activities mail survey, *HRS* health and retirement study, *NBS* New Beneficiary Survey, *SCF* Survey of Consumer Finances

proportion of households with retirement adequacy ranges from 44 % in 1995 to 58 % in 2007, based on accounting for income stages during retirement. The retirement income stage was defined as a period in which the projected number of retirement income sources is constant. When they used the usual approach ignoring income stages, adequacy proportions were 23–28 percentage points higher.

There are many differences in the assumption made in these studies, so the projected range of adequacy rates, from 47 to 80 %, resulted partly from differing assumptions, as well as different datasets. Many experts believe that the absolute level of consumption for retiree households will tend to improve in the future, but whether the level relative to the pre-retirement consumption level will improve in the future depends on the model assumptions.

Projecting the Rate of Return on Investments

For households with substantial retirement investments, the assumptions made about the rate of return will have an impact on the estimate of retirement adequacy. Yuh et al. (1998) used the historical inflation-adjusted geometric mean returns for large stocks, 7.0 %, for all stock investments, the long-term corporate bond return, 2.2 %, for bond investments, the small stock return, 9.2 %, for business investments, and 6.5 % for real estate investments. Similarly, Kim et al. (2014) used the long-term inflation-adjusted mean and variance of each investment category at the time of the survey.

The HRS datasets do not provide as much detail as the SCF datasets about investments in mutual funds and retirement accounts. Scholz et al. (2006) assumed that portfolios had a return of 4 %. Love et al. (2008) did not state specific assumptions about investment returns, but used a real interest rate of 2.5 %. The assumptions made about rates of return do not seem sufficiently different to account for much of the differences in retirement adequacy estimates.

Consumption Needs during Retirement

Scholz et al. (2006) assumed that consumption needs vary according to a life cycle model. Given their assumptions about the utility function and rate of return on investments, optimal consumption would be much lower during retirement than before retirement, especially for households with children at home. Hurd and Rohwedder (2012) estimated the optimal consumption path based on simulations of rates of change in consumption observed by CAMS. Yuh et al. (1998) conducted regressions on spending in the Consumer Expenditure (CE) Survey and used the estimated parameters to predict spending for households in the Survey of Consumer Finances dataset. To determine the adequate level of retirement income, Kim et al. (2014) estimated the benchmark ratio of income replacement ratios by the published income categories using CE dataset. Love et al. (2008) estimated the minimum level of retirement wealth based on poverty thresholds, while Haveman et al. (2006) employed two pre-retirement living standards, a consumption replacement ratio (CRR) and an earning replacement ratio (ERR). Munnell et al. (2012) used 90 % of a target income replacement rate as a desired level of retirement income.

Personal Discount Rate

The studies listed in Table 3.2 used personal discount rates ranging from 1 % per year (Hurd & Rohwedder, 2012) to 4.5 % per year (Love et al., 2008). Most of the studies made arbitrary assertions of plausible personal discount rates. Hanna and Kim (2014) recommended that normative analyses for household financial decisions should justify assumptions about personal discount rate, and consider using a very low discount rate based only on the risk of death. The choice of a personal discount rate can have an enormous impact on the calculation of the amount of retirement savings needed. For example, using continuous discounting ($e^{-\rho t}$), a discount rate of

6 % per year implies that the utility of consumption today is valued 11 times as highly as the utility of consumption 40 years in the future, so that one might conclude that no retirement savings would be needed.

Conclusions

Roughly half of working households in the USA are not saving enough to be able to maintain their current spending after retirement. Scholz et al. (2006) obtained an estimate of 80 % of working households saving enough because of their assumption about the personal discount rate that implied much lower optimal spending in retirement than before retirement. If Scholz et al. are correct, a large majority of households are behaving rationally, and no theoretical explanation other than the extended life cycle savings model is needed to explain household retirement savings behavior. If the more pessimistic studies are correct, e.g., the National Retirement Risk Index released by Munnell et al. (2012), it is important to ascertain why people do not behave rationally and what can be done to improve the situation. Munnell, Rutledge, and Webb (2014) discussed the conflicting assessments, for example, Scholz et al. (2006) assumed that households would rationally plan for much lower levels of consumption in retirement. Munnell et al. (2014) concluded that optimistic assessments of retirement adequacy might be based on unrealistic assumptions.

Benartzi and Thaler (2013) suggested four strategies to improve retirement saving adequacy: (1) expanding accessibility to employment-based saving plans, (2) having automatic enrollment, (3) adopting appropriate default investment rules, and (4) establishing default escalation of the salary deferral rate. Auto-enrollment plans started increasing after the Pension Protection Act of 2006. Workers who can start investing for retirement 20–30 years before retirement should be able to accumulate enough assets for retirement, and given the outlook for Social Security providing lower replacement rates, investing early for retirement seems prudent.

Future research on retirement adequacy should include careful estimation of spending needs in retirement, as that has been the weakest part of all retirement adequacy studies. Research in the USA has been limited by not having surveys of households of all ages with both detailed spending information and detailed portfolio information. Hong (2015) presented a method for better estimation of current household spending in the US Survey of Consumer Finances based on data on financial obligations and food expenditures in the SCF, and using the Consumer Expenditure Survey to estimate other expenditures. Spending needs in retirement should be related to a household's current spending, for instance, and some studies assume the goal should be to have retirement spending as high as pre-retirement spending (e.g., Kim et al., 2014). However, regardless of the specific assumption, accurate estimation of each household's current spending is important.

Future research on retirement adequacy also should more carefully consider assumptions about investment accumulations. Typically, retirement adequacy studies using the SCF have assumed that each household maintains its current asset allocation between now and retirement, but the increasing popularity of target date funds (Mitchell & Utkus, 2012) means that many households will have a much more conservative portfolio in the last 10–20 years of retirement, and therefore a lower accumulation than would be calculated based on current allocations. Taking this pattern into account would lower mean projections of retirement assets. More research on pre-retirement withdrawals from retirement accounts would provide more accurate estimates of future retirement adequacy, by allowing for estimation of which households are more likely to withdraw funds before retirement. Normative portfolio studies should focus on more specific advice to workers saving for retirement as to optimal portfolio patterns for each level of risk aversion and for different levels of non-portfolio wealth. Additional insights might be possible using behavioral models and considering cognitive limitations of workers planning for retirement (Kim & Hanna, 2015).

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4

Advancing Financial Literacy Education Using a Framework for Evaluation

Suzanne Bartholomae and Jonathan J. Fox

For almost two decades, a wellspring of initiatives have been undertaken to improve American's financial literacy, with financial education as the tonic. The energy and resources devoted to improving financial literacy through financial education cannot be understated. In the federal sector alone, an estimated $68 million dollars was spent on financial literacy activities in 2010, not accounting for $137 million spent on housing counseling, which often includes a financial education component (GAO, 2012a). A lively discourse has emerged about the value and efficacy of financial education efforts (Willis, 2011), but it has been characterized as polarized and a disservice to financial education (Baumann & Hall, 2012). The growing body of literature demonstrates the value of financial education; but it is equally clear that financial education in *not* the only contributing factor to the financial security and wellbeing of consumers (Fernandes, Lynch, & Netemeyer, 2014; Sherraden, 2013).

Discussion around financial literacy education is typically motivated by the increased complexity in financial products, the burden of shoring up one's own financial security for retirement, and the recent financial crisis and its association with a lack of financial literacy (Hastings, Madrian, & Skimmyhorn, 2012; Willis, 2011). A report from the President's Advisory Council on Financial Literacy (2008) stated: "while the crisis has many causes, it is undeniable that financial illiteracy is one of the root causes" (p. 1). The aforementioned debate is largely fed by the lack of evidence demonstrating a relationship between financial education, financial literacy, and financial behaviors (Hastings et al., 2012; Hung, Parker, & Yoong, 2009). However, empirically, conceptually, and theoretically advances are being made in the field of financial literacy education and evaluation and several of these advances are highlighted in this chapter.

The chapter highlights some of the key challenges facing providers of financial education programs as they evaluate program effectiveness. We work from Jacob's (2003) operational definition of evaluation as "a set of systematically planned and executed activities designed to determine the merit of a program, intervention, or policy or to describe aspects of its operation" (p. 63). The chapter defines the scope of financial education interventions, describes the breadth of current efforts, summarizes the evidence behind establishing the need for financial education, reviews the evidence of linkages between

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education, knowledge, and behavior, and finally describes a general framework for evaluation that can be applied to programs with few resources and/or more fully developed programs.

Financial Literacy and Financial Education Defined

Financial literacy denotes one's understanding and knowledge of financial concepts and is crucial to effective consumer financial decision making that can potentially lead to improved consumer financial security and wellbeing. We use a broad definition of financial literacy, but nationally and internationally, a rich dialogue has been advanced on defining, conceptualizing, and measuring financial literacy (Remund, 2010; World Bank, 2013). The use of a comparable, consistent, and similar definition among scholars and policy makers is needed to advance the field, yet a variety of meanings exist; and to date, widespread adoption of a singular definition is not evident (Hastings et al., 2012; Hung et al., 2009). A clearly defined and single definition that is used consistently helps educators and organizations to develop financial education programs that are meaningful and effective for consumers (Remund, 2010).

Financial literacy, thought to be a narrow concept, has been used interchangeably with the concept of financial capability. The Financial Literacy and Education Commission (FLEC, 2011) defines financial literacy as "the ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being" and financial capability as "an individual's capacity, based on knowledge, skills, and access, to manage financial resources effectively" (GAO, 2011, p. 3). There is general agreement among scholars that financial literacy is a necessary component to a consumer's financial capability (Sherraden, 2013, Xiao, Chen, & Sun, 2015).

Financial education can include any program that addresses the knowledge, attitudes, and/or behavior of an individual toward financial topics and concepts. Current trends promoting financial literacy have moved to a more comprehensive approach to promoting financial capability (Xiao et al., 2015). When assessing the effectiveness of financial education, comprehensive measurement that captures financial literacy, financial behavior, and perceived financial capability need to account for relevant knowledge, attitudes, behaviors, and outcomes (Xiao et al., 2015; Xiao, Chen, & Chen, 2014). Most scholars agree that financial education does not occur in isolation and is just one contributor to a consumer's financial wellbeing. The Organization for Economic Co-operation and Development (OECD, 2014) includes financial education, financial inclusion, and financial consumer protection as the three legged approach to achieve financial empowerment and wellbeing, whereas the PACFC (2013) suggests financial education, regulation and consumer protection, and design of options (choice architecture) as integral to a framework for financial capability.

Financial education programs operate on the assumption that it will increase a consumer's understanding of financial topics (information and knowledge aka financial literacy) which then leads to an improvement in financial decision making and behavior (aka financial capability) (Hilgert, Hogarth, & Beverly, 2003; Tisdell, 2014). Many scholars agree that it isn't enough to measure the link between financial education and an increase in financial literacy, typically measured as a knowledge score. Instead, demonstrating the causal links between financial education, financial literacy, financial capability, and financial outcomes has been advocated, with financial inclusion most recently being added to the causal chain (Sherraden, 2013). Individual characteristics (demographic traits, personality traits, emotional status around money), family context, sociocultural context (financial markets, access to financial products, legal and regulatory), and societal factors (capitalist economy, social structures) (Van Campenhout, 2015; Way, 2014) have also been studied within this framework.

Efforts in Financial Education and Evaluation

Financial literacy education activities are now so pervasive and widespread that it is difficult to accurately inventory the program initiatives

engaged in by public and private entities. Local, state, and federal government agencies, community organizations, employers, financial services and banking institutions, faith-based organizations, secondary and post-secondary schools, and the US Military offer financial education programs (Vitt et al., 2000; Vitt, Reichbach, Kent, & Siegenthaler, 2010). Many of the challenges associated with advancing the field are a result of this proliferation of financial literacy education. Some organizations and agencies deliver financial education with good intentions, but lack the skills and/or desire to contribute to a wider dialogue about how their efforts relate to pedagogy or effectiveness. Organized efforts around program design, development, delivery, and evaluation are likely stunted by the duplication of efforts.

Activities at the federal level include two statutory mandates that have the goal to develop a national strategy for financial literacy (GAO, 2012b). First, to unify early efforts addressing financial literacy and education, the Financial Literacy and Education Improvement Act, passed under Title V of the Fair and Accurate Credit Transactions Act (FACT) of 2003 created the Financial Literacy and Education Commission (FLEC). FLEC's (2011) financial literacy strategy focuses on: (1) "the need for increased financial literacy and effective financial decision making and (2) the educational efforts required to achieve those worthy objectives" (p.2). The commission is composed of 22 federal agencies and chaired by the Treasury Department (GAO, 2014). With mandated reporting, over a dozen GAO reports and testimonies have been published since 2003 with recommendations for the development and improvement of the nation's financial literacy educational efforts.

An overview of federal activities reported 13 programs delivering financial literacy as a primary teaching objective, additionally three housing counseling programs had financial education as a component (GAO, 2014). Due to consolidation and elimination of redundancies, the number of programs, operated by federal agencies has dropped. The most recent GAO (2014) report did not report on evaluation data or activities of these programs, however, they "encourage research of the various financial literacy initiatives to evaluate the relative effectiveness of different approaches" (GAO, 2012b, p.i).

In terms of resources, along with a hotline (1-888-My Money), FLEC developed mymoney.gov, a website serving as a point of entry to all financial literacy education resources and tools that have been produced by the 22 federal agencies. Additionally, FLEC is developing a national clearinghouse to inventory evidence-based research and evaluation studies (GAO, 2012b, p. 9). A national repository with an inventory of financial education evaluations would allow researchers and practitioners to access the technical details around program delivery and effectiveness. A tool of this nature would eliminate the isolation of current efforts, potentially moving the field forward.

Subsequent to the development of FLEC, the Dodd-Frank Act mandated the creation of the Consumer Financial Protection Bureau (CFPB), a new agency member of FLEC whose Director serves as Vice Chair (GAO, 2012b). Like FLEC, the CFPB has a central role in promoting a national financial literacy strategy and has "developed a strategy and a broad range of initiatives to help consumers take control of their financial lives" (GAO, 2012b, p.7). The CFPB's Division of Consumer Education and Engagement houses the Office of Financial Education. The CFPB advocates for evidence-based research to inform policies and programs. The CFPB has developed its own research program focusing on "(1) determining how to measure financial well-being and identifying the knowledge, skills, and habits associated with financially capable consumers, (2) evaluating the effectiveness of existing approaches to improving financial decision making and outcomes, and (3) developing and evaluating new and innovative approaches to helping consumers make financial decisions" (CFPB, 2014, p. 28). Recently, the CFPB commissioned the development of financial literacy metrics and outcomes with the Corporation for Enterprise Development. Additionally, the CFPB contracted with the Urban Institute to explore the use of Randomized Control Trials (RCTs) with two financial capability programs (GAO, 2014).

Financial literacy education varies by the setting, audience, and subject matter (Vitt et al.,

2000). Efforts can also be organized into categories based on themes or topics in personal finance. First, there are programs directed at improving financial literacy by broadly addressing personal finance topics, such as budgeting, saving, and credit management. Second, there are programs that give specific training in retirement and savings and are generally offered by employers. The third major category of programs addresses home buying and home ownership.

In the first category, several wide-ranging initiatives are aimed at school-age students. The Jump$tart Coalition for Personal Financial Literacy is a public–private partnership that pushed financial literacy into the spotlight two decades ago when they released a biennial survey of high school seniors that showed a failing grade on financial literacy scores. Jump$tart is composed of more than 80 educator, corporate, and government organizations with the mission to advance personal finance education in schools, particularly through promoting the use of standards for grades K–12 (Jump$tart Coalition for Personal Financial Literacy, 2015). Jump$tart coalitions work locally in states to advance the national mission and these efforts have been met with success. In 2014, 43 states required personal finance content in their K–12 standards, up from 21 states in 1998. Currently, 35 states require the implementation of personal finance content into its standards, up from 14 in 1998. In 1998 no state required a personal finance course to be taken by high school students; today 19 states have the requirement (Council for Economic Education, 2014).

There has been a rise in the number of postsecondary schools that provide financial education programming, despite limited support in funding and staff resources. Out of 200 colleges and universities surveyed, 65 % currently offer a financial education program and 43 % anticipated developing one in the next 12 months (Inceptia, 2012). Another survey found that 90 % of financial aid administrators from 36 states reported delivering financial education either in-person or through a webinar, most frequently on the topic of loan repayment, enhanced exit interviews, budgeting, credit, and enhanced entrance counseling (Hackett, 2015).

General financial education initiatives also target broader audiences. For example, the Federal Deposit Insurance Corporation's (FDIC) Money Smart curriculum targets adults with a 10-module curriculum covering basic financial topics such as budgeting, saving, and credit management. The Money Smart Alliance Program invites partners to become members and adopt the curriculum. Financial institutions are actively involved in financial literacy efforts. A survey of 576 credit unions found 61 % conducted an in-person financial education workshop and more than 150,000 adults were reached through 8000 credit union seminars (National Credit Union Foundation, 2011). Similarly, 97 % of retail banks surveyed reported sponsoring or supporting through a partnership a financial literacy program (Consumer Bankers Association, 2002).

The second category of financial education programs consists of employer-sponsored programs offering training in retirement planning and savings. Almost 6 in 10 US employers offered financial education to their employees and 21 % planned to offer it in the next 12 months (SHRM, 2014). Retirement planning was the most common topic offered to employees (79 % of employers), followed by employee assistance programs (75 %) and investment planning (56 %) (SHRM, 2014). Workplace financial education activities include counseling, seminars, e-learning, workshops, benefit fairs, or newsletters (SHRM, 2014; Todd, 2002). For a more extensive discussion, see Chap. 20 Workplace Financial Education in this book (Kim, in press).

The third category of financial education programming is anchored in home buying and home ownership programs, which have the longest history among financial education initiatives and typically extend into training relevant to other financial goals, such as improving savings rates and decreasing debt (Todd, 2002). Just over a decade ago, over 1000 organizations received funding from foundations to programs (Todd, 2002). As evidenced, there is no shortage of initiatives, campaigns, and partnerships undertaking financial literacy education. With this fervor for financial education delivery, the important

question and impending challenge are discerning the effectiveness of these efforts.

Evidence of Consumer Financial Illiteracy

Advances in organizing the study of financial literacy education could eventually yield promise, as seen in the expansion of global and national initiatives and data collection efforts. In 2009 and 2012, the National Financial Capability Survey (NFCS), a State-by-State Survey, and a Military Survey were administered, the first to focus on financial education and capability of US adults. NFCS data collection will continue, with plans to link it to a more detailed, longitudinal dataset, the American Life Panel (personal communication with David Rogofsy, March 13, 2014). Earlier datasets that targeted financial literacy, such as the Jump$tart Coalition Survey and Survey of Consumer Finances (SCF), lacked detailed questions on financial education and financial decision making (Hung et al., 2009), and none follow consumers over time; the NFCS will improve on these limitations. The Surveys of Consumers financial literacy measure is a 28-item true–false knowledge quiz on financial management topics (Hilgert et al., 2003). In 2004, the National Institute on Aging's Health and Retirement Survey (HRS) added three financial knowledge indicators to allow researchers to demonstrate ties between financial knowledge and financial outcomes over time (Lusardi & Mitchell, 2007a), however, HRS only samples adults over 50. In 2012, the OECD added financial literacy questions to the Programme for International Student Assessment (PISA) data collection that tests 15-year-olds worldwide (OECD, 2014). The assessment will be re-administered in 2015. PISA is not panel data, but could reveal changes in performance over time and "provide further evidence on the design and implementation of policies to enhance financial literacy" (OECD, 2014, p. 13).

Based on these datasets, and other studies, the evidence is well established that consumers consistently score poorly on financial literacy tests. The 2012 NFCS found that Americans answered 2.88 questions correctly, on average, on a five question financial literacy test (FINRA, 2013). Inceptia's (2013) National Financial Capability Study of undergraduate students found 67 % surveyed scored either a "D" or "F" on a 50 question knowledge test and not one student scored in the "A" range. In 2012 the inaugural PISA financial literacy assessment tested 29,000 youth in 13 countries and found that 10 % of students can handle the most difficult financial literacy tasks—for example, figuring out transaction costs and income-tax brackets, 15 % of students scored below the performance baseline (OECD, 2014). In the USA, youth between 15 and 18 were given a financial literacy test that covered national financial literacy standards; just 4.7 % scored at 90 % or higher, with 62 % scoring below 69.9 %, and 21.9 % at or above 70 % (National Financial Educators Council, 2014).

Below average financial literacy scores have been associated with low income and less educated individuals (Lusardi & Mitchell, 2011), women (Fonseca, Mullen, Zamarro, & Zissimopoulos, 2010), Hispanics (Hogarth, Beverly, & Hilgert, 2003), African Americans (Hogarth et al., 2003), younger adults (in their 20s) (Lusardi & Mitchell, 2011), and older adults (retirees and near retirees) (Agarwal, Driscoll, Gabaix, & Laibson, 2009). The evidence of failing financial literacy has resulted in a general call for financial education over the past decade and more.

Evidence of the Relationship Between Financial Literacy and Financial Capability

The association between formal knowledge and financial behaviors is becoming well established (see Lusardi & Mitchell, 2007b for a review). Financial literacy studies suggest that financially literate individuals are better at budgeting and controlling spending (Perry & Morris, 2005); following recommended financial practices (Hilgert et al., 2003); handling mortgage and other debt payments (Stango & Zinman, 2009); saving

money (Perry & Morris, 2005); maintaining a checking account and emergency fund (Hilgert et al., 2003); avoiding costly credit card revolving behavior (Lusardi, 2011); avoiding high-cost mortgages (Gerardi, Goette, & Meier, 2010); avoiding the use of the high-cost alternative financial sector (Lusardi, 2011); participating in the stock market (Hilgert et al., 2003; Lusardi, 2011); and planning for retirement (Lusardi, 2011; Lusardi & Mitchell, 2007a, 2007b). Individuals with low levels of financial literacy have an increased likelihood of late mortgage payments (FINRA Investor Education Foundation, 2013). Financially literate individuals also accumulate greater wealth (Lusardi, Mitchell, & Curto, 2013), supporting the link between financial capability and financial well-being. The question remains about the relationship between financial education and financial capability, the discussion of the next section.

Evidence on the Impact of Financial Education on Financial Literacy and Capability

The number of studies examining financial literacy education has begun to catch up with the proliferation of programming initiatives. To make sense of the information and to assess whether financial education effectively improves a consumer's financial literacy, several review articles have been published over the past decade (Collins & O'Rourke, 2012; Fox, Bartholomae, & Lee, 2005, Hastings et al., 2012). Conclusions drawn from these reviews characterize the impact of financial literacy education on financial outcomes as mixed, inconclusive, negligible, ambiguous, inconsistent, and suggestive (Gale, Harris, & Levine, 2012; Hastings et al., 2012; Vitt et al., 2010), yet some were more optimistic (Collins & O'Rourke, 2012; Hogarth, 2006). The contradictory summary findings reported in recent review articles are likely explained by the lack of overlap in the articles included in each review. Miller, Reichelstein, Salas, and Zia (2014) present a correlation table based on the studies included in nine review studies published since 2007. These nine studies cover over 500 publications, yet in only two instances is the correlation coefficient above 0.2. This implies that recent reviews are summarizing different sets of studies, leading reviewers to different conclusions on the relative effectiveness of financial education in the financial capability building process.

Even with the lack of overlap in review studies, there is value in making observations and drawing conclusions based on a synthesis of evidence, particularly when a field is early in its development and when there are mixed claims, as witnessed in reviews of the efficacy of financial literacy education (Deeks, Higgins, & Altman, 2011). Once a field has progressed, a more promising pursuit is to assess existing empirical work systematically and quantitatively with a rigorous meta-analysis. In a meta-analysis comparable studies are combined statistically, providing the benefit of increasing the number of observations and the statistical power, and improving the estimates of the effect size (Deeks et al., 2011). Two meta-analyses were recently published to help summarize the results of multiple financial literacy education studies and document the extent of their effectiveness (Fernandes et al., 2014; Miller et al., 2014).

Fernandes et al. (2014) conduct a meta-analysis of 168 papers (covering 201 studies) to map how effective a financial literacy intervention is on "downstream' financial behavior," adjusting for psychological factors. The analysis showed that consumers with higher levels of financial literacy demonstrated better financial behaviors, but once psychological traits were accounted for the direction of causality came into question. Overall, the impact of financial education helped explain "only 0.1 % of the variance in financial behaviors, with weaker effects in low-income samples" (p.1861). The efficacy of financial education does not appear to be long-lasting, Fernandes et al. (2014) describe a "decay" in the effects, with consumers forgetting what they learned within 20 months. The meta-analysis confirms the idea of "just in" time financial education, and the efficacy of delivering information when a consumer is preparing to make a specific financial decision (e.g., purchasing a car).

Another systematic meta-analysis of the effect of financial education on financial behaviors included 188 studies (140 from the USA and all 168 papers in the Fernandes et al. study); 43 % of these examined financial education that provided instruction on a variety of financial topics, 30 % on savings and retirement, and 5 % on mortgages (Miller et al., 2014). Based primarily on 19 of the 188 studies, a financial education intervention improved consumer savings, did not improve retirement savings or loan default rates and was inconclusive about whether there was a positive impact on record keeping (Miller et al., 2014). Intensity, the number of hours exposed to the financial education intervention was not generally associated with financial behaviors (Miller et al., 2014). The meta-analyses enable us to assess the general impact of financial literacy, while demonstrating the challenges faced by program evaluators.

The lack of conclusive evidence supporting a causal link can be attributed to a number of factors, including inadequate research design, data limitations, and the inadequate measure of these concepts in existing data (Amromin, Ben-David, Agarwal, Chomsisengphet, & Evanoff, 2010; Hung et al., 2009). The study's omission of a consumer's "biases, heuristics, and other nonrational influences on financial decisions" is another factor (Willis, 2011, p. 429).

Until we can substantiate the effective impact of financial education, some scholars suggest these interventions come at too great a cost (Fernandes et al., 2014; Willis, 2011). Posing one of the stronger arguments, Willis (2011) believes financial education is too costly because the baseline of consumers' financial literacy is so low and financial literacy so complex (e.g., requiring numeracy skills). Consumption-oriented messaging and advertising starts in early childhood (Cross, 2002), consequently others question the capacity of financial education to cut through well-funded campaigns that work against the consumers' interest. These points are valid, but human and monetary resources will continue to be invested in financial education; consequently, it is important for program developers and educators to consider evaluation strategies, as offered in the next section.

Evaluating Financial Literacy Education

Financial literacy education programs are abundant, yet too few are evaluated in the rigorous standard required to be published in peer-reviewed journals. The causal relationship between financial education, financial literacy, and financial outcomes has yet to be demonstrated due to either a lack of any real and measurable effect, or the lack of adequate efforts in evaluation design and measure of key concepts in existing data (Hung et al., 2009; PACFC, 2013). Fernandes et al. (2014) suggest setting standards for reporting evaluations, with consistent inclusion of the program characteristics (e.g., program length, period of measurement, curriculum, instructor, and participant characteristics). Even when promising results are reported, there is little opportunity for replication if details on the overall program are not shared. Moreover, comparisons are not possible between widely different interventions (e.g., comparing a one-time workplace workshop to a recurring course for college students with a financial counseling component). Fernandes et al. (2014) are not alone in suggesting improvements in the financial education evaluation process. Atkinson and colleagues (2007) review financial education evaluation efforts in the United Kingdom and highlight the need for: clear objectives, quality data, careful consideration of the sample size, well designed benchmarked measures for outcomes and literacy, a control group, and consideration of the time period necessary to identify change.

Responding to the calls for better evaluation, educators and organizations have provided guidance and insights on the design of financial education programs (Collins & Holden, 2014; Hogarth, 2006). The National Endowment for Financial Education has shared an online toolkit (http://toolkit.nefe.org/) with an evaluation manual and templates for data collection suitable for multiple program formats. There is general agreement that randomized controlled trial (RCT) is the gold standard for showing program impact. An RCT measures program impact through ran-

dom assignment to a program group and a control group. The CFPB advocates for RCT level evaluation processes but also highlight the prohibitive expense (both time and money) in conducting RCTs. Other barriers to conducting a randomized study include: generating a large enough sample, identifying effects that are likely quite small, denial of services at random, self-selection, education consistency within a given program, and lack of collaboration between evaluators and program providers. While the need for experimental (or even quality quasi-experimental) evidence is clear when addressing wider policy decisions, other less rigorous approaches to program evaluation are likely more feasible and may be equally valid to assess a program.

Jacobs' (1988) five-tiered approach to evaluation is presented as a basic guide for organizations delivering financial education programs. The advantage of this framework is that it encourages evaluation at each stage of programming, from conception to implementation to conclusion and follow-up. The assumptions underlying this framework are that evaluation (1) should be collected and analyzed in a systematic manner, (2) is an essential component to every program, (3) serves several functions, (4) has many audiences, and (5) should not detract from delivering a program (Weiss, 1988). The five-tiered approach is comprehensive in scope; it entails both formative and summative evaluation.

The elements of a comprehensive program evaluation, as outlined by Jacobs (2003), can be summarized in five tiers: (1) needs assessment, (2) monitoring and accountability, (3) quality review and program clarification, (4) achieving outcomes, and (5) establishing impact. The components of the model build upon one another, with each level requiring "greater efforts at data collection and tabulation, increased precision in program definition, and a greater commitment to the evaluation process" (Jacobs, 1988, p. 50). The five-tiered approach should be used stepwise, particularly at first because later tiers require information collected from earlier tiers (Jacobs, 2003). However, evaluators can engage in several tiers at once, and previous levels will likely need to be revisited because evaluation is an iterative process (Jacobs, 1988; 2003). Immediately evident is the fact that evaluation is a graduated process, where identification of program impact comes only in the final stages of an involved, often costly, and comprehensive process. Table 4.1 outlines key stages with an application to financial education.

Tier 1, the needs assessment, occurs during the initial stages of development when an organization is establishing the need for the program. Community indicators are collected and analyzed to show evidence of the problem (Jacobs, 2003). The need for financial literacy programs has been demonstrated with bankruptcy rates, consumer debt levels, and savings rates, that may be the result of financial illiteracy. The Jump$tart Coalition studies are examples of establishing a national need for youth financial education through an ongoing literacy test (Mandell, 2006). These data assist in determining the targeted goals and for planning effective program strategies. Only 22 % of 90 financial education programs conducted any formal needs assessment and in many instances program organizers assume the need for financial education so great that no further evidence was required (Vitt et al., 2000).

The monitoring and accountability tier of the evaluation framework collects information on four program elements: basic participant information, the education and services provided, personnel, and program costs (Jacobs, 2003). The goal is to document who has been reached by a program, and whether the program is being delivered as intended. It is important to provide program data to funders, participants, and the community, with a larger goal of sharing program data to draw broader attention to the issue of financial literacy (Jacobs, 1988). Frequently, monitoring and accountability in financial education programs is measured by collecting information during registration, an exit survey, or some other indication of participation. An example of monitoring and accountability data is the Consumer Federation of America's America Saves program. Based on a program survey an estimated 10,000 Cleveland residents were persuaded to save more and 1500 savers were

Table 4.1 Jacobs (1988) five-tiered approach to program evaluation

Evaluation tier	What is the purpose of the evaluation?	Who will use the information collected from the evaluation?	What tasks should be undertaken by the program evaluator?	Application to a financial education program
Needs assessment— Information justifying a need for the program	To collect information that documents the need for the program within the community	– Members of the community – Potential funding agents – Policymakers	– Outline characteristics of the program – Conduct the needs assessment – Adjust the program according to the needs assessment	– Collect community-based financial statistics (e.g., debt delinquency, bankruptcy and savings rates) – Interview community leaders regarding causes and effects of financial illiteracy and/or financial troubles – Locate local press coverage on financial topics, such as bankruptcy, financial stress – Write a description of the financial education program (e.g., target audience, thoughts about changing literacy levels, details regarding program delivery, cost to program participant, who will deliver program, benefits of program)
Monitoring and accountability— Information justifying program viability and utilization	To collect information about program users and program utilization	– Funding agents – Media sources – Leaders in the community	– Profile participant characteristics (e.g., background information) – Describe program utilization data (e.g., numbers served by program) – Estimate cost per unit of service (participant, course, class, etc.)	– Provide descriptive profile of individuals who used the program (e.g., demographic information, personal finance data) – Be able to report over a certain time frame (e.g., a year), how many individuals went through the program and at what cost
Quality review and program clarification I—Information to fine tune the program	To collect information used by program developers and personnel to improve the program	– Participants of the program – Implementers of the program (administration and staff)	– Revisit and restate program goals, objectives, teaching methods (e.g., is the program reaching the original target audience or does the audience need to be redefined based on information from the previous evaluation stage) – Explore program assumptions – Gather information about how the program is administered and operated, who uses the program, which staff members deliver the program	– Survey program participants about their satisfaction with the program (e.g., questions regarding satisfaction with the educational sessions, whether the financial education program met expectations) – Staff feedback (e.g., program staff receives feedback from participants regarding future financial topics) – Describe how the program operates (what topics are taught, who teaches it, who uses the program, what components do they use)

(continued)

Table 4.1 (continued)

Evaluation tier	What is the purpose of the evaluation?	Who will use the information collected from the evaluation?	What tasks should be undertaken by the program evaluator?	Application to a financial education program
Achieving outcomes—Information demonstrating effectiveness	To collect information that documents the effectiveness of the program and to provide information that the program staff and administration can use to make program improvements	– Participants of the program – Implementers of the program (administration and staff) – Funding agents – Administrators, staff, evaluators, and other program developers	– Formulate measurable indicators based on the short-term program objectives (e.g., what outcomes does the program wish to impact?) – Combine several measurement strategies (e.g., measures that are program-specific and measures that are more general) – Assess differential program effects based on participant characteristics (e.g., age, race) – Determine method of data analysis – Disseminate program and evaluation information	– Design and collect objective measures of program success—(e.g., if desired program outcome is to increase financial literacy, administer a pre-and posttest of financial knowledge) – Several, simple and advanced behavioral indicators should also measure program outcome (e.g., participant reports activities to reduce debt during a 3-month period) – Collect other types of data related to financial behavior (e.g., open a savings account) – Analyze the indicators of success relative to the participants' characteristics (e.g., does financial literacy score vary by gender or age?) – Publish findings of the effect of the financial education program
Establishing impact—Program information relative to the big picture	To provide information that contributes to an area of knowledge and/or evaluation and to document program effectiveness in comparison to other programs	– Federal, state, and local policymakers – Research community – Academic community – Potential funding agents – Potential program adapters (including directors) – Citizens of program and other communities	– Implement experimental or quasi-experimental methodologies (random assignments and/or control groups) to measure program effectiveness (short and/ or long-term) – Continue to collect and compile data from program users and staff, about program utilization and implementation	– Engage in advanced methodological data collection (e.g., implement random assignment of "treatment" of financial education program; construct a control group of individuals who don't participate in program) – Evidence regarding the financial education program should (a) be tailored to specific audiences (e.g., community leaders versus funding agents), (b) be evaluated relative to other programs, (c) be critiqued in terms of strengths and weaknesses of study design and methodological design (e.g., measures and techniques)

Note: Adapted from Jacobs (1988, pp. 52–55) and Jacobs (2003, pp. 68–69)

officially enrolled for accounts, counseling, and/or workshops (Cleveland Saves, 2002). This tier provides a description of the "status quo" of a program; the next tier evaluates program quality and consistency (Jacobs, 2003).

Relative to other tiers, quality review and program clarification contains more formative information for program organizers by assessing the program's strengths and weaknesses, and goals and objectives, in an overall effort to improve the services provided (Jacobs, 1988). An evaluation would assess whether the program operates as it is meant to function. For example, if an organization delivers NEFE's High School Financial Planning Program does it meet the performance standards set by the program developers? Second, program evaluators assess whether program-generated standards are being met, for example, if financial coaching is the intervention, an evaluation would critically describe the elements of the client–coach relationship. Additionally, information drawn from observations by program staff and participants is utilized to improve the program (Jacobs, 1988). For classroom-delivered material, information used for the third tier is commonly derived from an exit survey of teacher ratings, overall satisfaction with the class, and increases in knowledge. In early stages of a program, open-ended comments of participants often guide program changes.

Information collected during the achieving outcomes tier measures the effect of the program on the individual, whereas the monitoring and accountability tier described earlier simply highlights program utilization (Jacobs, 1988). In most cases short-term outcomes are measured, and research designs are less rigorous (Jacobs, 2003). A method of providing evidence for the achieving outcomes tier would be the use of a pre- and posttest. An evaluation of NEFE's High School Financial Planning Program effectively uses this pre- and posttest approach to measure increases in financial knowledge, confidence, or intended improvements in financial behavior following the delivery of financial education (Danes & Haberman, 2004).

The most common approach to gathering information for tier four, achieving outcomes, is through follow-up contact to identify actions being taken that are congruent with program goals. In the workplace, whether the employee increases retirement contributions or enrolls in a retirement program is evident. In a high school financial literacy program the outcome goals are typically more wide-ranging, participants are more difficult to track, and measuring the fourth tier (achieving outcomes) becomes a significant challenge. The differential effects of programs are examined during this tier, for example, whether a financial education program has a greater impact on males versus females. This type of information assists in the improvement of programs. An external evaluator is often contracted to conduct this tier, particularly when new program-specific measures need to be developed (Jacobs, 1988). Programs planning to replicate and/or broaden their support (e.g., funders and stakeholders) require evidence from this stage to show effectiveness (Jacobs, 1988).

The fifth and final tier, establishing impact, builds on the fourth tier (achieving outcomes) and entails the measurement of more long-term impacts of a program (Jacobs, 1988, 2003). RCT occurs in this stage of the evaluation. Program impact evaluation again reflects the goals and objectives of a program, making it difficult to compare programs that do not have the same focus, and nearly impossible to identify the impact of programs with vaguely defined goals. At this stage, measurable levels of differences in treated and non-treated populations are reported. Thus, formal experimental or quasi-experimental approaches are required, where those receiving some form of financial education are contrasted with a similar sample not participating in the program (Jacobs, 1988). Only through such an experimental approach can the independent impact of the program be identified.

As the field of financial education develops, more evaluations have reached the fifth stage of evaluation. For example, in the Miller et al. (2014) meta-analysis only 14 % of the evaluation studies published before 2008 conducted an RCT, since 2008 43 % of evaluations were carried through to this fifth stage. While the studies in the meta-analyses draw on a wide range of

samples, the approach to evaluation of programming efforts is decidedly more focused and straightforward.

Selection of a control group from the same population targeted in the needs assessment provides the necessary baseline for comparison. If the control group cannot be drawn from an identical population, then control variables measuring known determinants of the desired outcomes must be collected for both the treatment group and the control group. For example, if the desired outcome is increased personal savings, then information on income, wealth, household status, education, age, and employment status should be collected and controlled for the program impact (quasi-experimental) analysis. In this final stage the impact of a financial education program is identified. At this point, there are still too few examples of financial education evaluation research that have reached this fifth conclusive tier, largely because large scale, long-term, well-funded programs are required. Because of this simple fact, definitive statements on the impact of financial education remain premature.

Summary

Whether an educational intervention is offered in the workplace, school, or community, the current literature on the effectiveness financial literacy education remains mixed (Fernandes et al., 2014; Miller et al., 2014). The collective response by public and private organizations has been the delivery of financial education. Such investments come with the expectation of demonstrated and significant benefits to program participants. Without reliable, valid, and relevant information collected from well-designed program evaluations, financial educators jeopardize their ability to provide effective recommendations for the direction of education policy.

Currently, financial education programs often omit evaluation from program design. We described and outlined a comprehensive evaluation framework to aid programs in the evaluation process (see Table 4.1). Jacobs' five-tiered approach to program evaluation is easy to understand and has the advantage of offering flexibility in its application. It is designed to address the needs of all financial education programs—programs in the design and development stage and/or programs that are well-established and ready to measure effectiveness through an RCT or quasi-experimental approach.

The evaluation of financial education programs should be an integrative part of the program development and delivery process, not an independent procedure used only to identify the benefits of undertaking the process. The assumptions underlying Jacob's framework are a strength, and data should be collected and analyzed in a systematic manner and as an essential component to every program (Jacobs, 1988). Through replication of this process within all types of financial education programs, we stand to significantly increase our understanding of the independent effect of financial education on desired financial outcomes.

Continued study is needed to advance the field of financial education research and evaluation. Much remains to be understood about the effectiveness of program characteristics. Evidence of program development and delivery issues are much needed. As noted earlier, there is a lack of rigorous evaluation on the programs being delivered, and when appropriate, the use of RCTs will help us advance any conclusions that can be drawn about effectiveness. Research is needed to advance our understanding on issues of measurement (e.g., the use of psychometrically sound instruments that assess knowledge, financial capability, financial literacy, attitudes, and behaviors). When the researchers work from common definitions and measures, progress can be made. Additional research is needed to better understand programmatic effectiveness for varying audiences and populations. Improvements continue to be made, but the field will benefit from high quality studies on financial education programs and their associated outcomes.

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Financial Socialization 5

Clinton G. Gudmunson, Sara K. Ray, and Jing Jian Xiao

Financial socialization is a subset of general human socialization, which Grusec and Hastings (2015) define as "the way in which individuals are assisted in becoming members of one or more social groups" (p. xi). Within socialization processes, more experienced members of the group help newer members incorporate the group's values, norms, rules, roles, and attitudes into their thinking and behavior. Recent theorizing and research among developmental scholars, however, indicates that social novices are active in their own socialization through reflection, selectivity in what they accept from socialization agents, and their attempts to socialize older group members (Grusec & Davidov, 2010; Grusec & Hastings, 2015; Kuczynski, Parking, & Pitman, 2015). Various social groups serve as contexts for financial socialization. These may include, but are not limited to family, peer groups, workplaces, educational institutions, religious organizations, racial and ethnic groups. Developmental contexts such as life transitions, economic cycles, and social policy changes also play a role.

Recent financial socialization research has devoted some attention to studying family interactions during the developmental stages of childhood and adolescence (e.g., Kim, LaTaillade, & Kim, 2011; Kim, Lee, & Tomiuk, 2009; Romo, 2014). However, there has been a much greater focus on gathering retrospective data from young adult populations, and especially college student populations about childhood financial experiences or interactions with their parents and connecting them to outcomes such as financial knowledge, behaviors, or attitudes (e.g., Clarke, Heaton, Israelson, & Egett, 2005; Kim & Chatterjee, 2013; Shim, Barber, Card, Xiao, & Serido, 2010; Shim, Xiao, Barber, & Lyons, 2009). This line of research supports a common view of financial socialization as a process that extends from childhood into early adulthood in which children develop consumer roles with the help of parents, teachers, friends, work experiences, and the media and follow the normative pattern of gaining financial independence from parents. However, over the last several decades there has been a call to view financial socialization as a process that extends over the entire life course of individuals and families (Gudmunson & Danes, 2011; Moschis, 1987; Sherraden, 2013; Stacey, 1987).

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Financial Socialization's Relationship to Economic and Consumer Socialization

One of the earliest mentions of the term *financial socialization* appears in a study that evaluated the patterns of financial product acquisition by married couples. The authors found a reliably common pattern of asset acquisition across multiple age groups and concluded that one of the most important aspects of their work was providing "support for the notion that there is a financial socialization process" (Stafford, Kasulis, & Lusch, 1982, p. 414). It is not uncommon to see the terms financial, consumer, and economic socialization used interchangeably or applied to the same types of research questions. Apotential reason for this may be that much more work has been conducted with the labels of economic socialization and consumer socialization. It has been argued, though, that these types of socialization may not be interchangeable. In fact, some scholars have pictured financial socialization as encompassing consumer socialization and both of these as subsets of economic socialization (Alhabeeb, 1996, 2002; Stacey, 1987).

According to Stacey (1987), burgeoning research in economic and consumer socialization during the twentieth century adopted ideas from other areas of socialization research, such as political socialization. Stacey's review of economic socialization includes a wide range of topics including the major theories and approaches that were being utilized and major topics of interest including children's understanding of money, ownership, consumer socialization, and economic inequality. Additionally, Stacey points out that while economic socialization has its origins in childhood, it is likely that a "significant amount [of] economic socialization takes place during the adult years, particularly in association with life-cycle changes in occupational, marital, and family roles" (p. 27). Despite this early recommendation, research labeled under the broad umbrella of economic socialization continued to focus mostly on children (Berti & Bombi, 1988; Berti & Grivet, 1990; Furnham, 1996). Webley (1996, 2005) has contributed a great deal to research concerned with how children come to understand the economic world. One of Webley's contributions to the economic socialization literature has been the exposition of the economic world of children which can involve relationships with adults or relationships with other children. On the one hand, many children, especially in Western economies, are dependent on adults for material and financial resources, which has implications for how children obtain income and view and practice saving money. At the same time, children participate in their own autonomous economies or playground economies wherein exchange takes place between children themselves. In some cases, according to Webley, children operating in their autonomous economy may reflect adult economic motivations and at other times may be motivated by non-economic objectives, such as friendship dynamics. From both Stacey's and Webley's discussions of economic socialization research, it becomes evident that children likely come to understand various dimensions of their financial and economic worlds that may or may not be an accurate representation of the "adult" economy.

Ward (1974) first conceptualized consumer socialization and outlined some of the major issues that would be examined in much of the empirical work to come. Ward defined consumer socialization as processes through which "young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace" (1974, p. 2), and this definition has influenced the view that consumer socialization is confined to the earlier years of life. Moschis (1987), who studied marketing under Ward, discussed how the interest in consumer socialization stemmed out of the concern that marketers could potentially take advantage of children's susceptibility to appealing advertising that would turn into poor consumption patterns, even into adulthood. Therefore, Moschis saw a need to understand the interaction between children's cognitive development and social environments that could have implications for consumer behavior. Moschis (1985, 1987) and Moschis and Churchill (1978) provided some foundational work on communication processes in consumer socialization as well

as a widely used theoretical model of consumer socialization. John (1999) provided a comprehensive review of consumer socialization and also proposed a conceptual framework to show how Piaget's perceptual, analytical, and reflective stages of child cognitive development function in terms of consumer awareness, decision-making, and consumption across childhood.

The reviews that specifically focus on each type of socialization demonstrate that consumer socialization stays more confined to issues relevant to marketplace activity, and most often purchasing activity (John, 1999; Moschis, 1987; Ward, 1974), while economic socialization researchers may be interested in topics such as how children come to understand supply and demand or how individuals are socialized to understand and internalize class differences (Stacey, 1987; Webley, 2005). Financial socialization research may direct some attention to the development of purchasing behavior and attitudes, but often with a broader focus on the interactional process of individuals that live in a world of constrained resources, widely available credit, changing financial regulations, and a need to manage conflicting wants and desires. Danes (1994) defined financial socialization as "the process of acquiring and developing values, attitudes, standards, norms, knowledge, and behaviors that contribute to the financial viability and individual well-being" (p. 28). In recent years, financial socialization has likely gained more research interest among scholars, policymakers, and educators as a way to situate efforts aimed toward increasing consumer financial literacy, capability, and wellbeing within individual and family social contexts and relationships. Because of the popularity and prevalence of increasingly complex financial services and products offered by businesses in a globalized economy, the move away from employer-sponsored defined benefit retirement plans to individual defined contributions plans, and the increasing cost and necessity of higher education, it is important to link any type of financial education or capability-building program to culturally and environmentally sensitive financial socialization conceptualizations.

Socialization and Capability

Socialization theorists have contended that socialization processes in numerous social contexts begin in infancy or early childhood. Grusec (2011) provides several reasons as to why parents likely serve as the primary socializers of the child's social world. Parents are "biologically prepared" to be the caregivers of their children in order to ensure "their own reproductive success," and it is an expectation in most societies that parents will fulfill the role of primary caregiver (Grusec, 2011, pp. 244–245). As the primary caregiver to the child, a parent determines how to allocate resources to the child, is positioned to regulate influences from the child's social environment, and has the capacity to create a warm and affectionate relationship with the child (Grusec, 2011). It is likely that all of these factors influence financial socialization processes; however, we speculate that the role of parents as resources managers and the ways in which they interact with their children around the allocation of resources have a strong influence on family financial socialization processes. Both parents and children interpret and assign meanings to interactions with each other and observations of the other's behavior (Grusec, 2011; Kuczynski et al., 2015).

A common assumption often tied to financial socialization is that the processes are guided by the intent to help young consumers develop financial capability to achieve financial wellbeing. Gudmunson and Danes (2011), however, suggested that most financial socialization in the family is more likely to be non-purposive and is a function of the day-to-day interaction patterns in the family. Financial socialization is a process and that is not always goal-oriented or intentional in every social setting. In other words, for good or for ill, everyone is financially socialized; however, some people's financial socialization may lead them toward detrimental beliefs, attitudes, and behaviors in the context of larger financial and economic systems in which they live. Yet, some of these beliefs, attitudes, or behaviors could be desirable in more immediate social groups like the family or peer groups. For example,

parents may establish allowance systems (Beutler & Dickson, 2008) or financial reward systems that support goals for family interaction and cohesion but that may not mirror the realities of larger economic systems. Financial capability can be considered the ability of applying appropriate financial knowledge and performing desirable financial behavior to achieve financial wellbeing in a given economic setting (Lusardi & Mitchell, 2014; Xiao, 2015; Xiao, Chen, & Chen, 2014). Research over the past decade has had an increased focus on how children develop financial values, attitudes, knowledge, and behavior that promotes financial capabilities that can bridge the gap between family and educational settings and the economic realities of independent adulthood (Drever et al., 2015).

Financial Socialization Across Time

It has been common practice in past financial socialization research to conceptualize studies as pitting the influences of socializing agents against each other to see which agents such as parents, educators, peers, media, and so forth "win out" in best predicting financial outcomes. While useful in many instances, this conceptualization is also a static view that largely ignores what is more likely to be waxing and waning influences of particular agents over time. Parental influences have been considered in virtually all studies that compare agents of financial socialization agents, but there are very few studies, that examine long-term romantic partners as agents of financial socialization (Dew, 2008, 2016). This is lamentable, as many individuals will eventually live a greater portion of their lives with a romantic partner than they have with parents. This also is likely to be a function of a lack of suitable secondary data, and the untested assumption that financial socialization does not change meaningfully once a person reaches adulthood. Yet scholarship that considers various agents of socialization in the context of the long view, including theoretical work, may help in promoting a more nuanced view of financial socialization agents across time.

A family financial socialization conceptual model was proposed (Danes & Yang, 2014; Gudmunson & Danes, 2011). In this conceptual model, family financial socialization can be conceptualized as two major parts, family socialization processes and financial socialization outcomes. Processes involve personal and family characteristics contributing to family interaction/relationships and purposive financial socialization. These factors contribute to financial attitudes, knowledge, and capability, which in turn contribute to distal outcomes, financial behavior and financial wellbeing.

Based on this model, two different categories of financial socialization processes take primacy in different developmental periods: processes of acquisition and processes of modification. Once individuals reach adulthood, they have likely acquired a set of financial attitudes, knowledge, values, norms, and skills as well as a certain level of agency over their financial affairs. Each of these financial characteristics will in turn influence financial behavior patterns and perceptions of financial wellbeing. In adulthood, therefore, socialization processes will more likely modify the existing set of individual financial traits and characteristics rather than leading to the acquisition of new ones. Acquisition processes, however, may still occur in adulthood. Specifically, periods or events of greatly felt change may trigger new acquisition or more pronounced modification during adulthood.

Parents and the family of origin are not the only significant agents of socialization. Across the life course, both youth and adults receive messages and interact with numerous influential sources of financial information and observe financial behavior in a variety of contexts. School financial education can be an important socialization tool. Many financial literacy initiatives are geared toward embedding personal finance education in elementary through high school curriculum as well as college-level coursework (Batty, Collins, & Odders-White, 2015; Fox, Bartholomae, & Lee, 2005: Mandell, 2009; McCormick, 2009; Xiao, Ahn, Serido, & Shim, 2014). The underlying assumption of many financial literacy education programs is that increasing

financial knowledge should increase positive financial outcomes and decrease negative financial outcomes, but research findings have yielded mixed findings on this point (Fernandes, Lynch, & Netemeyer, 2014; Hastings, Madrian, & Skimmyhorn, 2013; Miller, Reichelstein, Salas, & Zia, 2014). Financial education researchers have suggested that experiential or *just-in-time* approaches may have more long-term impacts on individual financial behaviors and economic well-being (Hathaway & Khatiwada, 2008; Peng, Bartholomae, Fox, & Cravener, 2007). Recent research based on a national data set suggests the exposure to high school and college financial education is positively associated with financial capability factors (Xiao & O'Neill, 2014). Furthermore, Danes and Brewton (2014) found that among high school students that participated in competency-based personal financial planning coursework, some students reported discussing financial matters with their families at greater frequencies after the completion of the curriculum. This raises interesting questions about how financial literacy education may be useful in socializing not only students but their families as well. These possibilities merit future research attention.

A common theme in the study of socialization during adolescences is that the influence of parents as agents diminishes and the importance of peers increases in numerous domains of social life (Smetana, Robinson, & Rote, 2015). This may not be the case in the area of finances because children are often still dependent on parents for material support at this stage in life, especially in Western economies. Parental influences likely outweigh the effects of peers, media, and educators well past adolescence. The effects may be greater in the financial domain than they are in other areas of life where the influences of peers seem to unseat the influence of parents more rapidly (Shim et al., 2010). However, peer groups, the workplace, and religious organizations may be influential agents of financial socialization in adulthood, although socialization researchers have not yet begun to conduct much research in this area.

Besides family and school, media can also be an important agent for youth financial socialization. A study based on a national sample of youth in South Korea showed that those who chose media as their primary financial socialization agent exhibited higher levels of financial literacy (Sohn, Joo, Grable, Lee, & Kim, 2012). However, Gudmunson and Beutler (2012) found that among a primarily middle-class, White sample of American adolescents, those that had higher media consumption expressed greater conspicuous consumption attitudes. More research on media effects on financial socialization using data from other countries and among various age, class, racial/ethnic groups is needed.

Theoretical Advances in Recent Research

A key defining difference between financial socialization and other commonly used research frameworks including financial literacy, financial capability, and behavioral economics is that financial socialization more fully considers ties to human development over time. A socialization approach proposes that intra-individual change and inter-individual differences emerge from variations in social interaction and relationships that develop over time. Financial socialization approaches that consider change over significant periods of time are, therefore, consonant with life course theories of human development. Much of the recent research has expanded to provide a fuller picture of the mechanisms and outcomes of financial socialization. To facilitate some examples of theoretical advances, we offer a generalized theoretical model with different classes of variables that are involved in financial socialization (see Fig. 5.1).

Studies that compare the relative influence of parents, peers, schools, and self-education help to emphasize the notion that social roles and relationships are the settings wherein socialization takes place. Thus, examples of the agent–novice relationship include parents-to-children, teacher-to-student, peer-to-peer, and so forth. Recent evidence has continued to find that parents are more influential as agents of financial socialization than peers and educators (Shim,

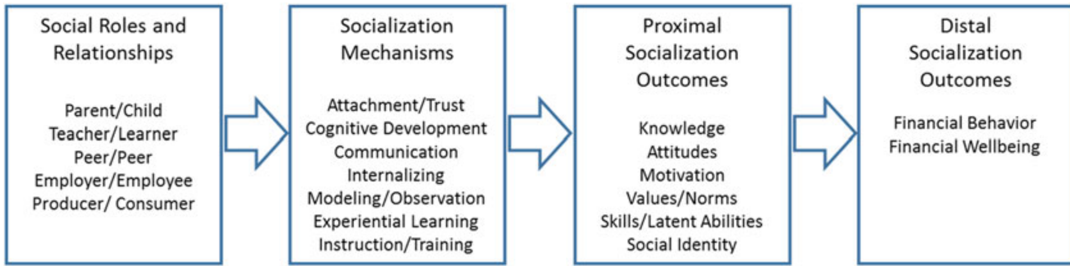

Fig. 5.1 Integrated model of financial socialization processes

Serido, Tang, & Card, 2015), suggesting that the socialization mechanisms may differ within different types of social relationships. Examples of socialization mechanisms that have been previously identified in theoretical papers on financial socialization (John, 1999; Jorgensen & Savla, 2010; Moschis, 1987; Ward, 1974; Xiao, Ford, & Kim, 2011) are included in Fig. 5.1.

Mechanisms of financial socialization produce proximal socialization outcomes, which are theoretically distinct from distal outcomes because they are "socially imbued individual characteristics adapted over time [which are carried] from context to context although they are variously expressed in each circumstance" (Gudmunson & Danes, 2011, p. 649). By contrast, financial behavior and financial wellbeing are considered distal socialization outcomes, because they can be more objectively determined, are more context dependent (i.e., especially financial behavior), and because they may be shared properties (i.e., financial wellbeing). This general model can be helpful as a classification tool for considering the expanding, and sometimes bewildering, array of variables that appear in multi-disciplinary research on financial socialization.

Recent scholarship has taken advantage of national data that tracks both family interaction and financial outcomes, and important linkages are being discovered. For example, Tang, Baker, and Peter (2015), using nationally representative data, found that parental monitoring had a positive effect on responsible financial behavior, and that female–male gaps in this outcome were eliminated when parental monitoring was consistent. Self-discipline had an even greater positive effect on financial behavior. Implications of these findings are that financial education could be more effective if it synchronously involved multiple family members (Van Campenhout, 2015; Wheeler-Brooks & Scanlon, 2009). This concept of delivering financial education to a system of family members is also a foundational principle in the nascent field of financial therapy (Kim, Gale, Goetz, & Bermudez, 2011). Recent financial socialization and financial capability research have made a major contribution in shifting concerns about the ineffectiveness of financial education (Fox et al., 2005), toward a consideration of how it may be made effective by engaging the family system for support, on the one hand (Serido & Deenanath, 2016) and for paring financial education with direct links to financial services, on the other hand (Bartholomae & Fox, 2016).

Shim et al. (2015) considered the mediating role of mental outcomes (proximal outcomes of socialization) in explaining the impacts that parents, friends, and education had in socializing college students toward healthy financial behavior. Having an attitude of support for particular financial behaviors, along with a sense of control, and confidence in one's ability to carry through with healthy financial behaviors were important in transmitting socialization experiences. Work by Jorgensen and Savla (2010) is also another good example of the importance of socialization variables tied closely to specific behaviors. They asked participants in an online survey to rate their feelings of safety with, need to understand, and sense of importance for very specific financial

behaviors. Their results with an index of these targeted attitudes in predicting an index of the same financial behaviors was very strong. Furthermore, these financial attitude measures fully mediated the relationships between perceived parental influence and financial knowledge in predicting financial behavior. In essence, research that investigates proximal and intermediate outcomes reveals that healthy financial socialization provides various types of motivation that when paired with financial knowledge (Fox et al., 2005; Gudmunson & Danes, 2011) and access to financial supports (Sherraden, 2010, 2013) results in desired financial behavior.

Another theoretical advance has come from the expansion of financial socialization beyond North American populations to consider samples of young people in different economic conditions. Chowa and Despard's (2014) research on youth living in the regions of Ghana confirmed the importance of parental financial socialization, but also found that youth's earned income was a critically important factor in predicting positive financial behavior. Conclusions based on older research in the USA (see Beutler & Dickson, 2008) have been ambivalent about the effects of youth work and youth earnings while in pursuit of education. Chow and Despard, however, point out that income for children in Ghana, a much poorer country than the USA and where there are fewer pathways to higher education, can serve as a greater aid to advancement in the context of place (i.e., certain African nations). Karimli, Ssewamala, Neilands, and McKay (2015) reported similar results for children in Uganda. Children in Ghana and Uganda are also more likely to share their income for necessities, whereas children's pocket change in the USA is usually spent on children's nonessentials (Alhabeeb, 1996). Future research should more fully consider the meaning of variables in the context of the study population, while considering the context of time and place. Thus, we applaud the internationalization of financial socialization research and urge that context-specific models take into account culture and economic realities that shape financial realities.

Sociodemographic Factors in the Financial Socialization Process

Two of the most widely studied sociodemographic factors included in studies of financial socialization are gender and socioeconomic status. Several studies have found that men and women tend to differ in their financial knowledge and behavioral outcomes (Chowa & Despard, 2014; Tang et al., 2015), but only a handful of recent studies provide insight into the possible divergent socialization paths of males and females. In a study of predominantly White, higher-income college students, Clarke et al. (2005) found that children more commonly described fathers as household financial managers and claimed that fathers modeled financial tasks more frequently. In families where mothers both modeled and taught financial tasks, however, students reported feeling more prepared to perform financial tasks and practiced tasks more frequently as young adults. Overall, male students felt more prepared than female students on a number of financial tasks when they were modeled in the home. In a study of college students from multiple universities, Garrison and Gutter (2010) found a significant gender difference in financial social learning opportunities; females had higher exposure to financial social learning opportunities across four dimensions (discussions with parents, discussions with peers, observations of parents' financial behaviors, and observations of peers' financial behaviors). Tang et al. (2015) observed that parental influence improves young women's financial behavior more than young men's.

Income and wealth are the most widely used markers of socioeconomic status and social class in economic and financial socialization literature. It has been speculated that families that hold more wealth and earn a higher income instill greater knowledge and a more diverse financial skill set in their children (Stacey, 1987). Furthermore, Sherraden (2010, 2013) argues that children from wealthier families have more opportunities to learn about financial matters because their parents interact with financial institutions and products

more regularly and are more prepared to teach their children about finances whereas low-income parents interact with fewer types of beneficial financial institutions and products and may be less able and willing to teach their children about finances because of distressing economic circumstances. However, recent research findings provide a mixed picture in the area of family socioeconomic status.

Lusardi, Mitchell, and Curto (2010) found associations between parents' education level and stock ownership with children's scores on a set of financial literacy measures which supports the view that higher SES families provide a more conducive environment to beneficial financial socialization. However, one study with a nationally representative sample of young people between the ages of 17 and 21 found that those with parents of higher net worth reported having fewer financial worries but also reported feeling less skilled at money management (Kim & Chatterjee, 2013). In a qualitative study of parents' communication beliefs and practices related to disclosing and concealing various types of financial information to their children, Romo (2011, 2014) found that study participants that reported a variety of socioeconomic statuses believed that communicating with their children about money-related topics is taboo. Using data from the Panel Study of Income Dynamics (PSID) and Transition to Adulthood (TA), Xiao, Chatterjee, and Kim (2014) found that young adult's perceived financial independence is negatively associated with parental income, financial assistance, and stock ownership.

The Future of Financial Socialization in Theory, Research, and Practice

Financial socialization is a life-long process that is influenced by numerous socialization agents such as family, teachers, peers, and the media. Factors such as gender, socioeconomic conditions of the family and surrounding community, race, ethnicity, types of financial products that are available, public policies, and macroeconomic trends are likely influential in the outcomes of financial socialization. Research that takes a life course perspective of the financial socialization process, although called for over the past several decades, has not yet manifested. Such a perspective should acknowledge that important changes take place in cognitive, socioemotional, and biological development during the course of childhood, adolescence, and emerging adulthood, and therefore, these life stages are important periods for the development of financial attitudes, beliefs, knowledge, standards, skills, and behaviors. However, it is important to remember that "socialization continues throughout the life span as individuals continue to change and develop the skills, behavior patterns, ideas, and values needed for competent functioning in a social context that is constantly changing" (Kuczynski et al., 2015, p. 135). The concept of changing people in a changing social context is significant in the discussion of financial socialization because of the rapid transformations that have become a hallmark of modern economies and financial systems. We contend that wherever there are resources involved in social interactions between individuals at any point in the life course, there are potential implications for financial socialization.

One of the primary functions of the family is socializing its members (Bogenschneider & Corbett, 2004), and family financial socialization is a complex process that needs future theoretical and empirical research to understand its key factors and interrelationships of these factors. It is encouraging that researchers are conducting longitudinal research (Shim et al., 2015) and gathering data from multiple members of family units (Chowa & Despard, 2014). A major limitation of past studies that include financial socialization components is an over-reliance on cross-sectional designs. In fact, one of the broad criticisms that has been leveled at various types of consumer finance research is that the body of research is overly dependent on cross-sectional data (Gudmunson & Danes, 2011). Cross-sectional research presents a formidable challenge for understanding the processes that are part of financial socialization because, by definition, socialization is a process that requires over-time data to

be maximally assessed and causality cannot be determined through cross-sectional designs. Furthermore, many cross-sectional studies in the field of consumer finance often use the concept of financial socialization as a theoretical explanation for why certain direct associations are found, but these studies do not include indirect linkages that may present a clearer picture of financial socialization processes.

Finally, the picture that emerges from a synthesis of the literature on financial socialization is that agents of socialization that do make a difference, do so pervasively and with long-lasting effects. The notion that a child is impacted by parents social and financial influences only for the time that they share a roof, and that college students immediately adopt the principles taught them in financial education courses, and that adults individually and rationally make financial decisions is an oversimplified and inaccurate view. While most educators, researchers, and practitioners will admit that the realities are much more complex than this, there is much more that can be done to take emerging views of financial socialization into view in building curriculum, designing studies, and providing financial counseling and planning that are effective. Such work will require refinement and accuracy in measurement, more longitudinal investigations, greater integration of client's social networks and access to financial institutions in the course of financial education, and a much better understanding of psychosocial motivating factors that arise from financial socialization.

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6 Financial Therapy

Kristy L. Archuleta, Sonya L. Britt, and Bradley T. Klontz

Background

Money is about more than just spreadsheets, numbers, logic, and utility. Based on research in consumer finance, behavioral economics, financial planning, family therapy, and psychology, it is clear now that people frequently engage in illogical, irresponsible, inconsistent, and even self-destructive financial behaviors. For most people, it is difficult to think about or talk about money and not feel any emotions. Money is the number one source of stress in the lives of three quarters of Americans (American Psychological Association, 2014) and money is one of the most frequent topics of conflict in couples (Britt, Huston, & Durband, 2010; Zagorsky, 2003). In fact, financial problems are a primary impetus for women seeking therapy for marital distress (Cano, Christian-Herman, O'Leary, & Avery-Leaf, 2002). Perceptions of financial issues have been shown to impact the quality of interpersonal relationships. For example, researchers have found a strong association between relationship satisfaction and financial satisfaction (Archuleta, Britt, Tonn, & Grable, 2011; Dean, Carroll, & Yang, 2007; Grable, Britt, & Cantrell, 2007).

Recognizing the importance of psychological and relational factors in personal finance, a growing number of academics and practitioners are expanding theory, conducting research, and developing tools to help improve clients' financial health. Financial therapy explores the integration of cognitive, emotional, behavioral, relational, and economic aspects of financial health (about the Financial Therapy Association, n.d.). The major objective of financial therapy is not only to improve financial well-being, but also to ultimately improve quality of life (Archuleta et al., 2012). Financial therapy can be both proactive, like financial planning, and reactive, like financial counseling, all the while considering both financial matters and the psychological and systemic impediments to achieve financial well-being.

Financial therapy is different from financial education, which is designed to provide facts to consumers who then are responsible for implementing the knowledge into their behaviors. Financial therapy differs from financial counseling in that financial counseling tends to focus on a specific financial behavior that is in need of

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remedial repair, such as bankruptcy, housing needs, or general debt obligations. For the most part, financial planning does not focus on how past attitudes or behaviors that may be influencing current behaviors and is void of most emotions related to money. Financial coaching shares some similarities with financial therapy; however, financial therapy considers how past attitudes and behaviors influence current behaviors, whereas coaching tends to be exclusively future oriented. All of the various types of financial assistance are beneficial for consumers depending on their needs and goals.

Prior to the inaugural issue of the Financial Therapy Association sponsored peer-reviewed scholarly publication, *Journal of Financial Therapy* (JFT), in 2010, research related to financial therapy was sparse. However, there was a growing concern about these issues among practitioners and scholars. Since the inception of JFT, more research specifically supporting financial therapy theory and models has been conducted. JFT is currently in its sixth volume and has published over 30 empirical articles related to financial therapy and six articles related to theoretical development in financial therapy. Along with such scholarly endeavors, JFT also publishes book reviews and profiles of practitioners and scholars who work in and study the financial therapy field. Although JFT is dedicated to research about financial therapy, other peer-reviewed journals have also published related research. This chapter focuses on some of the popular topics in financial therapy today and the supporting research.

Research and Concepts in Financial Therapy

The most comprehensive source of financial therapy research is *Financial Therapy*: *Theory*, *Research*, *and Practice* (2015), co-edited by the authors of this chapter, in which a total of 14 models and their associated research are presented. Related books on financial therapy include *Facilitating Financial Health*: *Tools for Financial Planners*, *Coaches*, *and Therapists by* Klontz, Kahler, and Klontz (2008). Both *Investor Behavior: The Psychology of Financial Planning and Investing* by Baker and Ricciardi (2014) and *Financial Planning Competency Handbook* by the Certified Financial Planner Board of Standards (2015) include a chapter about financial therapy.

Financial therapy topics that have received the most attention in the research are related to money scripts and money disorders. Money scripts are underlying assumptions or beliefs about money that are often developed in childhood and carried out in adulthood (Klontz, Kahler, & Klontz, 2006; Klontz & Klontz, 2009). Money disorders are described as maladaptive patterns of financial behavior that cause significant distress (Canale, Archuleta, & Klontz, 2015; Klontz & Klontz, 2009). Among other assessments, the Klontz Money Script Inventory (KMSI) (Klontz, Britt, Mentzer, & Klontz, 2011) and the Klontz Money Behavior Inventory (KMBI) (Klontz, Britt, Archuleta, & Klontz, 2012) are empirically driven tools designed to identify characteristics of various money scripts and money disorders, respectively. Money scripts, money disorders, and their impact on consumer financial behaviors are discussed in more depth in the following sections.

Money Scripts

Money scripts are beliefs about money that often operate outside of an individual's conscious awareness, are often only partially true, are typically developed in childhood, passed down from generation to generation within families and cultures, and drive financial behaviors throughout adulthood (Klontz et al., 2006; Klontz & Klontz, 2009). Money scripts are hypothesized to develop from "financial flashpoints—an early life event (or series of events) associated with money that are so powerful, leaving an imprint that lasts into adulthood" (Klontz & Klontz, 2009, p. 10).

The beliefs we develop as a result of observations or actions as children tend to follow us into adulthood. This is true for money beliefs just as it is for other issues. Unfortunately, some of those

beliefs may lead to less desirable behaviors as adults. For instance, families who kept secrets about money were more likely to have adult children who possessed compulsive hoarding and/or spending pathologies (Furnham, von Stumm, & Milner, 2014). Also associated with compulsive hoarding and buying is the tendency to avoid *or* worship money (Klontz & Britt, 2012). Later, Kim (2014) found that a money worshiping attitude is associated with higher feelings of alienation (uncertainty about life, feeling that nobody cares about the person, etc.) among multiple cultures, including the USA, Korea, and Sweden, but this is especially true for Americans.

Researchers have identified several patterns of money scripts, several of which are associated with lower net worth, lower income, and higher credit card debt (Klontz et al., 2011). These problematic money scripts include *money avoidance*, *money status*, and *money worship*. *Money avoidance* scripts include the belief that money corrupts, rich people are greedy, and/or money is not important. *Money status* scripts link an individual's net worth to his or her self-worth. *Money worship* scripts are associated with the belief that money brings happiness and will solve all of life's problems. These three patterns of money scripts have also been found to predict a variety of money disorders, including gambling disorder, hoarding disorder, compulsive buying disorder, workaholism, financial enabling, and financial dependence (Klontz & Britt, 2012). Financial planners and financial therapists could improve their services to clients by assessing their clients' money scripts (Lawson, Klontz, & Britt, 2015). This could give clients a shared language for discussing the importance of money beliefs on financial behaviors and provide early indications of potential problems.

Closely related to money avoidance is money anxiety, which is an issue affecting many Americans, females more so than males according to Hayhoe et al. (2012). Younger individuals and those with lower levels of net worth also tend to be associated with higher levels of anxiety. This is important in that lower levels of anxiety are associated with better financial behaviors (Hayhoe et al., 2012).

Money Disorders

Those who hold money disorders have faulty beliefs about money that they know they should change, but cannot seem to do so (Canale et al., 2015). The empirically developed KMBI (Klontz et al., 2012) identifies nine money disorders: *compulsive buying disorder*, *gambling disorder*, *workaholism*, *hoarding disorder*, *financial denial*, *financial dependence*, *financial enmeshment*, *financial enabling*, and *financial infidelity*. Two money disorders—gambling disorder and hoarding—are specific mental health diagnoses that need to be diagnosed and treated by a licensed mental health clinician (Canale et al., 2015). Certain money disorders have features related to mental health diagnoses defined in the 5th edition of the Diagnostic and Statistical Manual of Mental Health Disorders (DSM-5; American Psychiatric Association, 2013), namely compulsive buying disorder and workaholism. The other money disorders could be a cause or related to relationship problems, which is considered to be an "other" diagnosis unrelated to disease or injury in the DSM-5. Although some money disorders do need to be diagnosed by a mental health clinician who is licensed to make mental health diagnoses, practitioners should screen for potential money disorders and make appropriate referrals and work with mental health clinician to treat money disorders for their clients (Canale et al., 2015).

Compulsive buying disorder (CBD), gambling disorder (GD), and financial anxiety are the most researched money disorders to date. CBD has been described as preoccupations or impulses to buy or to shop (McElroy, Keck, Pope, Smith, & Strakowski, 1994). Faber (2011) reported the prevalence of CBD is between 5.5 and 8 % of the adult population in Western nations and when the strictest criteria are applied, 1.4 % of the population is estimated to have CBD. Klontz and Britt (2012) found that significant money script predictors of CBD are money status, money worship, and money avoidance.

Gambling disorder is considered to be an addictive disorder that is defined as "persistent and recurrent problematic gambling behavior leading to clinically significant impairment or distress"

(American Psychiatric Association, 2013, p. 585). It often co-occurs with other mental disorders like substance abuse, depression, anxiety, and personality disorders (American Psychiatric Association, 2013). Gambling studies report that the top motivators for identifying gambling as a problem or seeking help are financial difficulties, relationship conflict, and negative emotions (Suurvali, Hodgins, & Cunningham, 2010). One of the most prevalent financial difficulties associated with GD is debt, which can lead to bankruptcy. According to Grant, Schreiber, Odlaug, and Kim (2010) as more states in the USA have legalizing gambling, bankruptcies have increased. Furthermore, the Gambler Impact and Behavior Study found that 19 % of individuals with GD have filed for bankruptcy (Gerstein et al., 1999).

Another disorder gaining attention in the financial therapy research is money anxiety, often referred to as financial anxiety. Archuleta, Dale, and Spann (2013) stated that financial anxiety can be described as "feeling anxious or worried about one's financial situation" (p. 58). They created a measurement, with high reliability (Cronbach's alpha = 0.94), based on the DSM-IV-TR (American Psychiatric Association, 2010) criteria to assess symptoms related to difficult sleeping and concentrating, fatigue, worry, irritability, muscle tension as related to one's financial situation. This assessment was used in a study that found college students' financial satisfaction was closely tied to financial anxiety—as financial satisfaction increases, financial anxiety decreases. Shapiro and Burchell (2012) also developed another financial anxiety scale to address negative emotions toward effectively managing personal finances. They found that financial anxiety, although related, was distinctly different from generalized anxiety and depression. Shapiro and Burchell suggested that financial anxiety can be seen similarly to a phobia where individuals deal with it by avoidance. Rather than employing financial management behaviors and regularly saving, those with higher financial anxiety were less likely to engage in these behaviors (Hayhoe et al., 2012). In addition, younger individuals and those with lower levels of net worth tended to have higher levels of money anxiety (Hayhoe et al., 2012).

To address issues like money scripts or money disorders that are either hindering clients' progress toward financial goals or to work with clients to help them with interpersonal or intrapersonal aspects of money by "integrating cognitive, emotional, behavioral, relational, and economic aspects to promote financial health" (Financial Therapy Association, n.d., para. 1), financial therapy is needed. Financial therapy supports the integration of theory, research, and practice where theory supports research design and practice models, research supports theory development and what practitioners are doing, and the practice informs theory development and what research needs to be conducted (Britt, Archuleta, & Klontz, 2015). Here, we focus on the practice modalities in financial therapy that are theoretically informed and have empirical evidence supporting their effectiveness. Due to the infancy of the financial therapy field, not all financial therapy approaches have been conducted or have been extensively tested.

Financial Therapy Practice Models

Experiential Financial Therapy

Experiential Financial Therapy (EFT) integrates experiential therapy with financial planning in the treatment of disordered money behaviors (Klontz, Bivens, Klontz, Wada, & Kahler, 2008; Klontz & Klontz, 2009). EFT was first applied to the treatment of disordered money behaviors at Onsite's Workshops Healing Money Issues Program in Nashville, Tennessee in 2003. During the treatment program, experiential therapy and financial education were integrated into a 6-day program designed to treat money disorders and related psychological problems (Klontz, Bivens, et al., 2008).

EFT views money disorders as resulting from deeply ingrained money scripts developed in response to past experiences, which were often emotionally charged or traumatic (Klontz, Klontz, & Tharp, 2015). Klontz and Klontz (2009) named these past experiences around money "financial flashpoints," which they describe as early life

events "associated with money that are so emotionally powerful, leaving an imprint that lasts into adulthood" (p. 8). They hypothesize that an underlying cause of money disorders is unresolved thoughts and emotions related to financial flashpoint experiences. Research supports the link between traumatic experiences and cognitive changes (Chemtob, Roitblat, Hamada, Carlsoh, & Twentyman, 1988) and traumatic experiences in childhood and the development of money disorders in adulthood (Blaszczynski & Nower, 2002; Ciarrocchi & Richardson, 1989; Cromer, Schmidt, & Murphy, 2007; Frost & Hartl, 1996; Hartl, Duffany, Allen, Steketee, & Frost, 2005; Petry & Steinberg, 2005; Scherrer et al., 2007; Tabor, McCormick, & Ramirez, 1987; Tolin, Meunier, Frost, & Steketee, 2010). As a component of EFT, clients are assisted in identifying and altering problematic money scripts.

In a clinical trial, Klontz, Bivens, et al. (2008) assessed treatment outcomes in 33 participants in Onsite's Healing Money Issues program. Following EFT, the participants showed statistically and clinically significant reductions in their levels of psychological distress. These improvements were observed to be stable 3 months after the program. This includes significant improvements in the following areas: (a) decreased nervousness, tension, or dread; (b) improved motivation, and decreased sadness and feelings of hopelessness; (c) less unwanted and distressing thoughts and impulses; (d) diminished feelings of inadequacy and/or inferiority; (e) less feelings of irritability and anger; (f) less suspiciousness, fear of loss of autonomy, or inflated levels of confidence; and (g) fewer feelings of social alienation or withdrawal from others. Participants also reported statistically and clinically significant and lasting improvements in their attitudes and beliefs about money. Specifically, they reported they were (a) less likely to view money as a symbol of success; (b) less likely to use money to control or impress others; and (c) less likely to view status-seeking, external recognition, competition, or acquisition as important. The largest treatment effects were seen in the area of financial health, with participants reporting immediate improvements with regard to their relationship with money, and statistically and clinically significant post-treatment to 3-month follow-up changes in their financial behaviors. While more research is needed to evaluate the effectiveness of EFT in the treatment of money disorders, the Klontz, Bivens, et al. (2008) study is the earliest and remains the most comprehensive study of the effectiveness of a combined psychotherapy and financial planning intervention to date.

The Stopping Overshopping Model

As noted previously, compulsive shopping may be one of the most researched money disorders affecting people across the world. A number of assessment tools exist to identify the presence of compulsive buying tendencies, yet only a few treatment models have been empirically tested for compulsive shopping (Benson & Eisenach, 2013).

Many treatment modalities revolve around the use of drugs. An exception is that of Benson. Benson's (2015) Stopping Overshopping Model is theoretically based on psychodynamic psychotherapy, Cognitive Behavior Therapy, dialectical behavior therapy, motivational interviewing, mindfulness, and acceptance and commitment therapy (Benson & Eisenach, 2013). The Stopping Overshopping Model is a 12-week group treatment program where participants reflect on their experiences in a journal and share experiences with the group (or financial therapist if applied in an individual setting). Each participant also chooses a "shopping buddy" to support them through the recovery process outside of the group setting. Benson's model has proven effective at reducing the number of times a person shops, the amount spent on shopping, and the mean compulsive shopping episodes experienced by a person (Benson, 2015). A key component used in the group process is reading Benson's book, *To Buy or Not to Buy*, which readers can use to learn more about the model and its effectiveness.

Cognitive Behavioral Financial Therapy

Cognitive Behavioral Therapy is an evidenced-based approach to treating a variety of behavioral health problems. Cognitive Behavioral Financial Therapy has been identified as an effective approach in the treatment of money disorders, including gambling disorder, hoarding disorder, and CBD (Nabeshima & Klontz, 2015). One of the goals of Cognitive Behavioral Therapy is to identify and modify distorted beliefs and interrupt problem behavioral patterns, which leads to improvements in mood and functioning. An important tool for identifying distorted beliefs is the use of an automatic thought record (Beck & Beck, 2011). In financial therapy, this technique has been adapted for use as a "money script log" and is used to identify, challenge, and change problematic money scripts (Klontz et al., 2006; Klontz, Kahler, et al., 2008; Klontz, 2011). As noted above, certain patterns of money scripts have been found to be associated with poor financial outcomes and self-destructive financial behaviors (Klontz & Britt, 2012).

With a money script log, clients are asked to identify financial situations in which they feel some distress, identify the emotion, and then ask themselves: "What money-related thought is going through my head right now?" (Klontz, Kahler, et al., 2008, p. 87). After recording the situation and corresponding emotion, clients identify the associated money script. Lastly, they created an alternative, more helpful money script and identify a helpful behavioral response. This process could include (a) identifying alternative beliefs that would make the money script more accurate, helpful, and functional; (b) considering beliefs that contradict, challenge, broaden, or redefine the money script; or (d) consulting with a financial planner or financial therapist to help identify alternative, more accurate money scripts (Klontz, Kahler, et al., 2008).

Cognitive Behavioral Therapy has been demonstrated to be an effective approach for cognitive restructuring and improving a client's psychological well-being across a range of behavioral health problems. The application of CBT theory and techniques in financial therapy to address disordered money behaviors has been found to be effective in the treatment of several money disorders, including gambling disorder, hoarding disorder, and CBD (Nabeshima & Klontz, 2015). Cognitive Behavioral Financial Therapy is a promising approach to help clients challenge and change self-limiting money scripts to help them improve their financial health (Nabeshima & Klontz, 2015).

Solution-Focused Financial Therapy

Derived from solution-focused therapy (see de Shazer et al., 2007; Nichols, 2008), solution-focused financial therapy has emerged as a way to tap into clients' strengths in order to reach their financial goals (Archuleta, Grable, & Burr, 2015). Influenced by systems theory thinking and social constructionism, solution-focused therapy is a pragmatic approach with specific interventions that are collaborative in nature and the client is seen as the expert in their own lives. Solution-focused therapy ascribes to assumptions such as: (a) "if it is not working, do something different;" (b) "if it works, do more of it;" (c) "small steps can lead to big changes;" and (d) "no problems happen all of the time; there are always exceptions that can be utilized" (de Shazer et al., 2007).

Solution-focused therapy outcome studies have shown that this approach is effective with clients for a variety of presenting problems. Studies have revealed strong support for this approach over no therapy at all, which is as good as other types of therapies and for producing clients in a short period of time (Franklin, Trepper, Gingerich, & McCollum, 2011). Due to the evidence supporting solution-focused therapy, a pilot study was conducted to test the implementation of a solution-focused financial therapy approach, in which solution-focused therapy techniques were applied to a financial counseling setting. Participants in the study agreed to participate in three to five sessions. The client and the financial therapist agreed upon a mutual termination when the client was ready and reached their goals.

Some of the specific solution-focused therapy interventions that were employed during the treatment included joining, the miracle question, scaling questions, and complimenting (see Archuleta et al., 2015).

One of the hallmark solution-focused interventions is the miracle question, whereby a client is asked to imagine that a miracle occurred during the middle of the night, but neither the client nor anyone in the client's life knew this miracle occurred. The client is asked to identify very specific ways that the client and people most significant in the life of the client would recognize changes in the client's life. The purpose of the miracle question is to help the client identify specific, achievable, and measurable goals. To implement this intervention successfully, the miracle question must be framed properly so that the therapist does not lead the client to the miracle, but the client leads the therapist to the miracle (Stith et al., 2012).

Other key interventions include scaling questions, which are designed to assess clients' perceptions of the relevancy and progression toward a particular goal (Thomas & Nelson, 2007). For example, a client may be asked, on scale from 0 to 10 where 0 represents "not at all" and 10 represents "all of the time," how well they are tracking their spending. Financial therapists can then ask the client to visualize specific strategies that the client can do in order for the score on the scale to go up.

Complimenting is another important strategy to the solution-focused approach. Meaningful compliments help clients to recognize their strengths and encourage them to utilize those strengths to do more of what works. For example, telling a client, "It's incredible that you have been able to figure out a way to stay in college and pay your bills when you have been faced with little financial support from your family, a demanding work schedule, and taking care of your two children." The practitioner may go on to say, "how have you been able to do all of these things?" This helps the client to identify their strengths and how they can continue to use these strengths to achieve their goals.

A pilot study revealed that clients' psychological well-being, financial behaviors, financial distress, and financial knowledge significantly improved following solution-focused financial therapy (Archuleta et al., 2015). Although the specific solution-focused intervention that leads to statistically significant changes cannot be determined, the approach as a whole appears to improve multiple aspects of a client's life. While the pilot study is small, it makes a valuable contribution to the field of financial therapy as an approach that shows promise of its effectiveness to implement with clients.

Conclusion

The non-quantitative aspects of consumer finance are quickly coming to the forefront in the preparation of financial professionals. Specifically, financial therapy is an emerging field designed to address the qualitative aspects, such as emotions, behaviors, and relations as they relate to consumer finance. This chapter presented some of the key research findings related to these important aspects. Like any practice oriented field, it is imperative for effectiveness and efficacy studies to be conducted. Experimental and quasi-experimental studies are essential to the development of the field. Even small, nonparametric samples are helpful in initially understanding what might work. This is a different approach than what is commonly taught in consumer finance and personal financial planning research courses where large, representative samples are utilized. Using small samples is very common in mental health-related fields where effectiveness research is at the cornerstone of testing modalities that are effective in working with clients who possess mental health disorders. Effectiveness and efficacy research take more time and resources than other research methods like survey or secondary data usage. If the field of financial therapy fields or related practice fields rely only upon these large, representative samples, then it will be difficult, even impossible, to make strides toward learning what works and how it works; information that is crucial for helping to improve practice.

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7 Financial Counseling and Financial Health

Lucy M. Delgadillo

Financial counseling is a great resource for consumers looking for help with their finances. The first financial counseling programs initiated in the country were carried out by credit unions, mostly geared to crisis intervention and financial education (Pulvino & Lee, 1979; Williams, 1991). As a profession and a field of study, financial counseling is relatively young, only about 30 years old. The need for certified counseling programs led to the creation of the first accredited financial counselor (AFC) designation in 1992 by the Association for Financial Counseling and Planning Education (AFCPE) that itself launched in 1984 (see Burn, 2008, for a brief history of AFCPE). AFCPE has taken the banner in educating, training, and certifying financial counselors, financial educators, and housing counselors (AFCPE, n.d.).

Concepts and Procedures of Financial Counseling

Circa the formation of AFCPE, Mason and Poduska (1986) distinguished financial counseling from financial planning in fundamental ways. Their discerning criteria included (a) the types of clients/problems presented, (b) criteria clients used for self-evaluation of outcomes, and (c) services provided and training required. More recently, Archuleta and Grable (2010) also recognized that financial counseling and financial planning are well established, and *different* fields of studies and practices. They noted that the practices of both fields differ in terms of clients' outcomes, but both approaches rely on similar processes. According to Archuleta and Grable (2010), financial counselors tend to be more *reactionary* in nature. In contrast, financial planners work with clients' financial assets, in a more *future-oriented* and *proactive* manner, by using products and services that meet their clients' financial goals. Although such practices may serve different clientele, they all seek to facilitate clients to achieve financial well-being.

In practice, the term financial counseling is often used interchangeably with financial education and financial planning (Delgadillo, 2014a). Financial counseling commonly refers to what counselors do, what skill they should possess, and what processes take place in a counseling situation. According to these organizations, financial counselors (FC) assist individuals and families in the complex process of financial decision-making. They possess skills that include the ability to (a) educate clients in sound financial principles, (b) assist clients in the process of overcoming their financial indebtedness, (c) help clients identify and modify ineffective money management behaviors, (d) guide clients

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in developing successful strategies for achieving their financial goals, (e) support clients as they work through their financial challenges and opportunities, and (f) help clients develop a new perspective on the dynamics of money in relation to family, friends, and individual self-esteem. Additionally, counselors should be proficient in listening skills, problem-solving, intervention strategies, and communication processes (AFCPE, n.d; FINCERT, n.d.; Foundation for Financial Wellness, n.d.; GreenPath Debt Solutions, 2014; NACCC, n.d.; NTI, n.d.).

There are content-related competencies that professional financial counselors should master. The AFCPE, NeighborWorks Training Institute (NTI, n.d.), and more recently the Department of Housing and Urban Development (HUD) are nationally recognized organizations that list these competencies. According to these institutions, a financial counselor must be knowledgeable about financial topics such as:

- Budgeting, credit, overcoming financial indebtedness, and money management behaviors;
- Basics of insurance, taxes, investments, retirement, and estate planning; and
- Student loans; bankruptcy, repossessions, and fraud, among others (AFCPE, n.d.).

For those specializing in housing counseling, they must also know about

- Real estate industry, mortgage lending products, landlord/tenant issues; and
- Real estate transactions, mortgage prequalification, mortgage affordability and sustainability, barriers to homeownership, post-purchase issues including foreclosure intervention and default counseling (AFCPE, n.d.; HUD, 2014; NTI, n.d.).

Pulvino and Pulvino (2010) defined *strategic financial counseling* as "the process of defining specific financial objectives, developing workable plans, and using appropriate skills in a humanistic way to achieve the objectives" (p. 2). To counter a rumored conceptualization of counseling as a purely remedial financial intervention, financial counseling can take three diverse forms: remedial, preventive, and productive and these forms "are not mutually exclusive" (Pulvino & Pulvino, 2010, p. 3). Remedial financial counseling is used when clients experience some kind of economic distress and are in need of immediate intervention. Productive financial counseling is suitable for clients who are financially stable, do not need to overcome immediate financial difficulties, but need to utilize their resources in the most productive way. Preventive financial counseling has features of both remedial and productive counseling and is used when the client "perceives a need for the productive use of resources to prevent the need for remediation" (Pulvino & Pulvino, 2010, p. 6).

In regard to processes, remedial, preventive, and productive counseling all use similar intervention and communication practices (i.e., developing the working relationship, gathering client data, analyzing and diagnosing clients' needs, setting goals, and establishing and devising plans of actions). Nevertheless, the counseling process develops and evolves differently according to the type of counseling.

The developmental stages of preventive and productive counseling resemble the six stage processes in the financial planning process explained by Lytton, Grable, and Klock (2006). This process maximizes the client's use of resources for medium- or long-term goals. The author of this chapter sees the development process for preventive and productive counseling as follows: (a) Building the relationship, (b) Exploratory state, (c) Medium–long-term goals, (d) Action plan, (e) Monitoring (allowing for adjustments), and (f) Evaluative process of client's outcomes.

After building the counseling relationship, Pulvino and Lee (1979) described that the second step in the remedial counseling process is diagnosis. Diagnosis is a "systematic attempt to understand clients and their financial situation" (Pulvino & Pulvino, 2010, p. 226). Typically, the diagnosis is a procedure used to identify a problem. Counseling uses diagnosis to guide the action plan. For instance, foreclosure counselors use diagnosis to decide what kind of workout is pertinent to resolve the crisis (e.g., a loan in

default). In this case, the diagnosis of the client's situation is tied to an action plan pre-determined by a loss-mitigation protocol. The author of this chapter sees the developmental stages in a remedial counseling session as follows: (a) Building the relationship, (b) Diagnostic stage, (c) Short-term immediate solution, (d) Choose pre-determined action plan specified by a protocol, and (e) Implementation of the action plan.

A common specialty within financial counseling is housing counseling, which includes rental counseling, reverse mortgage, pre-purchase counseling, and post-purchase counseling (HUD, n.d.). Rental counseling addresses needs and concerns, including delinquent rents, a pending eviction, difficulty in securing an affordable rental, Fair housing laws, tenant rights and responsibilities, and the potential impact of credit scores on securing a rental unit.

Reverse mortgage counseling provides information, mostly free or at very low cost, to the borrower. Reverse mortgages (RMs) are mortgage programs that enable the borrower to withdraw some of the equity in their home without having to make payments to the lender. RMs insured by the Federal Housing Administration (FHA) are also known as a Home Equity Conversion Mortgage (HECM). RM counseling is mandatory for all HECM applicants.

The 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") has greatly impacted current housing counseling practices. Before current changes are explained, the following section will summarize the history of housing counseling, specifically pre and post-purchase counseling.

Housing Counseling

The groundwork for the housing counseling industry began in the 1960s with the passage of the 1968 HUD Act, in which HUD could authorize public and private organizations to provide counseling to mortgagors in Section 235 and 237 programs. Section 235 provided a low interest down payment subsidy on FHA loans offered through private institutions (Colton, 2003). Section 237 allowed low and moderate-income families, who were unable to meet the normal underwriting standards of FHA's other single-family programs because of their credit history, finance the purchase of new, existing, or substantially rehabilitated single-family homes or condominiums (HUD, n.d.).

Due to defaults that occurred to participants of the Section 235 program in the 1970s, a lawsuit was filed against HUD. Participants in the Section 235 program experienced rates of foreclosure approaching 19 %, which was far higher than the 4 % national rate for mortgages insured under the Federal Housing Administration's Section 203 program (Wachter, 1980). As a result, in 1971 HUD established a process where agencies could become approved to provide housing counseling (Baker & Collins, 2005; Hirad & Zorn, 2001; Mallach, 2001; McCarthy & Quercia, 2000; Quercia & Wachter, 1996).

In 1973, the National Federation of Housing Counselors (NFHC) was created to provide training for its members and to act as a lobby. In 1974, legislation known as Section 801 of the 1974 Housing and Community Development Act, authorized HUD to grant funding for housing counseling agencies. In 1977 and 1987, HUD legislation broadened counseling to include single-family homeowners, emergency homeownership, and home equity conversion (Quercia & Wachter, 1996; Wiranowski, 2003). Although counseling had evolved since the 1960s, the industry remained fragmented because of different counseling types, delivery structures, and funding sources (Quercia & Wachter, 1996).

In the beginning, housing counseling focused on post-purchase counseling due to high levels of mortgage default and foreclosure (Delgadillo & Green Pimentel, 2007). About two decades ago, the industry shifted its concentration from post-purchase to pre-purchase programs, largely due to the advent of lending programs for under-served markets (Baker & Collins, 2005; McCarthy & Quercia, 2000).

Pre-purchase education and counseling are generally conducted as a part of a broader initiative to extend homeownership opportunities. As a consequence, counseling programs are geared

mostly toward first-time homebuyers and specifically toward low-income groups, minorities, immigrants, city dwellers, and others who have yet to attain homeownership at the national average rate (Hirad & Zorn, 2001). Pre-purchase education and counseling are designed to better prepare families for the responsibilities of homeownership by mapping out the home buying process, understanding housing affordability (Jewkes & Delgadillo, 2010), encouraging financial planning and money management, and explaining home maintenance and repair issues and concerns (Hirad & Zorn, 2001).

The other primary type of housing counseling is post-purchase counseling. Post-purchase counseling focuses mainly on delinquency counseling to prevent mortgage default. Delinquency counseling attempts to bring borrowers current on their mortgage or to terminate tenure when necessary through less costly or traumatic means than foreclosure (Delgadillo & Green Pimentel, 2007, Wiranowski, 2003).

According to Wiranowski (2003), delinquency counseling has several components including (a) identifying the cause and extent of delinquency, (b) assessing the motivation and resources of the borrower to reinstate, (c) teaching budgeting skills and reviewing the borrower's financial position, (d) negotiating with creditors to arrange repayment plans or modifications, (e) providing referrals for underlying needs, and (f) exploring subsidy programs and foreclosure alternatives. Post-purchase counseling helps borrowers with loss mitigation, which is a service where a third party helps a homeowner handle the process of negotiating mortgage terms with a lender with the aim of preventing foreclosure.

After the 2007–2009 US recession and housing crisis, several initiatives took place to mitigate the waves of foreclosures. Among these initiatives were the FHA secure program, which helped borrowers hurt by the subprime mortgage financial crisis (HUD, 2007); the FHA Forward Program, which was part of the President George W. Bush stimulus package (HUD, 2008); and the 2010 Home Affordable Modification Program, a government-sponsored plan, designed to help Americans on the verge of foreclosure reduce their monthly mortgage payments to more affordable levels (HUD, 2010). Another significant piece of legislation was the 2010 Dodd-Frank Act.

The Impact of the Dodd-Frank Act on Housing and Credit Counseling

In order to meet new requirements pursuant to the Dodd-Frank Act, a new Office of Housing Counseling (OHC) at the US Department of HUD was formed in 2013. The OHC expects to set the standards and implement the requirements to certify and test all housing counselors in 2015 (HUD, n.d.). OHC estimates that the current 2650 HUD-approved housing counseling agencies, employing an estimated 8000 newly certified housing counselors, will assist a total of 2 million renters and owners to obtain, maintain, or preserve their homes. Provisions of the Dodd-Frank Act include new policy initiatives such as HAWK (Homeowners Armed with Knowledge), and the increase in mortgage insurance premiums to correct market deficiencies and to strengthen the FHA Mutual Mortgage Insurance Fund (MMIF; Golding, Szymanoski, & Lee, 2014; HUD, n.d.).

The Dodd-Frank Act amended the Housing Counseling Statute by removing HUD's discretion to certify counseling agencies or individual counselors. The Housing Counseling Statute now requires that all individuals that provide counseling for HUD Programs must be HUD-certified by way of passing a new standardized exam. The Dodd-Frank Act mandates that housing counselors demonstrate competency to provide counseling in each of the following areas: Financial management; Property maintenance; Responsibilities of home ownership and tenancy; Fair housing laws and requirements; Housing affordability; Avoidance of, and responses to, rental and mortgage delinquency; and Avoidance of eviction and mortgage default (HUD, 2014; Office of Federal Register, 2013).

In addition to new standards and competencies for housing counselors, lenders now will play an active role in assessing borrowers' risk. Among the new proposed rules are the General Ability to

Pay Rules (ATP), the Qualified Mortgage Standards (QM), amendments to High-Cost Mortgages, the Truth in Lending Act (Regulation Z or TILA), and the Real Estate Settlement Procedures Act (Regulation X or RESPA).

Under new federal mortgage rules, before a lender originates a mortgage loan, the lender must look at the borrower's financial information and make a determination that the borrower can repay the loan, also known as Ability to Pay (ATP) rule. The lender must *collect* and *verify* information on current income or assets (except the value of the mortgaged property itself); they must calculate the debt-to-income ratio and verify the amount of money left over each month to pay for other non-housing costs (CFPB, 2014).

The ATP rule cannot be determined using teaser rates, which is the introductory low-interest rate in Adjustable Rate Mortgages (ARMs). ARMs required that this rule apply to all mortgage loans, but it excludes certain type of loans that use the home as collateral, including home equity lines of credit, timeshare plans, or reverse mortgages.

Under the 2010 Dodd-Frank definition, a qualified mortgage must meet certain requirements. For example, a qualified-mortgage limits how much of the borrower's income can go toward debt (e.g., no more than 43 % of borrower pre-tax income). A qualified mortgage cannot have the following loan features:

- An interest only period, when the borrower pays only the interest without paying down the principal;
- Negative amortization, when the loan principal increases over time, even though the borrower is making mortgage payments;
- Balloon payments, which are larger than usual payments at the end of the loan term (some exceptions apply among small lenders);
- Loan terms that are longer than 30 years; or
- Mortgages with high upfront points and fees (CFPB, 2014).

In 2014, the Consumer Financial Protection Bureau (CFPB) also issued a final rule to implement the Dodd-Frank Act's amendments to the Truth in Lending Act and the Real Estate Settlement Procedures Act. The final rule amends Regulation Z (Truth in Lending) by expanding the types of mortgage loans that are subject to the protections of the Home Ownership and Equity Protections Act of 1994 (HOEPA). It also revises and expands the tests for coverage under HOEPA, and imposes additional restrictions on mortgages that are covered by HOEPA, including a pre-loan counseling requirement (CFPB, 2014).

The housing counselor providing pre-loan counseling must be federally certified or HUD-approved. The homeownership counselor cannot be affiliated or employed by the organization originating the loan. A mortgagee cannot steer the consumer to a particular counseling agency. The pre-loan housing counselor must confirm that the consumer received all of the high-cost mortgage disclosures before the counselor can issue a certification of counseling. In addition, the rule does not require in-person counseling. Counseling may be provided via telephone, as long as it is provided by an HUD-approved counselor. Self-study programs may not be used to satisfy the pre-loan counseling requirement (CFPB, 2013).

The final rule—also amends the Real Estate Settlement Procedures Act (RESPA)—is known as Regulation X. The rule imposes certain other requirements related to homeownership counseling, including the requirement that consumers receive a list of homeownership counseling providers (CFPB, 2014). As opposed to the pre-loan counseling requirement for high-cost mortgages and negative amortization loans, the final RESPA rule requires mortgagees to provide consumers with a list of counseling resources, but it is up to the consumer to decide if they want to get counseling.

Some exceptions of the Dodd-Frank Act have been granted to state Housing Finance Agencies (HFAs). HFAs are state-chartered authorities established to help meet the affordable housing needs of the residents of their states. The CFPB has exempted all state HFAs from a significant portion of the Mortgage Rules and Servicing Rules. Specifically, loans made by an HFA's lending partners "pursuant to HFA programs" are exempt from the Ability-to-Repay requirement

and the Qualified Mortgage definition, safe harbor, and rebuttable presumption provisions. On the servicing side, HFAs are exempt from certain early intervention, continuity of contact, and loss-mitigation procedures. There continue to be aspects of both the Mortgage Rule and the Servicing Rule to which nationwide HFAs must comply.

Additional counseling provisions in the Dodd-Frank Act that impact housing counseling are

- Section 1013 Establishment of the Office of Financial Education within the CFPB.
- Section 1204 Availability of financial counseling in how to conduct transactions and manage accounts.
- Section 1414 Requirement of financial counseling for first-time home buyers obtaining loans with high-cost mortgages.
- Section 1418 Disclosure of counseling availability for hybrid ARMs 6-months prior to rate reset.
- Section 1420 Disclosure of counseling availability in monthly periodic statements for residential mortgages.
- Section 1442 Establishment of the OHC within HUD. This section requires that homeownership counseling addresses the entire process of homeownership, including the decision to purchase a home, the selection and purchase of a home, issues arising during or affecting the period of ownership of a home (including refinancing, default, foreclosure, and other financial decisions), and the sale or other disposition of a home.
- Section 1445 of the Dodd-Frank Act requires that organizations providing counseling, or individuals providing counseling through such organizations, as authorized by section 106 to provide housing counseling in connection with any HUD program, be certified by HUD as competent to provide such counseling.
- Section 1450 Disclosure of list of homeownership counseling providers with early RESPA disclosures for all RESPA-covered loans.
- Section 1451 Disclosure of Home Inspection Counseling. This section requires housing counseling agencies to provide materials on home inspection, as part of home purchase counseling (Office of Federal Register, 2013).

Many of the changes in the housing counseling industry are implemented on the premise that housing counseling works. Although limited in number and scope, research has shown that homeownership counseling has a strong impact on all borrowing decisions because it makes borrowers more fully aware of the choices available (Martin, 2007).

Attempts to measure housing counseling and education have been difficult (McCarthy & Quercia, 2000; Quercia & Wachter, 1996; Wiranowski, 2003). However, few empirical studies have been conducted to determine to what extent housing counseling and education (both pre- and post-purchase efforts) reduce the risk of default (Mallach, 2001; Mayer & Temkin, 2013; Quercia & Wachter, 1996). The differences between programs contribute to the difficulty of measuring housing counseling. Some of those differences include the preferred results of individual agencies (e.g., increases in homeownership or reducing default risk), differences in counselor characteristics, content, quality, duration and depth, the availability of financial assistance, and even variation in marketing (Hirad & Zorn, 2001; Quercia & Wachter, 1996).

One seminal piece on the effectiveness of housing counseling is a study by Hirad and Zorn (2001). Although different counseling programs vary in their effectiveness; borrowers receiving counseling through individual programs experience a 34 % reduction in delinquency rates, all things equal, while borrowers receiving classroom and home study counseling obtain 26 % and 21 % reductions, respectively. Face-to-face counseling was the most effective delivery method according to Hirad and Zorn (2001).

More recently, the finding from a HUD study on pre-purchase counseling outcomes published in 2012 reveals significant results. Of the 574 individuals who became homeowners during the study and received pre-purchase counseling services, only one of the purchasers had fallen at least 30 days behind on his or her mortgage, and none had a major derogatory event on the mortgage account at 12–18 months (Turnham & Jefferson, 2012).

A 2013 Freddie Mac study found strong evidence that participating in pre-purchase

homeownership counseling reduces delinquency rates of first-time home buyers by 29 %. Using data of nearly 38,000 fixed-rate mortgages originated under Freddie Mac's affordable lending programs between the years 2000–2009, Avila, Nguyen, and Zorn (2013) found that the estimated dollar value benefit of counseling's reduction in delinquency rates to be about $1000. The different delivery mechanisms including classroom, home study, and telephone counseling were all effective (Avila et al., 2013). Lastly, the time of the counseling intervention is of the essence. Collins and Schmeiser (2010) found that borrowers who received counseling in the early stages of default were far more likely to receive a loan modification and/or keep their homes than those who received counseling when they were seriously delinquent.

Financial Counseling for Financial Health

Financial counselors play an important role in the delivery and facilitation of learning tools to low-income populations. Moreover, financial counselors know when to collaborate with and refer clients to other personal financial professionals or to other resources in the community. They can assist clients in obtaining financial health—a term used to describe the state of one's holistic and integral personal financial well-being (Delgadillo, 2014b). Klontz, Kahler, and Klontz (2008) recognized that personal finances include an amalgamation of both the numerical aspects of money (external finances) and the intra-emotional and inter-relational ones (internal finances). In conjunction, both the numerical and the emotional/relational components provide a platform that supports individual financial health.

Financial health, as opposed to just financial education or counseling, also recognizes that people are at different levels of change. Some people are in the pre-contemplation stage; others are in contemplation; others are in preparation, and others are in action or maintenance stage (Prochaska, 1995; Xiao et al., 2004). Financial counselors can forge the road to new leadership of research and evidence-based principles and practices that will embrace the complexities of today's financial realities. They can do so by (a) understanding the multi-faceted aspects of money; (b) promoting a holistic (integrative) model of behavior change; and (c) developing a strengths-based approach particularly in the realm of finances.

Although there is autonomy among independent financial practices—e.g., financial education, counseling, coaching, planning, therapy—there is also an interdependency. In this chapter, it is suggested that they are all along a financial health spectrum. Financial counseling would be located at approximately the mid-point of the continuum while financial education and literacy would be at the far left, and planning and therapy at far right.

New changes in housing counseling have brought forward a paradigm shift. There is now a clearer linkage and shared responsibility among individuals moving toward economic self-sufficiency and the social and market institutions providing fairness and equity. Housing counseling and, indirectly, financial counseling are now within a larger social agenda. The new paradigm connects financial housing and counseling to meaningful opportunities for borrowers by ensuring a fair access to information and to the financial system. However, to be effective, housing and credit counseling should be considered a complement to consumer protection laws, not a replacement. With such new opportunities, also come new questions that will need to be answered through research. One area of research that needs to be developed is the effectiveness of existing financial and housing counseling programs, definitions of housing counseling standards, clarity of protocols, and the role of HUD's OHC and CFPB in the provision of housing counseling. In addition to that, there is a need to build stronger reporting and feedback capabilities to enhance accountability and performance and to help confirm housing counseling's impact and value for American families.

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Financial Coaching: Defining an Emerging Field

8

J. Michael Collins and Peggy Olive

Financial coaching is an application of techniques emerging from research in positive psychology—a relatively new branch of the psychology field focused on improving life experience. Coaching techniques have been used in areas such as athletics, health, personnel management, and other settings for decades, and are often embedded into mentoring, counseling, motivational interviewing, or other approaches (Collins & O'Rourke, 2012). More recently, coaching is developing a unique identity related to personal finance, especially in the USA.

The focus of any coaching approach is on performance gains driven by the goals of the client (or "coachee," although we will use the term client in this chapter for simplicity). In addition to this goal-focus also found in counseling and planning, coaching further seeks to assist clients in purposefully increasing self-awareness and self-regulation while attaining their goal (Grant, 2012). The long-run goal of coaching is to help people develop skills and behaviors they can improve on independently and, ultimately, lead to financial well-being.

Financial coaching might be simply defined as an application of coaching techniques to the financial arena (Collins & O'Rourke, 2012). The goal is to build the capability of clients to manage their own finances in accordance with their self-defined goals. The coach helps the client to set goals, form specific intentions to implement tasks toward those goals, and then supports the client in self-monitoring learning and performance (Knutsen & Cameron, 2012). In practice, however, a broad range of programs use the description of financial coaching, including programs that are more prescriptive and less client-centered than would be expected in a coaching approach. This is in part due to the technical nature of some personal finance issues, which might require the coach to also be an expert who can instruct and counsel clients on decisions. This balance—between allowing the coaching relationship to evolve organically and more overtly directing the actions of the client—is at the crux of the still-evolving format of financial coaching.

Coaching Mechanisms

Since its foundation in 1995, the International Coach Federation (ICF) has grown to over 20,000 members in more than 100 countries

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(Theeboom, Beersma, & van Vianen, 2014). Most ICF coaches work with clients on workplace and life issues, but some specialize in a particular area, such as health or executive management. Coaches employ specific communication skills, such as active listening, along with empathy, shared accountability to the coach/client alliance, reframing problems as goals, establishing benchmarks for measurement, and staying focused on solutions rather than past failures (Grant & Hartley, 2013). Coaches provide support to enhance skills, resources, and creativity that the client already possesses for attaining life goals.

The application of coaching to finances dates only to the mid-2000s (Collins & Baker, 2007). The shift toward coaching approaches is apparent in the nonprofit and public sectors (Collins & O'Rourke, 2012), as well as in the private sector (Dubofsky & Sussman, 2009). Dubofsky and Sussman's (2009) article is one of the few to examine professional financial planners related to coaching, suggesting that the role of financial professionals with the Certified Financial Planner (CFP) credential is changing from being focused on financial products to broader life issues. Based on a 2006 survey of financial planners in the USA, the authors estimate that CFP professionals may spend as much as 25 % of their time on coaching-like activities even though they lack formal preparation for that role. The changing role of the planner is evident in other countries as well. Knutsen and Cameron (2012) reviewed the role of coaching in financial planning in Australia. The use of commission-driven sales by financial planners has resulted in clients feeling pushed into decisions and resulted in growing distrust of financial professionals. The authors suggest that the combination of stricter regulatory oversight and the need to build stronger relationships with clients motivates the movement to coaching models. Delivering regulation compliant advice, however, is not true to most coaching models. In the for-profit sector, the term "coaching" seems to be more about including non-financial considerations, such as a career change or relocation, in making recommendations about financial products.

Collins and O'Rourke (2012) focused on coaching in the nonprofit sector. Here the shift in services is from a counseling and crisis intervention model to a more collaborative ongoing coaching model. Often, financial coaching is an approach that is integrated into other programs. When programs have a pre-determined goal, however, coaching may not be the best model, even though a program may use coaching communication techniques. Traditional life coaches would argue that coaching is not appropriate for client's experiencing a current mental health crisis and is not a substitute for a therapeutic intervention. Coaches have to assess the readiness of clients for taking part in a coaching relationship, which may include direct conversations about mental health and other services an individual client might be receiving. In personal finance, for example, it would not be appropriate for compulsive gamblers to be involved with a coach without also addressing their mental health issues. In this way, financial coaching is distinct from financial therapy (Klontz, Britt, Archuleta, & Klontz, 2012). Financial coaching needs to be well defined and accurately target clients who are ready and able to take on their own financial management.

The coaching approach as applied to personal finance is not well documented or evaluated, but the underpinnings of the approach are supported by more general studies in psychology and human behavior. Coaches can help clients overcome their own behavioral failings, especially self-control problems, self-limiting beliefs, procrastination, and focusing attention (Cohn & Fredrickson, 2010). With skills acquired through the coaching process, clients may gain techniques necessary to achieve long-term financial well-being.

Models of General Coaching

There are an array of theories and approaches used in coaching. This section provides an overview of three widely used models with a focus on lessons for financial coaching.

GROW (Goals, Reality, Options, Will)

Influenced by psychologists Maslow and Rogers and the field of brief therapy, solution-focused coaching models generally share a philosophy that clients have the capacity to build skills to solve their own problems through self-directed learning (Stober, 2006; Whitmore, 1999). One prominent solution-focused model, GROW, represents: Goals—both long- and short-term; Reality—exploration of current state; Options—courses of action; and Will—what actions will take place and when (Van Nieuwerburgh, 2014; Wilson, 2011). The model focuses on highly specific performance goals that are realistic yet challenging, positive, and within the client's control. The high degree of goal specificity, as defined in SMART (Specific, Measureable, Attainable, Realistic, Time-bound) goals, has come under some criticism in light of findings suggesting that, in some situations, overly specific and highly challenging goals may lead to a narrowed focus, increased risk-taking, and decline in performance (Clutterbuck, 2008; David, Clutterbuck, & Megginson, 2014). Whitmore (1999) emphasized that motivation and action emerge from the client's increased self-awareness and self-responsibility, as opposed to external accountability. Whitmore also cautioned against viewing the coach as a subject matter expert, suggesting that the more frequently a coach lends expert input, the more the responsibility of the client is lessened. Applying the GROW model to financial coaching raises issues as to the level of financial competency required by a coach, and the degree to which the financial coach steps in with expert recommendations.

Goal-Focused Coaching

A second prominent solution-focused model, Goal-Focused Coaching, draws from the extant research on goal-setting, self-determination, and self-regulation in pursuit of an optimal level of self-awareness leading to the client's desired outcome. The coach facilitates a self-regulatory process in which the client sets a goal, develops an action plan, monitors results, and then evaluates and adjusts future actions (Grant, 2012). In Goal-Focused Coaching, there is a clear distinction between different types of goals, with caution that the timing and interplay of various goals may have a great impact on the client's ultimate goal-attainment. In Goal-Focused Coaching, the expertise of the coach lies in the ability to modify the goal-setting process in accordance with the client's need for either vague or explicit goals, and to determine when and how to best pursue which type of goal, for example, distal, performance, or learning goals. Goal-Focused Coaching acknowledges that the relationship between client and coach is important, but not therapeutic. The impact in successful goal-attainment results from coaches being highly skilled in goal formation, beyond the level of SMART goals frequently referenced in financial education.

Cognitive Coaching

With roots in cognitive-behavioral and rational-emotive therapy, a Cognitive Coaching approach addresses distortions in thoughts, beliefs, and attitudes that affect optimal performance. While goal-oriented, the emphasis is on changing thought patterns in order to change behavior (Wildflower, 2011). Understanding that clients have complex mental models affecting current behavior, cognitive-based coaches identify and challenge performance-limiting beliefs (Auerbach, 2006). Coaching strategies include raising awareness surrounding the client's use of language, particularly words such as "should" or "always," and separating facts from opinions. Borrowing from Senge's organizational learning disabilities, Auerbach (2006) provided several examples in which beliefs may affect performance, for instance, "the delusion of learning from experience" in which feedback from current efforts may not be realized for years or decades (p. 112). A financial coaching practitioner might well apply this concept to difficulties associated with long-term financial behaviors, such as saving

for retirement. The challenge still remains in expanding the client's vision of the situation, tapping into current motivators, and breaking down long-term goals into manageable tasks.

A Model of Financial Coaching: A|4

Drawn from these three models, the financial coaching model in use by researchers at the University of Wisconsin-Madison has four essential elements (the "4As"): Alliance, Agenda, Awareness, and Action. We propose this model not to presuppose the efficacy of other coaching approaches, but rather to illustrate a standardized approach to financial coaching.

Alliance

A collaborative relationship based on mutually agreed-upon parameters establishes the foundation for coaching. As outlined in a coaching agreement during the initial meeting, alliance formation includes a discussion of expectations, accountability, and coaching parameters. Alliance-building continues to be an ongoing process that occurs both during subsequent coaching sessions and through check-ins between sessions as the coach develops an understanding of the client's personal resources. The coach presents as an expert in the process, while the client is the authority on their aspirations. Fredrickson and Cohn (2009) showed that positive emotions can increase a sense of trust and contribute to bonding, interdependence, and relationship-building. A|4 coaching celebrates accomplishments and insights in applying Fredrickson's "broaden-and-build" theory to assist clients in developing internal resources, recovering from negative experiences, and creatively solving problems. Based on work by Hall, Zhao, and Shafir (2014) that suggested self-affirmation is important for openness to information and decreasing defensiveness for individuals in poverty, the A|4 approach encourages a supportive relationship between client and coach in order to pursue goal-attainment.

Agenda

The A|4 approach recognizes that clients cannot focus on all available information. Attention is a scarce resource; the brain can only process subsets of information in the short-term (DellaVigna, 2009). Building on work by Tam and Dholakia (2014), the A|4 model emphasizes cyclical behaviors with a focus on the present. In the Agenda phase, clients' longer-term goals are broken down into salient immediate steps. To optimize attention at the beginning of each session, the coach elicits and clarifies one specific component of the client's larger goal without becoming overly prescriptive. David et al. (2014) found that setting goals focuses attention and enhances performance, as long as those goals are challenging yet achievable. An over-focus on immediate performance, however, can lead to coaches being directive and to client's experiencing increased risk-taking, narrowed focus, externalized motivation, inhibited learning, and higher levels of stress. Grant and Cavanagh (2007) suggested that this is an important balance to achieve, and may depend on both the coach's ability to direct the goal-setting process and the coach's level of emotional intelligence, particularly when helping the client align goals with personal values.

Awareness

Based on the client's self-determined agenda for the coaching session, the coach then facilitates a discussion to raise the client's self-awareness surrounding the desired outcome and personal expectations, values, barriers, and supports related to pursuit of that outcome. Highlighting a significant difference between financial counseling and coaching, the coach resists forming immediate solutions and action steps in order to first increase the client's self-awareness through use of various communication skills, such as powerful questions, active listening, and validating. By exploring both satisfaction and ambivalence, this step contributes to the client's confidence and motivation to engage in change. This is based on Gifford's (2002) biology-based

model of choice that emphasized turning attention inward and inhibiting behaviors as more important than knowledge in enabling self-control. In addition, Fredrickson and Cohn (2009) hypothesized that, while positive emotions can lead to increased functioning, negative emotions help prepare an individual to take action.

When increasing awareness, the coach may reference the client's ideal self as a technique to increase positivity and resilience, as well as the future self as a commitment device to increase future orientation (Hershfield et al., 2011). Positive psychology suggests additional useful interventions that range from self-reflection to other-directed behaviors, yet all point toward lasting increases in positive emotions and personal resources that support long-term behavioral change (Cohn & Fredrickson, 2010). As applied to the A|4 approach, a range of awareness-raising mechanisms widens the acceptability of multiple options for action based on the client's preferences, biases, and motivations.

Action

While goals provide direction and self-awareness increases motivation, actions provide the benchmark for progress; thus, a coach in this step facilitates the transition from planning and reflection into observable actions. In a meta-analysis of goal intentions and achievement, Gollitzer and Sheeran (2006) found that only half of individuals were able to transform their goal intentions into actions. The authors maintained that traditional SMART goals lack context for behavior change. The A|4 approach to determining action steps encourages exploration of how clients may best pursue their goals, including if/then planning to anticipate both opportunities and potential roadblocks, especially for clients who have difficulty regulating their behavior. Since habit formation involves planning for and perceiving environmental cues as automatic triggers for behavioral response, a coach in this step may encourage use of external prompts or structures to support action. Coaches support clients in determining their own actions to forward goal-attainment. In the A|4 approach, action steps are typically generated by the client following insight gained during the awareness phase, though the coach may suggest additional activities, tools, and financial resources for the client to explore.

The actual homework and action steps in between coaching sessions may be less important than the client's overall process of exerting effort and self-monitoring results. Oaten and Cheng (2007) found that individuals engaging in a financial monitoring program over 4 months demonstrated significant improvements in regulating their behavior, suggesting that self-control is a muscle which can be strengthened through repeated practice. Building on these findings, Sultan, Joireman, and Sprott (2011) further demonstrated that self-control strengthened through either cognitive or physical exercises may contribute to a reduction in impulse purchases and increased control over purchasing behaviors. Like any muscle, however, overuse can result in temporarily diminished capacity, i.e., ego-depletion, for self-control and optimal performance. Due to the ongoing nature of financial coaching, the coach using A|4 provides feedback, encouragement, and validation over a sustained period as the client increases their capacity for self-control and self-regulation.

A Logic Model for Evaluating Coaching

Because financial coaching is client-centered and goal-directed, and not prescriptive, it is challenging to identify a unified outcome for all financial coaching clients. Coaching techniques, however, share common processes that engage clients in goal formation, implementation intentions, and developing patterns of behavior that are sustainable over time. Figure 8.1 displays a logic model that could be used to evaluate the outcomes of otherwise disparate financial coaching programs. The goal in this model is financial well-being, as defined in a report by the Consumer Financial Protection Bureau (CFPB, 2015). In this model, financial coaching would result in people feeling in control over day-to-day finances, recognizing

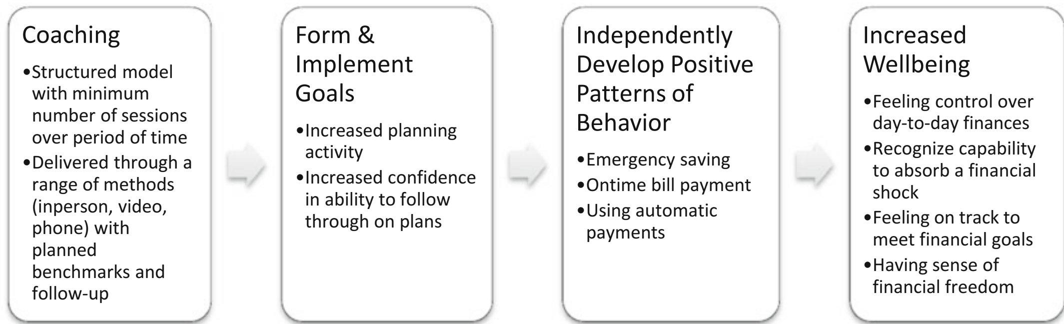

Fig. 8.1 Financial coaching logic model

their own capability to absorb a financial shock, feeling on track to meet financial goals, and having a sense of financial freedom. People engaged in coaching will achieve these well-being outcomes by taking part in a well-designed program which facilitates financial planning activity, including spending or saving plans, reviewing financial documentation or credit reports, and developing action steps to better manage financial products and accounts. With practice, clients will develop greater persistence, exert stronger self-control, and reduce procrastination, even in the face of challenges. Clients will focus attention on financial behaviors and engage in regular habits, like saving for an emergency or using automated transfers. This will ultimately increase clients' sense of control, ability to absorb a financial shock, improve financial decision-making capacity, and engender a greater sense of autonomy.

Potential for Impact

There have been a number of helpful reviews of coaching across fields in recent years. All come to a similar conclusion: the evidence of the impacts of coaching is still in the earliest stages. Grant's (2009) review focused on papers in executive and life coaching. Across more than 400 studies, there were only 12 between-subject studies and just eight of these were randomized experiments. The studies, however, showed positive impacts on goal formation and attainment, self-efficacy, and stress levels, even with smaller sample sized experiments. Theeboom et al. (2014) performed a meta-analysis across 18 workplace-based coaching studies. The authors aggregated sample size adjusted effects sizes in sigma units (effects as a ratio of standard deviation) of 0.43 for coping and resilience, 0.46 for subjective well-being, 0.54 for attitudes, 0.6 for performance, and 0.74 for goal-directed self-regulation. All are relatively large effects sizes. The authors also showed that greater numbers of sessions had little added impact, and in fact, were associated with worse outcomes for attitude and skills. This is likely because clients with the most problematic issues require more coaching sessions while more capable clients become autonomous more rapidly.

Perhaps the most informative literature for financial coaching is that of health coaching. Medical professionals tend to be experts who inform or even make choices on behalf of patients. Like health care, financial topics can be complicated and technical in nature, and at certain points, experts are required. The coaching approach in both fields tends to be tempered with advice and counseling (Huffman, 2010). Wolever et al. (2011) described a series of basic principles of health coaching, such as the patient decides the goals of treatment based on their own values and information is provided as appropriate for patients to make choices, among other guidelines. These principles are equally consistent with what underlies a financial coaching approach.

One form of health coaching is wellness coaching, a personal responsibility-based approach for clients who do not have clinically significant mental health issues (Pettitt, 2013). Other forms of health coaching include more directive techniques. Wolever et al. (2011) offered an excellent critical reflection on the development of health coaching models, considering the coach-expert role and propose that health coaches retain a clinical perspective so that patients who face serious problems can receive immediate attention. This approach puts coaches in the position of experts and coaches at the same time. This may present a direct analogy for financial coaching.

Hayes and Kalmakis (2007) cautioned that coaching research is in its early stages and poorly defined, with too few studies on long-term effects. There are a growing number of experiments carefully designed to test health coaching, however, that could serve to inform the financial coaching field. For example, Basak Cinar and Schou (2014) showed that a highly structured telephone-based coaching program had a larger impact on patients' management of oral health and glycemic issues than did health education alone. The impacts were largest among high-risk populations and also resulted in lowered stress levels and increased self-efficacy. Wong-Rieger and Rieger (2013) confirmed that health coaching helps patients self-manage their care and adhere to recommendations of medical professionals. Licht, Davis, Scripps, and Cone (2007) evaluated a telephone-based health coaching, finding that patients with chronic conditions (e.g., diabetes or asthma) engaged in higher levels of healthcare self-management. Jefferson et al. (2011) also found positive effects of coaching. Other studies are more mixed. A study by Blackberry et al. (2013) showed no effects on health for telephone-based coaching, in part due to the challenges associated with getting people to cooperate with the coaching program, while Leveille et al. (2009) failed to find effects of an internet-based health coaching program. Much like financial coaching, other coaching fields are still evolving and experimenting with a range of models and approaches.

Implications for Research

It is clear more research of financial coaching is needed. Studies of financial coaching need to be carefully designed to experimentally test the mechanisms behind coaching approaches. Before such a study can be conducted, however, the coaching model needs to be well defined. Finding a financial coaching program with a consistent, reliable model implemented with fidelity will prove to be the most challenging aspect of evaluating financial coaching, as demonstrated, for example, in one health coaching study in which Ervin, Jeffery, and Koschel (2012) found that only half of assigned coaches actually used the approach, and another in which Grossmeier (2013) found very low take-up rates by clients. Furthermore, a comparison group must be identified, which typically means random assignment among clients showing an interest in financial coaching. Tracking a large enough sample over time to show effects across a broad range of noisily measured outcomes adds to the barriers.

Another challenge is related to deciding what outcomes to measure. Unlike counseling, there may not be a pre-determined or ideal behavior or outcome. Fernandes, Lynch, and Netemeyer (2014) have completed an extensive review of measures of financial capability. Key measures for coaching, however, are related to goals, confidence, and having emergency savings, as well as basic financial planning—more so than financial literacy or knowledge. Collins and O'Rourke (2013) suggested a short battery of six questions to serve as a longitudinal measure of financial planning, confidence in goals, emergency funds, savings, spending, and on-time payments. Other coaching outcomes may include self-reported self-efficacy, resilience, and autonomy, as well as stress, anxiety, and subjective well-being.

Other issues for future research are related to heterogeneous effects of coaching based on qualities of the coach and client. Studies in counseling and psychotherapy suggest that success is more related to client characteristics and the therapeutic relationship than any specific technique, methodology, or approach (Del Re, Flückiger, Horvath, Symonds, & Wampold, 2012; McKenna

& Davis, 2009). Likewise, the coach's level of emotional intelligence might also be predictive of strong client outcomes (Stober, 2006). Overall, these factors suggest a number of challenges to expanding research on coaching.

Conclusion

Financial coaches have the potential to facilitate clients' capacity to develop and implement their own solutions to present and future financial concerns. The application of coaching techniques to financial capability services has increased among public and nonprofit sector programs in the last few years, including a funding program from the federal Consumer Financial Protection Bureau. In part, practitioners have turned to coaching strategies in response to disappointing results in facilitating behavior change through financial education or financial access programs, but the promise of coaching needs to be affirmed through more robust studies. Financial coaching is developing as a model, but it is still not well-defined, though lessons from health coaching and related fields are instructive for studies of financial coaching. Using the models described in this chapter, future studies can hopefully offer insights to guide further standardization, implementation, and evaluation of financial coaching.

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9 Conducting Research in Financial Planning

Chris Browning and Michael S. Finke

The goal of a scientist in the field of financial planning is to gain a better understanding of how individuals use their scarce resources to get the most out of life. This involves investigating how individuals currently use existing resources, predicting how they will respond to a change in circumstances, and using theory to guide recommendations. The good news for financial planning scholars is that household finance research is wide open for exploration. Many questions still need to be answered about what people actually do with their money, and practitioners are constantly searching for the best strategies to recommend to their clients.

A wide open field for exploration is exciting. But the lack of well-worn research paths can make the selection of appropriate empirical methods (and even a topic) a challenge for a new researcher. This chapter provides a very broad introduction into financial planning research for new scholars.

There are two fundamental types of financial planning research. As noted by Campbell (2006) and Hanna, Fan, and Chang (1995), the first type answers what people should do with their money. This is known as normative research. Practitioners are often most interested in normative research because they want to know which planning strategies are the best to recommend to clients.

The second type answers what people actually do with their money. This is known as positive research. Positive research is the most common type of research in academic journals. Positive financial planning research is a social science because the researcher is observing how human beings make decisions.

This also makes positive research fun because humans do a lot of interesting things that do not align with the predictions made in normative research. The fact that humans make predictable mistakes is also of interest to practitioners who want to know how their client will likely behave when given advice.

Normative Research

All professions are built on a foundation of knowledge that defines best practices. Financial planning draws from theories developed primarily from the fields of economics and finance, such as utility theory, life cycle theory, and modern portfolio theory (MPT), to develop a set of consistent recommendations that are in the best interest of a client. The purpose of normative research is to apply existing theories to answer a research question.

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Bengen (1994) wrote a highly useful and popular article that explored how much a retiree could safely withdraw from a retirement account during each year of retirement. This article created the popular 4 % rule practiced by many financial planners. The article is an example of a type of normative research that appears in the financial planning literature.

All normative research starts with an objective function. In Bengen's article, he was concerned with estimating the maximum amount a retiree could have withdrawn from a retirement account each year without running out of money over a 30-year time period. The objective in this case was to not run out of money. The objective of spending the same amount after inflation each year in retirement is related to life cycle theory in economics.

Economic theory uses a utility function that captures the relationship between money and satisfaction. The traditional risk-averse (concave) utility function makes a lot of sense. When considering a two-year period, it says that individuals get more happiness from spending $60,000 per year than from spending $20,000 in one year and $100,000 in the next. It is the foundation for the concept of risk tolerance which explains when taking risks makes sense and how much risk individuals should optimally take and why people both invest and buy insurance. It is even possible to account for behavioral preferences by adjusting the utility function. To get a normative article published in an academic journal, the researcher will probably have to estimate a model that maximizes utility as the objective function. Practitioner journals are more receptive to objective functions that are more intuitive to a financial planner.

A new scholar who is not used to working with utility functions might be intimidated by the process, but it is really not that hard. A student can even use a spreadsheet to create highly complex utility maximization models that estimate how much a household should spend each year in retirement or how much a worker should save.

After stating an objective function, assumptions need to be specified to model a normative analysis. Among others, these assumptions often include the household's utility function, the length of life, returns on financial assets, financial product characteristics, tax rates, and asset management fees. It is important to understand that the optimal financial strategy estimated during the analysis will be very sensitive to the assumptions included in the model.

If a study assumes historical stock returns in its analysis, what happens if stock returns in the future are lower? Will the recommendations fall apart? This is one of the reasons financial researchers are careful to consider the robustness of their recommendations. A thorough normative analysis will consider a range of realistic assumptions and then test how changing these assumptions will affect the outcome.

Always use the assumptions that are most appropriate for the research question being addressed. For example, many financial planners work with clients who are in the top tax bracket and are investing a large portion of their portfolio in taxable accounts. Most individuals, however, haven't exhausted their tax-sheltered savings opportunities and will have the majority of their investment assets in a 401(k) or an IRA. Wealthier people will be generally more risk tolerant, while average workers are more risk averse. Most mutual funds in retirement accounts have significant expenses and the account itself may have fees. Use the assumptions that are most likely to result in a useful recommendation for the audience.

It is important to remember that a lot of normative work has already been done by economists. Writing a normative paper that adds to the existing literature means spending time searching through the prior literature for articles that try to answer a similar research question. There are dozens of articles that estimate optimal household portfolios, tax efficient investments, retirement savings and spending strategies, annuitization, planning strategies for a client with behavioral preferences, the implications of joint decision making in a marriage, optimal estate planning, etc. These articles need to be read and understood to do good financial planning research. Much of the existing normative research in economics and finance is highly theoretical. It is imperative to understand this theory to do good normative research. A good way to do that is to spend time carefully reading the

theoretical sections of normative papers and then replicating the analysis. Once understood, there are many opportunities to extend existing analyses to evaluate best practices under specific client conditions when publishing articles in journals that cater to practitioners. For example, an award winning article in the *Journal of Financial Planning* (Blanchett, 2014) employs the same data and similar methodology to Hurst (2008) in order to answer practical questions about whether practitioners can anticipate changes in spending as retirees age.

Positive Research

The most common type of financial planning research uses household data to explore research questions about how people behave. The purpose of positive research is to test theories used to make financial planning recommendations. In this manner, positive empirical research lends support to theories used to derive the normative recommendations to practitioners.

The purpose of science is to propose theories about how the world works and then to test these theories through systematic observation. An academic doing financial planning research is either using theories to build recommendations or using observed data to test the applicability of these theories to human behavior.

There are a number of theories that can be used to explain and predict household financial behaviors. One of the most important is utility theory. The main assumption of utility theory is that people make financial decisions that will maximize their satisfaction. Over a lifetime, this means that people will make decisions which maximize their discounted expected utility from consumption within each future time period that they are alive. Since planning by definition means considering the future, the life cycle hypothesis (Ando & Modigliani, 1963), which applies utility theory to intertemporal decision making, should be considered the foundation of positive research. Life cycle theory predicts that individuals will base saving and spending decisions on their impact on consumption over time, and a concave utility function will motivate people to prefer consumption that is about the same each year.

Almost every research question in financial planning relates to the life cycle theory. People save for retirement because they don't want their spending to drop sharply after they stop working. People buy annuities because they're worried about the utility consequences of running out of money in old age. People prefer less risky investments because they are concerned about the possibility of spending less in the future after a bear market. A highly useful first step in positive research is to search articles that explain life cycle theory. A good example is Attanasio and Weber (2010) in the *Journal of Economic Literature*, which in addition to *Journal of Economic Perspectives* can be an excellent source for literature reviews on household finance theories.

There are a number of other important theories used by researchers in the field of financial planning. MPT (Markowitz, 1952) is used to help us understand investment behavior. Behavioral theories such as prospect theory (Kahneman & Tversky, 1979) or hyperbolic discounting (Laibson, 1997) are surprisingly useful in predicting how households actually behave. Human capital theory (Becker, 1965) explains why people invest in an education or become financially literate. Household bargaining models (Gray, 1998) help explain why wives who earn more than their husbands are the primary financial decision maker in younger households. When beginning a positive analysis, make sure to be aware of all the theories that are related to the research question.

Once there's an understanding of how theory informs the research question, the process of writing a review of existing empirical literature can begin. If the research question relates to spending on health care in retirement, then research that estimates the demand for health care services in general, and specifically to health care spending that increases in old age needs to be collected. This will help develop an understanding for how insurance affects health care spending, and who is more likely to have health insurance.

A good strategy when developing an empirical analysis is to imagine all the general topic areas that are related to the research question.

For example, health insurance, health expenditures by demographic group and age, public health insurance programs, and so on. Create a file for each topic and save related articles during the literature search. The more search that's done up front, the easier it is to identify unique contributions to the literature and justify why the research is important. Don't skimp on the literature review—many a new researcher's days are wasted because they dive right into an analysis of a research question that someone else has already answered.

Usually a researcher has a data source in mind before embarking on a literature review (it's certainly good to know if a research question can be answered with existing data before spending time on a literature review). There are some exciting national data sources in the USA that provide detailed household-level information, which can be used to answer important financial planning questions. Another good time investment a new researcher can make is to scan the codebooks of popular nationally representative data sets that contain household finance information, and in particular new modules which contain questions that other researchers haven't yet explored. If thinking of research ideas becomes troublesome, spending an hour reading though survey questions will likely do the trick.

An Overview of Financial Planning Research Areas

Since financial planning is a new research area, there are few academic journals that specifically address issues directly related to the financial planning profession other than *Journal of Financial Planning*. Other journals, however, publish personal finance research such as the *Journal of Financial Counseling and Planning*, *Financial Services Review*, and *Journal of Personal Finance*. Personal finance research can find its way into economics and finance journals at all ranges of quality. When approaching a financial planning research topic, you'll need to explore all of these journals to locate the current research on a topic. And don't just rely on someone else's literature review since they are often intentionally brief and tend to cite seminal articles on a topic rather than a comprehensive list of related literature.

Saving

Both normative and positive research in saving use the life cycle hypothesis to help understand when individuals are most likely to save, and to build models that estimate optimal savings behavior given expected lifetime earnings and consumption preferences. Two articles that provide excellent introductions to life cycle theory are Hanna et al. (1995) and Yuh and Hanna (2010).

Hanna et al. (1995) show how the expected growth in earnings, risk tolerance, and real interest rates impact optimal saving at different ages. In a simple normative model, the article explains how life cycle theory does not necessarily imply a smooth consumption path. A high real interest rate, for example, induces households to spend less in the present and more in the future (and can explain why young households in a low interest rate environment are saving less). Yuh and Hanna (2010) provide a clear explanation of how to build an empirical model based on life cycle theory. The article is particularly useful at guiding expectations of direction of effect in an empirical model (for example, those with higher education expect higher future earnings and should save less early in life), and also illustrates the ways in which the normative life cycle theory doesn't match up with observed savings behavior (for example, homeowners should save less for retirement, but in reality they save more). Another excellent basic overview of life cycle theory is provided by Bodie, Treussard, and Willen (2007). Bodie et al. introduce uncertain asset returns and uncertain shocks to income, wealth, or consumption to the basic life cycle model. The authors explain how hedging instruments such as insurance or other financial products allow a household to smooth consumption by pooling the risk of uncertain events.

Borrowing

Borrowing is negative saving, so life cycle models provide a useful framework for explaining when it is rational to pull financial resources from the future into the present. Generally, this occurs when earnings temporarily dip below permanent income or early in the life cycle when a household is investing in human capital and durable goods. Normative research can include optimal mortgage refinancing (Agarwal, Driscoll, & Laibson, 2013) or how much a student should borrow for a college education (Avery & Turner, 2012).

Positive research on borrowing can provide insight into factors that increase consumer debt and self-control problems that lead to excessive borrowing. Among the most interesting theories that explain self-control problems is the hyperbolic consumption model (Angeletos, Laibson, Repetto, Tobacman, & Weiberg, 2001). Highly present-oriented consumers will rationally borrow heavily, resulting in downward-sloping life cycle consumption. Most of us, however, prefer a smooth or upward-sloping consumption path but have a hard time resisting the temptation to borrow. The application of high discount rates in the short run (myopia) and high discount rates in the long run leads to borrowing mistakes such as simultaneously revolving a positive credit card balance while holding a large emergency fund and saving for retirement. Other studies investigate credit mistakes that are clearly the result of a lack of financial sophistication, such as the failure to refinance a mortgage when current rates fall well below a consumer's current mortgage rate (Campbell, 2006). Understanding how low financial literacy and common behavioral biases affect credit behavior is essential when developing consumer counseling and planning techniques that hope to improve credit outcomes.

Household Portfolios

A number of recent normative studies have been published on optimal household portfolios. These include optimal asset allocation given a range of time horizons and risk tolerance (Campbell & Viceira, 2002), and how household portfolios should be tailored when income is uncertain, when borrowing constraints exist, and when most of a household's wealth is in housing (Cocco, 2005; Guiso, Jappelli, & Terlizzese, 1996). More practitioner-oriented research may focus on applied issues such as the impact of tax rates on optimal asset allocation inside and outside of sheltered savings accounts (Reichenstein, 2001).

Positive research in household portfolios focuses on factors that predict investment choice among households. For example, Yilmazer and Lyons (2010) investigate the impact of spousal bargaining power on the percentage of risky assets in the portfolios of men and women. Many of the differences in asset allocation decisions among demographic groups can be traced to wide variation in attitudes toward risk among more financially knowledgeable individuals (Grable, 2000). Campbell (2006) also found that equity allocation is much lower among households than normative theory would predict, and represents a significant welfare loss particularly among wealthier households that choose not to invest. This gap between normative and positive household portfolio allocation may be explained by the strong relation between financial literacy and stock market participation (van Rooij, Lusardi, & Alessie, 2011).

Risk Management

Kunreuther and Pauly (2005) provide an overview of insurance theory that describes when it is optimal for households to purchase a financial instrument in order to pool the risk of loss to wealth. For most young households, their most valuable asset is human capital. Products like disability and life insurance protect against a sudden, unexpected loss in the value of future earnings to the household. As households age, they accumulate other financial and non-financial assets and exposures to liability risk. These risks can be hedged through property and liability insurance. Older households are exposed to health risks and the risk of outliving assets. Examples of normative research include Brown and Finkelstein (2011), who estimate optimal purchase of long-term care insurance for men and women given

varying costs of protection, and Ibbotson, Milevsky, Chen, and Zhu (2007), who estimate optimal annuitization for households with varying bequest motives and levels of risk tolerance.

Positive studies estimate household demand for insurance products. As in other financial planning topics, gaps between normative and actual insurance demand can often be attributed to knowledge and risk preferences. Among the most important behavioral determinants of insurance demand are related to prospect theory (Kahneman & Tversky, 1979), which predicts that household will overinsure against small risks and underinsurance against large ones. Consumers will overpay for insurance against small losses such as the possibility of a $60 phone repair (Cicchetti & Dubin, 1994) while avoiding insurance that protects against a much larger loss such as long-term health care expenses (Brown & Finkelstein, 2011). Consistent with the hypothesis that knowledge impacts demand for insurance, Finke, Huston, and Waller (2009) find that households who rely on the expertise of a comprehensive financial planner are far more likely to own an adequate amount of life insurance.

Other areas of financial planning include investigations of the value of financial advice, financial literacy (and its relation to the topic areas described above), retirement (a component of saving), business ownership, charitable giving, and bequests. The broad range of topics provides many opportunities for financial planning scholars to stake out an under-researched area of expertise as the body of knowledge continues to expand in the profession. The following section provides an overview of the steps a financial planning scholar might take when beginning a positive research project that incorporates elements of neoclassical and behavioral theory.

Performing Positive Research: An Example

The Question

Now that the steps for approaching a research project in financial planning have been presented, let's discuss how they are applied to address a specific research question. MPT predicts that investors who are more risk tolerant will prefer portfolios that have a higher allocation to risky investments because they are willing to accept greater variation in consumption when spending their returns (Markowitz, 1952). Behavioral studies, however, suggest that many lose their nerve when they start losing money. The theory that predicts a magnified drop in utility following a loss is known as prospect theory. Prospect theory predicts that a dollar loss will have a much larger impact on utility than a dollar gain, a concept known as loss aversion (Kahneman & Tversky, 1979). A new study suggests that experiencing a bear market can affect an investor's willingness to take risks (Malmendier & Nagel, 2011). Understanding how past experiences with losing money predicts investors' sensitivity to losses in the future is important to developing theories of behavioral preference formation and can help practitioners anticipate how clients will behave after they have experienced a recent loss.

A good financial planning research question is direct and answerable with available data. The best written academic articles often have a very simple research question. In this example, we want to know whether negative market experiences affect an individual's aversion to losses in subsequent periods.

Hypotheses

The next step in the progression toward testing is establishing the hypotheses. To do this effectively the researcher must first perform a thorough review of the literature. An example of how the literature review informs the hypotheses is provided below. The hypotheses address the research question and provide a framework for interpretation of the empirical results. Our goal is to test whether negative market experiences impact future levels of loss aversion. Since this has not been established in the literature, we first form a null hypothesis that the treatment, in this case exposure to a significant market loss, has no impact on the outcome (subsequent loss aversion). This is an appropriate null hypothesis because we can test for the presence of a relation

between portfolio exposure to losses entering the great recession and loss-averse preferences in a subsequent period.

How does theory play a role in developing the null hypothesis in our example? MPT guides our expectations for individuals' risk preferences (Markowitz, 1952). According to the assumptions of MPT, portfolio allocations entering the great recession are a result of individuals' risk preferences, which are assumed to be stable and a product of their perfect understanding of the variation in outcomes that exists in their portfolio. In other words, we expect that individuals have already considered major market movements and assessed their level of comfort with such events when making portfolio allocation decisions. Under these assumptions we would not expect an event that was always a possibility to cause a change in risk preferences after it is experienced.

After establishing the null hypothesis we can focus on the alternative hypothesis. The alternative hypothesis is often the motivation behind a positive study and represents the possibility that individuals may behave differently than expected under a normative framework.

Using Literature Review to Inform the Hypotheses

The goal of the literature review should be to locate articles that have previously tested whether the experience of prior events affects individual preferences, particularly negative events. This may encompass economic studies of risk preferences and studies outside of economics that can help us understand why humans might change their willingness to take risk once they've actually experienced the pain of a loss. While financial planning research is often related to studies in economics and finance, the consideration of studies outside of economics and finance may be especially useful in helping the researcher gain a better understanding of scholarship that informs their research questions.

Normative economic models assume that individuals do not allow prior outcomes to affect subsequent risky choice. However, studies have found prior gains and losses do indeed influence risky choice in future periods (Barberis, Huang, & Santos, 2001; Thaler & Johnson, 1990). Malmendier and Nagel (2011) found that risk taking is strongly related to cohort stock return experiences, and more recent returns have a greater influence on risk taking than those experienced early in life. Hoffmann, Post, and Pennings (2012) found that, during the 2008–2009 financial crisis, investors' risk perceptions increased while their return expectations decreased.

According to prospect theory people interpret outcomes not as absolute values but as gains and losses, and they are loss averse relative to an anchored reference point. Prospect theory describes a behavior known as the reflection effect, or the tendency for individuals to treat gains and losses differently (Kahneman & Tversky, 1979). There is evidence that people anchor to a reference point, and take less risk in the presence of a prior loss compared to a prior gain (Barberis et al., 2001). Such reactions to prior losses may represent a change in risk perceptions that affect subsequent preferences (Loewenstein, Weber, Hsee, & Welch, 2001).

Evidence from the literature referenced above is not consistent with MPT. A behavioral theory, prospect theory, is introduced to explain how recent returns (and the resulting gains and losses) may be a significant predictor of subsequent risk preferences. Based on the findings presented in previous literature and a solid understanding of prospect theory, our alternative hypothesis is that there is a relationship (likely positive) between portfolio exposure to losses entering the great recession and individuals' level of loss aversion in subsequent periods.

Building and Testing the Model

Data The next step in the research process is to specify an empirical test of the question and hypotheses. While data selection may seem like the first step in the specification and operationalization of the model, it is a good idea to identify the data before solidifying the question. As stated earlier, it is important to know if a question is testable with available data before investing a significant amount of time into a study.

To determine the most appropriate data for a research question, consider the nature of the question. Is the study longitudinal or cross-sectional? If longitudinal, does the data need to be panel data? What is the population of interest, young households or older households? Should the data be nationally representative?

In our example, we are interested in how an experience in time A influences an outcome in time B at the individual level. This means we need data to be longitudinal (allows us to capture the effect of the treatment in time A on the outcome in time B) and panel (allows us to follow the same individuals in each time period).

In addition to being longitudinal and panel, we need to be able to use the data to measure our variables of interest. The two main variables of interest in our example are loss aversion (the dependent variable or DV) and exposure to market losses (the independent variable of interest or IVI). Once the specific requirements for the data have been identified we select the Health and Retirement Study (HRS) as the most appropriate data source.

Before moving on to the construction of the variables used to test the research question, it is important to understand the nature of financial data. Many of the variables commonly used in financial planning studies are constructed by manipulating multiple pieces of information. For example, let's say the research question requires that variable measuring individual's financial assets be included in the model. Many surveys will report the value of individual assets (such as stocks, bonds, mutual funds, etc.), total assets, or net worth. While these variables are very useful, they may not represent the exact variable of interest. In this case, the researcher will have to take what's available and rework it to develop the variable of interest. In addition to being able to create variables from existing information, it is also important to understand the distributional characteristics of financial data. Many of the financial variables are skewed (usually to the right) and require some form of transformation before being input into a statistical analysis.

Dependent Variable (DV) When operationalizing the DV it is important to understand how the variable has been measured in previous studies. Understanding the methods used in previous research, both normative and positive, can help guide the creation of the DV (if following a procedure used in previous research) or help determine the relevance and validity of a new measure. Either way, it is important to be sure that the DV measurement is theoretically sound and a valid representation of the desired variable.

To measure loss aversion in our example we use a special module on prospect theory available in the 2012 wave of the HRS. According to the theory and the measurement of loss aversion in previous studies we need, (1) a risky prospect and (2) the ability to evaluate how individuals react to losses in comparison to gains in that prospect. Both of these criteria are met by the data, giving us confidence that we can construct a DV that is theoretically sound and consistent with what we are trying to measure.

Independent Variables (IV) Up to now a mountain of articles have been read and used to provide insight into the variables that can be included in the model to predict the dependent variable. The goal is to estimate the impact of a treatment variable on an outcome variable, so we must do our best to isolate the impact of this variable by controlling for the many other individual characteristics that might impact the DV.

Our research question is whether negative market experiences affect an individual's aversion to losses in subsequent periods. This means that the IVI in our model is negative market experiences. To measure negative market experiences, we select an available variable that can proxy previous exposure to an investment loss. An individual's allocation to equities entering the great recession is an appropriate proxy since nearly all of these individuals lost money in the market crash.

The other independent variables in the model control for additional factors that may predict the DV. The independent variables included in the model should be based on theory and evidence

from prior literature. Here we include respondent risk tolerance and the demographic variables we believe are related to risk preferences. The demographics included here are age, wealth, income, education, cognitive ability, gender, and race.

Descriptive Statistics Descriptive statistics provide an opportunity to explore the data used in the empirical analysis and to provide an initial test of the hypothesis. Don't forget that the objective is to answer the original research question in statistical analyses. Descriptive statistics should not just provide an overview of the data—it should provide information that allows the researcher to evaluate the relation between the DV and the IVI.

Below we provide two examples of how to show the relationship between the DV and IVI using descriptive statistics. In the first example, we break loss aversion into three levels and report the mean equity allocation for each. To do this we first calculate each respondent's initial equity allocation, or percentage of financial assets invested in stocks in 2006. We then separate respondents into three groups based on their level of loss aversion in 2012 and calculate the mean equity allocation for each group.

The results in Table 9.1 show that respondents with the highest levels of loss aversion in 2012 had the highest allocation to equities in 2006. Consistent with our alternative hypothesis, this evidence suggests that greater exposures to loss led to higher levels of loss aversion in subsequent periods.

In the second example we split respondents into three categories based on their 2006 equity allocations and run cross-tabulations to determine the percentage of respondents in each category of loss aversion given their equity allocation entering the great recession (Table 9.2).

Table 9.1 The relationship between loss aversion and exposure to a negative experience entering the great recession

	Lowest loss aversion	Moderate loss aversion	Highest loss aversion
Mean equity allocation	23.16	30.24	41.72

This table was calculated by the authors using data from the 2012 wave of the HRS

Table 9.2 Crosstabs on loss aversion by exposure to a negative experience entering the great recession

	Percentage of respondents in each category		
Variable	Lowest loss aversion	Moderate loss aversion	Highest loss aversion
Lowest equity allocation	58.16	27.50	14.34
Moderate equity allocations	48.44	33.08	18.48
Highest equity allocations	28.67	39.55	31.78

This table was calculated by the authors using data from the 2012 wave of the HRS

For respondents with the lowest initial equity allocations we see that the majority (58.16 %) subsequently fall into the lowest loss aversion category. For respondents with the highest initial equity allocations we see that the majority (31.78 %) subsequently fall into the highest loss aversion category. Similar to Table 9.1 we provide evidence of a positive relationship between our DV and IVI, which is consistent with our alternative hypothesis.

In addition to reporting descriptive statistics on the DV and IVI, it is also important to report characteristics of the sample. This helps the reader verify consistency in characteristics between the population and the sample. If the sample has different characteristics than the population, it may be important to describe the differences and how they relate to the research question. For example, if testing a question where the sample is limited to stockholders, the income, wealth, and education of the sample may be higher than that of the population.

The Regression Analysis The first step in reporting regression results is making sure that the appropriate statistical technique is being used. The appropriate statistical method will be determined by the research question and structure of the data. Select the method that does the best job of testing the hypotheses. Do not choose the method that is most complex or most familiar—evaluate the statistical method based on whether it efficiently tests and answers the research question.

If an IVI impacts a linear change in the DV, the researcher will likely select a linear model, such as ordinary least squares (OLS) regression. If the goal is to measure the likelihood that an IVI will impact a dichotomous DV, the use logistic or probit regression analysis is more appropriate.

In our example, we want to know the linear relationship between exposure to market losses and subsequent loss aversion. This would make OLS an appropriate method. However, the distribution of our DV is not normal. This means we either need to transform or categorize the DV. We could log-transform the DV to normalize the distribution and use OLS regression, but our results would be difficult to interpret and carry less meaning. Alternatively, we could categorize the DV and evaluate the appropriateness of a dichotomous DV versus a categorical DV. If we want to evaluate whether exposure to market losses entering the great recession makes someone loss averse in subsequent periods (yes or no), a dichotomous variable would be appropriate.

We want to know how the *level* of loss aversion is affected by exposure to market losses entering the great recession because we want to understand an ordered relationship between the DV and IVI we need a categorical DV. By understanding the question and nature of the data we decide to use an ordered logistic regression (OLR) to test our question. OLR is appropriate because it allows us to measure the impact of each predictor variable on the likelihood of being in each successive response category. Here we place the DV values in descending order (high to low) so that when the OLR coefficients are estimated, a positive coefficient corresponds with a positive relationship (i.e., increased values of the respective variable produces higher levels of the DV) and a negative coefficient corresponds with a negative relationship (i.e., increased values of the respective variable produce lower levels of the DV).

Results, Conclusions, and Implications

After developing a model that best tests the hypotheses, the researcher must provide some context for delivering the results of their study. First, the results of the study should be reported without interpretation in the results section of the paper. Interpretation should only take place when writing the conclusions and implications of the research. Although it may be tempting for a financial planning scholar to jump right to the professional applications of the findings, it is important to first objectively present results and then place the results into the context of the current literature and theory (as well as practical application) in the conclusion.

Many financial planning studies have significant policy implications. Beshears, Choi, Laibson, and Madrian (2009), for example, present a normative theory, discuss behavioral deviations from that theory, and outline how the observed behavior could be improved through the implementation of policy. Their work on the importance of inertia in retirement savings decisions led to policy changes in the Pension Protection Act of 2006 which improved retirement savings outcomes for millions of Americans. Positive studies like this one often have important implication to both policy and the practice of financial planning.

Regardless of whether a financial planning study has professional or policy implications (or both), it is important for the researcher to remember that goal of the scientist is to add to the body of knowledge. The good news for financial planning researchers is that the field contains many exciting research opportunities that remain unexplored. We hope this chapter has been informative and will serve as an introductory guide to those interested in performing successful financial planning research for years to come.

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10 Financial Social Work

Margaret S. Sherraden, Jodi Jacobson Frey, and Julie Birkenmaier

What Is Financial Social Work?

Financial social work (FSW) promotes financial individual, family, and community wellbeing by increasing access to sound financial services, asset-building opportunities, and financial education and guidance. Social workers engage in FSW through practice, research, and policy using social science theory and "principles of social justice, human rights, collective responsibility and respect for diversities" (International Federation of Social Workers, 2015). FSW helps fulfill social workers' ethical responsibilities to address oppression and human suffering, including economic suffering (National Association of Social Workers [NASW], 2008). FSW practice focuses on financially vulnerable populations and communities, such as those with low incomes and wealth, ethnic and racial minorities, children and youth, older adults, and people living with disabilities (Birkenmaier, Sherraden, & Curley, 2013; Frey, Sander, Svoboda, & Elkinson, 2011; Morrow-Howell & Sherraden, 2015). Although nearly all social workers address some financial issues, most do alongside other concerns. This chapter begins with a brief history of FSW. It turns next to guiding concepts, practice, policy, research, and education, concluding with a discussion of future directions.

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Historical Overview

During the Progressive Era, financial wellbeing was a core issue for the new profession of social work. Social workers pioneered interventions with families to improve budgeting and collaborated with home economists to improve financial functioning in households of recent immigrants and rural migrants (Stuart, 2013; Zelizer, 1994). Many social workers focused on improving financial behaviors and teaching habits of savings and thrift (Stuart, 2013). Some recognizing the importance of appropriate financial services established savings banks, provident loan associations, and credit unions (Cruce, 2001).

By the mid-twentieth century, social work's focus on household finances was set aside. Some

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called into question the "outmoded moralism" of preaching thrift and saving habits to the poor and urged a focus on the psychological meaning of money as an opportunity for casework intervention (Stuart, 2015, p. 11). Turning away from economics, social work's attention shifted toward psychological interventions (Specht & Courtney, 1995); this focus on mental health through clinical practice continues today (CSWE, 2012).

By the end of the twentieth century, social work renewed its attention on financial wellbeing. Increasing financialization, or the rising importance of the financial sector in the economy (Epstein, 2006), along with growing income and asset inequality (Oliver & Shapiro, 2006; Piketty, 2014; Saez & Zucman, 2014) led to a resurgence of interest in household finances. This shift assumed greater urgency as the Great Recession led to dramatic financial losses in households, especially among those in the bottom half (Bricker et al., 2014). Today, fast-paced change and increased complexity of financial products and services, including the rise of mobile, internet, and alternative financial products, offer both opportunities and hazards for financially vulnerable consumers (Schiller, 2003). In this chapter, we discuss how the social work profession has responded.

Guiding Concepts

Financial wellbeing is a state of financial stability and security, in which people: (a) have control over their finances, (b) have the capacity to absorb financial shocks, (c) are on track to meet their financial goals, and (d) are able to make choices that allow them to enjoy life (CFPB, 2015a). Three key goals provide guidance for financial social workers: income sufficiency, asset building, and financial capability.

Income Sufficiency

The ideas of income and consumption dominated twentieth century social welfare policies and programs for financially vulnerable populations (Sherraden, 1991), and continue to be reflected in conceptual approaches to financial wellbeing. With origins in the New Deal, employment and income supports of various types underpin much of today's US social policy and scholars credit them with reducing poverty rates in the twentieth century (Danziger, Sandefur, & Weinberg, 1994).

The task of supporting household income is based on the idea that financial wellbeing is a reflection of a household's total consumption. The US welfare state, with roots in nineteenth century European social assistance and social insurance programs, redistributes resources to poorer households (Trattner, 2007). Social workers played a key role in the creation, implementation, and defense of income sufficiency policies throughout the twentieth century, including Social Security, the minimum wage, public employment, public assistance, Medicare, Medicaid, and the Earned Income Tax Credit (EITC) (Beverly, 2002; Katz, 1986). Social workers in public, non-profit, and for-profit organizations help people claim these social insurance, public assistance, and employment-based benefits.

Asset Building

Today, labor income and income supports are less secure and stable, while wealth has gained importance in determining household financial wellbeing (Cynamon & Fazzari, 2014). With less income from human capital and more from financial capital, asset building has taken on growing importance in social work. Assets—or resources with economic value that people accumulate over time—are critical to human development (Sherraden, 1991). Assets generate returns that increase lifetime consumption, but also provide a financial cushion and unlock development opportunities over a lifetime and across generations (Sherraden, 1991).

Policies such as tax benefits for retirement savings and homeownership support asset building. Unfortunately, low-income populations rarely benefit from these policies because their taxable income is too low to qualify (Howard, 1999). In fact, program rules may penalize low-

income households when they accumulate assets; they disqualify them because of asset limits in means-tested public assistance programs (Nam, 2008; Neuberger, Greenberg, & Orszag, 2006; Sherraden, 1991; Sprague & Black, 2012). Moreover, asset limit rules disproportionately affect minority communities (Shapiro, Meschede, & Osoro, 2013).

Despite regressive policy structures, there have been advances in recent years. Tax credits such as the Child Care Tax Credit and EITC not only support income, but also offer opportunities for asset accumulation (Halpern-Meekin, Edin, Tach, & Sykes, 2015; Tucker, Key, & Grinstein-Weiss, 2014). At the urging of social workers, the federal government has adopted some asset-building policies, and several states have created progressive and universal access to subsidized savings (Poore & Quint, 2014; Sherraden, 2014).

Financial Capability

The third concept that informs FSW is financial capability, a term adopted widely in recent years (Kempson, Perotti, & Scott, 2013; US Department of Treasury, 2006) and refers to a condition that combines people's *ability to act* and their *opportunity to act* in their best financial interests (Johnson & Sherraden, 2007). A person's abilities (knowledge and skills) combine with access to beneficial financial products and services to create functioning that allows financial capability (Sherraden, 2013). Creating financial capability is not simply a matter of changing individual behavior, but also requires changing institutions that play a role in shaping financial opportunities (Sherraden & Barr, 2005). By combining the concepts of ability and opportunity, derived from Sen (1999) and Nussbaum (2000), this view of financial capability refutes the assumption that financial vulnerability is a result of individual behavior alone and instead points to the interaction between individuals and social institutions that shape financial wellbeing (Sherraden, 2011). This understanding differs from definitions of financial capability that focus on individual behavior change (Taylor, 2011; Wolfsohn & Michaeli, 2014; Xiao, 2015).

Social Work Practice and Research

Social work's definition of financial capability is informed by the "person-in-environment" framework, which asserts that human wellbeing is shaped by human behavior and by socio-economic and physical conditions (Kondrat, 2002). As a result, FSW practice takes place at both the micro level (work with individuals, families, and small groups) and the macro level (work with organizations, communities, and policy).

Micro FSW Practice

Micro level practice assists individuals, families, and small groups to locate financial and in-kind benefits, solve financial problems and crises, improve household financial decision-making and financial management, and address financial issues in relationships. Employing a strengths-based perspective (Saleeby, 2012), social workers partner with clients to set goals, while building resilience and potential for improving financial wellbeing.

Micro FSW practice takes place in diverse settings, including child welfare agencies, health and mental health facilities, workplaces, schools, military settings, and domestic violence shelters. The focus of FSW differs depending on the mission of the organization and target population. FSW in a mental health setting, for example, might focus on helping clients set up a representative payee for financial benefits, or counseling for gambling problems (Lazar, Black, McMahon, O'Shea, & Rosen, 2014). In a refugee resettlement agency, FSW might include providing financial education or financial coaching on opening a savings account or establishing credit in a new country (Watson Grote & Duh, 2011; Zhan, Anderson, & Scott, 2006).

Generally, FSW interventions require advanced training and professional education (Collins & Birkenmaier, 2013). Social work is only beginning to define, systematize, and build an evidence base for FSW practice. Social workers usually engage in FSW while providing other social services as FSW micro interventions

include financial education, coaching, case management, counseling, and therapy.

Financial education aims to increase clients' financial knowledge and skills in planning, managing financial risk, and saving and investing (CFPB, 2013; Lusardi, Clark, Fox, Grable, & Taylor, 2010). It draws on various pedagogical theories, such as transformative learning theory (Mezirow, 1991), and often incorporates experiential learning (Johnson & Sherraden, 2007; Lusardi et al., 2010). Financial education with individuals and groups across settings is increasingly common (Despard & Chowa, 2010; GoldbergBelle & Chenven, 2013; Postmus, Heltling, & Hoge, 2015).

Financial coaching helps people reach their short-term financial goals (Collins, 2016; Klontz, Bivens, Klontz, Wada, & Kahler, 2014). Goal-directed behavioral and self-efficacy theories inform the financial coaching field (Bandura, 1969). Coaching also draws on the transtheoretical model of change (Passmore & Whybrow, 2007; Xiao et al., 2004), which assists people through stages of behavior change (Collins & O'Rourke, 2012). Coaching is a client-driven approach that differs from traditional case management, where professionals provide instruction and specific actions (Collins, Baker, & Gorey, 2007).

Financial counseling aims to resolve serious financial problems and crises (Collins, 2016). When social workers are involved, these problems are usually occurring in the context of other issues, such as homelessness or illness (Kulys & Davis, 1986; Washington, 2002). Social workers counsel clients individually and in small groups, aiming for improved wellbeing, including resolution of financial crises (Despard, Chowa, & Hart, 2011; Engelbrecht, 2008). Social workers may combine financial counseling with *financial case management*, which helps clients navigate and benefit from appropriate services over time (Engelbrecht, 2008; National Association of Social Workers [NASW], 2013). Social workers also may engage in *financial advocacy* on behalf of or alongside clients in situations of financial exploitation or domestic violence (Choi, Kulick, & Mayer, 1999; Herbert & Mould, 1992; Sanders & Schnabel, 2006; Sanders, 2013).

Financial therapy addresses financial problems, as well as underlying issues that affect a person's financial and overall wellbeing. Financial therapy integrates "cognitive, emotional, behavioral, relational, and economic aspects that promote financial health" (Financial Therapy Association, n.d.; see also, Keller, 2011). Financial therapists use psychotherapy to address emotional problems and disorders associated with clients' financial health (Klontz, Britt, & Archuleta, 2015).

Financial counselors and therapists use a variety of therapeutic approaches, including acceptance and commitment therapy (ACT), cognitive behavioral therapy, experiential therapy, motivational interviewing, narrative therapy, psychodynamic therapy, and solution-focused interventions (Klontz et al., 2015; Scanlon & Sanders, 2015; Shanks, Johnson, & Nicoll, 2008). Relatively little research has examined effectiveness of these approaches, however, and a stronger evidence base is needed (Scanlon & Sanders, 2015). A distinguishing feature of FSW is use of the person-in-environment framework (Kondrat, 2002), which underscores the importance of taking into the account—and often directly intervening in—clients' social, political, economic, and physical environment (Abramovitz & Sherraden, 2015; Kondrat, 2002).

Macro FSW Practice

Macro FSW practitioners intervene at organizational, community, and policy levels to improve financial wellbeing for financially vulnerable groups. Macro intervention methods include organizational management, planning, community organizing, policy and program design, advocacy, lobbying, and coalition building.

Two of the most widely used theoretical perspectives in macro FSW are behavioral economics and institutional theory. First, behavioral economics brings together aspects of economics and psychology to understand and influence economic behaviors (Tversky & Kahneman, 1986).

For example, simple financial forms and processes and automatic enrollments increase uptake of financial accounts, along with nudges that help people follow through on financial intentions (Hernandez, 2011; Thaler & Sunstein, 2008). Behavioral economics' principles can inform design of programs, products, and services to encourage financial wellbeing (Richburg-Hayes et al., 2014). Second, institutional theory proposes that it is not enough to shape behavior; people must also have access to structures that make it more desirable, realistic, and likely to accumulate assets (Beverly et al., 2008; Sherraden & Barr, 2005). For instance, policies that support and subsidize asset accumulation in non-poor households also could be offered to financially vulnerable households (Sherraden, 1991).

At the organizational level, social workers integrate financial education, assistance, products, and services into mainstream social work services (Corporation for Enterprise Development (CFED), 2014; CFPB, 2013; National Federation of Community Development Credit Unions, 2014). For example, social workers create programs to prepare foster youth transitioning to adult financial roles (Peters, Sherraden, & Kuchinski, forthcoming); they design programs to build financial foundations for survivors of intimate partner violence (Greco & Dawgert, 2007; Sanders & Schnabel, 2006); and intervene to help older adults avoid financial scams (Nerenberg, 2008).

At the community level, social workers organize initiatives and develop coalitions to provide access to affordable financial products and services, financial education, and guidance. For example, they work with Cities for Financial Empowerment to offer financial coaching in social service settings (Mintz, 2014); with Bank On initiatives to increase access to bank accounts (Birkenmaier, 2012); with Voluntary Income Tax Assistance (VITA) and Tax Counseling for the Elderly (TCE) sites to provide free tax filing and benefit claims (Romich, Keenan, Miesel, & Hall, 2013); with community development organizations to provide foreclosure counseling and savings accounts (Green & Haines, 2015; Soifer, McNeely, Costa, & Pickering-Bernheim, 2014); and with programs to enroll the uninsured under the Affordable Care Act (Andrews, Darnell, McBride, & Gehlert, 2013).

At the policy level, social workers defend social safety net programs, but also are at the forefront of building financial capability and assets in vulnerable households. These initiatives include expanding access to college savings and reducing student debt (Clancy, Orszag, & Sherraden, 2004; Elliott, Destin, & Friedline, 2011; Elliott & Nam, 2013); testing universal Children's Development Account policies (Huang, Sherraden, Clancy, & Purnell, 2014; Huang, Sherraden, Kim, & Clancy, 2014); applying behavioral interventions to increase savings of low- and moderate-income taxpayers (Grinstein-Weiss, Russell, Tucker, & Comer, 2014); and organizing state asset-building coalitions to promote income and asset-building policies (Edwards, Gunn, Downs, & Heffern, 2008; Otabor & Gordon Nembhard, 2012).

Internationally, social workers also engage in macro FSW. Examples include informing policy design of the UK Child Trust Fund, which gave every newborn a savings account, until it was repealed in the recent global financial crisis (Sherraden, 2011); testing effects of youth savings in several countries in the Global South (Ansong, Chowa, & Sherraden, 2015); and founding international organizations devoted to expanding financial education and economic citizenship for children and youth (Schwartz, 2012; see also Sherraden & Ansong, forthcoming).

Although financial social workers concentrate on solving basic financial issues in the context of overall wellbeing, they also collaborate with other professionals (Despard et al., 2011). When clients need specialized advising on problem debt, bankruptcy, financial investing, or estate planning, social workers often refer them to professionals with expertise in those areas. Social workers organize and join collaborative multidisciplinary efforts, bringing together expertise of social work with consumer finance professionals, financial service providers, lawyers, economists, community organizers, public officials, and others. Each profession brings unique credentials, certifications, and licenses to the field to address

the swiftly changing and increasingly complex financial issues facing individuals, families, and communities (Collins & Birkenmaier, 2013).

Professional Education and Training in FSW

Overall, professional training and education in FSW has lagged behind practice and research. Curricular standards, for example, mention advancing "economic justice" and "economic wellbeing," but do not mention the word "financial" except in the context of organizational budgets (CSWE, 2008). It is no surprise, then, that although social workers have general knowledge about economic inequality and social welfare programs, many lack knowledge and skills to address household finances and financial practice (Fenge, 2012; Gillen & Loeffler, 2012; Kindle, 2010; Loke & Hageman, 2013; Loke, Watts, & Kakoti, 2013; Sherraden, Laux, & Kaufman, 2007). Typically, they learn on the job and through continuing education (Collins & Birkenmaier, 2013; Frey et al., 2015).

Nonetheless, this is changing. Recent studies find both social work faculty and students are interested in learning more about personal and household financial wellbeing (Despard & Chowa, 2010; Loke, Birkenmaier, & Hageman, 2015; Sherraden, Birkenmaier, Rochelle, & McClendon, 2015). Faculty in social work are developing curriculum and training, and organizing faculty interested in FSW (Birkenmaier, Kennedy, Kunz, Sander, & Horwitz, 2013; Columbia School of Social Work, 2014; Frey et al., 2011; Sherraden et al., 2007). Currently, 65 scholars from 52 social work schools participate in a Financial Capability and Asset Building (FCAB) consortium, and 14 schools of social work are testing FCAB curriculum (Sherraden, Birkenmaier, et al. 2015). Public and non-profit organizations are developing new training resources for social service providers, including a toolkit, "Your Money, Your Goals" (CFPB, 2015b), financial workshop toolkits, including a "Blueprint for Community-Based Financial Education" (National Endowment for Financial Education (NEFE), 2013), and a planning guide for "Building Financial Capability" (Administration for Children and Families and CFED, 2015). In addition, academic and commercial sources provide continuing education and certifications (Collins & Birkenmaier, 2013). These and other efforts will make FSW content more widely available and increase competency of social workers in FSW.

The Future of FSW

Looking to the future, there is a great deal of work to do. FSW practitioners, educators, and researchers must tackle economic challenges at micro and macro levels, especially those that disproportionately affect financially vulnerable households and communities. These challenges include managing household finances in a context of growing income and wealth inequality, pressure on public social welfare budgets, unsuitable and sometimes harmful financial products and services, and lack of effective consumer protections.

Social work practitioners at the micro level should develop evidence-based interventions that elevate financial capability to a critical and integrated part of assessment, goal setting, and counseling with diverse populations (Scanlon & Sanders, 2015). At the macro level, social workers should contribute to integrating financial services and benefits with traditional social services, creating quality financial products and services for underserved populations, providing access to financial education and reliable systems of financial advice and guidance, and promoting asset accumulation in low-wealth households. Financial social workers should explore ways to harness the potential of new low-cost technologies, such as mobile phone banking, which is reaching millions in less developed economies (Board of Governors of the Federal Reserve, 2013; Burhouse, Homer, Osaki, & Bachman, 2014; Wike & Oates, 2014). A key to effective program development will be to generate culturally

competent and appropriate practice models for inclusion of diverse groups in program and policy design. Finally, the field must continue to sort out appropriate practice roles and opportunities for collaboration with other financial professionals and stakeholders.

Simultaneously, social work educators must intensify efforts to promote integration of financial content in professional and continuing education. Research and evaluation should inform these educational efforts and analyze how training and education translates to changes in practice and improved financial wellbeing for clients.

Regarding research, scholars should continue to build understanding of financial vulnerability and avenues for improving financial wellbeing. Promising research methodologies, such as financial diaries, can supplement conventional research methods for more nuanced understanding of the realities of living on the financial edge in US society (Morduch & Schneider, n.d.). Field experiments should rigorously test social and financial innovations aimed at improving financial wellbeing in vulnerable households and impoverished communities. Moreover, research should examine new financial technologies, including assessing impacts on affordability, security, and reliability in low-income households (Barr, 2009).

In other words, despite growing momentum, leadership, research, and advocacy are essential to bring FSW into the profession as a core knowledge and skill area embraced by all social workers, including those in dominant practice areas such as health, mental health, and child welfare. To meet the financial needs of vulnerable families and communities, the social work profession will require large-scale efforts to build practitioner knowledge and skills in micro and macro FSW.

Conclusion

After many decades, FSW is re-emerging as a core issue in social work (Sherraden, Huang, et al., 2015). Social work professionals are creating and implementing financial innovations in their organizations, as well as joining others to promote micro and macro approaches to improve financial wellbeing. While the work is just beginning, the time is ripe for the social work profession to resume its leadership role in promoting financial stability and security for financially vulnerable populations.

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Part II

Consumer Finances of Special Populations

11 Financial Literacy and Financial Education in High School

William B. Walstad, Ashley Tharayil, and Jamie Wagner

A dramatic increase in interest in financial literacy has occurred over the past 20 years (Braunstein & Welch, 2002; Hilgert, Hogart, & Beverly, 2003; Lusardi & Mitchell, 2014). One reason is that adults are now being asked over their life-cycle to assume greater responsibility for the management of personal finances such as living with a limited budget, choosing affordable housing, using credit, protecting assets and identity, and saving for retirement (Agarwal, Driscoll, Gabaix, & Laibson, 2009; Hastings, Madrian, & Skimmyhorn, 2013). Further interest in financial literacy arose from problems in the national economy, such as what occurred with the financial crisis of 2008 and its aftermath, and from a continual national focus on personal finance issues as evident in concerns with the burden of student loans, rising credit card debt and personal bankruptcies, and inadequate saving for retirement (Gale, Harris, & Levine, 2012; Lusardi & Mitchell, 2014).

In light of these changes in the financial landscape, this chapter focuses on the financial education in high school because it can increase financial literacy among youth, which in turn can be useful to people throughout their adult lives. To further explain this point, the chapter begins with a brief discussion of why financial literacy for youth is important and how it benefits society. We then switch to the provision of financial education in the schools through state mandates for coursework and variations in the course delivery of financial education. Part of the chapter also explains the development of content standards and the use of curriculum materials and programs. Some attention too is devoted to testing and assessing financial literacy among high school students. The final part of the chapter reviews key findings from the research literature on the effectiveness of financial education for youth, either through broad-based state mandates or through specific instructional programs.

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Rationale

Financial literacy is defined various ways in the academic literature, but what often is common to them is a focus on conceptual knowledge and decision-making, as indicated by a comprehensive definition from Remund (2010):

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> Financial literacy is a measure of the degree to which one understands key financial concepts and possesses the ability and confidence to manage personal finances through appropriate, short-term decision-making and sound, long-range financial planning, while mindful of live events and changing economic conditions (p. 284).

The challenge for adults, of course, is to obtain a financial education that develops this financial literacy for an uncertain and changing economic world (Hastings, Madrian, & Skimmyhorn, 2013). If financial education is of value for adults to be more informed and better handle their financial matters, then a logical extension would apply to youth because they will become adults who are charged with making important financial decisions and need some preparation for the financial world they will experience as adults (Lusardi, Mitchell, & Curto, 2010).

Over the past few decades there has been growing recognition of the need for financial education in schools as a possible way to develop financial literacy and improve financial behavior (National Association of State School Boards of Education, 2006). For students who do not attend college, financial education in high school may be the only financial education they receive, so financial education in high school should provide basic concepts and skills that can be useful later in life. Even students who continue to post-secondary education may never take a college course in personal finance, so financial education in high school may be their only exposure to personal finance concepts and decision-making.

Some evidence to support the value of early financial education comes from an economic model and simulation described by Lusardi and Mitchell (2014). The results show that providing financial knowledge to the least educated before they enter the labor market increases their well-being by about 82 % of their initial wealth. For college graduates, providing financial knowledge produces a change of about 56 % of their initial wealth. This economic model assumes that individuals only invest in financial education early in life, such as in high school and do not seek financial knowledge thereafter. Thus, even though some individuals may choose not to invest in financial literacy later in life, improving financial literacy early in life, as in high school, is socially optimal—it makes everyone better off.

Coursework

Recognition of the value and importance of financial literacy for youth has certainly influenced curriculum and instruction in schools throughout the USA. The change is most evident in survey data from the degree of inclusion of financial education in the school curriculum (Council for Economic Education, 2016). From 1998 to 2016, the number of states with content standards for personal finance education in the schools increased from 21 to 45. The number of states requiring implementation of those standards increased from 14 to 37. The number of states requiring a personal finance course or economics course with personal finance content be taken before graduation from high school grew from 1 to 17. Finally, the number of states that required testing of students in personal finance rose from 1 to 7.

Although the state data show significant improvement in the penetration of personal finance into the school curriculum, the change needs to be understood in a more realistic perspective. Personal finance can be taught as a separate or stand-alone course in the school curriculum with a great deal of financial content, but whether it actually is taught that way is more questionable. The evidence to support this skepticism comes from the High School Transcript Study conducted periodically by the National Center for Education Statistics (NCES) at the US Department of Education. The closest two categories for a personal finance course in this NCES classification scheme would be courses in "consumer education" or "consumer economics." These courses, however, were taken by only 7.9 % of high school students in 2009, the latest year for available transcript data (Walstad & Rebeck, 2012). It is likely more students receive financial education in high school than is indicated by this small percentage, which suggests personal finance is also taught in other courses within the

high school curriculum. The most likely targets for this infusion of personal finance content would be courses in economics, business, and career or vocational education.

Another point to keep in mind is that a high school course in personal finance is not a standardized course in the same way as mathematics courses in algebra and geometry or science courses in biology and chemistry. Mathematics or science courses in the high school curriculum are often similar in the content covered and show little change from high school to high school. We know surprising little, however, about what content is covered in high schools courses or units in personal finance because it is likely to vary considerably by state, school district, or even high schools within a school district (Loibl & Fischer, 2013). Compounding the standardization issue is the influence of the teacher. In a personal finance course or unit of instruction, teachers sometimes have more discretion over what they teach than they have over the content they teach in such core and well-defined subjects as mathematics or science. It is also not known how content coverage and emphasis changes from teacher to teacher when a course or unit is taught.

Content Standards and Curricula

Over the years several nonprofit organizations published content guides for kindergarten through twelfth (K–12) grades. The primary purpose of these guides is to describe for school teachers, district administrators, and developers of educational materials the core knowledge and essential skills related to personal finance that high school students should possess by the time of high school graduation. The JumpStart Coalition for Personal Financial Literacy (Jump$tart) was the first organization to publish a content framework with its *National Standards in K–12 Personal Finance Education* that appeared in 1998. That guide, now in its fourth edition, divides the content into six sections: (1) spending and saving; (2) credit and debt; (3) employment and income; (4) investing; (5) risk and insurance; and (6) financial decision-making (Jump$tart, 2015). Each section begins with *knowledge* statements that briefly describe what students should know at four levels of K–12 grade instruction: completion of kindergarten, by fourth grade, by eighth grade, and by twelfth grade. The set of knowledge statements is followed by a *standard statement*. In addition, below each standard statement are *benchmarks* that briefly state the skills that show students' ability to apply financial knowledge to decisions and actions for that standard.

The stated purpose of this document is to:

> delineate the personal finance knowledge and ability that young people should acquire throughout their kindergarten through 12th grade school years (K–12) to emerge as independent adult consumers, fully prepared to make wise financial decisions for a lifetime of economic well-being. (Jump$tart, 2015, p. 1).

While the purpose and organization of the document makes sense, the amount of material is overwhelming, as indicated by the totals in different categories. The six sections have a total of 93 knowledge statements. Then, there are 26 standard statements distributed across the six sections. In addition, for each standard there are numerous benchmarks, about 350 in total. Given the scope and detail it is doubtful that even a well-designed curriculum for K–12 schools could cover all this personal finance content, skill development, and decision-making to achieve what the guide intends. Nevertheless, portions of the document may be useful for teaching parts of courses in personal finance and in helping educators think about a K–12 personal finance curriculum.

A more compact approach to writing standards was published by the Council for Economic Education (CEE), a nonprofit organization that supports teacher training in economic and personal finance education and develops curriculum materials for teachers and schools. The *National Standards for Financial Literacy* (CEE, 2013) divides the personal finance content into six standards or sections: (1) earning income; (2) buying goods and services; (3) saving; (4) using credit; (5) financial investing; and (6) protecting and insuring. For each standard there is an overarching statement from which the knowledge benchmarks are built. The 144 benchmarks (about 24

per standard) explain what students should know about that standard content by the fourth, eighth, and twelfth grades. Associated with each benchmark are examples of what teachers might do to have students demonstrate their content understanding. A three-part decision-making framework focusing on planning and goal setting, making a decision, and assessing the outcome is incorporated into the content discussion for each standard.

What distinguishes the CEE standards from the Jump$tart standards are several features beyond organization and parsimony (Bosshardt & Walstad, 2014). First, it provides an economics foundation for the six standards because economic concepts are an essential part of financial education. For example, it recognizes that choices about spending or investing have an opportunity cost. Most personal finance teachers have some training in economics, so the economics application can help them better teach the content. Second, it emphasizes financial decision-making by integrating it into each standard instead of treating it as a separate topic. This approach makes explicit the weighing of costs and benefits in decision-making and avoids a normative approach to teaching personal finance that tells students what they should or ought to do. Insights from behavioral economics also are included as appropriate for a standard.

Standards documents from Jump$tart and CEE are not the only source for content or curriculum guidance. Many organizations offer students, teachers, and school administrators curriculum materials or instruction programs with extensive financial content and pedagogical applications. One notable source is the National Endowment for Financial Education (NEFE), which has a *High School Financial Planning Program* that contains six modules on different personal finance topics (planning, borrowing, earning capability, investing, financial services, and insurance) and is widely used by students and teachers. Another notable organization is Junior Achievement (JA) (www.journiorachievement.org), which conducts programs for teaching students about economics, business, and personal finance. Its *JA Finance Park* is a month-long program for students that introduces them to personal financial planning and has them apply their budgeting skills in a visit to a finance park. Other educational resources for financial education are available from different nonprofit groups, multiple financial institutions and businesses too numerous to list. Jump$tart has a searchable clearinghouse for finding many educational resources (http://www.jumpstart.org/jump$tart-clearinghouse.html). In addition, the US Treasury has a "MyMoney.gov" web site with content divided into five categories (earn, borrow, save and invest, spend, and protect) and links to teacher resources. Many of the banks in the Federal Reserve System provide educational material for teaching about economics and personal finance (https://www.federalreserveeducation.org). The instructional problem for educators is not the lack of resources or programs for financial education, but deciding what content to teach and what resources to use.

Testing and Assessment

One major question people often have about personal finance is what do high school students know about it. Answering this question requires the development of a reliable and valid assessment instrument and administration to a nationally representative sample of students. To answer this question for most major subjects taught in the school curriculum, the US Department of Education through its NCES conducts the National Assessment of Educational Progress (NAEP) to show what students know or should be able to do in an academic subject by the time of high school graduation. The closest NAEP test to personal finance would be NAEP economics, which was first administered in 2006 and again in 2012 (NCES, 2013; Walstad & Buckles, 2008). No separate NAEP testing has been conducted in personal finance because NAEP has limited resources and personal finance is viewed as a more specialized subject in the high school curriculum.

In response to this national testing void, nonprofit organizations have sponsored the development of surveys or tests in personal finance.

One major initiative came from the Jump$tart Coalition with its *Personal Financial Survey* (Mandell, 2008). The survey contained 31 multiple-choice questions testing high school student understanding of the personal finance topics of income, money management, saving and investing, and spending and credit. The survey was first conducted in 1997 and then biannually in 2000–2008 (personal communication, Lewis Mandell, August 30, 2015). It provides a standardized test measure to monitor the progress made in the financial literacy of high school students over time. The results from each administration of the survey showed that high school students could answer correctly only about half the questions, and over time the national sample of students showed little improvement in test scores (Mandell, 2008).

As is the case with any achievement test, the Jump$tart test is not without its limitations. An assessment of the test was conducted using the 1997 and 2000 test data (Lucey, 2005). That review found that the reliability for the overall test was acceptable, but it was low for the few items on each subscale. It also reported that the evidence on the validity of the test was questionable because of limited expert review in test development and lack of content coverage based on published standards. Also suspect was the use of the data to make longitudinal comparisons because some of the test items changed over the years (Lucey, 2005). The characteristics of the samples and sampling procedures also differ somewhat from each year's administration and the response rates were relatively low (15.8–21.3 %) (Mandell, 2008). Perhaps in response to some of this criticism, the Jump$tart Coalition decided in 2010 to fund the development of a new test that is currently being pilot tested.

What this test discussion reveals is that more extensive research is needed for the population measurement of student achievement in personal finance at a point in time and for making valid comparisons over time. For these purposes, more reliable and valid tests are such ones as NAEP or the Programme for International Student Assessment (PISA). Although there is no NAEP test on financial literacy there is a PISA test. In 2012, this PISA financial literacy test was administered by the Organization for Economic Co-operation and Development (OECD) for the first time in 13 OECD countries (Australia, the Flemish Community of Belgium, the Czech Republic, Estonia, France, Israel, Italy, New Zealand, Poland, the Slovak Republic, Slovenia, Spain, and the USA) and five partner countries (Colombia, Croatia, Latvia, the Russian Federation, and in Shanghai, China). About 29,000 students took the financial literacy test in 18 nations including the USA. The published findings show wide variations in scores among students within nations and large disparities in financial literacy across nations (e.g., Shanghai was first with a score of 603; the USA was ninth with a score of 492, and Columbia last with a score of 379).

The four main content areas for the PISA test were money and transactions, planning and managing finances, risk and reward, and the financial landscape. Test questions were aligned with four process categories: identify financial information, analyze information in a financial context, evaluate financial issues, and apply financial knowledge and understanding. The context for the financial literacy questions included education and work, home and family, individual and society. The PISA assessment also includes information on financial education practices and strategies across different countries. The dataset collects additional information on student socioeconomic background, experience with and access to financial services, student attitudes, mathematical ability, and reading ability. The PISA test on financial literacy offers researchers a unique, multi-country dataset for analyzing financial literacy within and across nations that has yet to be fully studied.

One other recent test project for advancing financial education is worth noting. The CEE developed an online test center (http://www.councilforeconed.org/resource/online-assessment-center) with a searchable test bank of questions that can be used by teachers to assess student understanding in economics and personal finance. The personal finance questions in the test bank are coded using the CEE's *Financial Literacy*

standards and benchmarks. Included in the test portal are three standardized tests for personal finance: high school (grades 11–12); middle or high school (grades 8–9), and elementary or middle school (grades 5–6). The questions for these tests were constructed by a national committee of experts to align them with the CEE's *Financial Literacy* standards and were field tested with students. The three tests are designed to serve as common classroom tests that teachers can use to measure student achievement and compare the results with a large national sample. They also give researchers standardized and flexible test instruments that can be used for assessing students learning within a classroom, which is not possible with the PISA.

Research on State Mandates for Instruction

As programs in financial literacy for high school students have expanded over the past two decades, so has research on the effectiveness of this financial education. One important line of research has investigated the effects of state mandates for personal finance courses in high school to determine if the instruction has a long-term effect on financial behaviors later in life when the youth who received the instruction become adults. In an early and significant study, Bernheim, Garrett, and Maki (BGM) (2001) used survey data from household respondents, ages 30–40, and found that state mandates for financial education had a positive effect on the rate of saving (a flow) and wealth accumulation (a stock). Cole, Paulson, and Shastry (2013), however, replicated the BGM analysis using similar and different specifications, different datasets, and different dependent variables (e.g., "any investment income") and found no effect of state mandates on investment behavior. A study using Jump$tart test data found that the characteristics of the state mandate for schools mattered because more specific course mandates for personal finance education had a more positive effect on student financial knowledge whereas those mandates that were broad-based did not (Tennyson & Nguyen, 2001). A recent study used a panel of credit report data to examine the effects of state mandates on credit scores and delinquency rates in three states and showed that students exposed to financial education in the mandate states had higher credit scores and lower delinquency rates (Brown, Collins, Schmeiser, & Urban, 2014).

Although the above results from mandate studies are generally positive, there is room for skepticism. The results can be mixed because of the complexities for this type of longitudinal analysis. The timing of when mandates actually become effective varies because legislation first must be passed and then school districts must respond with curriculum changes. Not all financial education mandates are the same in terms of content coverage or emphasis so there are aggregation issues for the analysis. The mobility of the sample before and after the mandate takes effect may affect the outcomes. The measurement of financial behaviors through surveys can be imprecise and different for each study. Exogenous factors, such as differences in the economic characteristics of states, may influence the findings. The above analytical issues make it difficult to conduct a mandate study with careful controls that produces robust findings, even if from a policy perspective the research question is an important one to answer.

A more problematic line of research in financial education is the use of test scores to assess student achievement over time. The scores from the Jump$tart test from 2000 to 2006 were compared for those students who had taken and who had not taken a full-semester high school course in personal finance, but no significant difference was found in the scores for the two groups (Mandell, 2008). It is difficult to use such test data for evaluating the effectiveness of financial education because of insufficient controls related to course content, test measurement, teacher preparation, and amount of instruction (Walstad, Rebeck, & MacDonald, 2010). As previously noted, unlike most high school courses in mathematics or science, there can be widespread national differences in the content taught in personal finance courses (Loibl & Fischer, 2013). The test also includes only 31 items that may not closely match the content

that is taught. Furthermore, the quality instruction in a national sample can vary because teachers may not be well-trained to teach the material (Way & Holden, 2009).

Curriculum Studies

Given the challenges with broad-based and long-term national studies of the effects of financial education, studies that focus a specific financial education curriculum may produce more valid and useful results. These "micro" studies consistently show positive contributions from financial education to financial knowledge, financial literacy, and other outcomes assessed by constructed variables. The reasons most likely have to do with the fact that they allow for more control over factors that mitigate or distort the effects of financial education. One control advantage is that content to be taught is well-defined. There also is a better match between the course or unit content and any constructed outcome measures. In addition, there are more opportunities to ensure that teachers are properly prepared to teach the curriculum in the same way. Some type of pretesting and posttesting too can be included in the evaluation to check for changes in student learning or behavior. It is also possible to test students in a control group to compare outcomes with students in a program or treatment group.

What follows are four examples of research studies that evaluated specific curricula and show significant and positive effects from financial education on the financial knowledge and other financial outcomes after controlling for some of the above factors. See McCormick (2009) for examples of other studies. The first example is the comprehensive evaluation of the *High School Financial Planning Program* (HSFPP) (Danes, Rodriguez, & Brewton, 2013). Using a post-, then pre-, evaluation, the study found positive and significant effects from HSFPP on self-reported measures of financial knowledge and financial behaviors at the end of the instructional period among 4794 students taught by 212 teachers in 130 schools. What is especially noteworthy of this evaluation is it controlled for the nesting of students, teachers, and classroom characteristics. It found that in addition to knowledge gained, the learning context within and between classrooms influenced improvement in financial behavior.

The second example covers several evaluation studies investigating the effectiveness of *Financial Fitness for Life* (FFL), a personal finance and economics curriculum for high school students that is also available for lower grades (Morton & Schug, 2001; Gellman & Laux, 2011). A 50-item multiple-choice test was developed for assessment purposes for the overall content and each of its five financial education themes. The construct validity for the test was evaluated by having high school teachers in three states—who had been trained to use the FFL curriculum—administer the test to 524 students who were taught with the FFL curriculum, and to a control group of 335 similar students in the same schools who did not receive this instruction. The positive results for students receiving FFL instruction held even after accounting for other factors such as gender, race and ethnicity, income, and type of community (Walstad & Rebeck, 2005).

Another FFL study used FFL test items for three themes (saving, spending and credit, and money management) (Harter & Harter, 2009). In the semester prior to attending a training workshop on the use of FFL materials, the recruited teachers for the study used different financial education materials and posttested their students. Then after attending the FFL workshop and teaching the FFL curriculum, the teachers pretested and posttested their students. The regression analysis that controlled for general student ability, grade level, gender, and race showed a positive and significant improvement in test scores for FFL students compared with students taught with other financial education materials.

As a third example, consider an experiential study investigating the relationship between previous exposure to financial education and timely support for a financial decision (Carlin & Robinson, 2012). The sample was drawn from 2357 Los Angeles students, ages 13–19, who participated in the *JA Finance Park*. This role-playing simulation involves learning about personal budgeting by assuming a randomly assigned

fictional-adult identity. For the park experience students create a personal budget for various consumer expenditures—housing, health insurance, cell phone plan, recreation, and credit management. The budget is based on their calculated net monthly income from their fictional-adult identity. During the park experience students go to about 17 kiosks to make transactions in budget categories and seek to achieve a balanced budget reflecting their preferences. The study compared the budget outcomes of two groups of students—one not trained in financial literacy and one trained, who received 19 h of classroom instruction on personal finance (financial institutions, credit, taxes, and budgeting). The results show that classroom training affected student budget behavior at the park because those students with training tended to save more today, used credit more sparingly, and planned more for the future than did students in the not trained group. The other issue is one of timely decision support. In one case, involving payments for housing, students receive advice from kiosk volunteers to more quickly amortize their loans for mandatory home improvement (spend more upfront today to save more in loan interest cost). Students who had received financial literacy training were much more likely to reduce their interest costs. According to the authors, this outcome occurs most likely because financial education primes students to act on the advice or it recalls past training (Carlin & Robinson, 2012).

A fourth example is an evaluation study that investigated the effects of *Financing Your Future* (FYF) on student knowledge and understanding of personal finance (Walstad, Rebeck, & MacDonald, 2010). The content for the DVD-based curriculum is clearly described and specified so that different teachers provide the same instruction to each student. After training, teachers are familiar with the content and know how to teach it. The financial knowledge test employed to assess student achievement was developed to be a valid measure of knowledge of the content taught with the instructional materials, and the scores were found to be reliable. In addition, data was collected from students on both a pretest and a posttest to assess differences in students' final level of financial knowledge after controlling for starting levels. A unique feature of this evaluation is its use of a quasi-experimental design with pretest and posttest data on 800 students in either a FYF-treatment group or a control group. The fixed-effect regression analysis showed that financial education does make a positive and significant contribution to a high school student's knowledge of personal finance after controlling for factors such as course type, gender, grade in school, future education or work plans, work history during high school, credit card use, and teacher effects.

Although the above studies that evaluated different curricula have their advantages in the potential control over key variables and confounding factors that can influence the results, they too have their limitations. The primary one is that the results are specific to the particular personal finance curriculum studied and the sample of teachers and students used to assess it. From a research perspective, the issue is one of external validity because the results may not be generalizable to a larger population of high school students. The issue can be addressed somewhat, but is not eliminated by aggregating findings across studies. In this respect, it is encouraging that taken together the four studies described above show generally positive findings for the effects of financial education.

Finally what should be given more attention in research on financial education in high school is the difference in the purpose of financial education for high school youth and adults. In high school, the primary purpose of teaching most core subjects (e.g., math or science) is to improve subject-matter understanding, and not to change attitudes or behaviors because they are more uncertain and controversial. It is these achievement outcomes that are appropriately measured and tested by schools, states, and across nations, such as with PISA. The same goal applies to financial education in the schools. Its primary purpose is to improve content understanding of a broad range of financial matters that may be encountered in life and not to indoctrinate students with certain financial attitudes or behaviors. Of course, changes in financial attitudes and behaviors that may occur

from financial education instruction or course mandates are worth investigating as secondary or long-term outcomes, but these outcomes are not the immediate or necessarily the primary purpose of high school financial education.

High school financial education has been widely studied and there have been major developments. More states are incorporating personal finance in their standards or as graduation requirements. Many programs have been developed as a means to improve the financial literacy to young people. Future research on the topic should include the long-term effects of financial education and more information about how financial education affects financial behaviors. Careful research using sophisticated data and research techniques is needed to improve research in this area.

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12 Financial Knowledge and Financial Education of College Students

Brenda J. Cude, Donna Danns, and M.J. Kabaci

College is the first opportunity for most students to make financial decisions on their own, independent of their parents. The financial knowledge, behaviors, and attitudes that young adults (traditionally between the ages of 18 and 24) may acquire during their tenure at college depend not only on knowledge, skills, and behaviors developed through earlier socialization by family, peers, and early education, but also, to a large extent, on what they observe, learn, and exercise while at college. In turn, this is influenced by their expenditure choices (e.g., influenced by whether they live on- or off-campus), their payment methods (e.g., credit vs. debit cards), whether they are employed, their use and responsibility for education debt and other debt, and even the type of college they attend (e.g., public, private, 2- or 4-year, for-profit).

Students are expected to make decisions regarding educational and living expenses in the form of tuition, books, lab fees, rent, and food. The cost of living poses a significant hurdle for many students. Even those who receive financial aid sufficient to cover tuition and fees may struggle to cover living expenses (College Board, 2014). Students often allocate funds to social activities and material goods that may lead to desired peer approval and group affiliation (Wang & Xiao, 2009).

College students are likely to work part- or full-time to earn money. Balancing work and school takes time, so that some students who work may take longer to complete their studies (Joo, Durband, & Grable, 2008), and thus increase their educational expenditures. Greater financial burdens can lead students to drop out of college, or at a minimum, to reduce their course load to devote more time to paid work (Joo, Grable, & Bagwell, 2003). Students who incur significant debt, work too much, or suffer from financial stress may be more likely to leave college before graduation.

Students have choices in the types of colleges they attend—public, private, or for-profit. Their choices may be constrained financially (Paulsen & St. John, 2002; St. John, Paulsen, & Carter, 2005) by the institution's cost. The match between a student's capacity to pay and the institution's cost affects, at least in part, the student's persistence.

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Further, there may be specific financial issues unique to students at each type of institution which require specific financial knowledge.

The financial decisions students make have an important influence on their lives while in college and impact retention (Grable, Law, & Kaus, 2012), productivity, and potentially students' health (Cude & Kabaci, 2012). College may be a last chance for formal financial education before students become independent adults (Jobst, 2012), with the opportunity to educate students at important decision points in young adulthood (Durband & Britt, 2012) and address concerns about student loans and prevent loan default (Grable et al., 2012). Improving students' financial knowledge is important if it leads to positive financial behaviors that may improve a student's quality of life (Xiao, Tang, & Shim, 2009) and build a foundation for lifelong financial well-being.

There are many perspectives from which to view concerns about young, financially inexperienced adults' ability to successfully navigate financial decisions on their own. These include their financial socialization and the responsibilities of the educational institution as well as the students' parents to guide and/or restrict students' choices. However, this chapter focuses on college students' financial knowledge and approaches to teach financial education to this population. It reviews previous research in these two areas and concludes with ideas for future research.

Previous Research about College Students' Financial Knowledge

Since Danes and Hira's article in 1987, the first to report measuring college students' financial knowledge, more than 50 articles have been published on this topic. Interest has, in fact, increased, with more articles published in 2000 or later than before. Fourteen of these articles reported measuring international college students' financial knowledge, all but two with a publication date of 2010 or later. From this work, results about the financial knowledge of college students in 14 different countries in addition to the USA have now been published; the countries include Malaysia (Bakar, Masud, & Jusoh 2006; Ibrahim, Harun, & Isa, 2009; Sabri, MacDonald, Hira, & Masud, 2010), Turkey (Akben-Selcuk & Altiok-Yilmaz, 2014; Sarigül, 2014), Australia (Beal & Delpachitra, 2003; Wagland & Taylor, 2009), Brazil (Potrich, Vieira, & Ceretta, 2013), Portugal (Roquette, Laureano, & Botelho 2014), Puerto Rico (Martinez, 2013), and Hungary (Huzdik, Béres, & Németh, 2014; Luksander, Béres, Huzdik, & Németh, 2014).

Research about college students' financial knowledge has been published in more than 30 different academic journals. In addition, one honors thesis (Baughman, 2014), two master's theses (Jorgensen, 2007; Micomonaco, 2003), and three dissertations (Gilligan, 2012; Robb, 2007; Woolsey, 2011) have measured students' financial knowledge. The *Journal of Family and Economic Issues* has published more articles related to college students' financial knowledge (6) than any other single journal followed closely by the *College Student Journal* (5). Overall, 14 articles were published in journals related in some way to finance or personal finance, 11 in journals related to college students and/or young adults, and 10 in journals related to family and consumer sciences.

Three specific issues related to previous surveys of college students' financial knowledge are described. They are sampling, measurement, and evaluation of the test items.

Sampling

Issue 1: *Use of samples that may not be representative of the college student population*. Only a handful of articles, including the first (Danes & Hira, 1987) published to measure college students' financial knowledge, reported using true random samples. In more than 20 studies, a test of financial knowledge was administered to a convenience sample of students in a class (see, for example, Goldsmith & Goldsmith, 2006; Shahrabani, 2013) or at another school setting, such as the cafeteria (Micomonaco, 2003; Warwick & Mansfield, 2000). Articles reporting

surveys administered online described asking professors to send the survey link to students (Baughman, 2014), using a snowball technique to recruit students (Jorgensen & Savla, 2010), and sending an email to all currently enrolled students at an institution (e.g., Javine, 2013; Robb, 2011).

Issue 2: *Low or unreported response rates*. Four early studies (Chen & Volpe, 1998, 2002; Danes & Hira, 1987; Markovich & DeVaney, 1997) described mailing surveys to students and reported what are impressive response rates by today's standards—51.3 % in Chen and Volpe's research, 45 % in Danes and Hira's, and 50 % in Markovich and DeVaney's. More recent studies have posted surveys online; most used convenience samples and thus could not report response rates. However, among the online studies reviewed, only three reported response rates of 40 % or greater (Akben-Selcuk & Altiok-Yilmaz, 2014; Jorgensen & Savla 2010; Xiao, Ahn, Serido, & Shim, 2014). More typical response rates were 9–24 % (LaBorde, Mottner, & Whalley, 2013; Robb, 2007, 2011; Shim, Xiao, Barber, & Lyons, 2009). Baughman (2014) reported reaching only 1.8 % of the undergraduate student population surveyed and Javine's (2013) response rate was 3.8 %.

Issue 3: *Lack of purpose for selection of student populations of interest*. Most surveys were aimed at undergraduates in general, although six targeted freshmen (Akben-Selcuk & Altiok-Yilmaz, 2014; Jones, 2005; Lee & Mueller, 2014; Rosacker, Ragothaman, & Gillispie, 2009; Woolsey, 2011; Xiao et al., 2014), one focused on seniors (Markovich & DeVaney, 1997), and one surveyed juniors and seniors (Hanna, Hill, & Perdue, 2010). A few studies (Javine, 2013; Jorgensen, 2007; Smith & Barboza, 2014; Shim et al., 2009) included graduate students in the surveys although the data from those students typically were excluded from the analysis. Makela, Punjavat, and Olson (1993) was the only study reviewed that assessed the financial knowledge of graduate students without including undergraduates. Five studies (Ford & Kent, 2010; Ludlum et al., 2012; Rosacker et al., 2009; Seyedian & Yi, 2011; Wagland & Taylor, 2009) assessed the financial knowledge of business majors only. The selection of student groups seemed motivated by convenience rather than a specific reason to assess the knowledge of the selected groups for a purpose.

Issue 4: *Lack of purpose for selection of educational institution of interest*. Descriptions of the universities where the students were recruited in previous research were often vague, although most were public institutions described as land-grant or state universities and on a single campus. Eight studies used student samples from more than one state (Chen & Volpe, 1998, 2002; Hancock, Jorgensen, & Swanson, 2013; Jorgensen & Savla, 2010; Jump$tart Coalition for Personal Financial Literacy, 2008; Norvilitis et al., 2006; Rosacker et al., 2009; Sabri et al., 2010). A few studies described the students' campuses; terms used included metropolitan (Hanna et al., 2010), urban (Norvilitis & MacLean, 2010), and regional (Ford & Kent, 2010). Only one study was conducted at a predominantly black university (Murphy, 2005). Three included community college students (Chen & Volpe, 1998, 2002; Gilligan, 2012), and nine included students at private colleges (Chen & Volpe, 1998, 2002; Goldsmith, Goldsmith, & Heaney, 1997; Jorgensen & Savla, 2010; Ludlum et al., 2012; Norvilitis et al., 2006; Sabri et al., 2010; Warwick & Mansfield, 2000; Woolsey, 2011).

Previous research provides no clear direction about whether student samples from different types of institutions can be combined to increase the number of respondents. Norvilitis et al. (2006) described students' financial knowledge as "marginally" better at state vs. private universities. However, Jorgensen and Savla (2010), who collected data at "public, private, land grant, research, liberal arts, and undergraduate" universities (p. 469), found very low between-school variances in financial knowledge scores.

Measurement

Measuring college students' financial knowledge requires knowing what and how to test. Huston

(2010) recommended a guideline to measure financial knowledge as 12–20 items with three to five based on each of four content areas:

(1) Money basics (including time value of money, purchasing power, personal financial accounting concepts)
(2) Borrowing (i.e., bringing future resources into the present through the use of credit cards, consumer loans, or mortgages)
(3) Investing (i.e., saving present resources for future use through the use of savings accounts, stocks, bonds, or mutual funds)
(4) Protecting resources (either through insurance products or other risk management techniques).

Issue 1: *Lack of comprehensive measures of financial knowledge*. By Huston's (2010) standard, 34 studies measured financial knowledge comprehensively, using measurement instruments that included at least 12 items that tested multiple aspects of personal finance. Nine studies measured knowledge in only one content area: investing (Ford & Kent, 2010; Goldsmith & Goldsmith, 2006; Goldsmith et al., 1997; Volpe, Chen, & Pavlicko, 1996), credit (Jones, 2005; Ludlum et al., 2012; Warwick & Mansfield, 2000; Xiao et al., 2014), and student loans (Lee & Mueller, 2014). Most studies measured knowledge objectively but a handful used a self-perceived subjective measure of financial knowledge (Chan, Chau, & Chan, 2012; Shim et al., 2009)—or both (Javine, 2013; Goldsmith et al. 1997; Huzdik et al., 2014; Shim et al., 2009; Smith & Barboza, 2014; Xiao et al., 2014).

Issue 2. Differences in knowledge measures complicate comparison across studies. In most studies, the researchers created their own knowledge test, sometimes pulling questions from other sources but most often not specifying how they constructed the test. The majority of the questions used to measure financial knowledge were based on a previously-used instrument in only 13 of the studies reviewed. The most popular source was the Jump$tart Coalition's Survey of Personal Financial Literacy among Students (http://www.jumpstart.org/survey.html). Researchers who used this instrument included Baughman (2014); Bongini, Trivellato, and Zanga (2012) who used 13 of the questions; Gilligan (2012) who removed three items for social bias; Lalonde and Schmidt (2009), Norvilitis and MacLean (2010), Norvilitis et al. (2006), Seyedian and Yi (2011), and Shim et al. (2009). Lucey (2005) described the Jump$tart survey as having "moderately high internal consistency overall" (p. 292) but challenged whether the items provide "a complete measure of financial literacy" (p. 292) and described some of the items as socially biased. Other sources of objective financial knowledge questions used in previous research were the Council on Economic Education's *Financial Fitness for Life* test (Borodich, Deplazes, Kardash, & Kovzik, 2010), the Debt Management Survey (Lee & Mueller, 2014), and the USA Funds Life Skills Financial Literacy test (Woolsey, 2011).

A few researchers used different approaches to measure college students' financial knowledge. For example, Borden, Lee, Serido, and Collins's (2008) measure of knowledge was to ask students whether seven financial management practices were good or bad. Warwick and Mansfield (2000) and Ludlum et al. (2012) asked students about their knowledge of their own credit cards.

Issue 3: *Limited evaluation of the quality of the financial knowledge measures*. The literature suggests basing assessment of the properties of a measurement instrument on two main test theories: Classical Test Theory, the predominant measurement paradigm in test analysis, and Item Response Theory (Kunovskaya, Cude, & Alexeev, 2014). However, these techniques have rarely been used to analyze financial knowledge tests given to college students. For example, a Cronbach's alpha indicates whether an instrument is reliable; however, only Jorgensen (2007) and Luksander et al. (2014) reported that statistic—which was 0.77 and 0.63, respectively, both above the recommended cutoff of 0.60. Two others used the statistic to verify the reliability of their financial knowledge instrument. Lee and Mueller (2014) used the alpha to eliminate one of the three subscales in their instrument. Sarigül

(2014) evaluated a 30-item assessment instrument and removed seven items based on the Cronbach's alpha.

More sophisticated techniques based on Item Response Theory can be used to refine results. Bongini et al. (2012) used the Rasch model to identify the most difficult and easiest questions. They described the most difficult as requiring numeracy to calculate cash inflows and outflows. They also reported DIFs (differential item functioning) to evaluate differences in knowledge among subgroups. The DIFs indicated that some items were more difficult for students in different majors while others were more difficult for females than for males.

Factors that Influence College Students' Financial Knowledge

Given the inconsistencies in the ways previous measures of financial knowledge were constructed and administered, it is not surprising that there is little that can be definitively concluded about previous research. Not all studies reported an overall mean; for example, Danes and Hira (1987) reported means specific to content areas ranging from 48.8 % correct on insurance questions to 81.8 % correct on questions about record keeping. Among those who measured knowledge objectively and reported an overall mean, the percent correct ranged from 34.8 % (Avard, Manton, English, & Walker, 2005; Manton, English, Avard, & Walker, 2006) to 64 % (Jorgensen, 2007) in domestic studies and from 11.8 % (Sabri, MacDonald, Hira, & Masud, 2010) to 65 % (Sarigül, 2014) in international studies.

As for influences on financial knowledge, the greatest consistency in results is about the influences of academic major and gender. At least seven studies reported a positive relationship between being a business major and financial knowledge, including Bongini et al. (2012), who reported the relationship was positive but specific to the type of knowledge. At least 16 studies examined the relationship of gender to financial knowledge. Only Avard et al. (2005) and Manton et al. (2006), who studied freshmen, reported the relationship was not significant. While most studies found that being male was associated with greater knowledge, Bongini et al. (2012) and Danes and Hira (1987) described the significance of the relationship as inconsistent and Norvilitis et al. (2006), who used the Jump$tart Coalition test, reported that females' scores were statistically significantly different (and higher) than males' scores.

The relationship between class rank and knowledge was tested in at least eight studies and a positive relationship was reported by most; only Sabri et al. (2010), who surveyed students in Malaysia, did not find a significant relationship. Researchers also have found a positive relationship between employment or work experience and financial knowledge (Akben-Selcuk & Altiok-Yilmaz, 2014; Beal & Delpachitra, 2003; Chen & Volpe, 1998, 2002; Danes & Hira, 1987; Seyedian & Yi, 2011; Shahrabani, 2013). Researchers, including Chen and Volpe (1998, 2002), Jones (2005), Micomonaco (2003), Murphy (2005), and Robb (2007), have consistently reported a link between knowledge and ethnicity and higher financial knowledge scores for whites than for non-white college students.

There is much less evidence about the relationship between other variables examined and financial knowledge. Akben-Selcuk and Altiok-Yilmaz (2014), Chen and Volpe (1998, 2002), Danes and Hira (1987), and LaBorde et al. (2013) reported a positive relationship with age although Danes and Hira described that relationship as specific to insurance and loans. In contrast, Goldsmith et al. (1997) did not find a significant relationship between age and financial knowledge among college students.

Akben-Selcuk and Altiok-Yilmaz (2014) reported a significant relationship between not living at home and financial knowledge. Students who lived off-campus had greater financial knowledge about credit cards and loans in Danes and Hira's (1987) research and scored higher on the more comprehensive measure that Sabri et al. (2010) used. In contrast, Sarigül (2014) did not find a significant relationship between residence and financial knowledge.

Beal and Delpachitra (2003) reported a positive and significant relationship between income and financial knowledge. Danes and Hira (1987) reported that income was positively related with knowledge about insurance.

Three studies (Akben-Selcuk & Altiok-Yilmaz, 2014; Goldsmith et al., 1997; Smith & Barboza, 2014) reported no relationship between financial knowledge and college students' GPA. Lalonde and Schmidt (2009) described a significant and positive relationship between self-reported SAT scores and financial knowledge.

Four studies (Akben-Selcuk & Altiok-Yilmaz, 2014; Murphy, 2005; Sabri et al., 2010; Sarigül, 2014) described a positive relationship between parental education and financial knowledge but in Robb's (2007) research the relationship was not significant. Akben-Selcuk and Altiok-Yilmaz (2014) and Sabri et al. (2010) reported that talking with parents about finances was positively related with students' financial knowledge.

In Danes and Hira's (1987) research, being married was positively related to financial knowledge in all areas except record keeping. Robb (2007) reported a positive relationship between college students' financial independence and financial knowledge.

In research by Avard et al. (2005), Manton et al. (2006), and Lalonde and Schmidt (2009), there was no relationship between financial knowledge and completing a business, economics, or personal finance course. Only Shahrabani (2013), who surveyed students in Israel, found a positive relationship between having completed a business/economics course and financial knowledge. However, researchers have found relationships between financial knowledge and behaviors (owning a savings account – Sabri et al., 2010; having credit cards – Lalonde & Schmidt, 2009).

Previous Research About College Student Financial Education Programs

The term "financial education" has been used interchangeably with "financial literacy education" (Mandell & Klein, 2009; Norgel, Hauer, Landgren, & Kloos, 2009; Vitt et al., 2000; Willis, 2009), "personal financial education" (Hogarth, 2006; Huston, 2010), and "personal finance education" (PACFL, 2008). The term "financial education" can be quite broad, encompassing issues in economics and how decisions are impacted by economic conditions, or it can be narrow, focusing directly on one or only a few aspects of personal financial management. Financial education programs generally operate with the assumption that improving knowledge about personal finance leads to wiser financial decisions.

Some researchers have opined that the deficiency in the financial knowledge of college students is a direct result of the lack of financial education programs in the college curricula (Chen & Volpe, 2002; Cude et al., 2006a; Durband & Britt, 2012; Grable et al., 2012; Jobst, 2012; Norvilitis & Santa Maria, 2002). Some have called on colleges and universities to offer financial education programs as the vehicle to improve financial knowledge among students and help them avoid the pitfalls of poor financial decisions before and after graduation from college (Bianco & Bosco, 2002; Cude et al., 2006a; Cunningham, 2001; Harnisch, 2010; Hayhoe, Leach, Allen, & Edwards, 2005; Hayhoe, Leach, & Turner, 1999; Jones, 2005; Kazar & Yang, 2009; Lyons, 2004a; Peng, Bartholomae, Fox, & Cravener, 2007).

Financial Education Programs

Researchers have found that relatively few colleges and universities offer financial education programs for students (Crain, 2013; Danns, 2014; Grable et al., 2012; Student Lending Analytics, 2008). Student Lending Analytics (2008) reported that 39 % of the colleges and universities in their survey provided a financial education program with financial aid administrators claiming responsibility for most (89 %) of the programs.

Despite the paucity of financial education programs on college campuses, researchers have investigated the nature and design of imple-

mented programs. Researchers providing broad overviews of such programs include Cude and Kabaci (2012), Cude, Lyons, Lawrence, and the American Council on Consumer Interests Consumer Education Committee (2006b), Danns (2014), Grable et al. (2012), and Vitt et al. (2000). Others focused on specific aspects of college-based programs such as delivery methods (Dempere, Griffin, & Camp, 2010; Goetz, Cude, Nielsen, Chatterjee, & Mimura, 2011); program content (Goetz & Palmer, 2012); program staffing issues (Britt, Halley, & Durband, 2012; Halley, Durband, & Britt, 2012); and marketing strategies of programs (Bell, McGarraugh, & De'Armond, 2012).

Four specific issues related to prior research of college financial education programs are reported here. They are models of financial education programs, program delivery mechanisms, program content, and effectiveness of financial education programs and mechanisms.

Issue 1: *Lack of consensus on effective models of financial education programs*. Cude et al. (2006b) described four general models—financial education/counseling centers, peer-to-peer programs, programs delivered by financial professionals, and distance learning programs. Danns (2014) also identified four organizational models for financial education programs in state colleges and universities—academic, full-fledged money management center, branch, and seed program. Grable et al. (2012), while not specifically categorizing models, explained that financial education programs may be contracted out to third parties, delivered by counseling staff and peer counselors, or delivered through an academic unit.

Issue 2: *Students' differing preferences for program delivery mechanisms*. Researchers who studied the mechanisms or methods used by colleges to deliver financial education programs (Cude et al., 2006b; Danns, 2014; Dempere et al., 2010; Grable et al., 2012) found colleges are utilizing a number of delivery mechanisms including credit and non-credit in-class personal finance courses, freshman orientation, telephone sessions, live web counseling, seminars, peer-to-peer and other counseling sessions, workshops, radio programs, flyers, pre-packaged DVD/CDs, blogs, podcasts, videos, email messages, single event activities, pre-packaged online courses, interactive activities, and small group discussions.

Some researchers have examined students' preferences for specific delivery mechanisms that best serve their financial education needs (Cude et al., 2006a; Danns, 2014; Dempere et al., 2010; Goetz et al., 2011; Lyons, 2004b; Lyons & Hunt, 2003; Sallie 2009) but reached no clear-cut conclusions. In Sallie Mae's (2009) research, a majority of undergraduate students preferred in-person financial education programs, including classroom sessions, over self-directed or passive financial educational methods. In contrast, financially at-risk students in Lyons' (2004a) survey preferred online financial information while in Cude et al.'s (2006a) research, students preferred informative websites, financial education centers on campus, workshops, and formal classes. Dempere et al. (2010) found that students wanted a wide variety of delivery methods including formal classroom sessions, one-to-one counseling sessions, workshops, seminars, email tip-sheets, and online tutorials. Goetz et al. (2011) reported that students were interested in online resources and workshops, and, to a lesser degree, a financial counseling center. Students in Danns' (2014) focus groups showed an overwhelming preference for an in-class personal finance course although some wanted workshops and seminars. Community college students preferred one-on-one discussions or counseling sessions, small group settings, and presentations from financial professionals in Lyons and Hunt's (2003) research.

Issue 3: *Lack of consensus on program content*. Cude and Kabaci (2012) explained that there is limited consensus about how to design effective financial education programs on college campuses and by extension what program content should be offered. Some researchers have identified the content areas that colleges *currently* offer (Danns, 2014; Grable et al., 2012) while others have offered opinions about what *should* be offered. Jones (2005), Kazar and Yang (2009), and the PACFL (2008) argued that effective financial education programs should be com-

prehensive and multi-faceted and meet the needs of all students. Others have recommended that financial education programs should address students' specific needs (Hayhoe et al., 1999; Lyons, 2004a). Lyons (2004a) argued that some groups of financially at-risk students (i.e., students from low- to middle-income families, financially independent students, and minorities) are likely to have specific financial education needs and that financial education programs and services should be tailored to meet these needs. The 2008 Higher Education Act requires colleges that run federal TRIO programs to connect disadvantaged students who participate in the programs with financial counseling (Supiano, 2008). Some researchers have argued for specific training such as investment education (Peng et al., 2007; Volpe et al., 1996). Goetz and Palmer (2012) argued for a more holistic approach to financial education content including financial goal development, money relationships, cash flow planning/budgeting, establishing and improving credit, managing debt, saving and investing, tax education, job selection, planning for expenses after college, and premarital financial counseling.

Kabaci (2012) conducted a Delphi study with 36 experts to identify the personal finance core concepts and competencies that undergraduate college students as a whole, undergraduate loan recipients, and first-generation undergraduates should possess. The personal finance concepts that were identified as important for undergraduate college students included borrowing, budgeting, financial services, saving, student financial aid, insurance, and consumer protection. In addition, 140 personal finance competencies gained consensus by panel members.

Little research has been conducted to identify personal finance concepts that are important from the perspective of the college students themselves. Dempere et al. (2010) reported that a higher percentage of students were interested in learning more about saving/budgeting, paying for college/financial aid, and debt reduction/management than about retirement, investment, insurance, and tax planning.

Issue 4: *Efficacy and effectiveness of programs and delivery methods*. One of the biggest challenges in measuring the efficacy of financial education programs is that program content varies greatly. This may be due, in part, to the fact that financial education programs vary by school and by department. Some programs emerge from academic units and others are operated by student services or financial aid departments. Still, researchers have examined the effectiveness of delivery methods by comparing two or more delivery methods and single methods. Maurer and Lee (2011) reported similar learning gains from traditional classroom instruction and peer-led financial counseling but pointed to the need for further investigation. Lyons (2004b) found short workshops and small group settings to be effective methods.

Other researchers assessed the effectiveness of single delivery methods, including seminars (Borden et al., 2008); for-credit personal finance courses (Cude, Kunovskaya, Kabaci, & Henry, 2013; Gross, Ingham, & Matasar, 2005); workshops (Rosacker et al., 2009); and online Financial literacyfinancial literacy courses (Woolsey, 2011). Mandell (2009) suggested that the length of a course may play a significant role in effectiveness of financial education after finding that students who took a semester-length course in money management or personal finance were more financially literate than those who had taken only a portion of a course.

Directions for Future Research: Gaps in College Student Financial Knowledge and Financial Education Research

Assessing College Students' Financial Knowledge

Future researchers who wish to assess college students' financial knowledge should be guided by the issues addressed in the earlier section of the chapter. Large samples selected systematically and purposefully would improve the quality of future research. For example, if there is value in learning more about knowledge differences between freshmen and seniors or between private

and public college students, then random samples purposively collected with the research question in mind are needed. Achieving response rates greater than 50 % is challenging among college student populations (Porter & Whitcomb, 2003) and lower academic ability and male students as well as students of color are typically underrepresented in the responses (Porter & Umbach, 2006). To overcome these issues, larger samples and oversampling of specific demographic groups are recommended. Perhaps most importantly, consensus is needed about personal finance knowledge essential to college students or specific groups of students. With that consensus, a test can be written that includes three to five items for each content area. Ideally, such a test would be piloted and the data subjected to statistical tests based on Classical Test Theory and Item Response Theory to select items that provide the most useful information about students' financial knowledge. With a standardized test given to different student groups, researchers then can conduct analyses more confidently to identify factors that explain differences in students' financial knowledge.

Designing College Student Financial Education Programs

Future research is needed to further explore issues and opportunities associated with financial education on college campuses. The issues addressed earlier in the chapter are significant. For example, the lack of consensus about ideal models of financial education indicates that more study is needed to determine the opportunities and weaknesses that each presents.

Research is just beginning to systematically explore the personal finance concepts and competencies deemed most important for college students in general, as well as for specific groups such as those with student education loans. Future efforts should continue to work to gain consensus among researchers, administrators, and educators to build better financial education programs for all students. In addition, additional research that examines the issue from the perspective of college students, or specific groups of college students, is needed. Financial education programs are likely more effective when they address concerns that are of immediate relevance to the students themselves.

There is limited research about the financial knowledge and personal financial education needs of the varied types of students that are entering colleges at this time. Harnisch (2010) pointed to rapid changes in the college landscape and outlined that today's students are more diverse than ever. Research about student financial education needs has failed to keep pace with this changing landscape.

There is a huge gap in our understanding of the financial issues and hence the education needs of non-traditional students, including military veterans, who may enter college with pressing financial problems and obligations including credit card debt, home loans, school- and college-age children, loss of jobs, divorce, and loss of wealth. Their financial situation then is compounded if they add student loans to finance their college education. Their previous experiences as well as their more complex financial lives may make their financial education needs quite different from those of traditional students.

Another neglected dimension in financial education research is whether there are differences, and if so what those are, in the needs of students who attend the various types of colleges. Much financial education research emanates from public research universities whose researchers invariably sample and report on behaviors of their own student population. There is a gap in our understanding of the needs of students at other 4-year as well as 2-year state colleges and universities. Increasingly, a sizeable number of enrollees at these institutions are from the minority populations and/or are first-generation college students who may have different financial issues and financial education needs.

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13 Financial Issues of Older Adults

Sharon A. DeVaney

This chapter explains the finances of *older adults* including: income, net worth, poverty, debt, emergency funds, labor force participation, consumption, housing, health care, long-term care, and financial scams. Americans are living longer and better than ever before thanks to major medical and public health advances and greater access to health care (White House Conference on Aging, 2015). Life expectancy at birth for Americans of both sexes and all races was 78.7 years in 2010. As age increases, life expectancy increases. Therefore, a 65-year-old man can expect to live another 17.7 years and a 65-year-old woman can expect to live another 20.3 years. A 75-year-old man can expect to live another 11.0 years and a 75-year-old woman can expect to live another 12.9 years (Health, United States, 2013, p. 82).

Increased life expectancy leads to the question: Will older adults enjoy economic well-being in their later years? Xiao, Chen, and Sun (2015) studied age differences in financial capability using data from the 2012 National Financial Capability Study commissioned by the Financial Industry Regulatory Authority (FINRA) Investor Education Foundation. The study included 25,509 American adults and 1000 military members; data were collected through online surveys. The study focused on objective financial literacy, subjective financial literacy, desirable financial behaviors, and perceived financial capability. Perceived financial capability was measured using this question: "I am good at dealing with day-to-day financial matters, such as checking accounts, credit and debit cards, and tracking expenses." The youngest group (aged 18–24) had the lowest score for perceived financial capability and the oldest group (aged 65+) had the highest score for perceived financial capability. Each of the six age groups had higher scores than the age group that was younger than their group. Also, all six age groups had scores for perceived financial capability that were statistically different from each other (Xiao et al., 2015).

For many years, the Publication Manual of the American Psychological Association (2010) has stated that authors should refrain from using "elderly" or "aged" as a noun. Also, the use of these terms as adjectives should be avoided. Although using these terms in this way was a common practice through the mid-1980s, the American Psychological Association has helped scholars think of alternative terms to respect and represent the diversity of the population (K. Ferraro, personal communication, June 1, 2015). The term *older adult* is preferred (American Psychological Association, 2010, p. 76).

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Demographics

The US Census Bureau issued a Special Study report titled “65+ in the United States: 2010” in June 2014 (West, Cole, Goodkind, & He, 2014). The report was a rich source of information on older adults in the USA. In 2010, there were 40.3 million people aged 65 and older in the USA; this was 12 times the number in 1900. The percentage of the population aged 65 and over among the total population increased from 4.1 % in 1990 to 13.0 % in 2010; the percentage aged 65 and over is projected to reach 20.9 % by 2050 (West et al., 2014).

The old age dependency ratio (number of working age persons, measured as the number between age 20 and 64, divided by the number of persons aged 65 and older) is expected to rise sharply when the Baby Boomers enter their later years. In 2030, the dependency ratio is expected to be about three workers supporting every older person (West et al., 2014). Dependency ratios are thought to impact national savings rates and the rate of economic growth. They have implications for financing programs for dependent populations such as children and older adults (Clark, Burkhauser, Moon, Quinn, & Smeeding, 2004). The predicted low dependency ratios will make it challenging to fund the social programs that support and serve those who are not in the labor force such as children and older adults.

The older population has become more racially and ethnically diverse. Those who identify their race as White alone were 84.8 % of the population in 2010. This is down from 86.9 % in 2000. The older White alone population was less likely than the older Black alone population and the Asian alone population to live in poverty in 2010. Older Hispanics were more likely to live in poverty than were older non-Hispanic White alone residents (West et al., 2014).

States with the highest proportions of older adults in their population in 2010 included Florida, West Virginia, Maine, and Pennsylvania. In each of these states, the proportion of older adults was greater than 15 % of the total population. The USA is not the only country experiencing population aging. In 2010, 50 countries had a higher proportion of people aged 65 and over than the USA. By 2050, this number is expected to reach 98 which means that almost half the countries in the world will have a higher proportion of people aged 65 and over than the USA (West et al., 2014).

Theoretical Framework

Although several theories from psychology and sociology are used to interpret changes that occur as people age, there are at least three theories from economics that should be included in the study of older adults and financial issues. The economic theories are: the life-cycle hypothesis of savings, the permanent income hypothesis, and precautionary savings.

The life-cycle hypothesis of savings suggests that people try to maintain a relatively stable level of consumption over their lifetime (Ando & Modigliani, 1963). This behavior is observed when those who are younger borrow to meet consumption needs, those who are middle-aged save a relatively large proportion of their earnings, and those who are older spend down their assets when income is reduced in retirement. A strict interpretation of the life-cycle hypothesis suggests that people will spend all of their assets before the end of their life. However, it has been observed that people reduce consumption as they age; the purpose is to retain assets to provide for unexpected increases in both longevity and health care expenses.

The permanent income hypothesis suggests that people adjust their spending level to their perceived level of future income. Permanent income is believed to be what people can confidently expect to receive. Transitory income is believed to be income that is received accidentally or by chance. Transitory income is not expected to affect long-term consumption (Friedman, 1957).

Precautionary saving is intended to safeguard against declines in future income. The precautionary savings model suggests that older adults will be cautious about spending down their assets. The reluctance to spend down assets is

explained by uncertainty about longevity, the cost of health care in the future, and the possibility of becoming impoverished (Carroll, 1997; Deaton, 1992).

Concerns of Pre-Retirees and Retirees

The Society of Actuaries (2014) has studied post-retirement risks and how they are managed for more than 15 years. In August 2013, the Society conducted The Risks and Process of Retirement Survey using online interviews to collect data from 1000 pre-retirees and 1000 retirees. The age range of interviewees was 45–80. Results from the survey revealed that inflation, health care, and long-term care were the top three risks for both retirees and pre-retirees. Pre-retirees were often more concerned about inflation, health care, and long-term care than retirees.

The survey showed that 77 % of pre-retirees and 58 % of retirees were very or somewhat concerned about "keeping the value of savings and investments up with inflation." The second largest concern expressed by 73 % of pre-retirees and 46 % of retirees was having enough money to pay for adequate health care. The third biggest concern expressed by 68 % of pre-retirees and 52 % of retirees was having enough money to pay for long-term care. The possibility of depleting savings was in fourth place; it was expressed by 66 % of pre-retirees and 41 % of retirees. Maintaining a reasonable standard living for the rest of their life was in fifth place; it was expressed by 65 % of pre-retirees and 41 % of retirees (Society of Actuaries, 2014).

Retirees may feel more confident than pre-retirees in regard to these issues because many retirees receive Social Security retirement benefits and those aged 65 and over should have Medicare coverage. In contrast, pre-retirees might have limited retirement savings due to slow wage growth. Perhaps pre-retirees expect inflation to rise because inflation rates have been at historic lows for some time. Another concern for pre-retirees could be that the expected low worker to dependent ratio suggests that Social Security benefits and Medicare will be reduced in the future.

Income

Median household income in 2013 for households of all ages was $51,939 while median income for households maintained by a person aged 65 and older in 2013 was $35,611. Notably, the median income of households maintained by a person aged 65 and older increased by 3.7 % from $34,340 in 2012 to $35,611 in 2013. This was the first increase in median income for this age group since 2009 (DeNavas-Walt & Proctor, 2014).

Total money income for those 65 and over comes primarily from four sources: Social Security, earnings, pensions, and asset income. The importance of Social Security varies by income level. For those 65 and older in the lowest income quintile, Social Security represented 84.3 % of total income, followed by 7.0 %, public assistance; 2.9 %, pensions; 2.4 %, earnings; 1.8 %, asset income; and 1.6 %, other. For those 65 and older in the highest income quintile, earnings represented 44.9 % of total income; pensions, 19.1 %; Social Security, 17.3 %; asset income, 16.1 %; other, 2.4 %; and public assistance, 0.1 % (West et al., 2014).

Net Worth

Net worth (wealth) is the sum of the market value of assets owned by every member of the household minus liabilities owned by household members. Components of net worth include interest-earning assets, rental property, home ownership, Individual Retirement Accounts and Keogh accounts, 401(k) retirement plans, vehicles, and checking accounts. Assets not included in net worth include equities in defined benefit pension plans, the cash value of life insurance policies, and the value of home furnishings and jewelry. Liabilities include mortgages on the home, mortgages on rental property, vehicle loans, credit card debt, educational loans, and medical debt not covered by insurance (Vornovitsky, Gottschalck, & Smith, 2014a).

As shown in the September 2014 Federal Reserve Bulletin, different age groups experienced very different trends in net worth between

Table 13.1 Family median and mean net worth from the 2010 and 2013 surveys of consumer finances, in thousands of 2013 dollars

	Median net worth		
Age of head	2010	2013	% Change
65–74	221.5	232.1	+5
75 or more	232.3	194.8	−16

	Mean net worth		
Age of head	2010	2013	% Change
65–74	909.2	1057.0	+16
75 or more	726.5	645.2	−11

2010 and 2013 (Bricker et al., 2014). Both mean and median net worth increased for those under age 45, decreased for those between age 45 and 64, increased for those between age 65 and 74, and decreased for the oldest group aged 75 and older. Increases were generally larger for mean net worth than for median net worth, while declines were similar in magnitude for the two measures. Gains in median net worth for families of all ages ranged between 3 % and 5 %, while declines in median net worth for all families ranged between 14 % and 17 % (Table 13.1).

Poverty

In 1959, 35.2 % of people aged 65 and over lived in poverty (West et al., 2014). The proportion of older adults living in poverty declined during the 1960s and 1970s due to the expansion of Social Security and introduction of Medicare. In contrast to the 1959 poverty rate of 35.2 %, the poverty rate for those aged 65 and over in 2013 was 9.5 % (DeNavas-Walt & Proctor 2014). The poverty rate in 2013 for women aged 65 and older was 11.6 %, while the poverty rate for men aged 65 and older was 6.8 %.

The term "near poverty" means that income is at or above the poverty threshold but it is below 125 % of the poverty threshold. Poverty and near-poverty rates differ by age group for older adults. Poverty and near-poverty rates are higher for those aged 75 and over compared to those aged 65–74. Also, higher percentages of older women lived in or near poverty in 2010 than did older men. Older White single individuals were less likely than older Black singles and older Asian singles to be in poverty in 2010 (West et al., 2014).

Debt

Secured debt includes debt against a household's primary residence and vehicles while unsecured debt includes amount owed for credit cards, loans from a bank or credit union, and other debt such as student loans, medical debt, money owed to individuals, and any other unsecured debt. In 2000, the median amount of secured debt for households aged 65 and older was $25,400 while in 2011, it was $50,000. In 2000, the median amount of unsecured debt for households aged 65 and older was $2300 and, in 2011, it was $3500. However, the total of household debt at $12,100 in 2000 and $26,000 in 2011 was lower than median secured debt because not every household holds secured debt (Vornovitsky, Gottschalck, & Smith, 2014b).

Emergency Funds

In September 2013, the Federal Reserve Board conducted The Survey of Household Economics and Decision-making (SHED). The results were based on a nationally representative online survey panel. All ages were included in the survey. However, responses to the question "Have you set aside emergency or rainy day funds that would cover your expenses?" were categorized by age (Board of Governors of the Federal Reserve System, 2014).

Individuals aged 60 and older were more likely to say "Yes, they set aside emergency or rainy day funds to cover expenses." Over half (56.3 %) aged 60 and older said "Yes" compared to 39.4 % which was the average for all respondents. Similarly, 66.6 % of those aged 60 and older said "Yes" in response to the question "Could you cover expenses for 3 months by borrowing money, using savings, selling assets, or borrowing from friends/family?" compared to 55.6 % of all respondents (Board of Governors of the Federal Reserve System, 2014).

Labor Force Participation

The labor force participation rate (LFPR) of men aged 65 and older decreased from 45.8 % in 1950 to 15.6 % in 1993. In contrast, older women's LFPRs were stable; their rate was less than 10 % in 1950 and almost the same at 10 % in 2000. The trend toward earlier retirement in the 1960s, 1970s, and 1980s began to change in the 1990s for men and in the 2000s for women (Leonesio, Bridges, Gesumaria, & Del Bene, 2012).

In 2010, the LFPR for older men was 22.1 % and 13.8 % for older women. As the age of workers rose, the share of those who were working part time increased. For workers aged 70 and older, almost half of all employed men and the majority of employed women were working part time instead of full time. Self-employment was more common for older employees than younger employees. For employed workers aged 65 and over, the self-employed shares rose to 2.9 % for agriculture and 13.5 % for non-agricultural industries. Men had higher self-employment rates than women regardless of age (West et al., 2014).

Berkman, Boersch-Supan, and Avendano (2015) believe that working at older ages can lead to a better quality of life for older people and a more resilient society overall. They state that there is growing evidence that employment yields both physical and mental health benefits. They analyzed several studies and concluded that employment may improve health and well-being by increasing social engagement, and developing and maintaining intellectual and interpersonal skills. Also, continued employment by older adults is likely to delay the use of savings, pensions, and other benefits.

Consumption

Lee, Sohn, Rhee, Lee, and Zan (2014) analyzed the consumption patterns of households whose heads or spouses were aged 65 and over using data from the 2010–2011 Consumer Expenditure Survey. The criteria for inclusion in their study consisted of three factors. First, household heads or spouses were aged 65 and over and had participated in four consecutive quarters of the Consumer Expenditure surveys. Second, the study excluded households within the highest and lowest 1 % of disposable income. Third, the survey includes only the civilian non-institutional population. The researchers developed a weight variable to account for the fact that those who completed all four quarters of the survey were more likely to be older, married, and homeowners compared to those who did not complete all four quarterly interviews (Lee et al., 2014).

The final sample included 1943 older American households. The mean household income was $43,431 and the mean household expenditure was $38,199. The mean age was 74.44 years, 87.53 % were White, 8.30 % were Black, and 4.17 % were described as other races. Slightly less than half (48.58 %) were a married couple, 47.18 % had more than a high school education, and 27.68 % had an employed household member (Lee et al., 2014).

The Consumer Expenditure categories were regrouped into 17 mutually exclusive categories. Then factor analysis was used to identify factors that reflected the consumption patterns of older households. The factor analysis produced six factors: essentials and contributions, postponables, health care and reading, shelter and transportation, expendables, and treats. Essentials and contributions included: necessities such as food and utilities and cash contributions. Postponables included: clothing, personal care, and housing equipment and furnishings. Expendables included: travel and entertainment, and some household operations such as gardening, moving, storage, and repair of household appliances. Treats included: tobacco and alcoholic beverages (Lee et al., 2014)

Spending Patterns

Then the researchers used cluster analysis to group older households with similar spending patterns. For this analysis, "contributions" and "shelter" were separated and treated as independent factors so eight factors were used in the

cluster analysis. The researchers found six clusters (Lee et al., 2014). Labeled by the authors, the clusters and their percentage of the sample were basic needs, 26.87 %; housing burdened, 25.89 %; healthcare burdened, 21.10 %; transportation burdened, 12.09 %; happy retirees, 6.33 %; and balanced budgeters, 5.40 %.

The "health-care burdened" and the "basic-needs" were the poorest groups. The "health-care burdened" spent 27.5 % of their total expenditures on health care compared with 10–12 % spent on health care by the other clusters. The "basic-needs" group spent 43.4 % of their total expenditures on food and utilities. However, this group spent more on "treats" (tobacco and alcoholic beverages) than did the average older household (Lee et al., 2014).

The "transportation burdened" and the "housing burdened" were the middle groups in terms of total expenditure levels. The "transportation burdened" spent almost 33 % of their total expenditures on transportation expenses compared to other clusters who spent between 8 % and 12 % on transportation. The "housing burdened" spent 42.2 % of their total expenditures on rent and mortgages while those in other clusters spent between 5 % and 17 % on rent and mortgages (Lee et al., 2014).

The "happy retirees" were the most well-off group and the "balanced-budgeters" were the second most well-off group. The "happy retirees" could afford to spend as much as 30.7 % of their expenditures on "expendables" which included entertainment, travel, and household operations compared to spending of 7–11 % on expendables by the other clusters. The "balanced budgeters" had a spending share of 15.8 % on postponables (personal care, clothing, and housing equipment). In other clusters, the spending on expendables ranged from 3 % to 5 % (Lee et al., 2014).

Differences in Socio-Demographic Characteristics

Next the researchers conducted F-tests to find significant mean differences in socio-demographic characteristics among the six consumption clusters. The F-tests showed the following characteristics for the clusters. The "transportation burdened" were the youngest with an average age of 71.1 years; they had a higher percentage of married couples (58.6 %) and a higher percentage (37.4 %) of employed household members (Lee et al., 2014).

The "balanced budgeters" were relatively younger (average age of 72.4 years), and this group included more married people and more members with higher education degrees. They were the most ethnically diverse (17.7 % were nonwhite). The "happy retirees" had the second-highest percentage of white members (93.5 %), the highest percentage of married couples, (58.8 %), and the highest percentage of members (82 %) with more than a high school diploma. In other clusters, the proportion with more education than a high school diploma ranged from 31.4 % to 57.1 % (Lee et al., 2014).

The "housing burdened" had an average age of 74; they had the highest share of single households (53.0 %) and the highest share of mortgage payers. Nearly 78 % of the "housing burdened" were still paying on mortgages. This is compared to 23.4–33.6 % of the other clusters who were still paying on mortgages. The "basic-needs" had the highest share of Blacks (13.4 %) and the least educated members among all clusters. This group had the lowest percentage of married couples (40.3 %) and the highest percentage of people with living arrangements other than couples or singles (17.2 %) (Lee et al., 2014).

The "health care burdened" were the oldest with an average age of 77.1 years. They had the highest share of white members (94.5 %). They were less educated with 57.5 % having a high school diploma or less education. They had the highest percentage of homeowners (76.7 %) and the lowest percentage of households with employed members (20.2 %) (Lee et al., 2014).

In summary, the two relatively well-off groups were the "balanced budgeters" and the "happy retirees." Together they represented only 11.7 % of all older households. Three groups: the "basic needs," "housing burdened," and "healthcare burdened" represented nearly 74 % of older households. These households could be experiencing

financial stress because of spending on food, utilities, healthcare, and housing. Finally, nearly 12 % of older households had heavy transportation expenses (Lee et al., 2014). See Chap. 3 for information about saving for retirement.

Housing and Reverse Mortgages

The population aged 65 and over in the USA has a high homeownership rate. In 2009, homeownership rates for householders aged 65 and over were as follows: white, 82.2 %; American Indian and Alaska Native, 82.7 %; Native Hawaiian and other Pacific Islander, 67.4 %; Black, 65.0 %; Asian, 63.5 %; and people who report two or more races, 73.0 %. Older households were less vulnerable to home foreclosures during and after the Great Recession of 2008 and 2009 (West et al., 2014).

A reverse mortgage is an interest-bearing loan secured by the equity in the home. Homeowners who want to use the equity in their homes can (1) sell their home and downsize, (2) take out a home equity loan, or (3) consider a reverse mortgage. To be eligible for a reverse mortgage, the individual must own the home and be 62 or older. During the life of the loan, homeowners make no interest or principal payments. The interest is added to the principal. The loan becomes due when the homeowner dies or sells the home or leaves the home for more than 12 months (for example, entering a nursing home) (Walsh, 2014a).

The federal government requires borrowers to meet with Housing and Urban Development (HUD) approved counselors before obtaining a federally guaranteed loan for a reverse mortgage. The homeowner should get advice from a trusted financial advisor who has no interest in either the mortgage or any investment that the homeowner might make after receiving any of the proceeds. Also, at the time of the sale, the homeowner could owe more than the amount that was borrowed because interest on the loan has been accruing and if home values have fallen, the homeowner might owe more than the home is worth. In addition, a reverse mortgage means that the homeowner is still responsible for property taxes, insurance, and home maintenance costs (Walsh, 2014a, 2014b). For more information about financial protection available to consumers, see Chap. 25 on consumer financial protection.

Medicare

Many retirees will no longer be covered by their employer's health insurance. Although older adults aged 65 and over are likely to be eligible for Medicare, they need to make choices about Medicare options and to pay part of the cost of care. The various aspects of Medicare are explained in the following sections.

Medicare Parts A and B

Medicare is health insurance for people aged 65 or older, people under 65 with certain disabilities, and people of any age with permanent kidney failure requiring dialysis or a kidney transplant. Medicare has four parts: Part A (Hospital Insurance), Part B (Medical Insurance), Part C (Medicare Advantage), and Part D (Medicare Prescription Drug Coverage). The official US government handbook titled "Medicare & You 2015" explains the four parts of Medicare. To obtain a copy, a person should call 1-800-633-4227. The handbook can be downloaded from Medicare.gov/publications (Centers for Medicare & Medicaid Services, 2014).

The Medicare Initial Enrollment Period for Part A and/or Part B begins 3 months before a person's 65th birthday and concludes at the end of the third month after the 65th birthday (Votava, 2014). In most cases, coverage starts the first day of the person's birthday month. There is no premium for Medicare Part A. The Medicare Part B premium is $104.90 a month. Beneficiaries with 2013 adjusted gross income (plus tax-exempt interest income) over $85,000 — or $170,000 if married filing jointly — will pay higher means-tested premiums. Means-tested rates range from $146.90 to $335.70 per person per month, depending on income. The Part B annual deductible for 2015 is $147 (Centers for Medicare & Medicaid Services, 2014).

The Medicare Part A deductible—which people pay when admitted to a hospital—is $1,260 in 2015. That deductible covers up to 60 days of Medicare-covered inpatient hospital care. For days 61 through 90 of hospital inpatient care in 2015, beneficiaries will pay $315 a day in coinsurance. For hospital stays beyond 90 days, beneficiaries will pay $608 a day in coinsurance (Centers for Medicare & Medicaid Services, 2014).

Medicare Part C

Medicare C is also known as the Medicare Advantage Plans. A Medicare Advantage Plan is another way to obtain Medicare coverage. If a person joins a Medicare Advantage Plan, he or she will still have Medicare. The person will get Medicare Part A (Hospital Insurance) and Medicare Part B (Medical Insurance) coverage from the Medicare Advantage Plan, not from Original Medicare. Medicare Advantage Plans are offered by private companies approved by Medicare (Centers for Medicare & Medicaid Services, 2014).

Medicare Advantage Plans must cover all of the services that Original Medicare covers except hospice care and some care in qualifying clinical research studies. Medicare Advantage Plans may offer extra coverage, like vision, hearing, dental, and health and wellness programs. In addition to a Part B premium, a person must pay a monthly premium for the Medicare Advantage Plan. Each Medicare Advantage Plan can charge different out-of-pocket costs and have different rules for how a person gets services (such as whether a person needs a referral to see a specialist) (Centers for Medicare & Medicaid Services, 2014).

There are different types of Medicare Advantage Plans. They include Health Maintenance Organization (HMO) plans, Preferred Provider Organization (PPO) plans, Private Fee-for-Service (PFS) plans, Special Needs Plans (SNPs), HMO Point-of-Service (HMOPOS) plans, and Medical Savings Account (MSA) plans. A person should contact his or her State Health Insurance Assistance Program (SHIP) for help comparing plans. Also, a person can visit Medicare.gov or call 1-800-MEDICARE (1-800-633-4227). A person can only join or leave a plan at certain times during the year (Centers for Medicare & Medicaid Services, 2014).

Medicare Part D

Medicare D is also known as Prescription Drug Coverage. There are two ways to get Medicare Part D (prescription drug coverage). The first way is through a Medicare Prescription Drug Plan (sometimes called PDPs). These plans add drug coverage to Original Medicare, some Medicare Cost Plans, some Medicare Private Fee-for-Service plans, and Medical Savings Account plans. The second way to get Medicare Part D is through Medicare Advantage Plans (like an HMO or PPO) or other Medicare health plans that offer Medicare prescription drug coverage. A person must live in the service area of the Medicare drug plan that he or she wants to join (Centers for Medicare & Medicaid Services, 2014).

Between October 15 and December 7 of each year, anyone can join, switch, or drop a Medicare drug plan. The change will take effect on January 1 as long as the plan gets the person's request by December 7. Many drug plans have a yearly deductible. Also, the drug plan will probably have a copayment or coinsurance which the person will need to pay. Each prescription drug plan will have its own list of covered drugs (this is called a formulary). To obtain a current formulary, a person should contact the plan or visit the Medicare Plan Finder at Medicare.gov/find-a-plan or call 1-800-MEDICARE (1-800-633-4227) (Centers for Medicare & Medicaid Services, 2014).

Medicare Spending

Neuman, Cubanski, Huang, and Damico (2015) examined patterns of Medicare spending by age and type of service. As shown in Table 13.2, people aged 80 and over accounted for 24 % of the Medicare population and 33 % of Medicare spending. In 2011, Medicare per capita spending (not shown) peaked at age 83 for physician and

Table 13.2 Distribution of traditional medicare beneficiaries and medicare spending, 2011

Age	Share of beneficiaries (%)	Share of spending (%)
Under age 65	18	22
Age 65–69	26	15
Age 70–79	32	30
Age 80+	24	33

Source: Kaiser Family Foundation analysis of a 5 % sample of Medicare claims from the Chronic Conditions Warehouse, 2011. *Note*: Analysis excludes Beneficiaries with Medicare Advantage

Table 13.3 Medicaid enrollees and expenditures, FY 2011

Enrollees	Share of enrollees (68 Million) (%)	Share of expenditures (Total = $397.6 Billion) (%)
Children	48	21
Adults	27	15
Disabled	15	42
Elderly	9	21

Source: KCNU/Urban Institute estimates based on data from FY 2011 MSIS and CMS-64. MSIS FY 2010 data were used for FL, KS, ME, MD, NM, NJ, TX, UT, OK but adjusted to 2011 spending levels

outpatient services, at age 89 for inpatient care, at age 96 for home health care, at age 98 for skilled nursing facility, and at age 104 for hospice.

Medicaid

Medicaid is the nation's main public health insurance program for people with low income and resources. It is a joint federal/state program in which states have some latitude in establishing eligibility and coverage. Medicaid provides health coverage to more than 4.6 million low-income seniors, nearly all of whom are also enrolled in Medicare. Medicaid also provides coverage to 3.7 million people with disabilities who are enrolled in Medicare. In total, 8.3 million people are "dually eligible" and enrolled in both Medicaid and Medicare, composing more than 17 % of all Medicaid enrollees. Individuals, who are enrolled in both Medicaid and Medicare, by federal statute, can be covered for both optional and mandatory categories (Medicaid.gov, n.d.).

Medicare enrollees who have limited income and resources may get help paying for their premiums and out-of-pocket medical expenses from Medicaid. Medicaid also covers additional services beyond those provided under Medicare, including nursing facility care beyond the 100-day limit or skilled nursing facility care that Medicare covers, prescription drugs, eyeglasses, and hearing aids. Services covered by both programs are first paid by Medicare with Medicaid filling in the difference up to the state's payment limit (Medicaid.gov, n.d.)

The Affordable Care Act (ACA) enacted on March 23, 2010, expanded the Medicaid program significantly as part of a broader plan to cover millions of uninsured Americans (Paradise, 2015). The ACA expanded Medicaid eligibility to nearly all non-elderly adults with income at or below 138 % of the federal poverty level (FPL). That amount is about $16,245 for an individual in 2015. The law also provided for 100 % federal funding of the expansion through 2016, declining gradually to 90 % in 2020 and future years. However, the Supreme Court ruling in June 2012 made the Medicaid expansion optional for states.

States generally must provide Medicaid automatically to seniors and people with disabilities who receive Supplemental Security Income (SSI) benefits; the federal rate for SSI is 74 % FPL. Table 13.3 shows the share of enrollees in Medicaid and the share of expenditures used by each category of enrollees. For example, in 2011, the elderly were 9 % of the total enrollees in Medicaid and they accounted for 21 % of total expenditures for Medicaid (Paradise, 2015).

Long-Term Care

Only about 13 % of single individuals buy long-term care insurance; comparable data is not available for couples (Friedberg, Hou, Sun, & Webb, 2015). Research using data from the Health and Retirement Study (HRS) shows that only 44 % of men and 58 % of women will ever use long-term care. Conditional on using care, men and women will spend averages of 0.85 and 1.37 years, respectively, in long-term care. A survey showed

that when Medicare covers the first three months of care, only 19 % of men and 31 % of women have a positive willingness-to-pay for long-term care insurance compared with 22 % of men and 34 % of women when it is assumed that Medicare does not cover any costs. For more information about long-term care and long-term care insurance, see Chap. 22 on consumer financial issues in healthcare.

Internet Usage

Internet usage for the older population increased dramatically between 2000 and 2010. The percentage of the older population using the Internet rose from 14.3 % to 44.8 % between 2000 and 2010. Among the population that uses the Internet, the following usage by older adults in 2010 was sending or reading email, 89 %; online news, 62 %; online travel arrangements, 58 %; and online banking, 40 %. In comparison, among adults age 50–64 that used the Internet in 2010, their usage was email, 92 %; online news, 76 %; online travel arrangements, 70 %; and online banking, 58 % (Lee et al., 2014).

Financial Scams

Older adults are especially vulnerable to financial scams because they tend to be trusting and polite, they could be lonely and socially isolated, they might be vulnerable due to grief or loss, and they usually have regular income and some assets. Examples of financial scams are identity theft, lottery and sweepstakes scams, computer and Internet scams, and scams by telemarketers, mail offers, or door-to-door salespeople. Many older adults will not report financial scams because they are ashamed or embarrassed, they don't know where and how to report a financial problem or they fear retaliation from someone (DeVaney, 2014).

To minimize the risk of being scammed, a person: (1) should be aware of anyone who offers to handle their finances, (2) should secure their financial documents including checks, financial statements, and credit cards, and (3) should not let others use their credit or debit cards. A popular practice by scammers is to use a designation to imply that they are an expert. An older adult could plan to meet regularly with a trusted advisor to discuss their financial matters (DeVaney, 2014).

To check on an investment, an individual can call the Security and Exchange Commission at 1-800-732-0330. To check on an investment advisor, an individual should call the FINRA at FINRA Broker Check: at 1-800-289-9999. To call a state regulator, use 1-202-737-0900. Also, an individual could contact the Consumer Financial Protection Bureau to obtain a copy of Money Smart for Older Adults at www.consumerfinance.gov Resources include OnGuardOnline (www.OnGuardOnline.gov, n. d.) to help guard against Internet fraud, and Senior Medicare Patrol. SMP will help Medicare and Medicaid beneficiaries to avoid, detect, and prevent health care fraud (Senior Medicare Patrol, n.d.). For more information about how to obtain protection against scams, see Chap. 25 on consumer financial protection.

Conclusions

In some respects, older adults in the USA may be better off financially than people who are younger because adults aged 65 and over should have access to Medicare or Medicaid. Also, the majority of older adults should have access to Social Security retirement benefits which they have acquired through their employment history or through a spouse's employment history. However, older adults are more likely than younger adults to have chronic diseases or declining health. It is anticipated that the need for health care and health care services will increase as people age. Some economists suggest there will be a decline in the price of homes because aging adults may be likely to sell their homes in an attempt to downsize. After they sell their homes, it is anticipated that older adults will move to apartments and congregate housing instead of buying homes.

Suggestions for Future Research

A national survey in 2013 identified the top concerns of both pre-retirees and retirees (Society of Actuaries, 2014). The three top concerns were keeping up with inflation, paying for adequate health care, and paying for long-term care. Pre-retirees were more concerned than retirees about post-retirement risks. It could be helpful to follow up with a survey 3–5 years after pre-retirees have left the work force. By this time, pre-retirees will have enrolled in Medicare and probably many will be receiving Social Security retirement benefits. Questions about inflation could be included. For example, how has the individual been affected by inflation and what has he or she done to cope with inflation?

The analysis of the Consumer Expenditure Survey (Lee et al., 2014) revealed that 74 % of households aged 65 and over were in one of three 'vulnerable' clusters: health care-burdened, housing-burdened, or basic needs. It could be beneficial for policy makers if researchers studied how these households are coping with their financial constraints. A qualitative study using interviews or focus groups could reveal how older adults cope with the stress of health care and/or housing burdens or managing with only enough resources to meet basic needs.

Some policy makers would like to make changes in Social Security eligibility and benefits. One change is increasing the age for full retirement benefits. Currently it is 67. A second change that is mentioned would be to increase the age for early retirement. Currently it is 62. It would be interesting to survey Americans of different ages to learn how they feel about these potential changes. It is hypothesized that younger consumers would prefer to extend the age at which benefits are available and that older consumers would prefer to maintain the status quo.

Currently there is a lot of advertising for reverse mortgages. It would be helpful to survey pre-retirees to determine if they understand the risks associated with reverse mortgages. Also, it would be helpful if organizations such as AARP provided even more information about the propensity of scammers to prey on older adults.

Use of the Internet to obtain health care information is another topic for research. It would be interesting to interview medical practitioners to learn whether those who use the Internet to obtain health care information are more likely to make changes in their health-related behavior.

About the Author

Sharon A. DeVaney, Ph. D., is a Professor Emeritus, Purdue University, and Editor of the *Family and Consumer Sciences Research Journal*. Her research interests include financial preparation for retirement, consumer credit, and self-employment. She has received awards from the American Council on Consumer Interests (Mid-Career, Mentor, and Distinguished Fellow Awards), the Certified Financial Planner Board of Standards (3 Best Paper Awards), the Association of Financial Counseling and Planning Education (Educator of the Year and Best Paper Awards), and the American Association of Family and Consumer Sciences (Research Award). Her research was funded by AARP, USDA, National Endowment for Financial Education, and National Institute of Aging. She received the B.S. and M.S. from the South Dakota State University and the Ph.D. from The Ohio State University. She is a Fellow of the Association of Gerontology in Higher Education and a Distinguished Alumnus of the South Dakota State University, and was a New Leader at The Ohio State University.

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Consumer Finances of Low-Income Families

14

Robert B. Nielsen, Cynthia Needles Fletcher, and Suzanne Bartholomae

In 2015 the USA continues to recover from the longest and most severe economic downturn since the Great Depression. This "Great Recession" lasted from December 2007 to June 2009 (National Bureau of Economic Research, 2010) and affected families from all socioeconomic strata. Low-income families may have been hardest hit, however, due to record-breaking long-term unemployment, real declines in income, and substantially higher rates of poverty (Bernstein, 2014). Consequently, financial challenges historically faced by families at the bottom of the economic ladder grew even more pronounced.

To highlight the challenges facing low-income families we use data from the US Census Bureau's Survey of Income and Program Participation (SIPP) to examine consumer finance holdings of low-income families relative to others. Families are grouped into quintiles according to annual total family income in 2011 and 2013. This divides families into five groups, from lowest to highest, such that 20 % of families are in each quintile. We define "low-income" as families in the lowest-income quintile. Where possible, 2011 and 2013 estimates are compared with estimates from 2001 and 2003 as reported by Garasky, Nielsen, and Fletcher (2008).

Income

Expressed in 2013 dollars, the median income for all families declined 3 % from $57,249 in 2011 to $55,531 in 2013 (see Table 14.1). This overall decline was accompanied by declines in each quintile. The lowest-income quintile saw the greatest decline (nearly 4 %), falling from $17,055 to $16,416. Families in the lowest-income quintile also experienced the largest median income decline (16 %) over the preceding decade. The highest quintile, by contrast, saw a decline of less than 3 % over the same decade (see Garasky et al., 2008). Exacerbating the challenge of limited income is income volatility for these families. Observations of low-income household finances over time and at frequent intervals are shedding new light on the high level of financial uncertainty and unpredictability of

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Table 14.1 Family financial resource ownership rates by annual income quintiles: 2011 and 2013

	2011						2013					
	All	Q1	Q2	Q3	Q4	Q5	All	Q1	Q2	Q3	Q4	Q5
Median annual income (2013 dollars)	$57,249	$17,055	$36,628	$57,257	$85,771	$143,409	$55,531	$16,416	$35,921	$55,531	$83,792	$140,312
Basic services												
Interest-earning savings	41.8	18.3	34.1	41.8	51.2	63.5	41.7	19.0	32.4	41.7	51.3	63.9
Interest-earning checking	55.6	27.7	45.6	58.3	69.8	76.6	55.0	27.4	44.4	57.4	68.8	76.8
Regular checking	24.5	21.2	26.1	26.5	26.9	21.9	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Physical assets												
Own home	71.9	41.1	65.1	76.5	85.3	91.6	70.3	41.7	62.6	73.8	83.2	90.4
Rental property	6.6	1.8	4.0	5.9	8.9	12.4	6.2	1.7	3.4	5.5	8.1	12.4
Automobile	89.3	72.6	89.7	93.4	95.4	95.3	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Investments												
Interest-earning assets at financial institutions[a]	65.9	36.1	57.5	68.8	79.9	87.3	65.2	36.1	54.8	68.6	79.1	87.2
Stock shares	13.6	2.9	7.3	11.1	15.9	30.8	12.2	2.3	6.8	10.0	14.1	28.0
Mutual fund shares	10.7	1.7	5.4	8.6	13.0	24.9	9.6	1.5	4.3	8.3	12.3	21.7
Savings bonds	8.3	1.8	4.8	7.8	10.3	16.6	6.9	1.7	3.9	6.6	9.0	13.5
IRA or Keogh	28.0	7.7	17.8	27.4	36.7	50.1	27.6	7.3	17.4	26.3	36.4	50.5
401(k) or Thrift Savings Plan	36.4	8.6	22.0	35.3	50.4	65.7	37.3	9.2	23.6	36.5	51.8	65.6
Money market account	12.9	2.8	7.2	11.0	15.7	28.0	11.2	2.4	5.6	10.0	13.0	24.8
Government securities	0.8	0.2	0.2	0.6	1.1	1.8	0.7	0.1	0.2	0.5	1.0	1.9
Municipal or corporate bonds	2.0	0.4	0.9	1.9	2.5	4.4	1.7	0.3	0.9	1.6	1.9	3.7
Certificate of deposit	9.1	2.8	7.8	9.5	10.8	14.6	7.2	2.0	6.2	7.2	8.9	11.6
Other financial investments[b]	1.9	0.3	1.0	1.7	2.4	3.9	1.9	0.5	0.7	1.6	2.6	4.0

Source: Authors' calculations from the 2008 Panel of the Survey of Income and Program Participation

Quintile upper limits for 2011 (in 2013 dollars) were lowest quintile—$27,138; second quintile—$46,339; third quintile—$70,428; fourth quintile—$106,328. Quintile upper limits for 2013 were lowest quintile—$26,184; second quintile—$45,400; third quintile—$67,868; fourth quintile—$104,883. $N = 19{,}454$ (75.1 million families when weighted) for 2011 estimates; $N = 19{,}449$ (81.8 million families when weighted) for 2013 estimates

[a]Includes passbook savings accounts, certificates of deposit, money market deposit accounts, interest-earning accounts, US government securities, and municipal or corporate bonds

[b]Includes mortgages held for sale of real estate, sale of business or property, investments in a non-corporate business, investments in a corporation, and other investments not reported in another category

income and the strategies used to cope with income uncertainty (Murdoch & Schneider, 2013; Murdoch, Ogden, & Schneider, 2014). Halpern-Meekin, Edin, Tach, and Sykes (2015) describe the consumer finance contexts of low-income families as volatile boom and bust cycles.

Beyond Income

In addition to income declines and volatility, low-income families face related financial constraints—in terms of both assets and financial services utilization—that set them apart from middle- and high-income families. As shown in Table 14.1, the percentage of families with basic financial services, physical assets, and investments varies by income quintile. However, the contrast is greatest between families in the lowest-income quintile compared to all others. Researchers continue to advance our understanding of low-income families' finances and the roles markets and public policy play. Recent research has focused on understanding families that eschew mainstream banking services, the short- and long-run consequences of a lack of savings, the role owning a home or other assets plays in building financial security, and how the lack of health insurance affects a family's finances.

The Unbanked and Underbanked

Low-income families have fewer attachments to mainstream banking products and services. As shown in Table 14.1, only 19 % of families in the lowest quintile had an interest-earning savings account in 2013 whereas 64 % of families in the highest-income quintile had such accounts. On the positive side, these rates are three and nine points higher, respectively, than a decade earlier (see Garasky et al., 2008). The percentage of unbanked families—those without a checking or savings account—has steadily declined for two decades (Rhine & Greene, 2013). This is widely seen as a positive trend, as owning a bank account is often viewed as a necessity for gaining financial security (Barr, 2012; Black & Schereur, 2014; Hogarth, Anguelov, & Lee, 2004) and avoiding material hardship (Lim, Livermore, & Davis, 2010). Approximately 11 % of US consumers are unbanked; another 11 % are underbanked, which the Federal Reserve defines as someone who has a checking or savings account but who also has used an alternative financial service in the past year, such as a payday loan or a check-cashing service (Gross, Hogarth, & Schmeiser 2012). The distinctions between the banked and the unbanked or underbanked may be too rigid, however, as transitions into and out of mainstream banking are common. Among those currently without a bank account, about half previously had an account in the past (Barr, 2009; Berry, 2004; Rhine & Greene, 2013).

Researchers have identified many possible explanations for low-income families being unbanked, including high minimum balance requirements and service charges; the scarcity of banks in low-income neighborhoods coupled with the availability of alternative financial sector businesses; a perception that banks "are not for them" due to language or cultural barriers; and a misunderstanding of the costs associated with alternative financial sector transactions (Barr, 2012; Berry, 2004; Gross et al., 2012a; Mullainathan & Shafir, 2009). As a result, unbanked and underbanked consumers often patronize businesses that engage in predatory practices and charge high fees for their goods and services (Barr, 2012; Caskey, 1994; Gross et al., 2012a; Karger, 2005).

Credit and Alternative Financial Services

Credit can help low-income consumers smooth consumption, invest in human capital, and build assets, but the high cost of credit can crowd out current consumption and saving (Barr, 2009). Lacking savings, some low-income consumers use expensive, short-term credit to meet their liquidity needs. After decades of expansion of access to credit (Lyons, 2003; Mann, 2009;

Scholz & Seshadri, 2009), many low-income households now use both mainstream and alternative products such as payday and pawnshop loans (Barr, 2009; Chase, Gjertson, & Collins, 2011; Gross, Hogarth, Manohar, & Gallegos 2012b; Gross et al., 2012a).

Credit card use and debt have risen over time. One-third of low-income families report credit card debt and the magnitude of this debt relative to their income is much greater than that held by higher-income families. Among those that carry credit card debt, half have debt equal to 10 % of their income, and one-quarter have debt equal to 25 % of their income. By comparison, among middle-income borrowers, the median credit card debt share is only 5 %, and only one-quarter have debt that exceeds 10 % of their incomes (Mann, 2009). Some low-income consumers are more "debt prone" than others; those with credit card debt are also more likely to have other debt (Barr, 2009; Mann, 2009). Gross et al. (2012b) explored the characteristics of consumers who use alternative financial products such as payday loans and pawnshop loans. Their findings support previous studies (e.g., Caskey, 1994, 2005; Logan & Weller, 2009) that find consumers with lower incomes are consistently more likely to turn to alternative credit products because they are easier than qualifying for a bank loan. However, products such as payday loans are structured so that it is common for consumers to over-borrow.

Barr and Blank (2009) argue that debates about whether credit access enhances or detracts from the welfare of low-income consumers miss the point. Credit access through misleading products and inducements to over-borrow rarely are in the consumer's best interest (Barr, Mullainathan, & Shafir, 2008), just as credit products that are straightforward can advance the consumer's well-being. Scholars and policymakers face several related challenges. The product challenge is to develop alternative products that meet the needs of low-income consumers at low cost and that are accessible for people most in need (Chase et al., 2011). The information challenge is to introduce disclosure requirements on these innovative products and to combine this information with effective financial education.

Savings and Asset Accumulation

While day-to-day financial challenges capture much of the attention of researchers and policy makers (e.g., Blank, Danziger, & Schoeni, 2006), there also is concern about low-income families' savings and asset accumulation (Black & Schereur, 2014; McNichol & Springer, 2004; Sherraden & McBride, 2010). Few of the lowest-income families own longer-term financial products. As shown in Table 14.1, the proportion of the lowest-quintile families that hold stocks, mutual funds, municipal or corporate bonds, or government securities is less than half that of families in the second income quintile. In both 2011 and 2013, approximately 9 % (up from 7 % in 2003) of the lowest-income families had 401(k) or similar accounts compared to 66 % of the highest-income families. These disparities in ownership rates of retirement-specific assets illustrate the difficulty of asset accumulation by low-income families relative to families in all other income quintiles.

Low-income households typically hold little wealth; the median net worth of these households in 2011 was just $4825 (Bricker et al., 2014; US Census Bureau, 2013). Moreover, wealth disparities have grown over time. Between 2000 and 2011 households in the bottom 60 % of the wealth distribution experienced, on average, actual declines in their net worth compared to modest gains among those at the upper end of the distribution. Households in the bottom 20 % of the wealth distribution had negative median net worth, meaning that the value of debts exceeded the value of assets (Vornovitsky, Gottschalck, & Smith, n.d.). Since the mid-1980s, wealth inequality has steadily increased (Alvaredo, Atkinson, Piketty, & Saez, 2013; Bricker et al., 2014; Haveman & Wolff, 2004; Saez & Zucman, 2014). For example, the bottom 90 % of households ranked by income collectively possesses less than 2 5 % of the nation's wealth (Bricker et al., 2014).

Building on the traditional concept of income poverty, Haveman and Wolff (2004) conceptualize 'asset poverty' as an insufficiency of assets such that a household is not able to meet its basic

needs as measured by the income poverty line for a period of 3 months. Four in five (78 %) of low-income households are asset poor (Brooks, Wiedrich, Sims, & Medina, 2014). This lack of accessible funds leaves them especially vulnerable to hardships, such as food insecurity or a phone disconnection (Gjertson, 2014). Differences in savings and assets between low- and high-income households have been attributed, in part, to social insurance and public assistance program availability and program eligibility rules (Sherraden & McBride, 2010; Vallas & Valenti, 2014). Moreover, tax-based asset accumulation strategies also favor non-poor households through home mortgage deductions and retirement savings incentives (Sherraden, 1991; Steuerle, Harris, McKernan, Quakenbush, & Ratcliffe, 2014).

A growing body of research documents long-term, positive impacts of wealth accumulation on low-income households and children's postsecondary education, economic mobility and family stability outcomes (Boshara & Emmons, 2013). Research suggests that savings has positive effects on college access and completion (Elliott, Nam, & Song, 2013; Sherraden & Zhan, 2011); upward economic mobility (Butler, Beach, & Winfree, 2008; Conley, 2009); and financial stability (Friedline, Nam, & Loke, 2014; Leonard & Di, 2014). Research findings also suggest that building assets may influence more future-oriented economic and social decision-making; conversely, the lack of savings can hurt future consumption and security (Boshara & Emmons, 2013).

Home and Vehicle Ownership

Home ownership has long been the primary method of accumulating wealth for most Americans, including low-income families (Belsky & Prakken, 2004; Bostic & Lee, 2008). As shown in Table 14.1, home ownership is the primary asset held by low-income families, yet just 41 % of these families in 2011 and 2013 reported owning homes. This was 14 % lower than a decade earlier when 48 % owned their homes (Garasky et al., 2008). By contrast, 2013 home ownership rates were 8 %, 6 %, 3 %, and 2 % lower than in 2003 for income quintiles 2–5, respectively.

In 2010 home equity accounted for nearly 65 % of the wealth held by households in the middle wealth quintile, or $39,300 in housing equity (Mishel, Bivens, Gould, & Shierholz, 2012). But, this post-recession value was 45 % less than immediately prior to the recession. While this drop in equity among the middle quintile is dramatic, families in the lowest two wealth quintiles fared worse; 1 year removed from the recession low-wealth families had negative housing equity. In other words, the average low-wealth homeowner's mortgage was "underwater" in 2010 (Mishel et al., 2012). Still, the fact that the median family net worth of home owners in 2010 was 34 times greater than the median wealth of renters ($174,500 compared to $5100 according to Bricker, Kennickell, Moore, & Sabelhaus, 2012) suggests that the decision whether to promote home ownership among lower-income families is complex and must occur within the framework of an honest debate about the potential benefits and risks associated with home ownership (Belsky, 2010; Bostic & Lee, 2008; Grinstein-Weiss, Key, Guo, Yeo, & Holub, 2013).

Prior to the Great Recession Belsky, Retsinas, and Duda (2005) posited that low-income families find buying a home attractive because they can leverage small amounts of money to purchase a costly asset. With more liberal lending criteria in place prior to the recession, low-income families with little or no money to invest were able to commit to mortgages for 100 % or more of the value of the home they were purchasing. In that environment families with just 10 % down—and often much less—could receive a 10 % or greater return on investment for every 1 % increase in the value of the home. With a portion of the mortgage payment paying down the principal on the loan, homebuyers optimistically committed to this asset-building strategy.

Too often, however, the less restrictive lending markets that characterized pre-recession mortgage lending came with risks for low-income families that were either unknown or ignored. Lenders that based mortgage amounts on inflated home values or allowed home owners to borrow

at levels that were greater than 100 % of home values left families vulnerable to later housing market downturns. These practices resulted in foreclosures and equity losses that spanned all income and wealth quintiles, but disproportionately affected low-income borrowers (Mishel et al., 2012). Still, despite these risks there may still be reason for optimism regarding low-income families' home ownership. Research by Grinstein-Weiss and colleagues (2013) suggests that low- and moderate-income consumers who received prime mortgages experienced higher short-run increases in net worth, assets, and non-housing net worth than renters who were matched on comparable observables during the housing crisis.

Asset accumulation strategies have been viewed as complementary to the emphasis on employment embodied in federal welfare reform policies (Blank, 2002). Saving and asset levels, however, only responded minimally to changes in incentives offered through welfare reforms—suggesting that saving and asset limits are rarely binding for most low-income households (Hurst & Ziliak, 2006). However, lifting limits on the value of a vehicle did result in higher probabilities of low-income families owning a car (Hurst & Ziliak, 2006; Sullivan, 2006). As an asset, vehicles provide access to employment and community resources (Cervero, Sandoval, & Landis, 2002; Garasky, Fletcher, & Jensen, 2006; Ong, 2002) that may otherwise be difficult to access. Notably, during the past decade vehicle ownership rates remained relatively consistent. As shown in Table 14.1, approximately 73 % of low-income families owned a vehicle in 2011 and ownership rates among all other families were approximately 90 % or above. These rates are nearly identical to ownership rates a decade earlier (Garasky et al., 2008).

Health Insurance

Access to health insurance coverage and a consistent source of health care produce an additive effect on the quality of health care, timely use of health care services, and health-related outcomes (Devoe, Tillotson, Wallace, Leski, & Pandhi, 2012; Hadley, 2007). However, a disparity in health insurance coverage is closely tied to income. As shown in Table 14.2, only 5 % of the members of the highest-income families were without health insurance in 2013, compared to 30 % in families with annual incomes below $25,000.

Health care costs continue to rise and many Americans have trouble paying for their medical bills (Erickson, 2014). Uninsured and low-income families report a greater incidence of problems associated with medical bills and medical debt (Doty, Collins, Rustgi, & Kriss, 2008; Pollitz, Cox, Lucia, & Keith, 2014). Cohen and Kirzinger (2014) found that families with incomes at or below 250 % of the federal poverty line (FPL) carried the highest level of financial burden, whether from paying medical bills or medical debt, and many carried the burden long term. An estimated 17–54 % of bankruptcy cases are associated with medical bills and debt (Dranove & Millenson, 2006; Himmelstein, Warren, Thorne, & Woolhandler, 2005).

The primary health insurance mechanism for low-income consumers is through a government source, such as Medicare, Medicaid, or the Children's Health Insurance Program (CHIP). While the majority of Americans have private health insurance coverage (66 %), only 25 % of low-income consumers had coverage from a private source (see Table 14.2). For those without access to employer-sponsored insurance, Medicaid and similar state-sponsored health insurance programs (e.g., State Children's Health Insurance Programs) have served as the primary health insurance safety net. In 2013, 54 % of low-income family members had Medicare or Medicaid coverage, compared to 10 % of the highest-income families (see Table 14.2).

Preliminary evidence of health care reforms shows that coverage and access to health care has improved for low-income families through Medicaid eligibility expansion (Blumenthal & Collins, 2014; Collins, Rasmussen, & Doty, 2014; Dorn, 2014), a major provision enacted by the Patient Protection and Affordable Care Act (2010). The law increased access to coverage by

Table 14.2 Individual health insurance coverage rates for members of families: 2011 and 2013

	2011[a]						2013[a]					
	All	Q1	Q2	Q3	Q4	Q5	All	Q1	Q2	Q3	Q4	Q5
Any private insurance	66.2	27.0	54.8	73.3	85.3	92.4	66.0	25.2	52.7	71.5	84.9	92.0
Employer or union provided	82.9	63.1	73.8	81.9	87.5	90.6	83.2	65.6	74.0	80.6	87.2	90.5
Privately purchased	11.5	23.5	18.6	12.5	8.0	6.4	11.6	22.8	18.9	13.0	8.8	6.5
Military coverage	3.5	5.5	4.2	4.0	3.3	2.3	3.4	4.7	4.3	4.5	2.8	2.3
Other	2.1	7.9	3.4	1.6	1.3	0.8	1.9	7.0	2.8	1.8	1.1	0.7
Medicaid[b]	16.9	43.7	20.4	10.8	5.6	2.8	16.7	43.1	22.3	11.6	5.9	2.7
Medicare	11.7	10.4	16.9	15.0	10.7	6.3	12.4	10.7	17.7	15.8	11.2	7.4
Uninsured	16.0	28.2	22.9	14.6	8.7	5.1	15.9	29.7	22.1	15.4	8.8	5.1

Source: Authors' calculations from the 2008 Panel of the Survey of Income and Program Participation

[a]Quintiles calculated based on individual's total family income in 2011 and 2013. Quintile upper limits for 2011 (in 2013 dollars) were lowest quintile—$27,138; second quintile—$46,339; third quintile—$70,428; fourth quintile—$106,328. Quintile upper limits for 2013 were lowest quintile—$26,184; second quintile—$45,400; third quintile—$67,868; fourth quintile—$104,883. N=66,348 (254.5 million when weighted) for 2011 estimates; N=60,705 (257.5 million when weighted) for 2013 estimates

[b]Includes coverage from Medicaid, State Children's Health Insurance Program (SCHIP), or other state-specific health insurance program

requiring states to expand Medicaid eligibility to adults at or below 138 % of FPL. A June 2012 Supreme Court ruling turned Medicaid expansion into an optional, state decision. As of this writing, 27 states and the District of Columbia have expanded or have Medicaid expansion plans (Kaiser Family Foundation, 2014). The Centers for Medicare and Medicaid Services (CMS) reported a 17 % increase—approximately 9.7 million—in Medicaid and CHIP enrollment numbers in 2014 (Mann, 2014).

Early indications from the initial enrollment period show uninsured rates falling among adults with incomes up to 138 % FPL in Medicaid expansion states (down 6 % points) and non-expansion states (down 5 % points) (Sommers et al., 2014). An Urban Institute study projected significant reductions in the uninsured rates in a full Medicaid expansion model, with all states expanding (Clemans-Cope, Buettgens, & Recht, 2014). As it stands, many low-income families in non-expansion states will remain without health insurance coverage and without affordable coverage options because they fall into the 'coverage gap" (Clemans-Cope et al., 2014) that includes families that do not qualify for Medicaid coverage because they have incomes above Medicaid eligibility, but below eligibility requirements to qualify for a premium tax credit available to purchase private plans (Garfield, Damico, Stephens, & Rouhani, 2014).

Conclusion and Future Directions for Research

In the wake of the Great Recession, low-income families continue to face numerous finance-related challenges in their interactions with financial institutions, accumulating savings and other assets, purchasing and retaining a home, accessing mainstream credit sources, and acquiring health insurance coverage. Unfortunately, much remains unknown about *how* low-income families make complex consumer finance decisions under circumstances of economic uncertainty. Researchers are, however, making progress on this question by designing longitudinal, mixed-method studies that are informed by multidisciplinary frameworks (e.g., Halpern-Meekin et al., 2015; Murdoch & Schneider, 2013; Murdoch et al., 2014; Sherraden & McBride, 2010). The emergence of mixed-method studies promises new insights into the processes families use when making complex decisions in the context of severe resource constraints.

Mullainathan and Shafir (2009) suggest that the strategies on which low-income families rely to make these decisions may not be any different from the strategies employed by higher-income families. However, they argue that there is a difference between low-income families and others in that "the margins for error are narrow, so that behaviors shared by all often manifest themselves in the poor in more pronounced ways and can lead to worse outcomes" (Mullainathan & Shafir, 2009, p. 121). Lessons from behavioral economics research about how consumers understand and act in financial markets should continue to be extended to low-income consumers. Future research is needed that examines cognitive and psychological factors that influence how a low-income consumer behaves as well as systematic market biases and how they can be overcome (Barr et al., 2008). For example, strategies that integrate lessons from behavioral economics include simplifying investment decision-making by reducing the options that are available to potential investors and by having firms automatically enroll employees in savings plans. These approaches have the potential to increase participation in saving programs and increase contribution rates among current saving program participants (Gale, Gruber, & Orszag, 2006). Additional evidence is also needed to support the notion that scarcity of resources depletes one's ability to make decisions and act on them (Mullainath & Shafir 2013; Sherraden & McBride, 2010).

There is a critical need to focus on research questions that inform public policy (Sherraden & McBride, 2010). Programs to assist low-income families now emphasize work incentives over cash assistance (Eissa & Nichols, 2005). Rather than focusing on consumption and income, many are calling for a greater emphasis on wealth building and policies aimed at economic mobility (McKernan, Ratcliffe, Steuerle, & Zhang, 2013). A number of research-based demonstration projects and small studies have been conducted that provide some evidence into which characteristics of policies and programs may be effective increasing income and assets among low-income families (e.g., Sherraden & McBride, 2010), but large-scale, rigorous studies that yield strong evidence to inform low-income consumer finance policy are needed.

The Great Recession increased the Nation's awareness of consumers' vulnerabilities, particularly low-income consumers with little or no wealth. As a result, a research agenda that illuminates the numerous barriers faced by low-income families attempting to meet their basic needs is required to move both research and policy forward (Mullainath & Shafir, 2013; Sherraden & McBride, 2010). The evidence provided here suggests that low-income families experience consumer finance obstacles when interacting with banking and other financial institutions, saving and accumulating assets, purchasing a home, obtaining and using credit, and accessing health insurance coverage. Emerging evidence also suggests that thoughtful integration of research, policy, and practice will help low-income consumers not only improve their economic standing and meet their consumption needs, but also shed light on how making these complex decisions will promote long-term economic well-being.

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15 Business-Owning Families: Challenges at the Intersection of Business and Family

Sharon M. Danes, George W. Haynes, and Deborah C. Haynes

Healthy communities depend on healthy family businesses. Healthy families depend on support from healthy businesses and vice versa. These family businesses are the cornerstones of communities, creating earnings (wealth and income) for their owners and employees, donating to local organizations, providing civic leadership, and making other important contributions. Nearly 20 % of all households in the USA have one or more members who are self-employed or own a business (Haynes & Ou, 2007). Nearly two-thirds of these business-owning households have an owner or manager in the household and one-third are self-employed individuals. Family businesses make substantial contributions to the US economy by generating over 60 % of US business revenue and providing jobs for over half of the nonagricultural labor force (Heck & Stafford, 2001).

The financial health of the household and business is inextricably intertwined for business-owning families. Any analysis of the business without careful consideration of the household is simply incomplete. Households owning businesses have a significantly higher probability of being high income and wealth than other households not owning a business (Haynes & Ou, 2007). While it may appear that these business-owning households are better off, they face the challenges of managing the family/business interface. The interface between the family and business has two critically important dimensions: the financial interface, where financial and human resources (typically labor) move between the family and business, and the interpersonal relationships interface, where tensions between the family members cause tension in the business operations. These tensions must be addressed for the family and business to survive. This chapter will focus on these financial and interpersonal relationship challenges faced by family businesses. The research presented in the chapter may be useful to those who are in a family business, those who are considering starting a family business, and for those such as bankers, accountants, and other professionals who provide consultation and services to family owned businesses.

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Overview

Family Impact on Business Performance

Families and businesses depend on the survival and success of one another in the family owned business. A disruption in the family sphere is felt throughout the business and a disruption in the business sphere is felt throughout the family. There is clearly a "family effect" as suggested by Dyer (2006), and this "family effect" may be either positive or negative for the family business. Daily and Dollinger (1992) compared family owned and family managed firms with professionally managed firms and concluded that family owned and family managed firms appear to exhibit performance advantages. Anderson and Reeb (2003) supported these positive results by suggesting that family firms perform better than non-family firms. When children are in the household, household managers who work in the family business take more time to be with their children and are far less likely to outsource their child care than household managers working outside of the family business (Haynes, Avery, & Hunts, 1999; Haynes, Walker, Rowe, & Hong, 1999; Heck, 1992). However, other authors have concluded that family firms are inherently inefficient because preferences are afforded to family members for key management and employment opportunities (Perrow, 1972) and because family conflicts interfere with the performance of the firm (Faccio, Lang, & Young, 2001). Other authors have suggested that no substantial differences in performance exist between family and non-family firms (Chrisman, Chua, & Litz, 2004).

Disruptions in the business can adversely impact the stability of the family (Haynes et al., 1999). For instance, the owners of a family business disrupted by poor financial performance may request a loan from the family's household income and assets. The loan from family may help ensure the survival of the business, but it effectively reduces the income and net worth of family and temporarily overstates the cash flow and wealth of the firm.

Defining Family Business The jury is out on whether family businesses perform better than non-family businesses because these analyses are dependent on how family businesses are defined (Dyer, 2006). The definition of family business used in this chapter does not include large publicly traded businesses, such as Ford or Wrigley's. Several definitions have been proposed for identifying a family business. In general, family business researchers define family businesses by the degree of ownership or management by family members, degree of family involvement, potential for generational transfer, or multiple criteria (Handler, 1992). The most widespread criterion for defining family business is the degree of ownership or management by family members (Sharma, Chrisman, & Chua, 1997). Handler (1992) used family involvement to suggest that the family business is an organization in which family members influence major operation decisions and plans for succession. Dunn (1996) has suggested that the family must have a controlling interest in the business, while others have demanded that the business employ family members (Covin, 1994) to be classified as family firm.

For those studying succession, the potential for generational transfer has been important in defining a family business (Astrachan & Kolenko, 1994; Fiegner, Brown, Prince, & File, 1994). Other researchers, such as the Family Business Group, have used multiple criteria to define a family household and family business. The Family Business Group is family business researchers engaged in an agricultural regional research project from the northcentral region. The Family Business Group defines the family as a group of people related by blood, marriage, or adoption, who share a common dwelling. To qualify as family business, the owner–manager had to have been in business for at least a year, worked at least 6 h per week year-round or a minimum of 312 h per year in the business, been involved in its day-to-day management, and resided with another family member (Winter, Fitzgerald, Heck, Haynes, & Danes, 1998).

Empirical Considerations in Studying Family Business While there are important conceptual

considerations in defining a family business, there are important empirical considerations, too. Two major issues are critically important: (1) family businesses are often identified using business, rather than household, lists; and (2) family business surveys always include an interview with the business manager, but rarely an interview with the household manager. Family businesses can be found by utilizing business lists, such as those provided by Dun and Bradstreet, Mass Mutual, local Chambers of Commerce and others, or by utilizing household lists. A majority of the family business studies have utilized business sampling frames, where business owners were asked if they were a family business or not (Anderson & Reeb, 2003; Daily & Dollinger, 1992; Fiegner et al., 1994).

In addition, major data collection efforts for small business researchers, such as the Survey of Small Business Finances, utilize business, rather than household, sampling frames. Business sampling frames miss small home-based businesses and nascent entrepreneurs that have not registered their business with Dun and Bradstreet, the local Chamber of Commerce or other organizations. Winter et al. (1998) were concerned that "using a single respondent to represent the business and the family may distort the reporting of what a family business is really like and how it operates and interacts with the owning family" (p. 241). These concerns prompted the Family Business Group to focus on the interaction between family and business and collect data from a nationally representative sample of household and business managers in family business households, the National Family Business Survey.

Importance of the Family in Family Business Success Family and business economic/sociological/psychological factors merge at the intersection of the family and business. While it seems that the business economic concerns dominate any discussion of the economic health of the household, it is the interaction of family and business resources that impacts the performance of the family business. Undoubtedly, careful financial monitoring and analysis is required by the business to survive and succeed; however, any financial analysis of the business without a careful financial analysis of the family is useless. Personal finance professionals have an important role to play with family business owners to help the family maximize utility and the business to maximize profits. The intersection of the family and business is where relationship tension often resides and appropriate adjustment strategies are needed by both the family and the business to prevent these tensions from negatively impacting the family business. The next section examines a conceptual model to guide research in family business and an application of the theory to couples engaged in family business.

Sustainable Family Business Theory

Understanding how capital is used within family business to support both family and the business is complex because there is more than one system within a family business and those systems interact under certain circumstances. The Sustainable Family Business Theory (SFBT) (Fig. 15.1) is a comprehensive and flexible theory that tracks accumulation of resources (human, social, and financial capital), and the access and use of those capital stocks over time. One major theoretical premise of SFBT is that resource use during times of stability creates adaptive capacity for challenges during times of planned change or unexpected internal and external disruptions. Owning-family adaptive capacity, when combined with its social capital, creates a type of resilience by facilitating resource transport across porous boundaries of the family and firm during change, while maintaining boundary integrity. Adaptive capacity is often what sustains the family business when disruptions occur to either family or firm.

The SFBT focuses on firm sustainability rather than revenue in that it posits that sustainability is a function of both firm success and family functioning. The SFBT was introduced in 1999 by Stafford, Duncan, Danes, and Winter. In 2008, changes were presented to clarify tenets, introduce advancements, and explain its applicability to ethnic-family businesses (Danes, Lee,

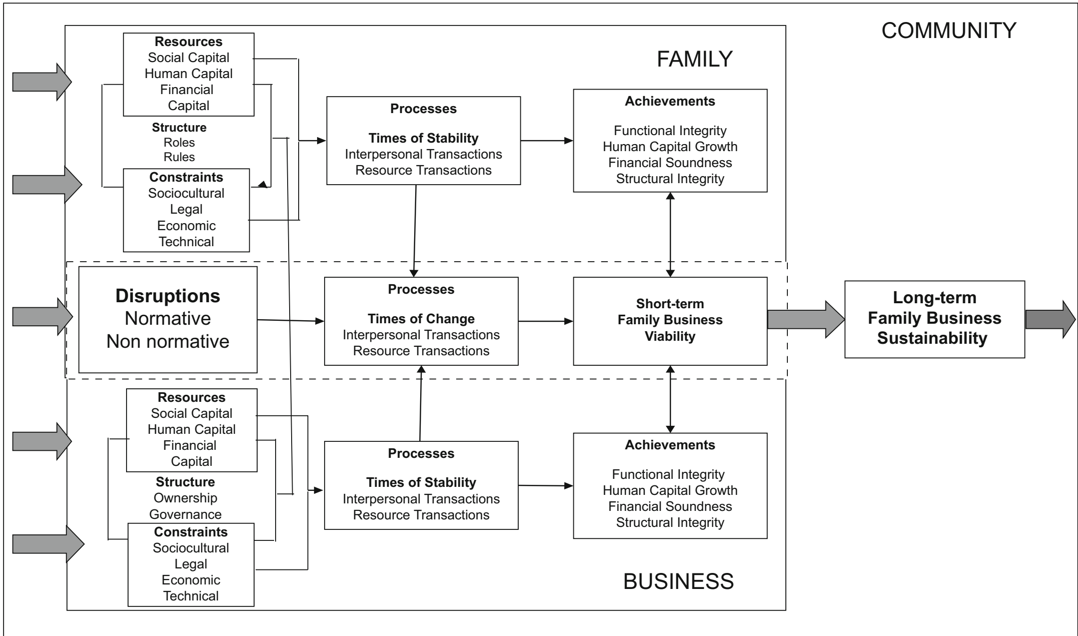

Fig. 15.1 Sustainable family business theoretical model. *Source*: Danes and Brewton (2012)

Stafford, & Heck, 2008a). In 2012, a book chapter was written in which three explicit theoretical propositions were identified (Danes & Brewton, 2012): (1) family capital (composed of human, social, and financial capital) from both the family and business are inputs that can be used to solve problems of collective interaction of the family and business, (2) capital can have simultaneous positive and negative effects on firm performance, depending on the circumstances, and (3) constraints impose limits on alternative capital, processes, and achievements available. The SFBT was empirically tested both in 2003 (Olson et al., 2003) with cross-sectional data and in 2009 with longitudinal data (Danes, Stafford, Haynes, & Amarapurkar, 2009).

Family and Business Resources

In SFBT, family capital resources are classified by their forms—human, social, and financial. Family capital inputs to families and firms are inherently a stock concept. In other words, capital is a supply reservoir rather than a flow of services. Understanding flows as well as the stock of owning family capital is critical to understanding family business long-term sustainability. Danes et al. (2009) found that access to and utilization of family social capital over time was more important for sustainability than its stock level.

Human capital refers to attributes of individuals, such as knowledge, ethnicity, education, experience, and energy of business owners. Values and beliefs of owning family members are part of the stock of human capital resources. Many family members work in the firm and transport human capital from the family to the firm to promote business productivity. Having both positive and negative human capital attributes heightens the importance of human capital management in achieving firm success (Astrachan & Kolenko, 1994). Positive attributes of family firms' human capital include strong commitment (Horton, 1986), friendly and intimate relationships (Horton, 1986), and potential for deep firm-specific knowledge. Family firms without these attributes are said to lack human capital.

Social capital is the stock of good will, trust and confidence in family members or their business. Wright, Cullen, and Miller (2001) identified family as the key institution through which social capital is transmitted via investment of time and effort, development of affective ties, and guidelines about acceptable and unacceptable behaviors. These relational behaviors are based on contextual values, beliefs, and norms that emanate out of family structure, roles, and rules (Arregle, Hitt, Sirmon, & Very, 2007). Family social capital is inputted to the firm to facilitate action (Danes et al., 2009). Business social capital exists in the form of trust, respect, and altruism among owning family members, employees, managers, and leaders. In part, the accumulation of social capital has its roots in human capital. For example, family members who trust each other may simply transfer that trust to their firm setting. Thus, those working in the firm may be able to allow more freedom and less control over each other and over their non-family employees.

Financial capital includes such tangibles as money, credit, assets such as land and business buildings, and investments of all kinds (Danes, Loy, & Stafford 2008b). Small firm finance literature acknowledges intermingling of firm and family resources (Zuiker et al., 2003) and indicates that many small firm owners fund their firms through personal savings, supplemented by family money and community resources (Kushnirovich & Heilbrunn, 2008). Cole and Wolken (1995) reported that 39.2 % of small firms used personal credit cards for their firms. These financial commitments represented sacrifices of not only individual owners but also their families. Within family firms, family and firm have been found to compete for resources of individual family members and of family collectively (Stafford, Duncan, Danes, & Winter, 1999). Family firms used strategies that juggle resources to address needs during high-demand times. Examples of strategies used included family members helping in the firm without pay, transferring less firm income to the family for a short time, or hiring temporary help in either the family or firm (Danes et al., 2009b).

Family and Business Structure

In family firms, families owning businesses may need additional structures, such as a family council, to handle or manage family matters. Family capital is grounded in structure that is composed of family roles and rules. Family roles and rules are a state and not a process (Danes et al., 2008a). They clarify membership, organization, and bonding (Danes, Rueter, Kwon, & Doherty, 2002; Stewart & Danes, 2001). They also clarify who leads, specify how members manage or distribute family resources, and limit the effect of constraints. While roles change over time, individuals in the roles can be most effective when the roles are well-defined with boundaries known and respected by all family members. Rules include such phenomena as inclusion, integration, boundaries, commitment, and core values (Danes, 2006). Shared meaning is core to family roles and rules, and includes values, norms, and beliefs of the family's culture (Haberman & Danes, 2007). Decision inclusion and authority patterns also are a part of family roles and rules (Danes & Morgan, 2004).

Business roles and rules include ownership and governance. Firm ownership is as varied as business-owning families are. Governance within the family firm often starts with incorporating formal business practices into firm operations. Family firms are likely to evolve from the informality of the family unit, sometimes the associated family firm must formalize their structures internally so that effective operations can be promoted and implemented (Gallo & Tomaselli, 2006; Songini, 2006).

Family Business Constraints

Family business constraints, as defined in the SFBT, are social-cultural, legal, economic, and technical. Social-cultural constraints are imposed when the social or cultural norms of the family business owners may be challenged by norms held by their clientele; for example, a family which religious beliefs require Saturday worship services may have clientele expecting the

business to be open on Saturday. Legal constraints are imposed when rules and regulations change the behavior of family business owners; for example, a change in regulations may require the owners to have to invest in different safety equipment. Economic constrains occur when general economic conditions influence the decisions of the family business owners; for example, when a downturn in the economy occurs, the family may have to lay-off both family and non-family workers. And, technical constraints are imposed when methods or processes limit the production good or services; for example, when a computer upgrade is required, the owners may not be able to use old software on the new operating system. All of these constraints impact the achievements of the family and business.

Processes in Times of Stability

The SFBT suggests that resource transactions (e.g., utilization or transformation of time, energy, and money) and interpersonal transactions (e.g., communication or relationship and conflict management) from the business and family may facilitate or inhibit family firm sustainability. For example, a family social capital resource transaction might include spousal involvement in the firm or it might include interpersonal transactions such as development of guidelines about acceptable and unacceptable behaviors of family members related to the firm.

The primary family process of concern within family businesses is work/family balance. In fact, Danes and Morgan (2004) found when surveying a nationally representative sample of family businesses that work/family balance was the highest tension producer and remained so over time (Danes, 2006). Important resource and interpersonal transaction processes during times of stability in the business are those of quality, employee, and financial management. Interpersonal transaction processes of communication, role, conflict, and relationship management are critical to both the family and firm during times of stability. Interpersonal transactions among family members have been depicted as an obstacle to successful ownership transfer of family businesses (Lansberg & Astrachan, 1994; Rodriguez, Hildreth, & Mancuso, 1999). Yet, family interpersonal transactions may also be a source of support that helps a family business overcome adversity and social change (Simon & Hitt, 2003).

Van Auken and Werbel (2006) suggest that family members provide financial resources through outside sources of earned income, emotional support in the form of encouragement, and instrumental support in the form of knowledge or physical assistance in helping the family business to survive (Matzek, Gudmunson, & Danes, 2010).

External financial resources are often contributed indirectly to the family business, where the family members guarantee the repayment of bank loans. Several recent studies present evidence suggesting that financing constraints are important for family business investment and growth. Evans and Jovanovic (1989) show that most individuals who enter self-employment face a binding liquidity constraint and as a result use a suboptimal amount of capital to start up their businesses. Holtz-Eakin, Joulfaian, and Rosen (1994) find evidence suggesting that liquidity constraints impact entrepreneurial success and growth. Hadlock and Pierce (2010) compare a large number of proxies for the likelihood that firms face financing challenges and conclude that firm size and age are very strong predictors of a firm's ability to borrow financial capital.

Disruptions and Processes in Times of Change

A unique contribution of SFBT is that it acknowledges that standard operating procedures used in normal, stable times need to be adjusted in times of change. Ward (1997) indicated that the long-term sustainability of any family business depends on its ability to anticipate and respond to change. The SFBT stipulates that during stable periods, family and firm are managed within their boundaries. During periods of disruptions, the other system's resources are used. Those

adjustments are most often made at the interface of the family and firm where interpersonal and resource transactions occur that utilize the total family capital base from both family and firm. Business and family managers must perceive, process, and respond to a changing environment and reconstruct processes to ensure sustainability over time.

Achievements, Short-Term Family Business Viability, and Long-Term Sustainability

The SFBT recognizes components of both short-term family business viability and long-term sustainability. Family firm achievements are current year's outcomes; they are revenue, profit, goods and services produced, perceived success, jobs created, etc. Viability is the result of family/firm achievements in the current year. Achievements are multi-dimensional and for a complete outcome assessment, the multiple dimensions must be considered (Cooper & Artz, 1995; Cooper, Dunkelberg, & Woo, 1988a; Cooper, Woo, & Dunkelberg, 1988b).

In SFBT, viability is the result of the overlap between what the family and firm achieved during the current year (Danes et al., 2008a). Sustainability is the outcome of multiple years of viability. Long-term sustainability is a function of both firm success and family functionality. Achievements within family and firm join and interact to create short-term family firm viability. One cannot achieve well-being in one system without reaching the well-being in the other.

The SFBT has always recognized the multidimensionality of family firm achievement and sustainability. This SFBT proposition addresses Gimeno's (2005) argument that family firms must meet owner expectations as well as financial criteria to be considered successful. Based on analyses incorporating human, financial, and social family capital and their influence on family firm performance, Danes et al. (2008b, 2009) suggest that family firm owners have financial and nonfinancial objectives for their firms. The qualitative nature of differences (different significant variables in the two equations or different variable signs) that specific types of family capital had on gross revenue or perception of success indicated true multiple firm objectives (financial and nonfinancial) for family firms.

Community Context of Family Firms

The SFBT recognizes that the firm is part of a larger system by placing the family business within its community context (Danes et al., 2008a). Business/community symbiosis is recognized within SFBT because firms do not make economic decisions in a social vacuum, but rather in the social context of their community host (Danes et al., 2009). Community is defined in SFBT as a collective interaction rather than simply a group that shares a few common characteristics (Kulig, 2000) because families act as the mortar that connects communities, individuals, and firms and makes them function effectively. The firm/community interaction plays a prominent part in the management of many ethnic-family businesses (Danes et al., 2008a; Fitzgerald, Schrank, Haynes, & Danes, 2010).

Members of family and business systems may interact with the community; the manner and degree to which that interaction with the community occurs is rooted in the meanings that family members give to that activity. The owning family provides a fertile environment of values, attitudes, and beliefs that serve as inputs into the family business culture. One of the attitudes from the family that often transfers into the business through its family employees is responsibility to the community. Responsibility to the community is especially salient among rural family business owners (Brewton, Danes, Stafford, & Haynes, 2010). Success of the family business depends upon whether the firm is managed in harmony with the local community culture (Astrachan, 1988; Niehm, Swinney, & Miller, 2008). A positive symbiosis between the family business and its community host is more productive for both the firm and the community compared to a situation where there is not a good match between the two cultures (Fitzgerald et al., 2010).

The SFBT provides the conceptual guidance for discussing financial intermingling and interpersonal relationships in the family business. The next two sections examine several studies addressing the intersection between the family and business systems.

Financial Intermingling Between the Family and Business

The SFBT recognizes the overlap of family and business demands. One type of intermingling, financial intermingling, is an important topic for family businesses because "what is good for the business" may or may not be "good for the family." The financial intermingling literature has discussed several examples of intermingling: using family assets to secure business loans, using household income to meet business cash flow demands, borrowing money from the family for use in the business, borrowing money from the business for use in the family and using business income to meet cash flow demands in the family (Avery, Bostic, & Samolyk, 1998; Haynes et al., 1999); using personal savings and delayed or reduced compensation for business purposes (Freear, Sohl, & Wetzel, 1995); providing space and utilities (Winborg & Landstrom, 2001); using personal credit cards and home equity loans (Van Auken, 2003); and using family members as employees in the business (Heck & Walker, 1993), or vice versa.

Other papers on the subject on financial intermingling include Haynes and Avery (1996), Muske, Fitzgerald, and Haynes (2003), and Yilmazer and Schrank (2006). Haynes and Avery (1996) used the Survey of Consumer Finances to investigate the debt structure of small businesses under the premise that personal and business debt was intertwined. Haynes and Avery (1996) found that small business households comprise about 13 % of the population of households, but they account for nearly 37 % of the total debt held by households. Muske et al. (2003) concluded that copreneurs were more likely to use the family's financial resources to assist the business than non-copreneurs. Yilmazer and Schrank (2006) concluded that the intermingling of household and business financial resources was likely influenced more by business characteristics and household wealth than by whether the business was classified as a family business or not.

The previous sections of this chapter described the tenets of the SFBT and intermingling at the interface of the family business. The next section will apply the theory to a particular type of family structure in family owned businesses, where couples are engaged in business.

Understanding Family Capital Dynamics: Couples Starting Businesses

One of the contexts for applying the SFBT theoretically and for understanding how family capital contributes to family firm sustainability is by investigating couples who are starting businesses. This discussion includes only couples with start-up businesses; however, many of the same applications of the theory would apply to existing family businesses. There are many ways in which spouses contribute to the sustainability of a new business venture (Danes, 2013; Van Auken & Werbel, 2006). Spouses provide financial resources through outside sources of earned income, emotional support in the form of encouragement, and instrumental support in the form of knowledge or physical assistance in helping the family business to survive (Matzek et al., 2010).

A significant part of an entrepreneur's immediate context is family, especially that of the couple relationship (Danes, Craft, Jang, & Lee, 2013). However, few studies empirically examine the couple context in tackling the liability of newness of new venture creation (Danes & Morgan, 2004; Danes & Olson, 2003; Liang, 2002). Liability of newness (Stinchcombe, 1965) refers to greater risks of failure that new firms face compared with existing firms because of learning and coordinating new roles, problems of mutual socialization of family members, and inability to compete effectively with established firms. In fact, the survival rate for new businesses within the first 5 years is 50 % (Laitinen, 1992).

Thus, it is critical to study all aspects of survival contributors, especially those previously ignored such as the couple relationship of those starting the business (Danes et al., 2013). Couples starting new business ventures already have the social capital foundation grounded in their couplehood (Jang & Danes, 2013). When entrepreneurship research focuses only on the human and financial capital of entrepreneurs, the researchers are ignoring the fact that it is this social capital stock that creates spousal commitment to the new business venture and opens the door to access and flow of human and financial capital of other family members. For these reasons, we are concentrating here on recent research findings about various aspects of the contribution of spousal social capital in the creation of new family ventures.

During the dynamic, iterative, and socially embedded venture creation process, the couple context impacts choices, opportunities, and challenges that an entrepreneur experiences in addition to the entrepreneur's business expertise (Dimov, 2007). Couple interactions and resource flows between spouses assist with the liability of newness of a new venture, and are likely to influence success and sustainability of the new venture (Gudmunson & Danes, 2013).

To further explain spousal capital, the family capital definition used by Danes et al. (2009) is employed. That definition is grounded in SFBT which is the total bundle of human, social, and financial resources available to entrepreneurs including those resources received directly or indirectly through the relationship with their spouses. An example of spousal human capital is when a spouse contributes their professional expertise to help operate the firm.

An example of spousal social capital is when a spouse agrees to accept a greater proportion of child care responsibilities compared to the entrepreneurial spouse so that the entrepreneur can spend more time working in the firm to expand their clientele base. Spousal social capital is more inclusive when spouses provide emotional support for the entrepreneur (Danes, 2011). Spousal social capital includes such components as commitment, transference of resources across family/business boundaries during hectic times in the firm, spousal perception of entrepreneur's business efficacy, sharing in firm decision-making processes, as well as assisting in representing the family firm in the community.

The couple relationship is a form of social capital for entrepreneurs because transactions between spouses can act as an accumulation of resources that entrepreneurs can draw upon to help achieve family and business goals (Danes, 2011). Spousal social capital transactions may include resource transactions such as time and effort contributed to the business or interpersonal transactions such as development of affective ties and guidelines about acceptable and unacceptable behaviors of family members related to the business (Coleman, 1990; Wright et al., 2001). Relationship transactions are based on contextual values, beliefs, and norms that come from the couple culture (Zuiker, Katras, Montalto, & Olson, 2003) and ultimately exacerbate or reduce stress for an entrepreneur (Van Auken & Werbel, 2006). Such social norms often differ by gender roles and childcare demands of entrepreneurs and their spouses (Aldrich & Cliff, 2003; Carter & Cannon, 1992).

Spousal financial capital can be direct or indirect; an example of direct financial capital is when a spouse lends the entrepreneurial spouse part of their parental inheritance to expand the firm. An example of indirect financial spousal capital is when a spouse works outside the home to provide stable income and medical benefits until a new business venture is profitable.

The couplehood of firm-owning couples is closely related to the concept of copreneurs referring to business-owning couples having shared goals, dreams, and ideals (Fitzgerald & Muske, 2002). Blenkinsopp and Owens (2010) argued that most new ventures are copreneurial with a varying extent of spousal involvement in the business. Regardless of the extent of spousal physical involvement in the business, the core of copreneurial couplehood is whether spouses share business and family goals as a couple (Van Auken & Werbel, 2006). This goal congruence, a dimension of couplehood, is critical for copreneurs since they cannot pursue individual goals

without considering their partners' goals (Gere, Schimmack, Pinkus, & Lockwoord, 2011) and their business commitment is built upon the couple's shared goals. Communication between copreneurial spouses in a new venture helps them to negotiate the content of the liability of newness (Helmle, Seibold, & Afifi, 2011).

Jang and Danes's (2013) study on copreneurial couple goal congruence and new venture viability revealed that copreneurs with strong couple goal congruence were likely to have quality venture-related communication. That study further suggests that copreneurs may communicate about business objectives, finances, and sales in more effective ways when there are congruent couple and financial goals. Couples having mutual agreement with their family and business goals will more likely try to find ways to achieve those goals together, which creates an environment of open communication confirming that they are "on the same page."

Jang and Danes (2013) additionally found a positive relationship between venture-related communication quality and new venture viability. New ventures will more likely remain viable in their early stages if copreneurs have quality venture-related communication. Through quality venture-related communication early on, copreneurs will be able to assess their potential resource gain and loss in both family and business domains (Danes, Matzek, & Werbel, 2010; Foley & Powell, 1997; Stewart & Danes, 2001). That interpersonal transaction will enable them to respond effectively to expected or unexpected events during the start-up process, and consequently, it will serve a resilience function for their family and business achievements (Danes et al., 2009).

New venture creation literature is filled with how entrepreneurs form their identity (Dimov, 2007). Little is known, however, about how entrepreneurs and their spouses *mutually* form a collective, copreneurial identity. Understanding this copreneurial identity formation is important because commitment links identity to behavior (Burke & Reitzes, 1991; Stets, 2006). To date, entrepreneurial identity has been understood as an individual construct. Moving to the next phase of creating a collective, copreneurial identity involves a shared vision and investment involving each member of a couple.

To progress to that next stage, it is not enough that each individual within the couple sees themselves as an entrepreneur; a collective cognition needs to form and the couple must become aware of the existence of the "us" in the copreneurial couple (Pierce & Jussila, 2010). That "we-ness" is a fundamental base of commitment (Burke & Reitzes, 1991; Helmle et al., 2011). Furthermore, couples with a mutual commitment to new venture goals have a substantial impact on the sustainability of that new venture over time (Danes et al., 2010).

Mutual commitment cannot develop without satisfactory intra-couple communication concerning business objectives (Matzek et al., 2010). Starting a new business can be a continuous struggle of contradictions. Developing a collective cognition resulting in mutual commitment and a copreneurial identity requires continual communication between the entrepreneur and their spouse about business vision and goals (Danes & Jang, 2013; Van Auken & Werbel, 2006). Couples starting a new business venture already are steeped in a personal relationship that is connected through past interaction and communication patterns. With new venture creation comes the need to negotiate and reconstruct a new type of relationship that is *both* personal and professional—what we call a *copreneurial identity* (Helmle et al., 2011). Copreneurial identity formation is about understanding self-referential meanings and sense-making that are core to early stages of copreneurial identity formation where identity standards and reflective appraisals of entrepreneurs and spouses are verified (Danes & Jang, 2013).

Danes and Jang (2013) provided support for the tenet that formation of a copreneurial identity (at least in the early verification process between entrepreneur and spouse) is affected by the satisfaction with venture-related communication. The identity verification process has two parts: spousal input and feedback. Spousal feedback allows entrepreneurs to evaluate whether there is congruity between their identity standard and

appraisals of spousal commitment. In the Danes and Jang study (2013) on copreneurial identity formation, entrepreneurs reported high spousal commitment in Time 1, but spouses reported they were more committed than entrepreneurs' assessments. Entrepreneurs' assessments of spousal commitment remained stable over the first year of operation. There were, however, varied discrepancies between spousal assessment of commitment and the entrepreneur's appraisal of their spouse's commitment. The entrepreneur's assessment of spousal commitment and the spousal self-assessment of commitment were not equivalent. This Time 1 incongruity established the need for couple interaction to alleviate the incongruity.

The second part of the identity verification process is assessment of social interactions that occur within the role setting with regard to both entrepreneur and spouse identity standards. Identity standards are adjusted when they are not verified in their role setting (Burke & Stets, 1999). If there is congruity between a spouse's assessment of their commitment and entrepreneur's evaluation of spouse's commitment, there will be more focused use of couple resources toward targeted business goals. The Danes and Jang study (2013) provided evidence that new venture creation is an iterative, interactive process between entrepreneurs and their immediate context of couplehood, a big part of which is spousal interaction (Danes et al., 2010; Dimov, 2007). The next step is to investigate the enabling forces created through the total family capital flows of which entrepreneurs now have access due to this spousal commitment.

The level of communication about business goals played a role in the formation of a copreneurial identity in the Danes and Jang study (2013). Communication, however, is socially constructed, which means that context (the couple relationship in this case) was vitally important (Danes et al., 2010). Communication between spouse and entrepreneur about new venture goals potentially has both advantages and disadvantages. And, because of this contextual orientation, there is no ideal amount of venture-related communication between entrepreneur and spouse that will lead to sustainability. Although sharing concerns about new venture issues may contribute to sustainability of a new venture and the couple relationship, excessive sharing may not be ideal for all couples (Vanlear, 1990). The appropriate and effective extent of communication about new venture goals depends on each couple's standards.

Conclusion and Implications

This chapter utilized the SFBT to establish a foundation for the relationship between the family, business, and community, and summarized literature on financial intermingling and couples starting businesses. It examined the stock and flow of family capitals employed at the intersection of family and business. Healthy businesses depend on support from healthy families, and vice versa, for the survival and success of family businesses. While this literature has addressed many critical issues associated with the use of family capitals, the question of how these family capitals increase the probability of survival and success of family businesses remains an open question.

The most significant challenge facing this line of research is the lack of extensive panel data on family businesses. The full exploitation of the SFBT and analysis of family business survival and success requires extensive information on the health of both the family and business. Financial health could be measured by collecting information similar to the Survey of Consumer Finances on the family or household and Survey of Small Business Finances on the business. In addition, information on family capitals, similar to data collected in the National Family Business Survey, is critical to extend this literature.

Based on the findings of research discussed in this chapter, future researchers might include more couple-level processes at the firm and family interface that may ultimately impact the mutual sustainability of the firm and couple relationship. Future research might also examine characteristics and processes unique to copreneurs and how dynamics between spouses in

these couples impact firm and couple relationship outcomes. Conceptualizing copreneurs by level of involvement and commitment to the new business venture may be a useful method by which to study entrepreneurs.

In addition, future research is needed to further examine the intersection between the family and small business where financial intermingling occurs. Understanding the influence of resource intermingling is critical because it may obscure family and business health and success. However, the intermingling of family and firm resources is an important adjustment strategy building resiliency, particularly in small firms. This resiliency may be very important to small business recovery after a natural or man-made disaster.

Most importantly, resource intermingling highlights the importance of including family variables in any analysis of small businesses. Resource intermingling (which includes financial, labor, and other resource intermingling), is important because it's where the allocation of resources and resiliency of interpersonal relationships is tested. This intersection is important in assessing whether what is "good for the family business" is "good for family." This intersection of the family and small business warrants further research to examine resource intermingling in more depth, expand the general definition of intermingling and assess the impact of intermingling on the survival and success of small businesses.

Family business educators might work to inform lending agencies and small business development centers (SBDCs) about the benefits of spousal involvement and spousal commitment to the new venture. SBDCs and lending agencies should be informed of the importance of spousal involvement in the business and its impact on commitment, communication, and emotional support that spouses provide to entrepreneurs during the first year of a business. SBDCs should discuss with entrepreneurs about spousal involvement in the business and its potential effects on business and family outcomes. Lending agencies should be encouraged to look beyond monetary resources for providing loans to both male and female entrepreneurs. It may be beneficial to develop educational programs to help entrepreneurs and their spouses increase spousal social capital, especially during the first year.

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16 Financial Issues of Women

Cäzilia Loibl and Tahira K. Hira

Women's financial issues are manifold. This chapter critically reviews and synthesizes the research on women's financial issues. In a nutshell, compared to men, women's financial literacy is lower but they are aware of that deficit and are more likely to seek advice from financial professionals. Women's investment behavior is more heavily influenced by emotions and behavioral biases that both benefit and hurt investment outcomes. Within couples, women are more involved in financial decisions when their age, education, and income are more closely to match their husbands'. Low-income women try to make ends meet by combining high-cost lending with often less accessible mainstream financial products. Poverty among older women is particularly challenging, and the consequences for women's mental and physical health are severe. Beyond the western world, microfinance interventions have led to women's empowerment and to their assuming greater roles in economic decision-making. These financial issues of women are presented in great detail in the following sections.

Financial Literacy of Women

There is general consensus that women have lower financial literacy compared to men's.

The key research studies on the financial literacy of women have been written by Lusardi and Mitchell (2008, 2014). The studies focus on retirement preparedness, which is particularly important for women because women tend to have less wealth and lower pensions, yet longer life expectancies, than men. To measure financial literacy, a series of three questions were added to the 2004 wave of the US Health and Retirement Study, which surveyed adults age 50 and older (Lusardi & Mitchell, 2008, pp. 413–414):

"1. Understanding of Interest Rate (Numeracy)
Suppose you had $100 in a savings account and the interest rate was 2 % per year. After 5 years, how much do you think you would have in the account if you left the money to grow: (1) More than $102 (2) exactly $102 (3) less than $102?
2. Understanding of Inflation
Imagine that the interest rate on your savings account was 1 % per year and inflation was 2 % per year. After 1 year, would you be able to buy more than, exactly the same as, or less than today with the money in this account? (1) More than today (2) Exactly the same as today (3) Less than today
3. Understanding of Risk Diversification

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> Do you think that the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund. (1) True (2) False"

Results of 785 responses of women showed that 61.9 % answered the first question, 70.6 % the second question, and 47.6 % the third question correctly. The "Don't Know" responses varied accordingly and, in mixed samples, are higher among women (Lusardi & Mitchell, 2014), which indicates women's higher awareness of gaps in their financial literacy. Financial literacy is positively and significantly associated with financial planning. This relationship holds even when taking into account demographic characteristics, such as education. Follow-up studies showed that younger women are also less financially knowledgeable than men of their age group (Lusardi & Mitchell, 2009; Lusardi, Mitchell, & Curto, 2010; Lusardi & Tufano, 2009). Lusardi and Mitchell (2014) also point out the debate about the reasons for the difference in financial literacy between men and women. Lower levels of financial literacy affect a range of financial behaviors: lower everyday financial management skills and more financial mistakes; vulnerability to scams, high-cost borrowing, and costly financial products; lower involvement in financial planning and investment products; fewer savings and higher debt (Lusardi & Mitchell, 2014).

Financial Advice and Women

A question that arises from the financial literacy research is "Do women seek financial advice to bridge the knowledge gap?" and "What popular sources of financial advice are used by women?" In our own research on female investors, conducting a phone survey with 911 higher-income investors, we found that women were less likely than men to use the internet (lowest use), financial planning software, and financial publications as a result of using family and friends for gathering financial information (Loibl & Hira, 2006). However, women tend to contact a professional financial advisor more often than men, and the attitude toward financial advisors was significantly higher among female investors (Loibl & Hira, 2011). Our findings are confirmed by studies in other countries. Among respondents of the Dutch Household Survey, women are more likely to talk about financial issues to family and friends, compared to men (Bucher-Koenen, Lusardi, Alessie, & Rooij, 2012). In a German panel study, women are more likely than men to consult informal sources of advice, and the more pronounced this gender difference in information behavior the lower the financial literacy (Bucher-Koenen et al., 2012).

The take-up of professional financial advice by women is linked to financial literacy. Those who answer the three literacy questions correctly are more likely to consult with a professional financial advisor and to rely less on family and friends as their main source of financial information (Bucher-Koenen et al., 2012). Women investors, in particular, are more likely to consult with an advisor, whether it is an independent advisor or a bank financial advisor, prior to executing a trade, a conclusion based on data gathered from a large brokerage firm and a major bank in Germany (Hackethal, Haliassos, & Jappelli, 2012). However, women are less likely to respond to an offer of free unbiased investment advice. This was tested among active retail bank consumers in Germany. Results show that men are more likely to take up the free offer (including those who are older and richer). Even when accepting the offer (a total of 5 % of the sample), the advice is typically not followed (Bhattacharya, Hackethal, Kaesler, Loos, & Meyer, 2012).

Examining gender biases in the work of professional financial advisors, Mullainathan, Noeth, and Schoar (2012) documented three findings in an observational study for women seeking investment advice. First, female clients are asked to hold more liquidity. The advice given to women included fewer bond and stock investments. Second, women are less often asked for basic information about their personal and financial situation. Advisors thus based their recommendations on incomplete information. Third, advisors are more likely to ask women to first transfer their funds to them before providing personalized investment information.

Financial advisors are aware of the business potential of serving women. Trade publications, such as the *Journal of Financial Planning*, give advice on how to retain female clients (Blayney, 2010; Loibl & Hira, 2007; Stafford, 2012). LearnVest.com is an example of an online service that offers financial advice targeting women (Bernard, 2013).

Investing Behavior of Women

Research suggests that, on average, women are less overconfident, more risk averse, and more intuitive decision-makers, and they interpret product information in particular ways when it comes to investing. For example, in a seminal study, Barber and Odean (2001) examined investor overconfidence with 6 years of data from a large brokerage firm. They found that, based on women's lower levels of overconfidence, women make significantly fewer investment trades and, as a result of the more stable investments, achieve higher net returns.

The average woman is also shown to be more risk averse when making investment decisions, and this is evident in the lower holdings of equity among women. For example, in an analysis of retirement plan holdings of a large firm, women held significantly less equity compared to men, by almost 20 % (Agnew, Balduzzi, & Sundén, 2003). Another example is the choice between purchasing an annuity and making one's own investment decisions for lifetime savings at retirement. In a lab experiment, women were more likely (38 % vs. 29 %) to choose the seemingly less complex annuity option than men (Agnew, Anderson, Gerlach, & Szykman, 2008). Examining the reasons for differences in financial risk-taking with surveys and experimental set-ups, it appears that "gender," the extent of masculine attributes in a person's behavior, influence decision-making, rather than a person's biological sex (Meier-Pesti & Penz, 2008).

Women's more intuitive approach has been illustrated by showing that they are strongly influenced by behavioral biases in stock market decision-making, such as disposition effect or herd behavior. Based on responses to an online survey on a consumer-oriented financial website and the calculation of bias grades, compared to men, women appear to be more strongly affected across five behavioral biases, resulting in greater use of simplified heuristics for their investment decisions (Hon-Snir, Kudryavtsev, & Cohen, 2012).

Women respond differently from men depending on how investment information is presented to them. A biased marketing presentation only affects women investors when it contradicts their own beliefs. Preferring annuities over individual investment, women's choices are unaltered by information negatively framing investment options. When presented with such negative framing of the annuity option, women respond by opting for the investment option (Agnew et al., 2008).

In addition to behavioral biases, women display much lower investment knowledge than men. Using data from the Dutch National Bank's Household Survey, about one in three women were in the lowest quartile of the literacy distribution and only 1 in 12 in the highest one. This is one explanation for why women hold fewer stock market investments, compared to men (van Rooij, Lusardi, & Alessie, 2011).

Financial Decision-Making of Women in Modern Couples

Turning the perspective from the individual to the woman's role in intra-household financial decision-making by examining couples, it is evident that a wife's influence is higher in egalitarian partnerships compared to traditional marriages and in those the wife has high financial literacy. Using survey research, Meier, Kirchler, and Christian-Hubert (1999) showed that husbands dominated only 4 of 14 decision areas, i.e., those identified as high commitment and high risk products: life insurance policies and investment in stocks, bonds, and investment funds.

Data from the Bank of Italy Survey of Household Income and Wealth indicate that the wife's influence on economic and financial decisions increases as her age, education, and

income match or surpass the husband's. The findings provide support of a "bargaining framework" as an explanation for decision-making responsibilities. The responsibility for financial decisions is only then passed to the husband when the wife is employed and the husband unemployed, reflecting task-sharing within a household production framework (Bertocchi, Brunetti, & Torricelli, 2014).

The process of creating a financial system after marriage has been the focus of qualitative research. Burgoyne, Reibstein, Edmunds, and Dolman (2007) conducted interviews with 42 newly married couples interviewed before marriage and at the time of their first anniversary. Women expressed concern about their influence on financial decisions in couples who decided to keep their resources separate. Not integrating resources may disadvantage women in the longer term as they reduce employment in order to raise children. Research on the individualization of marriage also supports this notion, based on comprehensive international survey data (Lauer & Yodanis, 2011).

Financial Decisions of Low-Income Women

Barriers to saving, lack of insurance, credit constraints, and high-cost financial services control low-income women's financial decisions (Barr & Blank, 2009). Case studies document that low-income women "are painfully aware of society's norms and of their own inability to abide by them. A single mother who, without access to child care, needs to present herself at a bank in the company of her small children may be aware of the fact that, ideally, children are not brought into a bank" (Mullainathan & Shafir, 2009, p. 134).

How do women deal with limited access to mainstream financial services? In in-depth interviews with 50 low-income women at a Boston housing project, Littwin (2009) illustrates how low-income women make use of a number of financial services to meet their needs, finding that high-cost lending in pawn shops, rent-to-own stores, and catalog purchases complement, rather than substitute for, the use of credit cards. Transparency, versatility, and security are the features used to compare and contrast the four means of borrowing for low-income women. Credit cards, for instance, are highly versatile by being accepted throughout the market place, unsecured, but lacking in transparency. Consumers tend to be unaware of product fees and usage terms that apply when they first sign up and later, when using the card. Pawn shop transactions, as another example, are perceived as highly transparent regarding fees and procedures and are highly versatile, because cash is received in exchange of the collateral. On the negative side, pawn shops require giving up possession of the collateral immediately.

Barr, Dokko, and Feit (2012), in their Detroit Area Household Financial Services study, complement these findings. The team interviewed about 1000 households living in low-and moderate-income census tracts to test the design of payment cards, using choice experiments to determine the relative importance of payment-card attributes. For example, a female African American, $20 K income, age 40, unbanked, low-income tract, places particular weight on monthly fees and the availability of federal protection. After these two features, the payment card's type (debit vs. payroll vs. MasterCard) is an important factor. Contrasting it to a group of female African American, $20 K income, age 40, banked, moderate-income tract, this group places more weight on fees and less on lost-card protection and the method of making deposits.

Taking a broader view, Edin, Kefalas, and Reed (2004) documented the important role of financial stability when low-income women consider marriage. Besides relationship quality, financial stability is considered necessary for a stable marriage. Homeownership, car, furniture, some savings, and the means to afford a nice wedding are financial goals for low-income women and their partner before they decide to marry.

Which interventions help low-income women achieve financial stability? One example is the workplace intervention (e.g., Hira & Loibl, 2005). Opt-out features in retirement plans help women start saving regularly. The field experiment by Madrian and Shea (2001) showed that, for women, participation in retirement plans rose

from 35 to 86 %. The effects are the largest among the groups with the lowest participation rate under the traditional, affirmative election scheme.

Another example is a community-based savings program with a high 74 % enrollment of low-income women (Office of Community Services, 2012). The Individual Development Account (IDA) program is a matched savings program for individuals with household incomes below 200 % of the federal poverty guidelines (Sherraden, 2000). Typically, savers save $1000 over 2 years and receive a $2 match for each $1 saved. The program includes mandatory financial education workshops and credit counseling. It receives federal funding through the Assets for Independence Act (Asset for Independence Program, 2012) and is offered by social-sector agencies across the USA. This savings program supports low-income women with finding better housing in safer neighborhoods, getting more education, and starting a small business.

Poverty Among Women in Older Age

Women are at particular risk of poverty in older age. Several factors come into play. First, women's longer life expectancy compared to men can lead to years of widowhood. Sevak, Weir, and Willis (2004) show with data from the Health and Retirement Study that widowhood increases the incidence of poverty among women who were not poor when married and that poor women tend to become widowed at a younger age, thus transitioning from poverty during marriage to poverty during widowhood. In addition, there are loss of income and extra expenses of a spouse dying. Finally, out-of-pocket medical expenses severely affect a widows' financial stability. As a result, among people aged 70 and older, widows are three times as likely to live in poverty as married couples (McGarry & Schoeni, 2005).

Additional poverty triggers are women's lower income and often interrupted employment histories. Separation and divorce lower women's financial security (McDonald & Robb, 2004) as does being a caregiver in earlier life (Wakabayashi & Donato, 2006).

The consequences of female poverty in older age are severe. In financial terms, old-age poverty among women is linked to material deprivation, lack of health insurance, feelings of financial strain, heightened susceptibility to financial fraud and scams, and an uncomfortable dependence on children's financial support if available (e.g., Angel & Settersten, 2013). In social terms, women's poverty in older age is closely associated with loneliness, isolation, depression, and reductions in self-esteem (e.g., Donini, Savina, & Cannella, 2003; Kim, Richardson, Park, & Park, 2013).

In health-related terms, women in poverty are food insecure, consuming fewer calories, fewer servings, and fewer nutrients, and they suffer from a poor diet and loss of appetite. They are less likely to seek medical help, attend to their dental health, and complete post-treatment follow-up care, and they have less access to nursing homes. These women are faced with chronic cold-related health conditions when trying to save heating costs. Taken together, poverty in older age has been shown to shorten women's life expectancy (e.g., Klesges et al., 2001; Schootman, Jeffe, Lian, Gillanders, & Aft, 2009; Webb, Blane, & De Vries, 2013).

Effective interventions have to overcome older women's tendencies to avoid asking for help and to their becoming invisible in the society. For example, they are significantly less likely to seek help in credit counseling agencies compared to younger population groups, or to visit food banks to stock up on groceries (Hawkley & Cacioppo, 2007). A guaranteed minimum pension in the Netherlands and the discussion about a "mother pension" in Germany are efforts to help women meet their financial needs in older age (Sociale Verzekeringsbank, 2008; The Economist, 2014).

Microcredit for Women in Third World Countries

Microfinance literature finds that if financial decisions are made by women, savings and investments are often greater, repayment of microfinance loans is more likely, and there is

greater cooperation and collaboration (Aghion & Morduch, 2005; Ashraf, 2009). For this reason, microfinance institutions may decide to target primarily women (Brau & Woller, 2004). In addition, women spend more of their income on family needs, such as children's education and nutrition, their daughters' well-being, and housing, and therefore, microfinance institutions target women differently from men (e.g., Duflo, 2003).

Cultural settings influence financial behaviors. Ashraf (2009) explains how women take control of spending and saving in many developing countries where men are expected to hand their pay over to their wives among 70 % of Indonesian and 80 % of Philippine households, but this is not an easy task for wives in poverty-stricken families.

Because of the significant involvement of women in microfinance interventions, researchers have examined female empowerment in relation to economic development in the third world countries. Duflo's writing is central to this topic (Banerjee & Duflo, 2011; Duflo, 2012). She explains how economic development relieves poverty, especially for women and their daughters; influences fertility and decreases maternal mortality; allows women to take advantage of opportunities for work outside the home; frees up women's time ordinarily spent on housework and care; and assists in furthering women's legal rights. Empowering women, on the other hand, furthers economic development when promoting women's role in decision-making in a family, in family businesses, and in the community (Duflo, 2012).

Summary and Future Research Directions

This chapter examined research studies on financial issues of women. The research indicates that women tend to have lower financial literacy and rely strongly on financial information from their social network. Women show a greater tendency to work with financial advisors. When making investment decisions, women tend to follow a more intuitive approach and exhibit lower risk tolerance compared to men. In couple households, women's financial responsibilities are greatest in egalitarian partnership forms. Low-income women face particular financial challenges, characterized by limited access to mainstream financial services. Financial decision-making mirrors credit constraints, higher cost of alternative financial services, and lower insurance coverage. In older age, women are at particular risk of experiencing poverty due to longer life expectancy and lower retirement savings compared to men. The consequences for physical and mental health are severe in older age and have been shown to increase morbidity. Finally, research in developing countries documents the unique role of women for microfinance interventions. As a preferred target of such interventions, women empowerment fuels economic development not only in financial terms, but also with regard to formal education and legal rights.

This literature review documents that, so far, survey research has been the dominant source of data on women's financial issues. We believe that a key focus of future research should be on testing the effectiveness of interventions aimed at increasing women's financial literacy and financial decision-making processes. To this end, collecting data in the field through randomized controlled trials would allow taking the research on women's financial issues an important step further. By comparing a treated group to an untreated control group, financial learning and decision-making can be decomposed and systematically evaluated. Field experiments in developing countries (e.g., Duflo, 2003) can serve as role models for this type of research. Possible research questions include Which financial information is most important for women? What is the preferred design of financial communication targeted for women? When is the best timing of financial literacy interventions? How does resource scarcity affect women's financial decision-making, compared to men? In conclusion, this chapter summarizes current writing on women's financial issues and pinpoints directions for future research. It is hoped that this information motivates researchers to investigate women's issues when addressing personal finance topics.

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Dr. Tahira Hira has served on the US President's Advisory Council on Financial Literacy and chaired the NYSE committee. She served as an expert witness for the United States Senate Committee on Judiciary and the United States Senate Banking Committee. She is the founding president of the Association for Financial Counseling and Planning Education (AFCPE) and president of the American Association of Family and Consumer Sciences (AAFCS). Her research interests include financial attitudes and beliefs, borrowing, investing and gambling behaviors, and consumer bankruptcy. Her work has been cited in *The New York Times*, *The Washington Post*, *The Wall Street Journal*, *The Chicago Tribune*, and *Money*. She has appeared on the *NBC Today Show*, *CNN News*, and the *CBS Up to the Minute Show*. Currently, professor emeritus, she joined the Iowa State University in 1980. A Fulbright-Hays Scholar, she received an M.S. in Agricultural Economics, and a Ph.D. in Family and Consumer Economics from the University of Missouri-Columbia.

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17 Financial Issues of Hispanic Americans

Nilton Porto

According to the 2010 Census, Hispanics or Latinos (both terms are used interchangeably in this chapter) are now the largest minority group in the USA, representing 16.3 % of the total population and are responsible for more than half of the American population growth from 2000 to 2010 (U.S. Census Bureau 2010). With a total fertility rate of roughly 2.3 children per woman, Hispanics have been the only group above the necessary replacement rate of roughly 2.1 to keep population constant in most industrialized countries. In public school enrollment, more than 20 % of all students are Hispanics (Pew Research Center, 2008) despite being underrepresented in post-secondary education. In sum, Latinos represent an important segment of the American population and, as such, have been deemed worth of interest by research in consumer finance.

Researchers from a variety of fields have recognized the importance of understanding individual and group characteristics of Hispanic Americans by contrasting and comparing them with non-Hispanic Whites and other minority groups. Empirical findings seem to point at the need to analyze this group separately in a number of relevant outcomes. For instance, in public health, Hispanics have been shown to have equal or better health outcomes (despite their limited access to healthcare) than non-Hispanic Whites due to cultural factors that increase resiliency, a finding termed the Hispanic Paradox by epidemiologists (Gallo, Penedo, Espinosa de los Monteros, & Arguelles, 2009). Along the same vein, infant mortality among immigrants from Mexican origin is also lower than Whites (Hummer, Powers, Pullum, Gossman, & Frisbie, 2007).

In consumer research, there has also been a growing interest in comprehending Hispanic issues related to household financial management apart and in relation to other ethnic groups. Lee and Hanna (2012) have brought attention to the issue of combining Hispanic Americans and African Americans into one minority group; they find that Hispanic households are less likely to be delinquent than Whites or African Americans. Hispanic might behave differently than other groups in the financial arena for a number of internal or external reasons related to their ethnicity or upbringing. More specifically, recent arrivals and early generations bring a number of cultural beliefs and attitudes when dealing with financial institutions that might differ from non-Hispanics or later generations Hispanics. Hispanics placed communication higher than non-Hispanic Whites when ranking banking satisfaction (Lopez, Hart, & Rampersad, 2007), prefer near-term savings than long-term investments (Stevenson & Plath, 2006), and are more likely to be unbanked if non-citizen, foreign-born (FDIC, 2011).

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In addition to ethnic and cultural differences, there is considerable variation within the Latino population in a number of other factors. Measured by country of origin, Mexicans comprised 64.9 % of the Hispanic population in the USA, Puerto Ricans 9.2 %, and Cubans another 3.7 % (Motel & Patten, 2012). While Mexican Americans constitute the largest Hispanic group in the USA, there is extensive heterogeneity even within this group on features such as English proficiency, years in the country, and degrees of assimilation/acculturation. For instance, undocumented immigrants might shy away from using traditional financial services for fear of being discovered by immigration authorities while legal immigrants feel more comfortable being part of the system.

Regardless of the motives why Hispanics might approach their personal finances differently, this segment can be considered a vulnerable population in a number of household finance measurements. White households median wealth is 18 times that of Hispanic households and roughly one out of three Hispanic households had zero or negative net worth in 2009 (Kochhar, Taylor, & Fry, 2011). The Pew Institute 2011 National Survey of Latinos highlighted the large detrimental effect of the sluggish economy on Hispanic households (Taylor, Kochhar, Fry, Velasco, & Motel, 2011). Latino respondents report that their personal finances are in "poor" or "only fair" shape (75 %), that they or another household member has been out of work in the last year (59 %), and that 28 % of their mortgages are underwater. The national data also supports the fact that Hispanic Americans have been one of the most negatively affected group after the housing crisis and Great Recession; the unemployment for this group was 11.0 % in December 2011, higher than the national average of 8.5 % at that point. Although these rates have come down considerably in recent reports, as of November 2014, Hispanic and African Americans are still more likely to be unemployed than Whites.

As a result, the goal of this chapter is to review the most current research on consumer finance relate to Hispanic Americans while cautioning the reader to keep in mind the need to distinguish subpopulations within this group. This chapter starts by discussing the financial capability of Hispanics. The subsequent section summarizes how Latinos use financial services—both mainstream and alternative—in a number of different ways than non-Hispanic Whites, including the issues of the unbanked. The next section is dedicated to asset building, an area of personal finance where Latinos seem to have been struggling to keep up with the rest of the population. The final section concludes this chapter by offering advice for future research on this topic.

Financial Capability

The set of human behaviors related to money management is commonly called financial behaviors (Xiao, 2008). Combined with both actual and perceived financial knowledge and access to financial institutions, these components now comprised a broader model of financial capability that is thought to be crucial in helping people achieve financial freedom. Financial capability "combines a person's ability to act with their opportunity to act" (Sherraden, 2013). In other words, some degree of financial knowledge coupled with good money management behaviors, and unrestricted access to appropriate and beneficial financial services are all important factors in becoming financially capable. Furthermore, "financial capability can be demonstrated by a certain level of financial literacy and performance of desirable financial behaviors" (Xiao, Chen, & Chen, 2014). Latinos appear to represent a less financially capable group, encountering a series of unique challenges from limited human capital to lack of experiential learning and access to the right financial institution.

Prior research has found that Hispanic Americans scored lower than non-Hispanic Whites in a number of financial literacy measurements, from high school seniors taking the Jump$tart survey (Mandell & Klein, 2007) to the five item questions included in the FINRA National Financial Capability Study (FINRA-IEF, 2013). Financial literacy appears to be particularly lacking among Hispanic Americans in both objective measures (Lusardi, 2008) or when this

group self-reports lower levels of financial knowledge than Whites when asked to estimate their own knowledge (Lusardi & Tufano, 2009). However, when the Hispanic individuals display a high degree of financial knowledge, they are more likely than Whites of similar levels to "engage in responsible financial management behaviors" such as budgeting, saving money, and controlling spending (Perry & Morris, 2005) and are less likely to be delinquent than Whites (Lee & Hanna, 2012). Although the last two findings are promising, knowledge of social security insurance is particularly weak on Hispanic Americans, with less than half of households able to estimate retirement benefits and less than one quarter of those able to estimate within 25 % of the actual amount (Gustman & Steinmeier, 2005).

A central challenge in financial capability is to close the motivation gap between people's knowledge and behavior. While most people are able to identify the important choices to a better financial life, they often fail to act upon this knowledge. Similarly, the temporal gap between when the financial knowledge is achieved and when is needed can undermine the success of financial literacy interventions. Understanding sources and reasons for these mismatches is particular relevant to find the missing link tying together financial literacy training and optimal financial behaviors. Older Latino immigrants, for example, might be at a disadvantage in both formal and experiential financial knowledge: they might have never had a financial literacy class as part of their regular educations and their experience with financial products and services might be curbed by what was available in their cities or regions of origin.

Financial advice could potentially act as a substitute when Hispanic Americans' financial knowledge is incomplete. However, relative to Whites, Hispanics are less likely to use a financial planner or seek financial advice (Bucks, Kennickell, Mach, & Moore, 2009; Collins, 2012; Hanna, 2011). This gap could be a function of a number of factors such as limited supply of financial advisers marketing to Hispanics, unique needs of this population that have not been addressed in the marketplace, or a number of other cultural differences. As an alternative, Hispanics can also receive financial advice from financial counselors, more commonly associated with serving low to moderate income populations. The effects of counseling to help improve the financial capability of Hispanics are scarce and mixed. Reviewing the effects of a mandate financial counseling to high risk mortgages in a mostly Hispanic geographic area, a recent research (Agarwal, Amromin, Ben-David, Chomsisengphet, & Evanoff, 2011) concludes that the intervention pushed some borrowers to a less risky option but not after reducing the supply and demand for mortgages in those markets.

Another important concept in the financial behavior of Hispanic households is agglomeration, defined as the living, working, or interacting clusters of similar groups. Hispanics living in areas with a large number of Hispanic homeowners are more likely to purchase a home in the future (Haurin & Rosenthal, 2009). It follows that the influence of this ethnic peer effects can also explain a number of financial behaviors of Hispanic Americans, either learned in their previous home or in their current community.

Use of Financial Services

Hispanics are more likely to be unbanked and to use alternative financial services than Whites (FINRA-IEF, 2013). In fact, being Latino increases the likelihood of being unbanked by 11.5 percentage points using Whites as the reference group (Rhine & Greene, 2013). Although several socio-economics factors might explain most of this gap, cultural differences might also play an important role on this group's money management preferences. Rhine et al. (2006) hypothesize that a number of unmeasured preference factors such as cost perceptions, liquidity constraints, and even information asymmetries might be in play on Hispanic Americans' choice to patronize check cashing place instead of mainstream banking.

While research of American residents has uncovered race and ethnicity disparities on banking utilization within the USA, another

potential comparison of interest is to review data from other Latin American countries. As of 2005, roughly 25 % of Mexican and 48 % of Dominican households are banked in their home country (Beck, Demirguc-Kunt, & Peria, 2007). Other countries with large immigrant contingents in the USA also have lower bank utilization than the American population: Guatemala at 16.5 %, Ecuador at 22 %, Colombia at 42 % (the highest bank utilization in Latin America from the data available), and Nicaragua at 5 %. While these figures are significantly lower than bank utilization in the USA (around 90 % of all households by most accounts), the low utilization could be due to lack of access, personal preferences, or other unmeasured factors. A possible clue can be found in Honohan (2008) composite measure of access to financial services. In this indicator, the USA scores 91 out of a possible 100 points while the countries mentioned above scored at a lower range: 25 in Mexico, 29 in the Dominican Republic, 32 in Guatemala, 35 in Ecuador, 41 in Colombia, and just 5 in Nicaragua.

Besides personal preference, limited access on their countries of origin to mainstream financial institutions should lead researchers to consider that the vast majority of first generation immigrants from Latin America have none or very limited banking experience. This lack of familiarity with traditional financial services could also prevent Hispanics from taking full advantage of the system and reaping the benefits from being banked (Grinstein-Weiss, Yeo, Despard, Casalotti, & Zhan, 2010). While time spent in the USA, age at immigration, legal status, and other characteristics can help immigrants incorporate themselves into becoming banked, they appear to still fall behind when taking advantage of more future forward financial products such as retirement accounts and investments (Osili & Paulson, 2007).

Reviewing recent waves of immigrants, Rhine and Greene (2006) found that immigrants from Mexico and other Latin American countries have the highest rates of being unbanked compared to immigrants from Asia or Europe. Similarly to other findings focused on native born consumers, the likelihood of being unbanked also increases for larger families, low education attainment, and lower income. A number of alternative financial services such as check cashing places and bodegas have targeted considerable efforts towards building a large Latino clientele which can further prevent these customers inclusion into mainstream financial services.

While the most customary method to measure financial access is by the number of banking institutions and/or automated teller machines (ATMs) in a certain geographic area, Hispanic consumers might also encounter additional barriers such as language. For instance, less than 40 % of foreign-born or first generation Hispanics rate themselves proficient in English (Pew Hispanic Center, 2007). The banking industry has recognized the importance of this market and has striven to offer both in person and over the phone bilingual services; however, there is some evidence that Latinos might prefer to do business with the types of business they are already more familiar with such as bodegas, a type of mini-mart popular among Latino communities Martinez-Ruiz, Jimenez-Zarco, & Izquierdo-Yusta, 2010).

Prepaid card and smartphones are two recent developments that could have a positive impact on the use of financial services by Hispanics since they are slightly more likely to own smartphones than non-Hispanic whites (Smith, 2013) and this new technology has also been shown to facilitate access to the traditional financial systems (Mbiti & Weil, 2011).

Using several waves from the Survey of Consumer Finances, Weller (2009) finds that Hispanics and other minorities encounter more barriers to obtaining credit. Hispanics are twice more likely than Whites to have had a credit application denied and 11.9 % of Hispanic families said that they do not apply for a loan for fear of being denied—only 4.9 % of non-Hispanic Whites report the same type of apprehension. Perhaps of more relevant policy concern, when Latinos are approved for credit, their loan compare negatively to what non-Hispanic Whites are being offered: their mortgage is usually a subprime loan (Fishbein & Woodall, 2006) at a higher interest rate than the average loan being offered in that market (Bocian, Ernst, & Li, 2008). Similar

structural barriers can be found on the credit card market where Hispanics pay higher interest rates and are limited on their choice due to lack of credit history (Gonzalez, 2007).

Asset Building

Asset building is a crucial component of financial freedom. In this category, Hispanic Americans are also facing a major challenge compared to Whites. While some of the income gap had shrunk slightly until 2007, the wealth gap has continued to increase between Whites and Hispanics. On average, Whites accumulate six times more wealth and earn double the income of Blacks and Hispanics (McKernan, Ratcliffe, Steuerle, & Zhang, 2013). From 2010 to 2013, Hispanic families' median net worth fell another 17 % while Whites gained 2 % to their median net worth (Bricker et al., 2014). The continuity of the wealth gap is especially detrimental as Hispanics age since they forsake accumulating needed assets for retirement and rely more on Social Security benefits than their White counterparts.

Homeownership has been considered—for better or worse—one of the main venues for asset accumulation in the USA. A promising recent trend has been the all-time high homeownership rate among Hispanic Americans in 2007 (Cortes, Herbert, Wilson, & Clay, 2007); in fact, all racial/ethnic segments experimented the same upward trend in that period. Following this boom period, the subsequent financial crisis was especially hard to the Latin segment; their homes were highly concentrated around the most affected states and more likely to have a non-traditional loan such as an adjustable rate mortgage (ARM) or a subprime loan. Before the crisis, Hispanics and Black were also borrowing higher amounts than did Whites with similar incomes (Kochhar, Gonzalez-Barrera, & Dockterman, 2009). More recent figures put the rate of homeownership by Hispanics at 46.1 %, a drop from the all-time high of 49.7 % in 2005–2006 (National Association of Hispanic Real Estate Professionals, 2013). The same report further reveals that Hispanics have accounted for 47 % of the total net growth of homeowners since 2010.

Immigrants have been shown to have lower homeownership rates than natives. Europeans and Chinese immigrants have the highest homeownership rates among first generation immigrants; on the other hand, immigrants from Latin America are the least likely to own a home even after an assimilation period is taken into consideration (Borjas, 2002). While factors such as age, income, and household composition are related to homeownership across all ethnic groups, housing quality of Hispanic American either foreign- or native-born ranks lower than White or Asian households (Friedman & Rosenbaum, 2004).

We see an increase in homeownership rates for Hispanics that are able to speak fluent English, that have lived in the USA for more than 10 years, and that have become citizens (Cortes et al., 2007). Again, their increased assimilation and acculturation in the American society appear to have a positive effect on their ability and willingness to become a home owner. More specifically, differences between native and foreign-born homeownership rates seem to weaken or disappear when English fluency is brought to the analysis. Hispanics that are comfortable reading and speaking English might be also more comfortable entering the process of buying a house and navigating the intricacies of a mortgage contract regardless of their place of birth.

Higher education is an important path to financial wellbeing via better employment and higher salaries. The strong correlation between educational attainment and wealth has been pointed out as a factor explaining Hispanics deficiencies on financial topics and asset building. In fact, persistent family patterns of economic disadvantage can explain most of the low college attainment of Hispanic Americans, a factor that increases the economic divide between them and non-Hispanic Whites (Charles, Roscigno, & Torres, 2007).

Family homeownership and the existence of college savings have been found to be predictive of Hispanic's college attendance (Song & Elliott, 2012; Song & Elliott III, 2011). However, Zhan and Sherraden (2011) found a weaker relationship between household assets and college attendance for Hispanics and a negative correlation

between unsecured debt and college graduation rates. The authors further hypothesized that unobserved family characteristics such as immigrant status and language skills could contribute to other differences in college education attainment of Hispanic children.

Low financial risk tolerance is another potential suspect why Hispanic Americans accumulate less assets than Whites over their lifetime (Yao, Gutter, & Hanna, 2005). In fact, Hanna, Wang, and Yuh (2010) use decomposition analyses to establish that differences in risk tolerance explains 23 % of the Hispanic-White high return investments variation. The imbalance between White and Hispanic household's wealth can be further explained by Hispanic families' investment portfolio with a limited number of high return assets such as stocks and mutual funds (Plath & Stevenson, 2005). Moreover, Hispanic families' likelihood to hold stock investments appears to be decreasing in relation to Whites (Hanna & Lindamood, 2008). It is quite reasonable to imagine that some Hispanics avoid long-term and/or riskier investments due to their unstable legal status or due to planning to return to their home country before retirement.

Hispanics also encounter a number of labor market barriers that might further diminish their ability to accumulate assets. First generation immigrants earn 24 % less than natives and are less likely to be managers or supervisors (Hall & Farkas, 2008). The same study highlights how increased acculturation benefits immigrants via improved wages and higher employment. Applicants with Hispanic names or accents are also judged less favorably in an interview process than applicants showing no ethnic indicators (Segrest Purkiss, Perrewe, Gillespie, Mayes, & Ferris, 2006). As a result, real or perceived labor market barriers appear to lead a large number of Latinos to opt for self-employment. Hispanics have been shown to be more likely than Whites to start their own business but also more likely to fail afterwards (Sullivan, 2007). In fact, figures from the Current Population Survey from 1996 to 2008 show that Latinos have the highest increase in entrepreneurial activity of all population segments (Fairlie, 2009). Some researchers have connected lack of financial resources (such as access to small business loans) and cultural differences (such as collectivism) to explain both this entrepreneurship tendency and high failure rate of Hispanic Americans (Blancero et al., 2014; Shinnar & Young, 2008).

For entrepreneurship, the bunching up of all group segments into a Hispanic or Latino umbrella might be particularly problematic in trying to generalize findings to this group as a whole. For example, self-employed Mexicans earn less if their business is within a Hispanic enclave as opposed to a business located in a more diverse neighborhood. However, the same effect fails to appear when comparing returns to Cuban entrepreneurs in ethnics versus non-ethnics enclaves (Aguilera, 2009).

Conclusion and Future Research Directions

Hispanic Americans financial issues might not be, at their core, so different from the same challenges facing other disadvantaged groups in the USA. They lack important financial capability tools, they rely too much on costly alternative financial services while staying away from mainstream banking, and they struggle to build wealth for the long haul. Furthermore, consumer financial researchers are also faced with the quandary of balancing the study of the whole of the Hispanic population and the individual characteristics of its distinct subgroups. Rather than treating the Hispanic ethnicity as a homogeneous group, researchers in the field of consumer finance are tasked with the challenge to better understand different subpopulations within this group to truly appreciate their financial needs and wants. English proficiency, country of origin, racial identification, and generational rank are all important aspects that needed to be examined before prescribing the right approach to reach and fulfill these group financial needs.

As Moffitt (1987) argued, the behavioral impact of policy changes is largely determined by how these changes were anticipated. Hispanic Americans have seen the marketplace adjust to

their needs over the years, from the prevalence of Spanish language in both customer service and printed materials to products and marketing aimed exclusively at this population. However, specific policy interventions designed to improve Hispanic Americans households finances are still scarce, mostly involving direct translation of materials initially produced for the general population. While this approach has a number of advantages to policymakers, including lower costs and scalability, Hispanic Americans have seldom received a targeted attention in consumer finances that also recognize the uniqueness and variation within their group. The same reasoning can be applied to financial institutions interested in bringing this population as customers or applied to financial coaches/counselors devising methods to better their clients' financial lives.

More specifically, this synthesis proposes a more in-depth measurement of acculturation when reviewing the personal finances of Hispanic Americans. Acculturation is the process to learn a second culture. The degree of acculturation, for example, has been related to a number of health outcomes variation among Hispanic American (Hunt, Schneider, & Comer, 2004); however, defining acculturation is also problematic due to the large number of scales being currently used (Thomson & Hoffman-Goetz, 2009) and its connections with the concept of cultural assimilation. While researchers have been proactive in bringing variables such as years in the USA, place of birth, and language preferences to their analysis, they rarely recognize these measurements as proxies for level of acculturation and fail to further explore this important factor when reviewing Latino households' finances.

In practical terms, a second generation Hispanic American living in a mostly White community might be well suited to the same mainstream financial strategies while a recent arrival from Central America with no banking experience might benefit from a more targeted approach. In other words, understanding differences and recognizing the heterogeneity of this group is a crucial component of any research aimed at American Latinos.

Two important research questions could be answered using this novel approach: what level of acculturation becomes beneficial or detrimental to Hispanic Americans personal finances and how different degrees of acculturation can affect their financial needs, wants, and behaviors. Moreover, acculturation could be integrated in a variety of relevant consumer financial research models such as a component to financial capability or a moderator to financial wellbeing.

The Short Acculturation Scale for Hispanics (SASH) (Marin, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987) includes 12 items that have been regarded valid and reliable in a number of studies (Chang et al., 2015; Kaplan et al., 2014). This scale could be inserted in surveys and experiments currently used in our field to shed some light into the variability of Hispanic subjects choices and respondents answers in relation to other variables of interest. Scales such as the SASH and other methods to better differentiate segments within the Latino population should be of great value in public policy and outreach initiatives to improve Latinos financial wellbeing and for the financial industry to design products and services aimed at this important and growing segment of the American economy.

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18 Financial Issues of African Americans

Sophia T. Anong

After Hispanic Americans, African Americans who report one race constitute the largest ethnic minority group at 13.2 % of the US population (U.S. Census Bureau, 2014a). The Census Bureau records this category as "Black or African American race alone." This quite possibly includes immigrant Blacks which could be problematic for studying other characteristics and behaviors of this group. Blacks could include immigrants of African ancestry socialized in other countries which may include African, Caribbean, Latin American, and even other Western countries all of which form a wide spectrum of economic and social norms (Thamer, Richard, Casebeer, & Ray, 1997). For example, most countries with majority black populations in the developing world are predominantly cash economies with thrifty societies. Another problem in examining previous research of African American finances is that because of low representation in national datasets, often African American respondents are combined with Hispanics and even other ethnic minorities to allow for statistically meaningful parallels with whites (Lee & Hanna, 2012). Therefore, issues affecting African Americans alone can be murky and not fully understood. For the purpose of this review, the terms African Americans and blacks are used interchangeably driven by terms used by authors but take note of the lack of clear distinction.

Despite methodological challenges in consumer finance research, a body of literature does provide somewhat reliable evidence that on average African Americans lag in several consumer finance indicators versus not only whites but also other ethnic groups. The chapter focuses on core areas of consumer finance within the concept of financial capability. In public policy and the literature, financial capability refers to the ability to manage and control finances (Xiao, Chen, & Chen, 2014). Financial capability has also been described as comprising knowledge, skills, and confidence and attitudes, and measures have included objective and subjective indicators for financial knowledge, behaviors, and outcomes (Kempson, Collard, & Moore, 2005; Xiao, Chen, & Sun, 2015).

This chapter is therefore organized by aspects of financial capability and well-being, beginning with financial knowledge, followed by financial outcomes that cover different types of financial outcomes and behaviors, such as the black–white wealth gap, use of financial services, retirement saving, and self-perceived financial well-being measured by financial satisfaction. Before concluding the chapter, financial attitudes that influence the financial outcomes of African Americans are also presented. This review deliberately sam-

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pled research based on large datasets as well as qualitative inquiries to capture the full essence of financial issues of African Americans. It is important to identify not only patterns but also research gaps so that scholars can continue to adapt their approaches to gain a better understanding of African American finances. Therefore, some gaps are suggested to conclude the chapter.

Financial Knowledge

Historically and across all life stages, African Americans are less financially literate on average than whites (Lusardi, Schneider, & Tufano, 2011; Mandell, 2008; Robb & James, 2009). In the six Jump$tart Coalition for Personal Finance high school biennial surveys between 1997 and 2008, which each included more than 50 questions, African Americans consistently scored lowest and whites highest of all races and ethnicities (Mandell, 2008). The average score on the 2008 Jump$tart high school financial literacy quiz was only 48.3 % which was 10 points lower than 10 years earlier. College students scored 62 % on average in the college supplement added in 2008. Test scores were generally positively related to higher socioeconomic backgrounds, money management practices such as the use of ATM/debit cards and having a bank account highlighting the importance of financial knowledge to financial management and well-being.

Fifteen percent of the 2007–2008 National Longitudinal Survey of Youth (NLSY) sample were black young adults aged 23–28 years who scored lower than whites and Hispanics on a different measure of financial literacy (Lusardi, Mitchell, & Curto, 2010). Three well-known financial literacy questions covering compounding interest, inflation, and investment risk diversification have become the basis for such financial literacy studies globally (Lusardi et al., 2011). These questions were first used in a module of the 2004 Health and Retirement Study. Continual use includes the 2007–2008 NLSY, the 2009 and 2012 surveys of the Financial Industry Regulatory Authority's National Financial Capability Study (NFCS), as well as surveys conducted in other countries.

Compared to whites, the 15 % blacks represented in the 2007–2008 NLSY scored 3 % lower on the interest question, 19 % lower on the inflation question, and 12 % lower on the investment diversification question (Lusardi et al., 2010). Hispanics, on the other hand, were lower in these scores by 7 %, 16 %, and 9 %, for each question respectively compared to whites, scoring slightly better than blacks on two of the three questions. Among 277 survey responses at a predominantly black university, blacks were still more likely to have lower levels of financial literacy (Murphy, 2005). This racial/ethnic disparity in financial knowledge is persistent across older age groups as corroborated in other research (Lusardi & Mitchell, 2007; Lusardi & Tufano, 2009; Lusardi, Mitchell, & Curto, 2014).

Upon further examination, there is evidence that racial or ethnic financial knowledge gaps are somewhat tempered by stronger influences such as parent's education and family sophistication indicators like education attainment and stock market participation (Lusardi et al., 2010). Mandell (2008) for instance reported that the small percentage of those who passed the 2006 Jump$tart Coalition for Personal Financial Literacy were mostly white males whose parents had college degrees. In another study, neighborhood effects tied to zip code education levels were key influences on financial literacy while accounting for race and other demographic factors (Lachance, 2014).

The impact of financial education programs on population subgroups has been under scrutiny for just as many years as the focus on deploying them. It has been found, in some research, where positive effects of a financial education program on financial knowledge were experienced, the benefits were consistent across race (Walstad, Rebeck, & MacDonald, 2010). Others contend that for financial education programs to be more effective on knowledge and behavior there is a need to emphasize programming that is sensitive to the heterogeneity of target populations (Collins & O'Rourke 2010). Williams, Grizzell, & Burrell (2011) conducted an applied research case study

of financial education using a resource work booklet and supporting materials especially prepared for African Americans and Latin Americans. They concluded that in addition to coursework materials, financial education that is inclusive of one's social network of parents, peers, schools, and community including local financial services is crucial for increased financial knowledge and real world management. Others said important considerations should include sensitivity to race and ethnicity as well as removing experiential learning barriers such as limited access to financial services (Kindle, 2010; Schuchardt et al., 2009; Williams et al., 2011).

Financial Outcomes and Financial Well-Being

Wealth Gap

Racial disparities in financial literacy seem to also translate into disparities in financial outcomes (Hastings, Madrian, & Skimmyhorn, 2013). The notorious racial wealth gap between whites and blacks tripled in 2009 dollars from $85,000 in 1984 to $236,500 in 2009 (Shapiro, Meschede, & Osoro, 2013). Furthermore, more recent data from the Federal Reserve Board's Survey of Consumer Finances shows that since the Great Recession the gap has widened. During this period due largely to the stock market collapse and plunging home prices, the median net worth of all American households decreased by 39.4 % where blacks lost 33.7 % (Kochhar & Fry, 2014). Whites had 8 times the median wealth of black families in 2010 rising to 13 times in 2013. In 2007, white median wealth was $192,500 compared to $19,200 for blacks and in 2013, the median wealth of whites was $141,900 compared to $11,000 for blacks (Kochhar & Fry, 2014). These values were all expressed in 2013 dollars.

Data from the Panel Study of Income Dynamics of the same households from 1984 to 2009 revealed that the black–white wealth gap is primarily driven by income, college education, homeownership, unemployment, and intergenerational transfers. Years of homeownership accounted for 27 % of the growth in the wealth gap while 20 % was attributed to higher average family incomes among whites. Five percent of the wealth gap growth was attributed to more college degrees among whites, and another 5 % to more family financial support including inheritance (Shapiro et al., 2013).

Another study reports that between 2007 and 2010, blacks lost most of their wealth in retirement assets. Whites lost 11 % of their wealth compared to blacks who lost 31 % of their wealth (Mckernan, Ratcliffe, Steuerle, & Zhang, 2013). On average black retirement assets fell by 35 % attributed mostly to higher unemployment rates and other financial needs which increased the likelihood of withdrawals of retirement savings (Mckernan et al., 2013). The following sections discuss different wealth components that shed more light on the wealth gap.

Income, Consumption, Savings, and Debt

Incomes of African Americans and other nonwhite groups on average have historically remained much lower than the average income of whites (Bricker et al., 2014; Bricker, Kennickell, Moore, & Sabelhaus, 2012). African American household income growth has also exceeded that of whites since 1967 but the median adjusted African American income is 59.2 % that of whites (Desilver, 2013). The median income of blacks or African Americans was $34,815 in 2013 dollars compared to $57,684 for whites in the 2013 American Community Survey (U.S. Census Bureau 2014b, 2014c). In addition, 27.1 % of blacks or African Americans fall below the federal poverty line (US Census Bureau, 2014d).

In terms of consumption, blacks spend less on food and less on housing than their white peers (Betsey, 2014). They allocate larger proportions of their income for clothing. Although popular culture suggests higher conspicuous consumption among blacks compared to whites, the literature suggests that blacks spend more on

non-automobile transportation and less on automobile transportation (Betsey, 2014). Blacks own fewer automobiles and among comparable black and white auto owners, there is no difference in the value of automobiles owned, the price class of the cars, or the likelihood of new or used car ownership (Betsey, 2014).

In terms of saving habits, blacks are more likely to save irregularly or not save at all compared to whites (Fisher & Anong, 2012). Furthermore, African Americans are less likely to have checking or savings accounts and more likely to use check-cashing services for transactional services such as money orders for bill payments (Breitbach, 2013; Gross, Hogarth, & Schmeiser, 2012; Rhine, Greene, & Toussaint-Comeau, 2006). Blacks are more likely than any other ethnic minority group, including Hispanics, and foreign-born non-citizens, to be unbanked or underbanked (Federal Deposit Insurance Corporation, 2012). The underbanked are banked but also use high-cost alternative financial services (AFS). It was found that even among those who were previously banked, blacks had a 12.9 % higher likelihood of becoming unbanked compared to whites (Rhine & Greene, 2013). In recent years, prepaid debit cards targeting unbanked and low-income minorities particularly blacks have become more popular (Federal Deposit Insurance Corporation, 2014; Wagner, 2012).

Being unbanked negatively affects savings behavior and financial coping strategies. Those with a bank account are less likely to experience material hardship than those without an account (Lim, Livermore, & Davis, 2010). Contact with more financial institutions—particularly for deposit accounts—is associated with higher levels of asset possession and equity (DeVaney, Anong, & Yang, 2007). African Americans overwhelmingly show up in disproportionate numbers among those identified as financially fragile across different measures of cash liquidity. In a study investigating which households were unable to raise $2,000 in 30 days and their coping strategies, blacks were found to be less confident in their ability to cope with an unexpected expense and were more likely to rely on family/friends or alternative financial credit (Lusardi et al., 2011). Cash-constraints lead to detrimental coping measures such as pawning valuables or using high-cost AFS (Lusardi et al., 2011; Lusardi & Tufano, 2009; Mandell & Klein, 2009).

African Americans are disproportionately overrepresented among those who use alternative non-mainstream loans such as payday loans, car title loans, tax refund anticipation loans, and rent-to-own loans (Gerardi, Goette, & Meier, 2010; Lusardi & Tufano, 2009). After segmenting consumers into different financial experiences as payers in full, borrowers/savers, AFS users, and fee payers, Lusardi & Tufano (2009) found that blacks were more represented among fee payers (10.5 %), AFS users (6.6 %), and borrowers/savers (5.2 %) compared to whites who were overrepresented in the payers in full group. Furthermore, depressed credit scores, exacerbated by low debt literacy more prevalent among minority groups, have also resulted in African Americans being more likely to hold subprime debt with higher interest rates for mainstream loans such as mortgages and credit cards (Gerardi et al., 2010). Between 2005 and 2009, median levels of unsecured debt rose by 27 % for blacks compared to 32 % for whites (Gerardi et al., 2010). In the direst of debt situations, African Americans have also been found to be overrepresented in bankruptcy filings compared to their usual representation in the general population (Sullivan, Warren, & Westbrook, 2000).

Homeownership

Homeownership accounts for the largest component of American household wealth and is an even greater portion in African American personal wealth (Cramer & Shanks, 2014; Shapiro et al., 2013; Sherraden, 2005). Ironically, it also contributes the most to the wealth gap. Whites historically have higher homeownership rates, and higher median home values than minorities (Bricker et al., 2012, 2014). Compared to 73.9 % homeownership among whites, 47.4 % of blacks

were homeowners in 2013 and median home values of blacks have been persistently lower than for whites (Herbert, McCue, & Sanchez-Moyano, 2014; Kochhar & Fry, 2014). A contributing factor is residential segregation leading to home equity ceilings for African American homeowners in minority neighborhoods. Other factors are a boosted equity accumulation for whites with an average lead of 8 years on a mortgage due to greater access to inheritances and family down payment assistance, and higher access to affordable lending terms such as lower interest rates for whites (Shapiro et al., 2013).

The majority of foreclosed homes during the Great Recession were white-owned but minority owners were more than twice as likely to experience foreclosure and more likely to receive high-interest loans irrespective of credit scores or income (Shapiro et al., 2013). Median home values for African Americans fell by 18.4 % and by only 4.6 % for whites between 2010 and 2013 while the decline since 2007 has been 37.7 % for African Americans and 20.3 % for whites (Wilson, 2014). At the same time, the recovery of home prices also shows Africans Americans at a disadvantage. The smallest and slowest home price appreciation so far has occurred in Southern and Midwestern cities that have larger relative populations of African Americans (Wilson, 2014).

Investing and Retirement

Black households and other minorities are disinclined to own riskier, high-yielding financial assets such as stocks directly or indirectly through retirement accounts (Chiteji & Stafford, 1999; Gutter & Fontes, 2006). In 1992, 9 % of black-owned stocks valued at an average $3,387 in 1992 dollars compared to 36 % white stock ownership valued at $24,933 on average (Choudhury, 2001). Investment ownership rates in the 2004 Survey of Consumer Finances were found to be 32.64 % for blacks compared to 61 % for whites with the average value of investments being $8,817 for blacks and $119,513 for whites (DeVaney et al., 2007).

Historically, the proportion of blacks participating in retirement plans has been less than that of whites (Copeland, 2013). Data from the 2013 Current Population Survey show that across all ages, 40.1 % of black or African American workers had employer-sponsored retirement accounts in 2012, compared to 49.1 % of whites. The difference was larger for younger age groups. Among workers aged 25–34 years, 32 % of blacks had accounts compared to 43 % whites, and 44 % of blacks aged 35–44 had accounts compared to 54 % of whites (Copeland, 2013). These 2012 figures also represent a declining trend in retirement plan participation among black and white workers and the percentage of all other workers participating in plans jumped back above the percentage of black workers (Copeland, 2013).

Retirement savings of African American households are lower on average compared to whites (Rhee, 2013). Blacks in the 2004 Survey of Consumer Finances had an average retirement savings of $18,187 whereas whites had $72,219 with standard deviations of $75,739, and $240,349, respectively (DeVaney et al., 2007). According to The National Institute on Retirement, three in four black households aged 25–64 have less than $10,000 compared to one in two white households (Rhee, 2013). One-fourth of minority near-retirees have average retirement savings of $30,000 while the average balance of one-fourth of their white counterparts is $120,000. Across age groups, households of color with at least one earner are half as likely as their white counterparts to have retirement savings equal to or greater than their annual income.

Financial Satisfaction

Whites across all age groups have been found to be more satisfied financially compared to blacks (Coverdill, López, & Petrie, 2011; Hsieh, 2001, 2003). Unfortunately, black adults are more likely to report financial strain (Savoy et al., 2014; Shippee, Wilkinson, & Ferraro, 2012; Szanton, Thorpe, & Whitfield, 2010). In another study, black males, black females, and white

females were shown to be less satisfied financially after also accounting for perceived income adequacy (DePianto, 2011). Several studies have renewed focus on financial satisfaction by examining its relationship with measures of financial capability but they merely control for racial variation and do not hone in on racial disparities which is the pattern even in the majority of the literature (Xiao et al., 2014, 2015). In addition, there are some studies that have reported not finding any empirical evidence for differences in financial satisfaction between whites and blacks (Joo & Grable, 2004; Garrett & James, 2013). Therefore, there is need to further explore financial satisfaction within racial and sociocultural contexts to deepen our understanding of financial knowledge and behavior.

Financial Attitudes

Financial confidence usually measured as self-assessed or perceived financial knowledge is another psychological factor that has been studied in behavioral finance and associated with financial outcomes. For instance, Robb, Babiarz, and Woodyard (2012) found a positive association between financial confidence and seeking any professional financial advice. They constructed an average financial confidence indicator from responses to four statements in the 2009 NFCS. Respondents rated their overall financial knowledge, how good they were at dealing with day-to-day financial matters, their math ability, and how well they kept up with economic and financial news. Tokar Asaad (2015) followed suit using the 2012 NFCS but she only used the first three statements to measure confidence and found it predicted financial behavior. Race was reportedly controlled but results for all controls were not presented in the paper. Like financial satisfaction, there is need for more literature that explores financial confidence along racial lines as it has been shown that optimistic self-assessments, even if not accurate, do lead to better financial outcomes and it is important to understand how race plays a role in financial confidence.

Time orientation affects consumption and financial planning in that those who are future oriented are more likely to be planners and schedulers (Graham, 1981). Time perspective theory also posits that time perception differs by ethnicity. Those of western Anglo cultures are more inclined to be future oriented and individuals descending from non-Western cultures such as blacks and Latinos tend to be present-focused (Graham, 1981; Owen, 1991). For instance, Anong and Fisher (2013) found that even among future-oriented consumers, blacks (being of non-Western origin) were least likely to have already saved or to be currently saving for anticipated mid-term expenses.

One reason for being unbanked determined in both survey research and in-depth focus interviews is distrust of financial institutions (Medley, 2010; Toussaint-Comeau & Rhine, 2000). This attitude may be tied to risk tolerance for saving and investing. Blacks have lower risk tolerance and generally do not invest in riskier assets such as stocks and even small businesses (Chiteji & Stafford, 1999; Gutter, Fox, & Montalto, 1999). Looking further at risk attitudes, little difference in life insurance demand was found between black and white households but white households insure a larger proportion of their human capital than black households (Gutter & Hatcher, 2008). With respect to health insurance, blacks have been found to be more likely to be uninsured especially due to differences in private market insurance as opposed to when health insurance is employer-sponsored or spousal provided (Kail & Taylor, 2014).

Robb et al. (2012) found no race-based differences among those seeking any financial advice, or specific advice for insurance, tax planning or saving, and investing in the 2009 NFCS. However, they did find that whites were more likely to seek debt counseling, and less likely than minorities to seek professional advice for mortgage or loans. In another study, Rubio (2013) examined racial differences of motives for saving and seeking financial advice using the 2001, 2004, and 2007 Survey of Consumer Finances. She found that blacks were more likely to state children's education and purchasing a home as reasons for saving

while whites were more likely to state retirement and finances in later life as savings motives. Blacks were more likely to rely on television, radio, and family or friends as sources of information for saving and investing decisions compared to whites who were more likely to seek financial professionals. A more recent study using the 2010 Ohio Student Financial Wellness Survey found that black college students were more likely to seek financial advice from a financial counselor or advisor, a financial aid counselor, or a credit counselor (Lim, Heckman, Letkiewicz, & Montalto, 2014).

Financial self-efficacy or perceived financial capability has been shown to influence behaviors as well as financial satisfaction (Xiao et al., 2014). Lim et al. (2014) found financial self-efficacy played a weak but significant moderating role in the relationship between financial stress and seeking financial advice. However, the research on racial differences on this relationship in the literature is particularly lacking.

Conclusions and Future Research Suggestions

The chapter began by outlining methodological issues that present challenges with reviewing African American studies. This started with how this group is captured in survey research. This presents an opportunity for scholars to continue to seek to refine and clearly delimit African Americans so that conclusions are not confounded by other factors such as external influences of immigrant blacks with close ties to other non-Western financial norms. Researchers conducting primary quantitative or qualitative studies must seek to oversample African Americans to reduce the need for combining ethnic minority groups which has been the trend thereby losing valuable information unique to African Americans alone.

The review shows black–white gaps and even some black–other minority group gaps that put blacks at a persistent disadvantage in terms of financial knowledge, financial outcomes, and financial attitudes that enhance financial well-being. It may be insightful if future studies hone in on black/gender or black/household composition pairings (DePianto, 2011). Connections between life course financial strain and health have been made for African American adults and even black women who are known to disproportionately head households with minor dependents (Savoy et al., 2014; Shippee et al., 2012). Also, among 10 research priorities identified in 2008 by 29 scholars at the National Research Symposium on Financial Literacy and Education in Washington D.C., two of the priorities called for a better understanding of racial and ethnic disparities in consumer finance issues such as financial socialization (Schuchardt et al., 2009). Therefore, delving into such race pairings and even race/social network pairings especially due to the history of combining minority groups in data could be more telling. In all this research, it is also important to draw parallels of the black financial experience and public policy in other developed countries like the United Kingdom who have minority black populations just like African Americans with similar historical backgrounds of how they came to be there (Ekanem, 2013).

In designing and evaluating financial education programs, it is important to be culturally sensitive to African Americans' needs and circumstances particularly of striving low-income groups. Cumulative disadvantages for these groups include limited access to quality education and living in financially underserved areas as well as other barriers such as unfavorable credit services. Educators and scholars should focus on culturally sensitive interventions for long-term solutions to combat those social norms and beliefs that are detrimental to the long-term financial security of African Americans.

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19 Financial Wellbeing of Asian Americans

Rui Yao

The United States is a multiethnic nation. Asians currently living in the USA, referred to as Asian Americans in this chapter, are one part of the society. According to the American Community Survey, 18.9 million individuals reported themselves as Asian alone or combined with other races in 2012, accounting for 5.9 % of the total US population (322.2 million in 2012). This Asian population increased 46 % from 2000 to 2010, which was the fastest growing population (U.S. Census Bureau, 2014). The median household income of Asians alone in 2012 was $70, 644, higher than the national average ($51, 324) (U.S. Census Bureau, 2014).

Compared to the total US population, Asian Americans are better educated, with 50.5 % of age 25 and older having at least a bachelor's degree, much higher than the 29.1 % for the total population (U.S. Census Bureau 2013). They are more likely to work at management and professional levels. The proportion of civilian-employed single-race Asians, aged 16 and older, who work in management, professional, and related occupations was 49.1 % in 2012 (vs. 36.4 % of the total US population) (U.S. Census Bureau, 2013, 2014). However, compared to the national average, they are less likely to own a home (57.2 vs. 63.5 % of the total US population); their married-couple families have a slightly higher poverty rate (7.6 vs. 5.8 % of the total US population) (U.S. Census Bureau, 2013, 2014).

A vast volume of research has been done on consumer finance; however, research that includes Asian Americans appears to be limited. One reason may be that few national datasets provide detailed information on consumer finances that differentiate Asian Americans from other race/ethnicity groups. Also adding to the scarcity of research on Asian Americans in the USA may be the lack of the passion of academia for investigating the financial wellbeing of Asian Americans due to the small population of this group. There is evidence in the literature that Asian Americans have been ignored or combined with other race/ethnicity groups (e.g., Getter, 2006; Han, 2004; Hunt, 2004; Olney, 1998).

In this chapter, Asian American will be defined first, followed by an introduction of national datasets that include Asian Americans to highlight datasets available to be employed in the study of Asian American consumer finances. Then an array of research that has been done on the general financial wellbeing of Asian Americans, their financial attitudes and behavior, income and expenditures, debt management, and housing issues will be introduced. Finally, a summary of the research is presented and future research directions are discussed.

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The Terms "Asian Americans"

Legally, Asian Americans are US citizens with an Asian background (e.g., their grandparents were immigrants from Asia). First-generation immigrants who live in the USA but are not American citizens (i.e., they have other nationalities) technically do not fall into this category. However, during any data collecting process, it is possible that people with an Asian heritage, whether a US citizen or not, identify themselves as "Asian." Therefore, unless respondents offer to disclose their nationality, it is almost impossible for any data collector to distinguish Asians in America (i.e., immigrants from Asian countries who are currently living in the USA) from Americans with an Asian background (i.e., Asian Americans).

Although Asian Americans shared some common traits, the cultural differences among Asian subgroups should not be ignored. For example, labor participation rate for Korean women is relatively lower compared to other Asian Americans since Koreans believe women should focus on taking care of family after marriage and childbirth (Xie & Goyette, 2004). According to the World Values Survey Association (2014), over 85 % of the people in Philippines considered religion to be very important in their lives, compared to less than 3 % in China and about 5 % in Japan. Regarding children's education, less than 10 % of families in China, Japan, and South Korea considered obedience at home an important quality while nearly 60 % of Indian families treated it as a very important quality. Additionally, Kim, Yang, Atkinson, Wolfe, and Hong (2001) found that different Asian groups showed different levels of adherence to common culture values, such as collectivism, conformity to norms, emotional self-control, family recognition through achievement, filial piety, and humility. These differences may affect household financial practices and, therefore, their financial wellbeing.

The U.S. Census counts all people regardless of their citizenship or immigration status. In its 2014 survey, the Census asked respondents to select one or more of the race categories listed in the questionnaire. The categories included American Indian or Alaska Native, Asian, black or African American, Native Hawaiian or other Pacific Islander, and white. According to the US Census Bureau, Asians in the USA include those residing in the USA who report an origin from an Asian country. Asians may either be Hispanic or non-Hispanic. Data on Asians may be reported as "alone" or "in-combination" (U.S. Census Bureau, 2014). This definition is used in this chapter to refer to Asian Americans.

National Datasets That Include Asian Americans

Most national datasets include information on respondents' race/ethnicity information. However, many of them group Asians with other races such as American Indians, Alaska Natives, and Native Hawaiian/Pacific Islanders. The group sometimes is called "other race." These "other" people, of course, are not homogeneous. Even a few datasets do distinguish Asians from other groups; the sample sizes of Asian Americans remain small. The downside of having a small sample is that Asian Americans are likely to be grouped into another race category, and the results are not likely to be very meaningful.

Another problem with the race categorization deals with the interracial marriage. It is possible that someone is born into a family that has more than one racial/ethnic background. It is completely up to the respondents in any data collecting process to report their primary, if not limited to only one, race/ethnicity. For example, someone with a white father and a black mother could identify himself or herself as either white or black. Let us further assume he or she is born into a family with mostly black relatives; he or she identifies himself or herself as black. The influence of his or her white father and relatives of other races is ignored in the studies conducted by researchers using this dataset. If this person married someone with an Asian heritage, he or she will still identify himself as a black; therefore, the influence of his wife or her husband is overlooked. Strictly speaking, if this person is the head of the household, the household should be

referred to as a household headed by a black person.

Major datasets that are used by researchers in the consumer finance field are briefly introduced below. However, readers should keep in mind that the race/ethnicity categorization is never a clear-cut process. It is possible for one individual to have multiple racial/ethnic identities. Due to the data limitations, researchers in this field have focused on people's self-identification of race/ethnicity.

The Current Population Survey (*CPS*) (www.census.gov/cps/) is a monthly survey of about 50,000 households that provides data, at the national level, on the social, economic, and demographic characteristics of the US population. The survey is jointly sponsored by the Census Bureau and the Bureau of Labor Statistics. The survey shows the federal government's monthly unemployment statistics and other estimates of labor force characteristics. One of its supplements, the March Annual Demographic Supplement, is currently the official source of estimates of income and poverty in the USA. In this dataset, an individual could be recorded as one race only (e.g., white, black, Asian) or a mixture of difference race/ethnicity backgrounds.

The Consumer Expenditure Survey (*CE*) (www.bls.gov/cex/) data are collected by the Census Bureau for the Bureau of Labor Statistics. The data provide information on the buying habits of consumers in the USA. The two independent surveys (the quarterly Interview Survey and the weekly Diary Survey) utilize different household samples and collect different data. The Interview Survey includes monthly expenditures such as housing and entertainment, while the Diary Survey includes weekly expenditures on items such as food and beverages. Respondents are categorized as whites, blacks, Asian, and other races.

The Survey of Income and Program Participation (*SIPP*) (www.sipp.census.gov/sipp/) is a monthly survey, sponsored by the US Census Bureau, which collects cross-sectional and longitudinal data on the source and amount of household income, labor force participation, and general demographic characteristics. The SIPP records a detailed list of real and financial assets and liabilities of households and their expenditures such as the out-of-pocket costs of medical care, shelter costs, and child support payments. Respondent's race/ethnicity is collected in the survey to be one of the following: white, black, American Indian/Aleut/Eskimo, Asian/Pacific Islander, and other.

The National Longitudinal Surveys (*NLS*) (www.bls.gov/nls/) are a set of surveys, sponsored by the US Department of Labor, focused on gathering information on individual respondents' labor market participation at different points in time. These surveys collect race information by asking respondents to identify themselves into one or more race/ethnicity groups including white, black/African American, Asian, native Hawaiian/Pacific Islander, American Indian/Alaska Native, another self-specified race, and Hispanic/Latino.

The Survey of Consumer Finances (*SCF*) is sponsored by the Federal Reserve Board with the cooperation of the Department of Treasury. This survey is a national survey conducted every 3 years to record a detailed inventory of household financial assets and their liabilities. The question asks the respondents to select one of the following race/ethnicity categories that they feel best describe themselves: white, black or African American, Hispanic or Latino, Asian, American Indian or Alaska Native, Hawaiian Native or other Pacific Islander, or other race. Asian is one of the choices. However, in the public dataset, Asian, American Indian, Alaska Native, and Native Hawaiian/Pacific Islander are combined into the "other" category. Researchers who use this dataset have not been able to differentiate Asian Americans from respondents with other racial/ethnic back-grounds (e.g., Bucks, Kennickell, & Moore, 2006). For couple households, the SCF provides race/ethnicity information only on the respondent, who is the more knowledgeable person about family finances. Researchers who employ this dataset in their studies do not know whether the respondent and the spouse/partner are of the same race/ethnicity.

The Health and Retirement Study (*HRS*) (http://hrsonline.isr.umich.edu/), sponsored by

the National Institute on Aging, is a biannual longitudinal survey that provides the economic well-being (e.g., income and net worth, retirement plans and perspectives, and housing) as well as health and other information of individual respondents over age 50. The HRS survey contains a race question that asks respondents to select a race/ethnicity that they consider themselves to belong. The race/ethnicity groups include white/Caucasian, black/African American, and other (including American Indian, Alaskan Native, Asian, and Pacific Islander). Asian is one of the choices. However, in the public-released datasets, the race variable is masked. The Asian group is combined with American, Alaskan Native, and Pacific Islander groups into one "other" category. Researchers who employ this dataset, too, are unable to study characteristics that apply to the Asian American group in particular (e.g., Smith, 1995).

The American Community Survey (*ACS*) (www.census.gov/acs/www/) is a nationwide survey designed to provide communities a fresh look at how they are changing. The survey provides estimates of demographic, housing, social, and economic characteristics every year for all states, as well as for all cities, counties, metropolitan areas, and population groups of 65,000 people or more. For smaller areas, it takes 3–5 years to accumulate sufficient sample to produce data for areas as small as census tracts. The data have three race variables and one Hispanic origin variable. Seven options are listed for Asians: Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, and Other Asian.

Survey of Consumers (http://www.sca.isr.umich.edu/) is a monthly national survey conducted by the Survey Research Center of the University of Michigan. It originated in the late 1940s and had been carried out quarterly until 1977 when it changed to monthly survey. Over 500 interviews are conducted each month. It collects information about consumer attitudes and expectations and aims to understand how they affect consumer decisions related to saving, borrowing, and purchases. An index of Consumer Expectations is created in this survey and focus on how consumers consider prospects for their own financial situations, for the general economy over the short and long term. Information about race is collected in the survey. Five options are listed: non-Hispanic white, non-Hispanic black, Hispanic, American Indian or Alaskan Native, Asian or Pacific Islander.

The Panel Study of Income Dynamics (PSID) (http://simba.isr.umich.edu/data/data.aspx) is carried out by University of Michigan and considered to be the longest longitudinal national household survey in the world. PSID began in 1968 and were conducted annually for the same family. After 1997, the study was carried out biennially. The sample contains over 18,000 individuals in 5000 families. PSID provides data on a wide range of topics, such as income, wealth, expenditures, health, childbearing, education, and other subjects. The questions regarding races and ethnic groups are asked for the head of the family, spouse, and children. The race choices include white, black, American Indian or Alaska Native, Asian, Native Hawaiian, Pacific Islander, and other. Hispanic origin is asked in a separate question. Asians were further divided into seven groups: Chinese, Filipino, Asian Indian, Japanese, Korean, Vietnamese, and Other Asian.

The New Immigrant Survey (NIS) (http://nis.princeton.edu/) is compiled by the US Immigration and Naturalization Service. It is a multi-cohort national longitudinal survey targeting at the new immigrants to the USA (people who just arrived at the USA or just changed their immigration status). The interviews were conducted in respondents' preferred language. At present, there are only two surveys available to use. One is the first full cohort study conducted from May to November 2003 and the recent follow-up survey carried out from June 2007 to December 2009. The NIS records information on demographics, economic, health, housing, children, transfers, and immigration. The survey collects information about the household respondent, the spouse, and their child and asks questions about the immigrants' origin country. Asian countries include China, India, Korea, the Philippines, Vietnam, and other Asian countries.

Financial Wellbeing

Researchers have paid attention to income, wealth, and poverty of Asian Americans. Some studies concluded that Asian Americans are wealthier while others claimed that these households either have more wealth or tend to be more likely to live in poverty. Cobb-Clark and Hildebrand (2006) studied the wealth and asset holdings of US households. Immigrants from European and Asian countries were found to have substantially more wealth than average immigrant households. The Census data consistently shows that Asian American households vary widely in their wellbeing. They occupy the extremes of wealth and poverty. Nam (2014) compared the economic wellbeing of older Americans (65 years or older) among different racial groups. Eight racial groups were used in this study: native Asians, immigrant Asians, native whites, immigrant whites, native blacks, immigrant blacks, native Hispanics, and immigrant Hispanics. Native Asians in this study referred to the second and later generations of Asian immigrants while immigrant Asians referred to the first generation. Native Asians were found to be better off than immigrant Asians and other racial groups indicated by all four wellbeing indexes. In addition, immigrant Asians were worse off than immigrant whites but better off than immigrant blacks and Hispanics.

Takei and Sakamoto (2011) investigated the poverty status among Asian Americans. Compared to whites, both foreign-born and native-born Asian Americans in general showed a slightly higher poverty rate. Recent immigrants were found to have higher poverty rates than those who immigrated more than 5 years ago. However, keeping other demographic factors constant, the poverty rate of foreign-born Asian Americans was lower than foreign-born whites. Kwon, Zuiker, and Bauer (2004) examined factors associated with Asian immigrant household poverty status. Households with a higher human capital level and experienced acculturation were found to be less likely to live below the poverty threshold. This study mentioned an interesting point that acculturation made a difference in the wellbeing among Asian immigrant households.

Education is likely to be related to the level of earnings. Previous literature noticed this relationship and investigated the earning differentials between Asian Americans and other races. Campbell and Kaufman (2006) found that although Asian Americans were more educated and had an overall high socioeconomic status, their net worth levels were still lower than white households controlling for residential location, household structure, citizenship, age, employment status and income. In particular, employment status and family structure had an influential effect on Asian Americans' wealth level. The authors stated that one possible way of wealth accumulation for Asian Americans was through self-employment. The stable and relatively small family sizes also contributed to their wealth accumulation. However, findings showed the reason for Asian Americans to earn a higher level of income may be longer work hours than whites.

Researchers also devoted to study the Asian American families' portfolio allocation and composites. Yao (2010) collected data from Chinese Americans in five Midwestern states and found that Chinese American households had a mean of $27,034 in liquidity assets and $300,464 in investment assets. A large majority of the respondents had mortgage loans. The majority of the sample respondents did not have adequate emergency fund and one-third of them bore more debts than assets. Particularly, the households with the pessimistic anticipation about the future economy were less likely to save adequate emergency funds while the homeowners were more likely to have a negative net worth.

Financial Attitudes and Behaviors

Research has shown that the majority of Asian Americans (62 %) have personal savings for retirement, similar to whites (66 %) and higher than Hispanics and blacks (Employee Benefit Research Institute, 2001). Compared to other races, Asian Americans were found to be more likely to invest in their defined contribution plans

and had the highest account balance. In addition, 69 % of Asian Americans reported having other retirement plans outside of employer plans, higher than whites (59 %), Hispanics (49 %), and blacks (54 %) (ING Retirement Research Institute, 2012). Asian Americans were also the most confident to believe that they had adequately planned for retirement (Employee Benefit Research Institute, 2002). Asian Americans feel the most prepared for retirement with the highest balance of $81,000 in their retirement plans, compared with the average balance of $69,000 across all ethnic groups (ING Retirement Research Institute, 2012). However, researchers also found that Asian Americans across all age levels lack serious consideration and professional guidance on their retirement plans. A majority of them do not work with financial professionals, nor have financial plans (Prudential Financial, 2013). Springstead and Wilson (2000) compared participation rates in IRAs, 401(k)s, and the TSP. They concluded that Asian Americans were more likely to participate in tax-deferred savings accounts than white Americans. Household financial wellbeing is dependent on attitude toward financial issues and financial behaviors. Examples of research on Asian Americans' money beliefs, banking status, emergency fund savings, and personal investments are discussed below.

Masuo, Malroutu, Hanashiro, and Kim (2004) compared money beliefs and behaviors of college students in Korea and Japan and college students in the USA with Japanese or Korean background. Results show that Korean and Japanese college students had significantly different money beliefs from their US counterparts. College students in Korea and Japan were found to firmly believe that money could solve all problems. Asian American college students were more likely to prefer to use cash rather than credit cards, to keep personal the details of their financial status, and to feel guilty about spending money on necessities even when they could afford to do so. These findings are very important, in that they suggest although Asian students and Asian American students share similar cultures, they display different money attitudes and money behaviors. Therefore, acculturation may be the reason for this difference. Another example of research that showed the effect of acculturation is Rhine and Greene (2006). The authors found that immigrants who had lived in the USA for a longer period of time were less likely to be unbanked than those who came to the country recently.

The emergency fund adequacy of Asian American households was studied by Hong and Kao (1997). More Asian Americans were found to have adequate emergency funds than non-Hispanic whites, African Americans, and Hispanics. Consistent with this finding, the ING Retirement Research Institute (2012) reported that only 10 % of Asian Americans had no emergency cash reserve, compared to 20 % of whites and Hispanics. Additionally, Asian Americans had an average of 4 months in reserve, the highest among all races.

Carroll, Rhee, and Rhee (1999) found no evidence of cultural effect on savings behavior. They argued that the immigrants' savings patterns did not necessarily represent savings patterns in their countries of origin. This statement indicated that acculturation may have been the reason why immigrants and people in their countries of origin may display different savings behaviors. Another example of research that did not find a significant difference in financial behaviors is Perry and Morris (2005). Compared with whites, Asian Americans were not found to behave significantly differently in terms of controlling expenditures, paying bills on time, planning for financial future, saving, and providing for themselves and their family.

Income and Expenditure

Lots of research results showed that Asian Americans, compared to average Americans, have higher earnings. Wells Fargo conducted a national survey of financial attitude and behaviors in 2013 and found that over one-third of Chinese Americans (37 %) reported a $100,000 annual earning, compared to only 23 % of all adults in the USA (Wells Fargo, 2013). Oh and Min (2011)

employed the US Census data to compare the earning patterns among Chinese, Filipino, and Korean American male workers in New York. Compared to those who were born in the USA, the earnings of Chinese and Filipino American male workers (foreign-born but came to the USA before the age of 13) were statistically significantly higher. However, no significant difference was found between the foreign-born and native-born Korean Americans. In addition, bilingual ability had a positive effect on the earnings for Chinese Americans but did not give Koreans and Filipinos significant advantage in earnings.

Some researchers argued that it was the education level and longer work hours that made a difference. Barringer, Takeuchi, and Xenos (1990) found that most Asian Americans were better educated than whites, blacks, and Hispanics. However, after controlling for other variables, only Japanese Americans' income came near to that of whites. Higher education of Asian Americans did not lead to income equity with whites. Portes and Zhou (1996) found that self-employment had a positive effect on the logged average earnings of respondents with Chinese or Korean backgrounds and a negative effect on the logged earnings of those with Japanese background and whites. They argued that Japanese immigrants and whites had higher average earnings than other groups. Interestingly, they also found that self-employment had a negative effect on the logged hourly earnings of all groups except for Korean immigrants. This indicated that the positive effect of average earnings of Chinese immigrants was merely the increased number of hours involved in their self-employment work.

Sharpe and Abdel-Ghany (2006) compared the determinants of income level of six Asian groups in the USA, whites and blacks. Results demonstrated that human capital investment and structural barriers explained the income differentials among these groups. Compared with otherwise similar whites, Chinese, Filipinos, Korean, and Vietnamese immigrant households had significantly lower household income; and Japanese households had significantly higher. All Asian American household groups had significantly higher household income than their black counterparts. The authors argued that higher education is the key to increase household income and fluency in English determines access to higher education.

Zhou and Kamo (1994) compared factors affecting the earnings for Chinese, Japanese, and non-Hispanic white males in the USA in terms of assimilation, human capital, and structural characteristics. Structural characteristics mainly referred to the industry, occupation, hours per week, and whether living in large metropolitan cities. In general, Chinese Americans and Japanese Americans earned less than their white peers, controlling for education, residency, and place of born. English proficiency and education were found to be the most important determinants in earnings.

Researchers have also been interested in expenditure patterns of minority households. They agreed that even after controlling for other variables, Asian Americans displayed a different expenditure pattern. Compared with otherwise similar whites, Asian American households were found to spend more on education (Fan, 1997) and housing (Fontes & Fan, 2006); however, they spent less on fuel, utilities, household equipment, alcohol, and tobacco products (Fan, 1997). Fan and Koonce-Lewis (1999) compared budget allocation patterns of African Americans to that of Asian Americans, Caucasian Americans, and Hispanic Americans. Compared to African Americans, Asian Americans spent more on food away from home, entertainment, shelter, transportation, and health care and less on apparel, fuel, and utilities.

Plassmann and Norton (2004) analyzed expenditure allocation between children and adults and compared the differences among four ethnical groups: Whites, Hispanics, Asians, and Blacks. Expenditures between child and adult for Asian families were found to be nearly the same, while Hispanic children only spent one-fifth of the adult expenses in the family. Compared to other races, Asians had the highest household income and accounted for the largest percentage of college educated households. The authors indicated that this could lead to Asian households' highest child–adult expenditure allocation

ratio. Dyer, Burnsed, and Dyer (2006) compared the expenditure differences on durable and non-durable home furnishings expenditures among African American, Asian/Pacific Islander, Caucasian, Hispanic, and Native American. Asian/Pacific Islanders were found to have the second lowest mean expenditure on both durable and non-durable home furnishings. In addition, they spent most on kitchenware and kitchen furniture, which may indicate preference for family intimacy in Asian culture (Fan, 1997).

Debt Management

Debt status and management of Asian Americans were not substantially investigated by researchers. According to Wells Fargo's national survey of financial attitude and behaviors, Chinese Americans were more likely to avoid credit card debt and over half of the respondents reported to pay off their credit card balance every month compared to 40 % of all Americans (Wells Fargo, 2013). Baum and O'Malley (2003) examined the impact of debt burdens on student loan borrowers in repayment who had at least one federal student loan in 2002. Although Asian American students were not found to have significantly higher or lower undergraduate debt or total debt than white students, they did feel less burdened with their educational debt. Compared with students from other races, Asian American students were the least likely to state a willingness to opt for lower payments even if it means that they would have to pay more in the long run. Whether Asian American students have better debt management skills than students with other racial/ethnicity backgrounds, as may be indicated by the above results, cannot be concluded because it was also found in the research that Asian American students had the highest current earnings among all students.

Chinese Americans reported good or excellent health, owned financial assets, and were less likely to have debts than general Americans (Yao, Sharpe, & Gorham, 2011). Chinese Americans with non-financial assets were more likely to be debtors. Age and possibility of debt ownership showed a non-linear relationship. Debt first increased with age and then decreased. Households with higher income were found to be more likely to be debtors. The authors attributed this to the unique cultural factors among Chinese Americans. Chinese were not accustomed to the concept of using debts until recently. Kim (2004) examined the racial differences in the effect of financial aid on students' college choice. Asian American students were found to be strongly influenced by having loans or a combination of grants with loans when they decided to attend their first choice of colleges. The author further indicated that the Asian Americans' high value of education contributed to the results of them attending first-choice institutions even they had to use loans.

Lyons (2004) summarized data of college students at the University of Illinois who were financially at risk. White students and Asian students did not show a difference in their likelihood to have a credit card debt of $1000 or more, to not pay their credit card balance in full, or to make late payments. Analyses were also done with only those who had at least one credit card. Results were the same except for that Asian and Hispanic students were more likely to not pay their credit card balance in full than otherwise similar white students. Research needs to be done to explore the reasons why Asian American students were less likely than white students to pay credit card balance in full, whether it is due to a lack of knowledge on debt management, over spending, or other reasons. Regardless of the reasons, more education needs to be designed to target the debt management skills of Asian American students since not paying credit card in full is generally not considered a good practice.

Housing Issues

According to Asian Real Estate Association of America (AREAA) (2007), after analyzing data from the US Census Bureau, the homeownership rate for Asian Americans was 53 % in 2000, lower than that of the total population (65 %). By 2005, Asian American homeownership increased

considerably to 59 %, still 6 percentage points lower than that of the total population (67 %). It was also found that in 18 metropolitan areas, 25 % or more of Asian American households were linguistically isolated, which may be one of the reasons why these households were less likely than the total population to own a home. Language barriers can be one of the factors that affect household ability to understand the mortgage loan terms as well as the housing market as a whole.

The homeownership rate of Asian Americans was 60.1 % in 2006, slightly increased to 60.3 % in 2007, fell to 59.0 % in 2008, and remained at the same percentage in 2009, lower than that of the total population (66 %). Due to the 2007–2009 recession, the property value of Asian Americans reduced as high as $35,200 (AREAA, 2011). The Bangladeshi, Hmong, Korean, Thai, Pakistani, and Filipinos suffered the most from the loss of property value and their homeownership rates dropped in 2009 compared to 2008. The increase of the cost of housing contributed to the difficulty for the Asian Americans' homeownership rate to catch up with the average national homeownership rate.

Researchers have attributed the racial differences in mortgage lending to the cultural affinity (Calomiris, Kahn, & Longhofer, 1994; Hunter & Walker, 1996). If this affinity affected mortgage lending, white loan officers would be more lenient toward white applicants and minority applicants would benefit from their affinity with minority loan officers. On the contrary, Black, Collins, and Cyree (1997) found evidence that black-owned banks rejected a higher proportion of black mortgage loan applicants than white-owned banks.

Whether minority bank workforce was more likely to approve minority borrowers for mortgage loans was examined by Kim and Squires (1998). The analyses were done in five major metropolitan areas: Atlanta, Boston, Denver, Milwaukee, and San Francisco. Findings illustrated that in the financial institutions, Asians and blacks were hired to work at lower levels than if they worked elsewhere. When controlled for everything else listed above, mortgage loan applications filed by Asians were the most likely to be approved in all cities except Atlanta, which was represented by a large black population. The controlled results confirmed the cultural affinity hypothesis that the racial composition of the workforce at the administrative and professional levels did have a significant effect on the probability of the mortgage application being approved. However, the employment of Asian workers did not have a significant impact on the likelihood of mortgage loan applications filed by Asians to be approved.

Researchers agreed that renters bear a greater housing cost burden than homeowners, especially for lower-income households (Apgar, Dispasquale, Cummings, & McArdle, 1990; Schwenk, 1991). Inconsistent with this result, McConnell and Akresh (2010) found housing cost burden for new immigrant homeowners to be higher than renters. They also found that Asian Americans bore higher housing cost burdens than Western European Americans due to the effects of arrival recency, household size, tenure status, and location in the USA. Chi and Laquatra (1998) analyzed factors affected the housing cost burden. Their results showed that Asian American households were more likely than non-Hispanic white households to have a higher risk of excessive housing costs, even after controlling for housing tenure. The authors argued that this result might be due to the possibility that Asian American households tend to view their home as an investment. Coulson (1999), Painter, Gabriel, and Myers (2001), and Krivo and Kaufman (2004) compared homeownership rates between Asian Americans and other ethnic groups. Their findings consistently showed that Asian Americans were less likely than their white counterparts to own a home. These studies, however, did not differentiate among Asian American groups.

Some studies differentiated among Asian American groups. Borjas (2002) analyzed the national origin differentials in homeownership rates. After controlling for socioeconomic characteristics and metropolitan area-fixed effects, immigrants from China, India, Korea, and Philippines were found to be less likely to own a

home than natives. Painter, Yang, and Yu (2003) examined the differences in homeownership rates among Asian American groups: Chinese, Filipino, Japanese, Korean, Asian Indian, and Other Asian. Contrary to the findings by Borjas (2002), these authors found that most Asian American groups were as likely as otherwise similar whites to own a home. Particularly, Chinese American households were significantly more likely to own a home than other groups. Yu (2006) examined the homeownership of Taiwanese immigrants in Los Angeles. Taiwanese Americans' homeownership rate increased from 1980 to 1990 and was higher compared to other Chinese Americans and non-Hispanic white households. The author also investigated factors affecting this growing homeownership rate. Results showed that education and wealth were positively related to the homeownership while English proficiency negatively affected the homeownership. In addition, the endowment provided part of the explanation of the increasing trend of the homeownership. The major contribution of the increase of homeownership in 1990s came from the younger Taiwanese Americans with lower income but higher household wealth levels. Similarly, Painter, Yang, and Yu (2004) studied the homeownership determinants for Chinese Americans in Los Angeles Consolidated Metropolitan Statistical Area. Chinese Americans ownership was higher than that of whites and significant differences existed among Chinese American subgroups. Taiwanese had the highest rates followed by households from Mainland China and Vietnam. The study also found that English proficiency did not explain the Chinese Americans homeownership, which was consistent with Yu (2006)'s findings.

Self-Employment

"Asian-owned businesses continued to be one of the strongest segments of our nation's economy, bringing in more than half a trillion dollars in sales in 2007 and employing more than 2.8 million people," stated by Thomas Mesenbourg, US Census Bureau Deputy Director (U.S. Census Bureau, 2011). According to the US Census Bureau (2007), the rate of Asian-owned nonfarm businesses was 5.7 % among all nonfarm businesses in the USA, an increase of 40.4 % from 2002. This growth rate was more than twice the national growth rate. Asian Indians earned the most (30 %) among all Asian sub groups while Chinese Americans owned the most businesses (27.3 %). Different Asian American subgroups served in various industries. Over half of the revenue for Chinese Americans came from the wholesale trade and accommodation and food services. Similarly, Japanese Americans earned more from the wholesale trade (29.2 %) and Korean Americans earned over half of their revenue from the wholesale and retail trade (53.6 %). In contrast, health care and social assistance accounted for over one-third (33.4 %) of Filipino-owned business revenue. The probability of self-employment was different among Asian subgroups (U.S. Census Bureau 2007, 2011). Koreans were found to be the most likely to own businesses among all Asian subgroup.

Bates and Dunham (1993) analyzed the determinants of business entry, especially the effect of racial differences. The authors found that education and wealth levels played a positive role in business formation. In addition, Asians showed no significant differences in business entry rates compared with other racial groups. Boyd (1990) studied factors affecting self-employment and the differences between Asian and black workers in large US metropolitan areas. The authors found that US-born Asian Americans, married with children and with good speaking English skills were more likely to be self-employed. Koreans were most likely to run their own businesses, followed by Japanese and Chinese. In contrast, family structure had no effect on the possibility of blacks being self-employed. Education positively affected blacks' self-employment. Another interesting finding was that the growth of Asian population had no effect on the probability of blacks' self-employment, indicating that Asian Americans did not impede the development of blacks' business ownership.

Fernandez and Kim (1998) compared the differences in self-employment rates and patterns

among four Asian Americans groups: Korean, Chinese, Asian Indians, and Vietnamese. Consistent with previous research, the authors found that Korean immigrants were the most likely to be self-employed among these four groups. Chinese, Asian Indians, and Vietnamese immigrants without a college degree were more likely to engage in self-employment businesses due to the exclusion of the mainstream occupation. Additionally, English proficiency was found to have a positive effect on the probability of Chinese and Vietnamese immigrants to own their own businesses, while it negatively affected the Korean immigrants to be self-employed. Previous research also showed that married couples were more likely to have their own businesses (Boyd, 1990). Bates (1999) studied the behaviors of the two highest-earning Asian immigrants' business owners: Asian Indian and Filipinos. Asian Indian and Filipinos immigrants were found to be more likely to leave low-profit and traditional fields when the barriers to exit in the market was small.

Conclusions and Future Research Directions

This chapter serves the purpose of providing a preliminary summary of the research done on Asian American consumer finances. The population of Asian Americans is growing. The phrase "Asian Americans" is an umbrella term for this greatly diversified group. Asian Americans are from many Asian countries such as China, Japan, Korea, Philippines, Vietnam, Cambodia, Thailand, Laos, India, and Pakistan. Although previously believed to share similar cultures in "Confucian Dynamism" (Hofstede & Bond, 1988), each of these Asian American groups is unique in language, life style, and cultural values and beliefs (Kim et al., 2001). Also varying widely among Asian American ethnic groups are their socioeconomic levels, including poverty rate (PewResearch, 2013), family income, education, and occupation (Reeves & Bennett, 2004).

Researchers have made an effort to establish theories to describe the relationship between culture and household financial behavior. Weber and Hsee (1998) proposed the "Cushion Hypothesis," stating that people living in a collective society where interdependence was valued highly showed a higher level of risk tolerance. As a result, they were willing to take more investment risks than others. This was confirmed by findings in Weber, Hsee, and Sokolowska (1998), and Hsee and Weber (1999). Because Asian Americans are very different from other races and among themselves, theories that explain their financial behavior and wellbeing are needed.

Past literature has recognized the existing differences in financial wellbeing of households with various racial/ethnic backgrounds. However, without in-depth understanding of the reasons behind the visible race/ethnicity, readers could be directed to believe that race/ethnicity is a factor that affects household financial wellbeing. This is, to some extent, misleading. The differences in consumer finance that are claimed by some researchers to be race/ethnicity-related may be due to factors that are hidden behind race/ethnicity. It is erroneous to claim that a household is likely to be wealthier or poorer because it belongs to a certain race/ethnicity group. Cultures and beliefs that are associated with race/ethnicity are more likely to affect an individual's financial behavior, which have a direct impact on his/her economic wellbeing.

Immigration status, although difficult to determine using survey instruments, may also affect household financial attitude and behavior. Imagine a young person with a temporary work visa who is not sure whether he will be able to stay in the USA is included in a research survey. Due to the uncertainty of the future and the possible short investment horizon, this person is very likely to show a risk tolerance attitude and behavior that are far more conservative than he would have preferred if he knew he would stay in the USA for a much longer time. Unlike first-generation immigrants who were born and raised in another culture, later-generation immigrants may be more acquainted with American values and beliefs. Therefore, households led by these people may have different money attitudes and behavior that directly affect their economic wellbeing. The degree of affinity to a certain culture, rather than race/ethnicity itself, influences money

attitudes and beliefs of young immigrants (Masuo et al., 2004). Kwon et al. (2004) provided evidence to this claim by stating that the degree of acculturation affected Asian immigrant household economic wellbeing.

Some researchers believe that Asian Americans, with their above-average socioeconomic success, are a model minority (e.g., Peterson, 1971). Wong, Lai, Nagasawa, and Lin (1998) concluded that "Asian Americans perceived themselves as more prepared, motivated and more likely to have greater career success than whites" (p. 95). This perception was affirmed by their Whites, Hispanics, Blacks, and Native Americans peers. However, other researchers argue that this group does face economic discrimination (e.g., Wong, 1982). Sakamoto, Goyette, and Kim (2009) pointed out that the "high socioeconomic achievement among Asian Americans is misleading or highly exaggerated because racial and ethnic discrimination persists and many Asian Americans continue to be poor or disadvantaged" (p. 260). The Asian American population, currently inadequately studied, is growing faster than the overall population (Bernstein, 2004). The nation cannot afford to ignore the great purchasing power and enormous needs in financial services that Asian Americans represent and must address the diverse needs of Asian Americans. The future of cultural-sensitive services will depend not only on the knowledge of this culturally diversified group but also on the direction of research studies in the field of consumer finances. Past research did not show success in finding the real factors that directly affect the wellbeing among racial/ethnic groups; and this is what future research should focus more on to better serve minority communities and help improve their economic wellbeing.

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Financial Issues of Workers

20

Jinhee Kim

Trends for Workers in the USA

Work environments in the USA have changed over the past couple of decades. More workers are employed part time and work irregular hours (Bianchi, 2011). Demographic changes in the US population have also affected the work force, which has become older, more racially and ethnically diverse, and is composed of more women (Moossi, 2012). Such trends are expected to continue in the next decade, with a rise in labor participation of young people aged 16–24, an increase in the participation of women, an increase in the number of older workers, and growing racial/ethnic diversity in the workforce (Moossi, 2012).

One important aspect that affects workers' finances is a widening gap in income and wealth disparity. Stagnation in income growth has been affecting most American workers. Overall, the vast majority of both white-collar and blue-collar workers with and without a college degree have found that their real income has remained almost the same or declined (Gould, 2014). Pew Research reveals that real wages in the past five decades have stayed flat or even dropped, regardless of the economic cycle (Desilver, 2014). Workers' wages stayed the same or declined for the bottom 70 % of wage distribution between 2002 and 2012 (Mishel & Shierholz, 2013). The same report pointed out that on average, workers saw a wage increase of just 5 % between 1979 and 2012 compared to a productivity growth of 74 % (Mishel & Shierholz, 2013). Since 2000, weekly wages (after being adjusted for inflation) have dropped 3.7 % for the lowest tenth of wage groups but increased 9.7 % for the top of wage groups (Desilver, 2014). The polarization of the wage structure since the late 1980s has been accompanied by a polarization of employment growth (Goldin & Katz, 2007). Employment has bifurcated into high-wage and low-wage jobs at the expense of traditional middle-class jobs. With the advancement of technology and certain industrial changes, there is a lack of good jobs for low-income and low-skill workers (Bianchi, 2011). Furthermore, these trends have served to shrink the middle class.

Additionally, US employees' concerns regarding job security are currently higher than they have been for decades. Since the Great Recession, US workers have faced ongoing job insecurity despite the slow recovery in the job market. A recent Gallup poll (2004–2011) found that Americans' concerns about being laid off, having their benefits and wages reduced, and hours cut back swelled between 2008 and 2009, and time has not alleviated these concerns (Saad, 2013). Another concern is that job tenure and long-term

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employment have declined sharply, especially in the private sector, over the past couple of decades (Farber, 2008).

In addition to earning potential, employment provides people with valuable benefits for their financial protection and security. For employers, offering competitive benefits is important for recruiting and retaining valuable employees. One of the accompanying concerns, however, is controlling the cost of benefits. With the aging workforce and increasing costs of health care benefits, employers are more aware of the importance of health issues. The 2014 Employee Benefits survey shows that health care is a big concern especially after the Affordable Care Act was passed (Society for Human Resource Management, 2014). One indication of this is that preventative health and wellness programs such as health screening, fitness programs, health management, and a focus on work/life balance—which have all been associated with health care costs—have increased in use over the past 5 years (Powell, 2014).

Retirement planning is a key employer-provided benefit. Unfortunately, only 51.3 % of all American workers have employer-sponsored retirement plans and only 40.8 % participate in such retirement plans (Copeland, 2014). Employer-sponsored retirement has continued to shift from defined benefit to defined contribution plans. Furthermore, many employers dropped or decreased matching funds for employee retirement while the company recovers from the Great Recession. Despite the fact that increasing responsibilities fall on individual workers, some employers have additionally reduced the amount of investment and retirement planning and advice given to employees in 2013 and 2014 (Society for Human Resource Management, 2014).

Changes in retirement and health benefits plans through the workplace have impacted many Americans, however, some of the largest gaps have been found among minorities and between men and women. Out of all of the minorities, Hispanics received the least benefits because they tend to work for smaller employers that do not offer such benefits (United States Department of Labor, 2010). Women more frequently work part time and leave jobs more often than men, resulting in reduced retirement savings and pension benefits. Moreover, it has been suggested that retirement and health benefits exacerbate the polarization of earnings distribution (Leigh, 1994).

Changes in job security, earnings, and benefits in the labor force as well as the workplace can make it challenging for many workers to build financial security. Overall, polarization of income and jobs is on the rise and the size of the middle class is declining in the USA (Foster & Wolfson, 2010; Goldin & Katz, 2007). The majority of workers have been struggling financially without moving ahead and certain groups, such as racial/ethnic minorities and women, may be suffering more than others.

Financial Stress in Workplace

Stress is another word that is trending at workplaces. Mental health concerns such as increased stress, anxiety, and depression have become major issues for workers. Mental health is influenced by various stressors such as workload, interpersonal issues, personal/family problems, and job security (Colvin, 2014; Harvard Mental Health Letter, 2010). Employees' mental, emotional, and physical health can all impact the performance of workforce (Colvin, 2014). Money is one of the major stressors in Americans' lives. A recent survey "Stress in America: Paying with our health" showed that money has been one of Americans' top stressors since the first iteration of the survey in 2007 (American Psychological Association, 2015). In 2014, 72 % of adults felt stressed about money at least some of the time and 22 % reported that they were extremely stressed about money. Americans are concerned about paying for unexpected expenses, covering essential needs, and saving for retirement (American Psychological Association, 2015).

Financial stress is widespread in the USA. The 2014 Gallup Economy and Personal Finance poll found that 36 % of respondents were moderately/very worried about not having enough money to pay their bills and 59 % were worried about not having enough money for retirement (Dugan, 2014). Sources of stress included cost

and availability of health insurance coverage, an uptick in anxiety about job loss, and growing fears that company benefits would be cut. Many American workers identified meeting monthly living expenses/financial obligations and not having enough money to pay for health care as being major stressors. Families also live paycheck-to-paycheck with high levels of debt and very little savings to buffer them from unexpected expenditures. Over 60 % of households in the USA do not have enough emergency funds (FINRA Investor Education Foundation, 2012). Workers can fall from middle-class status into poverty as a result of unfortunate incidents such as illness, layoffs, or accidents. About 42 million women and 28 million children are currently living on the edge of poverty (Clark, 2014).

Financial stress has been linked to both mental and physical health. A number of studies have linked the impacts of financial strain on health. Some research has focused on how the financial crisis impacted individuals' health outcomes, and debt has been linked to a number of negative health outcomes (Ariizumi & Schirle, 2012; Drentea & Reynolds, 2012; Fitch et al., 2011; Selenko & Batinic, 2011; Zivin, Paczkowski, & Galea, 2011).

A meta-analysis of the relationship between personal unsecured debt and mental and physical health found a significant relationship between debt and mental health disorders such as depression, suicide completion or attempt, problem drinking, drug dependence, neuroticism, and psychotic disorders (Richardson, Elliott, & Roberts, 2013). Savoy et al. (2014) found that higher financial strain was associated with poorer self-rated health, and that stress and depressive symptoms were each significant mediators of this relationship. These studies suggest that financial strain-related symptoms and health outcomes could undermine workers' productivity and increasing absenteeism at work (Kim, 2008).

Money worries will spill over into workplace. Stress and stress-related mental health problems such as depression and anxiety could increase absenteeism and undermine productivity. Workers may go to work but exhibit higher levels of "presenteeism," being on the job but not fully functioning (Harvard Mental Health Letter, 2010). Having stressed workers is associated with higher absenteeism and decreased productivity in the workplace as well as increased stress-related expenses such as health insurance costs and workers' compensation (Kim, 2000; Weissman 2002). Financial stress affects work outcomes such as productivity and absenteeism (Garman, Kim, Kratzer, Brunson, & Joo, 1999; Kim, 2000; Kim & Garman, 2003; Kim, Sorhaindo, & Garman, 2006). Looking at data from a 2007 national survey of 1116 working adults in the USA, Schieman and Young (2011) found that the positive association between financial hardship and family-to-work conflict was stronger for workers with less job authority and more creative work activities. Additionally, perceived economic hardship was associated with higher family-to-work conflict. Loewe, Bagherzadeh, Araya-Castillo, Thieme, & Batista-Foguet (2014) found that satisfaction with one's financial situation was the dominant predictor of workers' overall life satisfaction. Sutton and Dunstan (2012) found that financial strain was the strongest predictor of depression in circumstances of absence due to sickness.

Largely, employers agree that financial stress affects productivity. About half (51 %) of employers strongly agree that employees are less productive while at work when they are worried about personal financial problems (Gilfedder, 2014). Despite strong evidence of the relationship between worker stress and its effects on health and productivity, workplace financial education and counseling/advice has not been widely available for those who need it most. Another survey found that half of organizations (52 %) offer financial education to their workers but this number has been in declining (Society for Human Resource Management, 2012).

Workplace Financial Education/ Wellness Programs

Financial Literacy and Workplace Programs

Workplace financial education has been identified as one of the channels to help increase the financial literacy/capability of Americans

(CFPB, 2014). If financial education at workplaces is widely available and effective, it can influence the financial well-being of 140 million full time and part time workers in the USA. Financial literacy includes understanding financial concepts and ways to manage financial resources as well as the application of knowledge and skills (Huston, 2010). Financial education assumes that individuals lack knowledge and skills to make informed decisions. Financial education at workplaces can improve financial literacy and behaviors, which in turn can enhance the financial well-being of workers.

Financial literacy has been associated with financial decisions such as investing, saving, and high cost borrowing (Bernheim & Garrett, 2003; Lusardi & Mitchell, 2007, 2011). Edmiston, Gillett-Fisher, and McGrath (2009) found that higher financial knowledge was associated with having higher retirement savings among participants of workplace financial education. Despite these findings, many Americans lack the financial literacy required to make sound financial decisions and actions. A lack of financial literacy is more commonly found among women, minorities, older people, and people with lower education levels (Lusardi & Mitchell, 2011, 2014). However, workplace financial education programs targeting these vulnerable groups are very limited. In addition to low wages, many of them work part time and do not have access to key benefits such as retirement plan and workplace financial education.

Societal changes such as more complex financial markets, predatory financial products and services, economic uncertainties, increased individual responsibilities for retirement, and a decrease in social safety nets have been challenging for many American workers experiencing a lack of savings and debt problems. Financial literacy has become more important for the financial well-being of workers than ever before.

Despite its great potential, the vast majority of financial education in workplaces has been limited to the topic of retirement plans (CFPB, 2014; Kim, 2008). Such education programs have been closely tied to employee benefits and mostly retirement plans. In the past few decades, employers have been mostly motivated to provide retirement and investment-related information to meet the guidelines such as the section 404 (c) of the Employee Retirement Income Security Act (ERISA) of 1974. Employers are required to provide sufficient information for employees to make informed retirement and investment decisions. Also, certain levels of participation are needed to avoid disqualification due to IRS nondiscrimination rules. The Economic Growth and Tax Relief Reconciliation Action 2001 allowed employer-provided qualified retirement planning services to be exempted from federal taxation (Mandell, 2008). Despite this exemption, such service is defined as and limited to any retirement planning advice or information provided to employees and their spouses by an employer maintaining a qualified employer plan (Mandell, 2008). Subsequently, the Pension Protection Act of 2006 provides legal protections for employers from liabilities if they offer investment advice to help employees to make sound decisions (Krajnak, Burns, & Natchek, 2008).

Some employers view it as their social responsibility to help their workers to avoid financial crisis and achieve financial security. Unfortunately, many financial education programs at workplaces are often voluntary and lack leadership and sustainability (Vitt, 2014). While most employers understand the effects of financial stress on employees and recognize the benefits of financial education for their employees (Gilfedder, 2014), the business advantages of financial education are not fully convincing to US employers. While some employers are genuinely concerned about the financial well-being of their workers, many often consider financial education too costly and an ineffective way of improving employees' financial well-being (Vitt, 2014). Further, financial education and advice are considered soft benefits and have not been the top priority of many employers. About half of American workers receive some type of financial education at the workplace (Copeland, 2014). A Gallup survey of small- and medium-sized businesses found about one in ten employers provided financial education beyond a retirement plan (Mandell, 2008). Generally, financial education programs in American workplaces vary in formats

and types but they are mostly print materials, often followed by workshops and seminars. Web-based tools are gaining popularity (Krajnak et al., 2008; Mandell, 2008) and a peer-to-peer approach has also been introduced (CFPB, 2014).

As many US workers have been struggling with financial stress, especially since the Great Recession, more employers have become aware of the need for financial wellness program comprehensive packages (CFPB, 2014). While financial wellness programs are not widely available, they attempt to improve a worker's financial life as a whole beyond a one-shot retirement and investing seminar (CFPB, 2014; Gilfedder, 2014). Such programs aim to help employees understand their employer-provided benefits such as health and retirement plans as well as improve financial knowledge, skills, and behaviors of employees by teaching financial goal setting, budgeting and money management, credit management, building emergency funds, retirement savings, and others. Many employees need more than retirement and investment seminars to deal with financial crisis and stabilize their financial situation before they can begin to plan ahead. Financial coaching or counseling has been identified as an effective tool for employees with these additional financial concerns (Edmiston et al., 2009).

The wellness programs in the Employee Assistance Program (EAP) can be complementary to the benefits and retirement seminars arranged by the Human Resource departments. The EAP typically helps workers deal with personal or family problems that affect their home and work life. Perceived financial satisfaction and financial stress have been linked to couple relationships, as well as mental and physical health (Falconier & Epstein, 2011; Walker & Luszcz, 2009).

Effective financial wellness programs not only address financial skills and management but also include stress management support, family, relationships and marital issues, depression, and anxiety, work challenges, and performance ratings (Clark, 2014). One major issue with the implementation of these programs is that the EAPs have often been understaffed and outsourced in recent years.

Effectiveness of Workplace Financial Education/Wellness Program

While financial education programs for workers have been growing, the effectiveness of such programs has been debated. A number of studies documented the effects of workplace financial education programs on financial knowledge and attitudes, retirement/financial behaviors, financial well-being and satisfaction, health, and work outcomes (CFPB, 2014; Clark, Morrill, & Allen, 2011; Gale, Harris, & Levine, 2012; Joo & Grable, 2005; Kim, 2000; Lusardi & Mitchell, 2014; Mandell, 2008), but other studies claim that the evidence is inconclusive (Collins & O'Rourke, 2010; Willis, 2009). Lack of control groups, sampling issues, self-selection bias, self-reported outcomes, varied impacts, and other confounding factors have been cited as methodological limitations in these studies (Lusardi & Mitchell, 2014; Willis, 2009). Some also claim that financial education and thus improving financial literacy alone is unlikely to improve financial well-being, especially for low- and moderate-income individuals and families (Willis, 2011). Research on the effectiveness of workplace financial education for vulnerable groups is scarce.

Considering the heterogeneity of workplace financial education in terms of type, length, format, setting, content, and providers, evaluating voluntary programs for adults is challenging. Nevertheless, financial education in workplaces has been linked to increases in financial knowledge and literacy (CFPB, 2014; Clark, 2014; Kim, 2007; Lusardi & Mitchell, 2007; Vitt, 2014). Studies also show the effectiveness of pre-retirement seminars on retirement planning attitudes and behaviors (Bayer, Bernheim, & Scholz, 2008; Edmiston et al., 2009; Holland, Goodman, & Stich, 2008; Kim, 2000; Kim, Garman, & Quach, 2005; Munnell, Sundén, & Taylor, 2001/2002; Lusardi & Mitchell, 2007). Using the data from employers, Bayer et al. (2008) compared the efficacy of retirement seminars in both plan participation and contributions and found the effect was stronger for non-highly compensated workers compared to highly compensated

employees and tested the effectiveness of type of delivery such as comparing print materials to workshops. Lusardi and Mitchell (2007) found that financial literacy was positively associated with retirement planning and those who attended financial education at work or in schools had higher levels of financial literacy than others. Edmiston et al. (2009) found that financial education at the workplace was associated with retirement preparedness and retirement savings, resulting in decreased requests for 401(k) loans, increased use of flexible spending accounts, and increased 401(k) participation and contributions. Financial education at workplaces also was positively associated with the retirement confidence and preparedness (Kim, Kwon, & Anderson, 2005).

Additionally, Goda, Manchester, and Sojourner (2013) utilized an experimental design to examine the effects of information regarding retirement savings and income on employees' decision to participate in and contribute to a retirement plan. Other studies have found financial education at workplaces was associated with increased plan participation and contribution rates (Clark, d'Ambrosio, McDermed, & Sawant, 2003). Using the Health and Retirement Study, retirement education at workplaces was found to be associated with lump sum distributions (Muller, 2001/2002). Clark, Lusardi, and Mitchell (2014) also found the association between financial knowledge and returns in retirement plans, suggesting the benefits of workplace financial education. Moreover, workshops and seminars offered to employees have been linked to improved financial knowledge and behaviors (Bayer et al., 2008; Bernheim & Garrett, 2003; Kim & Garman, 2003; Kim, 2007; Hira & Loibl; 2005; Prawitz & Cohart, 2014). On the other hand, researchers argue that one-shot financial education seminars or one-size fits all programs may not be effective in improving the financial knowledge and behaviors of employees who are in diverse contexts (Beck, 2010; Kim, 2008). Using the sample of credit union employees, Collins and Dietrich (2011) found positive relationships between financial education participation and increases in savings for long-term goals and maintaining emergency funds. Krajnak et al. (2008) found that participants in financial education seminars developed their savings goals and improved financial behaviors. Edmiston and Gillett-Fisher (2006) also found a positive association between financial education and financial behaviors. Prawitz and Cohart (2014) examined the effects of an employee-needs-driven workplace financial education program using 995 employees. They found that participation in the education programs was associated with decreases in negative financial behaviors, and increases in positive financial activities such as assessing asset allocation and increasing retirement contributions. Workplace financial education has also been linked to financial satisfaction and wellness (Hira & Loibl, 2005; Prawitz, Kalkowski, & Cohart, 2011). Despite these findings, limited information is available regarding the effects of workplace financial education/wellness programs on health or productivity outcomes.

Most of the evaluation findings on workplace financial education were conducted in the context of seminars or workshops. A couple of studies also support the benefits of online financial education and games (Gartner & Todd, 2005; Maynard, Mehta, Parker, & Steinberg, 2012) but little information is available about workplace settings.

In addition, the effectiveness of these programs could be challenged for those who are experiencing financial stress including low to moderate income workers and other vulnerable groups. The importance of one-on-one counseling and financial advice has been recognized (Kim, 2008) but is not widely offered and the effectiveness so far has been limited. A recent study found a significant association between information from formal advisors and financial behaviors (Hudson & Palmer, 2014).

In summary, research has accumulated substantial evidence to show the positive benefits of workplace financial education programs. Nevertheless, limitations have been identified in the existing research. Research regarding workplace financial education often faces unique challenges such as the nature of voluntary participation and other confounding factors. Heterogeneity in

both financial literacy and financial behavior makes it harder to detect the causal effects of education (Lusardi & Mitchell, 2014). The methodological rigor of studies has been questioned including the lack of rigorous experimental approaches with control and treatment (Collins & O'Rourke, 2010; Gale et al., 2012; Kim, 2008; Lusardi & Mitchell, 2014). Selection bias can complicate the effects of education on behavioral changes since some people are more inclined and motivated to learn about financial management as well as act upon the information.

Summary, Implications, and Future Research

Many workers are experiencing financial stress. More vulnerable groups of workers have varied complex needs for dealing with financial stress and building financial security. It is logical to assume that financial stress of employees is associated with absenteeism, presenteeism, stress, and health care costs. Therefore, workplace financial education/wellness program can be an effective tool to reach a vast number of Americans.

Prior research provides suggestions for effective financial education/wellness programs at workplace. Theory-based financial educational programs targeting a specific audience or financial activity have been recommended for workplace financial education/wellness programs (Collins & O'Rourke, 2010). Generally, successful education programs start with well-defined objectives and learning outcomes. Interdisciplinary and theory-based approaches are suggested for workplace financial education including stress and empowerment theories as well as the Theory of Planned Behavior (Ajzen, 1991), Transtheoretical Model of Change (Prochaska, DiClemente, & Norcross 1992), and Social Learning Theory (Perry, Baranowski, & Parcel, 1990).

Focusing on retirement plans and investment may not be sufficient when the majority of workers also need basic and remedial financial education and programs delivered in various ways. Seminars and print materials may not be sufficient for workers with different learning styles. Many workers are more likely to obtain basic money management skills through education, one-on-one attention and counseling, and coaching/mentoring in order to get to the point of thinking about retirement and savings. Peer-to-peer support (CFPB, 2014) can also be effective in motivating employees to change financial habits and behaviors. Also, cost-effective financial wellness/education methods have been introduced with the help of advancing technology through online and mobile applications. Public and private partnerships also were suggested as great resources of comprehensive financial education for mid- to small-sized companies (CFPB, 2014). Government agencies, including the Financial Literacy and Education Commission, which was established under the Fair and Accurate Credit Transactions Act of 2003, provide leadership with a variety of financial educational tools and information for workers.

Financial education at workplaces should engage employees as partners and incorporate their goals and motivations, social and cultural background, family circumstances, and unique personal values and needs into the program (Vitt, 2014). Financial behaviors also are guided by personality, attitudes, knowledge, and skills in a socioeconomic context (CFPB, 2015).

Individuals may not make rational financial decisions due to personal bias and human errors, which could diminish the effectiveness of financial education. Nudges or choice architectures such as automatic enrollment and payroll deduction have been found effective in retirement saving (Beschears, Choi, Laibson, & Madrian, 2013; Fernandes, Lynch, & Netemeyer, 2014). Likewise, strategies to design conducive environments can be expanded to debt payment or savings for emergency funds tied to pay raises (Way, 2014). Such decision support systems for employees to help them work toward their financial goals can complement the financial education.

Targeted and "just in time" financial education have been found to be effective (Collins & O'Rourke, 2010; Lusardi & Mitchell, 2014). Workplace financial education programs targeting new employees and pre-retirees have

been utilized but more targeted approach could enhance the effectiveness of program for diverse workforce such as immigrants or young workers.

Some suggestions need to be made for policy makers. Most current workplace programs, besides retirement plan information required by law, are often provided voluntary and may not sustain over time. When the time comes to finalize budgets, these soft benefits may be the first to be cut. Regulations and guidelines to address such problems need to be discussed. Since the passage of the Patient Protection and Affordable Care Act of 2010 (ACA), employers have become more concerned with increasing health care costs and therefore offer more preventative health care programs (Gilfedder, 2014). Financial wellness programs can be included in assisting employees with financial strains as part of health prevention programs. One strategy for addressing this issue is to have a financial counselor at EAP. Employers can require new employees to take financial education workshops. Mandated counseling for early withdrawal from retirement funds is also a potential solution for early distributions. Other ways of providing active financial and investment advice for employees need to be considered. Often, employees who are most in need of financial education are least likely to take advantage of such programs as education at workplaces. Small-sized employers may not have resources to provide effective financial wellness programs for them.

One of the biggest employee benefits that contributed to the polarization of income disparity was health insurance. The ACA provided opportunities and removed barriers to care for many employees, however, half of America's workers, including many low-income workers, still do not have access to an employment-based retirement plan. Accounts for retirement and general savings are needed to protect employees from financial crisis and be on track for financial well-being.

A recent report from CFPB (2015) outlines the elements of financial well-being as "control over your finances, build capacity to absorb a financial shock, financial freedom to make choices, on track financially to reach your life goals" (p. 1). One's social and economic environment can create or limit financial opportunities. Experts argue that even low-income households can save when opportunities are provided and barriers are removed (Sherraden, 2013). Providing accounts and matching funds for general savings and emergency funds can be effective in preventing financial crisis and building financial well-being. With these policy changes, a comprehensive financial wellness program could help employees improve financial knowledge and skills as well as manage the financial stress that affects health, relationships, and performance at work. However, employees assume responsibility for saving for their own retirement.

Financial education at workplaces is promising to help reduce workers' financial stress but additional research is needed to prove the effectiveness of such program. Future research utilizing rigorous experimental designs is suggested for developing, implementing, and evaluating workplace financial education/wellness programs. Data should also come from administrative data as well as self-reported surveys over time. Long-term effects of workplace financial education on employees' financial well-being have rarely been studied. More evidence is needed to develop and evaluate workplace financial education/wellness programs for more diverse and/or vulnerable groups such as low-income and minority workers. Additional research should compare different delivery methods such as one-on-one counseling, peer-to-peer approaches, as well as online education.

Research should examine the effects on health- and productivity-related outcomes as well as financial well-being as financial education/wellness programming has become more widely accepted. Such research will require interdisciplinary approaches. Research results on the cost-benefit effectiveness of programs could be used to convince more employers and policymakers of their value. Finally, translations of research into the application of practices are needed for successful financial education/wellness programs in workplaces.

About the Author

Jinhee Kim is an Associate Professor and Family Finance Extension Specialist at the University of Maryland, College Park. She teaches courses in personal and family finance. Dr. Kim has developed, implemented, and evaluated financial education and counseling programs for a variety of audience from low to moderate income individuals and families, employees at workplaces, teachers, financial educators and counselors, human service providers, volunteers, and others. Her research interests are financial strain and food insecurity in relation with family and health outcomes. She also investigates workplace financial education, financial socialization of youth and young adults, intergenerational transfer of time and financial assets, and financial management of immigrants.

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Military Personal Finance Research 21

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Military Overview

This section briefly reviews the composition, demographic characteristics, and organization of the military to provide background for the literature review that follows.

Composition

The US military is an all-volunteer force consisting of five service branches: Air Force, Army, Navy, Marine Corps, and Coast Guard. The Coast Guard is a component of the Department of Homeland Security, while all other branches fall under the Department of Defense (DoD). For simplicity and to align with the preponderance of existing research, this chapter is focused on the uniformed members of the four DoD service branches and their households. In 2013, there were 40,240 active duty members in the US Coast Guard (U.S. Department of Defense, 2014a); there has been little research on this population. As to the civilian personnel in the DoD and other military services, their work experiences and financial conditions seem more similar to other public sector employees. See Table 21.1 for the size and composition of the DoD service branches.

The size of the military varies from year to year, but statistics from fiscal year 2013 published in the DoD's annual publication "Profile of the Military Community" provide the primary reference for this chapter (U.S. Department of Defense, 2014a). The 2013 report places the total uniformed service population at 2,463,260 personnel, of which 1,192,462 (56 %) serve on active duty, 627,052 (25 %) serve in the Reserves, 465,879 (19 %) serve in the National Guard. There are substantial differences in circumstances among the active duty, Reserve, and National Guard components as far as travel and deployment demands, compensation, and whether a civilian career exists concurrently with a military career. Each of these factors can affect personal financial decisions and their economic outcomes. While some of the research reviewed discusses

For William Skimmyhorn, the opinions expressed herein reflect the personal views of the author and not those of the US Army or the Department of Defense.

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Table 21.1 DoD service composition

Service	Category	N	% of component	% of total force
Air Force	*Total*	*537,158*		*21.8 %*
	Active duty	326,573	23.8 %	13.3 %
	National guard	105,708	22.7 %	4.3 %
	Reserve	104,877	16.7 %	4.3 %
Army	*Total*	*1,192,462*		*48.4 %*
	Active duty	528,070	38.5 %	21.4 %
	National guard	360,171	77.3 %	14.6 %
	Reserve	304,221	48.5 %	12.4 %
Marine Corps	*Total*	*304,064*		*12.3 %*
	Active duty	195,848	14.3 %	8.0 %
	Reserve	108,216	17.3 %	4.4 %
Navy	*Total*	*429,576*		*17.4 %*
	Active duty	319,838	23.3 %	13.0 %
	Reserve	109,738	17.5 %	4.5 %
All	*Total*	*2,463,260*		*100.0 %*

Note: Source is 2013 DoD Demographics Report

reservists, the primary focus of this chapter is on active duty service members.

As Table 21.1 shows, the Army is the largest branch with 48 % of the total force (Army active duty members comprise 39 % of the total military active duty numbers, while the Army makes up 77 % of the National Guard and 49 % of the Reserve populations), followed by the Air Force with 22 % of the total force (Air Force active duty members comprise 13 % of the total active duty force, and Air Force members subsequently make up 4 % each of the National Guard and Reserve populations). The Navy is the next-largest service branch with 17 % of the total force (Navy active duty service members comprise 13 % of the active duty force and Navy members comprise 5 % of Reserve strength; the Navy does not have a Guard component) followed by the Marine Corps as the smallest DoD service branch with 12 % overall force strength (Marines make up 8 % of the active duty force and Marines comprise 4 % of Reserve strength; there is no Marine National Guard component). Using data from the 2009 and 2012 National Financial Capability Studies (FINRA IEF, 2010, 2013b), Skimmyhorn (2014) found few differences in the financial decisions and outcomes among members of the different military services and different components.

Individual Servicemember Characteristics

Table 21.2 provides a summary of personal characteristics for the active duty military force-by service branch. The statistics reveal that the active duty military is young (mean age of 28.6), predominantly male (85.1 %), mostly married (55.2 %), and primarily of Caucasian origin (69.3 %), though these statistics vary by branch. The force is also relatively well-educated with the median and modal servicemember having a high school diploma or some college and more than 19 % holding bachelor's degrees or higher. In this sense, the military is not necessarily representative of the larger American population, though it is large and diverse.

Rank Structure

In order to better understand the financial challenges servicemembers and their families face, a brief review of the military's rank structure is provided for context. The military employs a hierarchical rank structure with divisions between commissioned officers, warrant officers, and enlisted servicemembers. The middle and higher ranks within the enlisted force are collectively referred to as non-commissioned officers (NCO).

Table 21.2 DoD servicemember characteristics

Characteristic	Service				
Gender	*DoD*	*Air Force*	*Army*	*Navy*	*Marines*
Male	85.10 %	81.08 %	86.38 %	82.50 %	92.75 %
Female	14.90 %	18.92 %	13.62 %	17.50 %	7.25 %
Race					
American Indian/Alaskan Native	1.45 %	0.63 %	0.75 %	3.66 %	1.06 %
Asian	3.82 %	3.04 %	3.88 %	5.34 %	2.47 %
Black or African American	16.95 %	14.18 %	20.99 %	17.07 %	10.48 %
Mutli-racial	3.07 %	3.16 %	N/A	9.27 %	1.10 %
Native Hawaiian or other Pacific Islander	1.04 %	1.08 %	0.99 %	1.10 %	1.01 %
Other/Unknown	4.34 %	4.92 %	4.86 %	2.69 %	4.69 %
White	69.33 %	72.98 %	68.53 %	60.87 %	79.18 %
Age	28.6	29.3	29.3	28.6	25.4
Married	55.20 %	58.20 %	59.00 %	51.50 %	46.20 %
Education					
Unknown	2.11 %	0.94 %	0.41 %	6.52 %	1.44 %
Less than HS degree	0.38 %	0.01 %	0.34 %	0.52 %	0.85 %
HS degree/some college	77.70 %	73.10 %	77.75 %	76.63 %	86.96 %
Bachelor's degree	12.15 %	12.87 %	14.20 %	9.80 %	9.31 %
Advanced degree	7.66 %	13.08 %	7.30 %	6.52 %	1.44 %
Total	1,370,329	326,573	528,070	319,838	195,848

Note: Source is 2013 DoD Demographics report. The Army does not report data on multi-racial members

Commissioned officers are typically required to have at least a 4-year college degree, and they possess a higher degree of legal authority than their enlisted counterparts. Not surprisingly, Green (1970) identifies rank as a proxy for socioeconomic status, likely because of its mechanical relationship with compensation and the education requirements associated with holding an officer's commission.

Comparing Military and Civilian Financial Decisions and Outcomes

This section reviews the differences between military and civilian households with respect to important economic outcomes: compensation and financial decision-making.

Household Earning Comparisons

Military compensation combines monetary pay and allowances, in-kind benefits (e.g., subsidized health care and child care), and deferred benefits (e.g., defined benefit pension plan and access to a defined contribution plan known as the Thrift Savings Plan). On average, the composition of active duty servicemembers' compensation is 51 % pay and allowances, 21 % in-kind benefits, and 28 % deferred compensation for retirees, veterans, and survivors (U.S. Department of Defense, 2012, June). Table 21.3 provides data on the most typical monetary payments for active duty military members by rank. It is important to note that basic pay increases with rank and years of service (Defense Finance and Accounting Service, 2014). Housing allowances (also known as BAH) vary by locality and increase with rank and the presence of dependents, while the basic subsistence allowances (BAS) are fixed amounts for officers and enlisted personnel. Data are provided on housing allowances for all ranks, though some individuals receive on-installation housing in-kind in lieu of the cash payment. BAH and BAS are tax-free allowances.

Using 2013 pay figures from Table 21.3, three examples of how military basic pay works are as follows. A new servicemember in the grade of E2

Table 21.3 Military compensation

Rank	DoD			Compensation		
	N	%	Base Pay	BAH No dependents	BAH With dependents	BAS
E1	54,618	4.0 %	$1516	$1026	$1260	$352
E2	70,043	5.1 %	$1700	$1026	$1260	$352
E3	196,218	14.3 %	$2015	$1026	$1260	$352
E4	277,403	20.2 %	$2403	$1026	$1260	$352
E5	234,753	17.1 %	$3064	$1158	$1302	$352
E6	163,931	12.0 %	$3651	$1227	$1536	$352
E7	96,468	7.0 %	$4305	$1263	$1599	$352
E8	27,515	2.0 %	$5185	$1350	$1668	$352
E9	10,516	0.8 %	$6350	$1422	$1752	$352
W1	2223	0.2 %	$4774	$1245	$1539	$243
W2	8149	0.6 %	$5073	$1347	$1626	$243
W3	5132	0.4 %	$5761	$1428	$1710	$243
W4	3051	0.2 %	$6292	$1551	$1767	$243
W5	832	0.1 %	$9003	$1614	$1836	$243
O1	24,454	1.8 %	$3619	$1221	$1326	$243
O2	31,147	2.3 %	$4586	$1287	$1530	$243
O3	75,712	5.5 %	$6240	$1452	$1707	$243
O4	46,210	3.4 %	$7284	$1605	$1860	$243
O5	28,976	2.1 %	$8229	$1647	$1971	$243
O6	12,028	0.9 %	$9310	$1710	$1989	$243
O7	440	0.0 %	$11,925	$1746	$2010	$243
O8	315	0.0 %	$12,944	$1746	$2010	$243
O9	158	0.0 %	$15,659	$1746	$2010	$243
O10	37	0.0 %	$17,748	$1746	$2010	$243

Note: Authors' compilations using DoD and Census data. Base Pay reflects the median pay amount from the 2013 DoD pay table across all years of service for each grade. BAH reflects the housing allowance for a zip code 34746 (Kissimmee, Lake County, Florida). BAS reflects the 2013 Basic allowance for subsistence, which is a constant payment for enlisted members or officers. Note that these estimates omit many cash (e.g., special pays, hostile fire pay) and in-kind benefits (e.g., tax benefits and health care) available to military members

annually earns approximately $34,728 without dependents and $37,536 with dependents. A junior Non-Commissioned Officer (NCO) in the grade of E5 (the median service member in 2013) earns approximately $54,888 without dependents and $56,616 with dependents. Finally, an officer in the grade of O3 (the median officer in 2013) earns $95,220 without dependents and $98,280 with dependents. Readers should treat these simplistic estimates with caution in that they likely reflect lower bounds of actual compensation since special and incentive pays and the value of in-kind and deferred benefits are omitted.

In-kind and deferred benefits associated with military service can be substantially richer than those typical in the private sector. The government uses Regular Military Compensation (RMC) to estimate the value of these benefits in order to make total compensation comparisons between military and civilian members. For example, the RMC for enlisted personnel with a high school diploma, some college, and/or an associate's degree places them in the 90th percentile of wages among their civilian counterparts (U.S. Department of Defense, 2012, June). The RMC for officers with a bachelor's or graduate degree placed them in the 83rd percentile of wages among their civilian counterparts (U.S. Department of Defense, 2012, June). Military compensation compares very favorably with civilians having comparable levels of

education at the present time, though there is no doubt variation in the actual compensation based on the actual benefits utilized by servicemembers. The limited lateral entry inherent in the military's internal labor market, coupled with high training costs and job risks, may support such favorable compensation. For theoretical and empirical discussions of the military pay system, see Asch and Warner (1994) and Rosen (1992).

While servicemember compensation compares favorably with civilian averages, this may not be the case for the civilian spouses of military members. For recent reviews of civilian spouse employment, see Lim, Golinelli, and Cho (2007) and Maury and Stone (2014). Civilian spouses of military members often face career challenges associated with frequent relocation that can limit their professional advancement. This reduces total household income potential relative to civilian couples with greater choice in relocation decisions. A number of factors may contribute to the lower labor force participation rates and earning levels of military spouses including frequent moves (Castaneda and Harrell, 2008), deployments (Savych, 2008), interstate moves affecting licensing and certification (U. S. Department of Treasury & U. S. Department of Defense, 2012), and reluctance on the part of employers to hire spouses for jobs that require a substantial investment in training (Hosek & Wadsworth, 2013). While the evidence cited above suggests adverse effects of military service on civilian spouse career outcomes, none of the studies cited provide clear causal evidence. It is equally important to note there has been little research accounting for the combined income of the servicemember and spouse. This makes household earnings comparisons between civilian and military households an important obstacle to overcome in understanding the overall financial challenges and opportunities of military service.

The existence of enduring federal (e.g., Military Spouse Preference in the 1986 DoD Authorization Act) and state (e.g., Arizona Statute 38-492) laws providing hiring preferences for military and select veteran spouses suggest there is recognition of these concerns. Recently, the Military Spouse Residency Relief Act (Public Law 111-97) provided relief for state tax payments for military spouses. As of this writing, the authors were unaware of any research analyzing the effects of these laws and policies on the financial welfare of military households.

Financial Decision-Making Comparisons

Military and civilian financial choices appear to differ by domain. Recent national level surveys, namely the National Financial Capability Study published by the Financial Industry Regulatory Authority (FINRA) Investor Education Foundation (IEF), suggest that while both military and civilian credit card holders participate in a variety of negative financial behaviors (e.g., paying only the minimum payment, paying late fees, or using a credit card for cash advances), military service members appear more likely to engage in at least one of these costly behaviors more often than civilians (FINRA IEF, 2013a, 2013b). According to an initial study, 41 % of servicemembers had credit card balances of at least $5000, and over 10 % had balances of at least $20,000 (FINRA IEF, 2010) where junior enlisted servicemembers and NCO were the most likely to do so.

In contrast, these surveys also suggest that military members fare better than their civilian peers in terms of saving (FINRA IEF, 2009, 2010). In the more recent surveys (FINRA IEF 2013a, 2013b), over half (54 %) of servicemembers had enough funds set aside to cover 3 months of living expenses compared with only 40 % of the general population. The earlier studies (FINRA IEF, 2009, 2010) also suggest that 36 % of military respondents had trouble keeping up with their monthly expenses and bills as compared to almost half (49 %) of the American population. In both cases, individuals with higher incomes were more likely to save (FINRA IEF, 2013a, 2013b).

While the evidence above is suggestive, it does not account for the differences in demographic characteristics between servicemembers and civilians. Skimmyhorn (2014) completed a

more detailed multivariate analysis accounting for these differences and found that enlisted servicemembers have better solvency and savings outcomes, but worse credit card outcomes relative to their civilian peers. Given the relative stability of military employment and the potential to vest in a defined benefit pension plan, these results suggest that many military members might be better off avoiding or paying down their costly credit debts while saving less. While there appear to be important differences in the earnings and financial decision-making of military and civilian households, it is important to note that the evidence cited here should not be interpreted to mean that particular financial outcomes are direct results of military service given the endogenous decisions to enter and remain in the military.

Military Life

This section reviews research related to the relationships between military life and financial well-being. The focus of this section is on the literature related to the effects of financial problems on military service but we also review the literature related on the effects of military service on financial problems. For an early, but relatively comprehensive analysis of the relationships among individual characteristics, the military work environment, and financial problems, see Tiemeyer, Wardynski, and Buddin (1999). Researchers should exercise caution against making incorrect inferences as to the existence and direction of causality when evaluating these relationships.

The Effects of Financial Issues on Military Services and Life

A number of studies suggest that financial issues are closely tied to individuals' assessments of their own quality of life. In this regard the military may not differ substantially from civilian populations. What may differ is the scope and severity of the negative impacts for military members. Kerce (1996) found that both income and standard of living had a significant impact on Marines' assessments of their quality of life and that these assessments affected the ability of the Marine Corps to perform its mission. Similarly, Tiemeyer et al. (1999) completed a qualitative study at seven installations across all four branches of service and found that financial management problems were the "most commonly cited personnel problem" (p. 8) among enlisted personnel. The study suggests that some individuals (i.e., first-term enlisted members, divorced, those with children, those with unemployed spouses, and those with lower levels of education) in certain military branches (i.e., the Army and the Marine Corps) were more likely to have financial problems. It also noted that all levels of military leaders were concerned about servicemembers' financial problems because of concerns for the individuals' welfare and because these problems affected their ability to perform their jobs. The study appears to have influenced the DoD to focus its attention and programs over the past 15 years on the enlisted force with the goal of improving military readiness. Varcoe, Lees, Wright, and Emper (2003) completed a qualitative study of Marines that confirmed many earlier findings and identified potential explanations for financial problems (i.e., financial inexperience, deployment, and being stationed away from home). Castaneda et al. (2008) surveyed National Guard and Reserve households about their financial readiness and found challenges similar to those faced by active duty households.

In the late 1990s, the Navy commissioned a personal finance study to examine the impact of personal financial mismanagement among sailors. Luther, Garman, Leech, Griffitt, and Gilroy (1997) estimated the direct costs of these problems (e.g., bad checks to the military exchange system, processing garnishments) in the tens of millions of dollars and the indirect costs (e.g., lost productivity) in the hundreds of millions of dollars. They estimated that financial issues had a greater effect on organizational readiness than any other quality-of-life issues (e.g., housing, child care, health care). The study highlighted the high cost to taxpayers of widespread personal financial difficulties. In related research,

Luther, Leech, and Garman (1998) documented the relationship between financial problems and the Navy's readiness (e.g., failure to re-enlist and associated retraining costs, security clearance revocations). A US Government Accountability Office (GAO) report in 2005 also linked personal financial difficulties among military members to lower mission readiness (U. S. GAO, 2005).

More recently, military members rated finances as one of their most significant stressors, even above deployments and personal relationships (Office of the Assistant Secretary of Defense, 2012). Given the severity and pervasiveness of the recent economic recession against the backdrop of more than a decade of frequent combat deployments, the prevalence of these financial challenges is not surprising.

More recently, Bell et al. (2014) documented a strong relationship between financial stress and service members' well-being. Soldiers with higher credit card debt and lower perceived net worth reported lower levels of subjective well-being, while soldiers with greater perceived financial knowledge and larger emergency savings accounts reported higher levels of subjective well-being. Other studies have found financial stress to be a contributing factor to the incidence of suicide and domestic violence among servicemembers (Kline, Ciccone, Falca-DoDson, Black, & Losonczy, 2011; Mahon, Tobin, Cusack, Kelleher, & Malone, 2005; Slep, Foran, Heyman, & Snarr, 2010). Outside the active duty military, related research using a national survey of combat veterans who served in Iraq and Afghanistan found financial problems were related to major depression, post-traumatic stress disorder (PTSD), and traumatic brain injury (TBI). Furthermore, the study found veterans with better personal financial management skills had fewer instances of serious problems (e.g., homelessness, criminal arrest, substance abuse, suicidal or aggressive behavior) upon transitioning back to civilian life (Elbogen, Johnson, Wagner, Newton, & Beckham, 2012). Consequently, it appears that financial readiness has implications for individuals even after their military service is complete.

Financial problems have the potential to directly and adversely affect servicemembers' ability to perform their jobs. Those with serious financial problems can lose their security clearances which often limits their ability to perform their assigned duties (Office of the Assistant Secretary of Defense, 2012). The possibility that financial problems may undermine job performance by distracting military members from the work at hand is another important but largely unexplored topic. Luther et al. (1998) presented an early discussion of productivity loss related to personal financial circumstances. Military members may also face criminal sanctions for certain financial problems or misconduct. Importantly, any one or a combination of these things may lead to being discharged from the military and a loss of the taxpayers' investment in servicemembers' recruitment and training (FINRA IEF, 2010). As a result of these concerns, the DoD associates personal financial readiness with mission readiness (Dempsey & Battaglia, 2013) and seeks to assist servicemembers through the programs described in the fourth section of this chapter.

The Effects of Military Service on Financial Outcomes

Military life involves many stressors. The prospect of serious injury and death are an inherent part of military service (Harris, 2011) and could affect financial decision-making. Frequent moves may also affect the military family's income as described in earlier section two of this chapter. In addition, military deployments may have significant effects on servicemembers' financial outcomes. The last decade has been a time of an unprecedented number of deployments in the history of the all-volunteer force, with almost 2.5 million servicemembers being deployed to Operations Enduring Freedom, Iraqi Freedom, and New Dawn (Defense Manpower Data, 2012). The duration and frequency of deployments has increased, and the intervals between successive combat deployments have shortened (Tanielian & Jaycox, 2008).

Recognizing the financial challenges that deployments create, the military provides additional

income to individuals when they deploy. These benefits (e.g., hostile fire pay, family separation allowances, and tax relief on basic pay) may total hundreds of dollars each month for a servicemember, a significant income boost for many. As a result, deployments might improve or degrade financial outcomes based on the competing effects of the increased income and the household stressors. Lakhani and Abod (1997) documented financial gains and changes in reenlistment intentions for reserve soldiers who volunteered for peacekeeping deployments in the Sinai in the 1990s. However, because volunteers likely differ from non-volunteers on a number of dimensions, studies like this highlight the importance of considering selection. Similarly, Dunn (2003) suggested that hostile fire pay was an effective retention tool for officers during Operation Desert Storm, but the study did little to overcome concerns of selection bias or to establish its validity for the much larger enlisted population.

Hosek, Kavanagh, and Miller (2006) discussed the costs and benefits of military deployments. They identified financial stressors among servicemembers that included making proper financial arrangements for a deployment. They noted that deployment pays were viewed by servicemembers as a benefit that helped offset some of the negative aspects of deployment, and that some servicemembers were motivated to deploy by these financial incentives. Their results further highlight the challenge of selection bias to research in this area. Overall, the effects of additional compensation during deployments are unclear.

While deployments generate additional income for service members, they also appear to generate additional stress on servicemembers and their families. Bray, Camlin, Fairbank, Dunteman, and Wheeless (2001) and Hosek and Martorell (2009) documented the correlation between deployments and work-related stress as servicemembers strived to complete their jobs in dangerous and challenging environments. Earlier work from Aldridge, Sturdivant, Smith, Lago, and Maxfield (1997) used a service-wide survey and found that during deployments, servicemembers did not have frequent input on family and routine household issues, which can include financial decisions. They also found that individuals with working spouses experienced fewer financial problems during deployments. Rotter and Boveja (1999) observed families faced with upcoming deployments and discovered that while families discussed financial priorities and roles in anticipation of deployments, these discussions caused some stress. More recently, the FINRA IEF (2010) report documented that frequent deployments and military relocations are correlated with increased instances of financial problems. Given the findings of a link between financial anxiety and financial well-being (Bell et al., 2014), researchers could do more to understand the effects of deployments and other unique aspects of military life on financial outcomes.

Military Programs and Services

Personal Financial Management Programs

In view of the financial challenges associated with military service as described in section two of this chapter, the military has a long history of providing personal financial education and assistance to service members. The GAO estimated that as of the 2010 fiscal year, the DoD spends $38 million dollars annually on its Personal Financial Management Programs (PFMP) (U.S. GAO, 2012) in order to contribute to individual and operational readiness of the military and its personnel through training, education, and counseling (U.S. Department of Defense, 2012). PFMP offerings vary slightly by service, but all include some version of lifecycle education with topics varying by the needs and experiences of the servicemembers (e.g., basic financial training for servicemembers within 3 months of arriving at their first permanent duty station). PFMPs also provide counseling to help servicemembers achieve their financial goals, such as developing financial plans before deployment. At each installation a Personal Financial Manager or Specialist leads the PFMP and serves as a primary expert on personal finances. These individuals typically

hold a bachelor's degree and a recognized financial counselor certification (U.S. Department of Defense, 2012, July).

To supplement the PFMPs, the DoD offers support, information, and instruction to members of each of the military services. For example, in 2003, the DoD launched the Financial Readiness Campaign with goals that included maintaining good credit, establishing routine savings, increasing participation in the Thrift Savings Plan and Savings Deposit Program, and encouraging use of low-cost loan products in place of payday loans and other high-cost forms of borrowing (U.S. Department of Defense, 2012).

The results of the studies discussed above are suggestive of a strong link between financial readiness and military readiness and provide motivation to implement robust and effective PFMPs. Despite the long history and significant costs of PFMPs, we are unaware of any research that quantifies the effectiveness of the PFMPs or their components (e.g., education, counseling). While reasons for the lack of research are unclear, possible explanations include a lack of provision in the programs for evaluation, hesitance to evaluate programs for fear that results will not justify the continued allocation of resources, which could in-turn be perceived as a lack of support for military members, or a lack of program evaluation expertise. Regardless of the reasons, the absence of formal studies on the PFMPs leaves open questions of whether current programs are effective and how best to address the needs of servicemembers for personal financial management.

Military Financial Education

Financial education has been an important aspect of military training, both within the PFMPs and in other areas, for over 20 years. Yet here, too, there have been few studies that formally evaluated the relationship between financial education and financial behavior. The Army's Personal Financial Management Course, an 8-hour course developed by the Army and its non-profit aid society, Army Emergency Relief, provides a useful case study. Bell, Gorin, and Hogarth (2009) and Brand, Hogarth, Peranzi, and Vlietstra (2011) evaluated the pilot Personal Financial Management Course and found correlations between taking the financial course and financial decision-making (e.g., having a spending plan, comparison shopping for major purchases, saving for retirement, paying overdraft fees). However, the use of nonexperimental comparison groups, self-reported outcomes, and low response rates in follow-up surveys make causal inference from these results inappropriate.

Skimmyhorn (2016) provided a more formal evaluation of financial education using the staggered implementation of the Personal Financial Management Course in 2008–2009 and administrative outcome data. The author found the course had important (10–20 %) effects on a number of credit outcomes, such as account balances and delinquencies, that persisted only in the first year after the course. The course and its bundled enrollment assistance doubled soldiers' participation in, and average contributions to, the military's defined contribution plan (the Thrift Savings Plan) over a period of at least 2 years. The course had no effect on employee turnover, productivity, and retention decisions. This study demonstrated the benefits and limitations of one financial education course, but also the possibilities for learning and improved program design enabled by careful evaluation efforts.

Military Resources

There are a number of other military resources that may affect the financial health of servicemembers, but little is known about their effects. This section briefly identifies several programs of interest. The service relief societies (i.e., Army Emergency Relief, Navy-Marine Corps Relief Society, and the Air Force Aid Society) provide millions of dollars annually in grants and interest-free loans to servicemembers experiencing financial emergencies, but no studies document their effects. The Personal Financial Counselor contract program enables financial professionals to assist military households in managing their personal finances on a short-term basis.

The DoD-funded employee assistance program (MilitaryOneSource.mil) offers online, telephonic, and in-person assistance for a variety of personal financial issues, including debt management, taxes, and retirement. Some of the military service branches also offer online financial resources and support (e.g., ArmyOneSource.com, MyArmyBenefits.us.army.mil).

Although all of these programs are well-intentioned, the authors know of no studies that demonstrate their effectiveness. For example, Carlson, Britt, and Goff (2015) found that speaking with others about financial matters, including the military offerings described above, had no statistically significant association with better financial behavior outcomes. Given the underlying needs, the considerable costs involved, and the potential for duplicative efforts, there seems to be a universal need for more routine and deliberate program evaluations of DoD and Service-sponsored personal financial programs.

Special Legal Protections

As a result of substantial public and political interest in the welfare of the US military population, the federal government and some state governments have established special legal protections for servicemembers. While these are not programs and services provided by the military per se, the protections described below might be viewed more broadly as national- or state-level services to servicemembers.

The Military Lending Act

Given the intense interest in and legislative protections surrounding alternative financial services used by military members, a brief review of literature related to military members' use of these services and recent federal policy actions in this area follows. Graves and Peterson (2005) and Harris (2011) assert that military members have been targeted by predatory lenders, including payday lenders, auto title loan stores, pawn shops, and tax refund anticipation lenders. FINRA IEF (2010) and Harris (2011) posited that servicemembers make attractive customers because they have steady and reliable paychecks. Research by Carrell and Zinman (2014) suggested a relationship between access to payday loans and increased unfavorable entries into personnel records of enlisted Air Force members, but it did not address any financial effects.

Owing to these studies and the media coverage of alternative financial services, the DoD has taken the position that the use of payday loans is detrimental to military readiness. As a result, in 2007, the Military Lending Act (MLA) was enacted to cap the interest rates on certain non-traditional loans (i.e., payday loans, auto title loans, and refund anticipation loans) to military families at 36 % (Center for Responsible Lending, America, & National Consumer Law Center, 2007). Fox (2012) provided some evidence that the law may have been ineffective. Carter and Skimmyhorn (2016), however, found minimal effects of the MLA on military members overall. They also provided evidence that access to payday lending does not appear to adversely affect Army members' job performance or financial outcomes. Given the conflicting findings on the effects of payday loan access on military members, which reflect a similarly divided economic literature (see, e.g., Melzer, 2011; Skiba, 2012), the effects of payday lending and the MLA warrant more attention.

Meanwhile, the Consumer Financial Protection Bureau (CFPB) and the DoD have worked to strengthen the MLA protections and authorize CFPB enforcement, citing concerns that non-traditional lenders had diversified their offerings to include loan products that fell outside the original law's coverage (U. S. Department of Defense, 2014b). Since the new protections went into effect in 2013, they represent an additional opportunity to study the effects of access to these financial products on military members.

Servicemembers Civil Relief Act (SCRA)

The SCRA, which expanded provisions of The Soldiers and Sailors Relief Act of 1940, provides special legal protections to servicemembers to

enable them to devote their attention more completely to their military duties. These protections include the temporary suspension of some legal proceedings that may affect servicemembers' civil rights during military service (50 U.S.C. App. §§501-597). Though a detailed review of the SCRA is beyond the scope of this chapter, it should be noted that several elements of the law (e.g., eviction prohibitions, interest rate caps of 6 % for debt incurred before being ordered to active service, and restrictions on insurance policy cancellations) might affect servicemembers' household finances (Mason 2014). Interestingly, despite the scope and tenure of the SCRA, the authors are unaware of any research related to the financial effects of the law.

The Military Spouses Residency Relief Act (MSRRA)

The MSRRA provided some relief for select civilian spouses of servicemembers by reducing their state income tax burdens when living with their military spouses in states other than their domicile (Federation of Tax Administrators, 2015). The law became effective for the 2009 tax year and likely affects hundreds of thousands of civilian spouses of servicemembers annually. While state laws differ, the MSRRA should afford many working military spouses additional income through reduced tax liabilities. Despite the significant financial and potential labor market effects of the law, the authors know of no studies analyzing the MSRRA or related state policies.

Summary and Future Research

This chapter reviewed the existing research related to military household finances. The chapter began with a brief description of the organizational structure of the US military and then made some comparisons between the household finances of servicemembers and their civilian counterparts. This led to a discussion of the interactions between personal finance and performance of military service. Finally, personal finance-related legal protections available to servicemembers were discussed. This review suggests there is relatively little literature on personal finance focused on the military population, and what exists is primarily descriptive and largely incomplete. Potential directions for future research are offered below.

First, because nearly all of the studies cited herein are descriptive, research in this area might seek to establish whether and where causality exists between financial stress and military job performance, between elements unique to the military lifestyle (e.g., deployments, structure of total compensation) and financial stress, and between programs among the different service branches and their outcomes. For retrospective studies, such efforts will require extensive institutional knowledge of military policy and changes in order to identify plausibly exogenous variation in variables of interest. Perhaps more important and attainable, scholars and practitioners in this area might pursue more experimental approaches (e.g., piloting, staggered roll-outs, or randomized controlled trials) moving forward. Such studies enable better program analyses, improved service delivery, and potentially greater efficiency in the allocation of resources. In addition, the DoD might make results from past and future studies, where individual service members are not able to be identified, more available for interested researchers.

As to specific topics that warrant attention, some suggestions follow. First, very little research has examined National Guard and Reserve households' financial decisions. Since these groups represent "citizen soldiers," learning more about them not only expands the understanding of military household financial issues broadly, but it may enable a better understanding of the generalizability of findings between civilian and military members. In addition and as noted above, the effects of the most sweeping legal protections afforded servicemembers (i.e., the SCRA, the MLA, and the MSRRA) are largely unknown and might inform national policy reforms or complementary state efforts. Next, given that deployments and frequent moves remain a challenging and enduring part of military service, better understanding of the effects of these experiences seems a worthwhile, if difficult,

task. Finally, there remains a need for systematic financial quality-of-life surveys to provide a more complete picture of the financial experiences of members and their families.

Second, the literature suggests that military households are unique in many ways. As such, lessons learned from other household finance areas (e.g., the other chapters in this volume) may or may not be well-suited for designing policy for servicemembers and their families. However, lessons learned in other areas may help researchers and practitioners form reasonable hypotheses from which adjustments can be made and tested. Such efforts could enable researchers to better understand the generalizability of other household finance research findings to this population. This is an important task as it may help scholars avoid duplicative efforts.

Finally, there may be significant opportunities for household finance scholars and practitioners to learn from this population. The military is unique in its size, diversity, and constant change. Given the frequent moves of military families, their varying experiences, and varying levels of financial services and state-level economic policies, military households provide an opportunity to gather better evidence about the effects of any number of consumer and household finance policies where endogenous selection in living locations are a concern. While the military may not represent the nation as a whole, it may provide reasonable insight into the financial decision-making of low to moderate income and education households and the effects of public policy and other service provision on these populations.

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Part III

Consumer Finance in Various Settings

22 Consumer Financial Issues in Health Care

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In 2013, the USA spent $2.9 trillion on health care, over twice the amount spent in 2000 and nearly four times that spent in 1990. Per capita health spending was $9255, up from $4878 in 2000 and $2855 in 1990 (U.S. Department of Health and Human Services, 2014). Between 1990 and 2008, health care spending increased 7.2 %, about 2 % points above average annual GDP growth (Sisko et al., 2014). From 2009 to 2013, the effects of the Great Recession, federal government sequestration, and increased cost sharing in the private health care market slowed health expenditure growth to historically low rates ranging between 3.6 % and 3.8 % (Dranove, Garthwaite, & Ody, 2014). Between 2013 and 2023, however, economic recovery, health needs of an aging population, and the effects of extensive health insurance market reforms are expected to generate an average annual increase in health spending of 5.7 %. By 2023, health-related expenditures are projected to comprise 19.3 % of GDP, up from 17.2 % in 2012; 13.4 % in 2000 (Sisko et al., 2014).

No industrialized nation spends more on health care, including those that provide health insurance to all citizens (National Coalition on Health Care, 2012). In 2012, the USA spent 42 % more per capita on health care than Norway, the next highest per capita spender, 90 % more than Canada, and 168 % more than the United Kingdom (Organization for Economic Cooperation and Development, 2014). At 24 % of the federal budget in 2014, spending on Medicare, Medicaid, the Children's Health Insurance Program, and Affordable Care Act marketplace subsidies is one and a third times that of military spending and rivals Social Security as the largest sector of the federal budget (Center on Budget and Policy Priorities, 2015).

Some argue that spending a relatively high amount on health care is not a problem. It simply reflects the fact that, as a prosperous nation, we can afford to spend more on health care (Pauly, 2003). The market is meeting the demand for more care, better care, and use of more costly technical equipment for medical diagnosis and treatment. This perspective seems to be in the minority, however (Chernew, Baicker, & Hsu, 2010).

Many watching the health care market are uneasy. They foresee growth in health spending continuing to outpace expected GDP growth over the next decade and seriously question the sustainability of such growth (Centers for Medicaid and Medicare Services, 2014; Howell, 2014; Lave, Hughes-Cromwick, & Getzen, 2012). They watch cautiously to see the ways recent complex and extensive health insurance market reforms will affect costs and care in the health care market. They foresee the demands that 77 million

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Baby Boomers will place on Medicare and Medicaid and wonder about the long-term viability of these public health care programs (Baicker, Shepard, & Skinner 2013). They worry that more federal and state dollars allocated to health care will mean fewer dollars available for other necessary goods and services (Squires, 2012).

Between 1960 and 2007, a marked shift in the sectors paying health care costs occurred. Gruber and Levy (2009) note that although the tripling of the share of GDP devoted to health (from 5.2 % to over 16 %) during that time was well known, less recognized was the decreasing share of private sector health spending (68–47 %) and, within private sector spending, the decline in share of dollars devoted to out-of-pocket spending (69–26 %) versus health insurance premiums. They concluded the increased role of government and private insurance in the health market has helped to mitigate the household level health care spending burden, citing the fact that between 1960 and 2007 private out-of-pocket spending did not quite double, whereas, in real per capita terms, there was a five-fold increase in private health spending ($700–$3500) and a 13-fold increase in government health spending ($250–$3500).

Despite this relatively favorable trend in household level health spending, there is evidence 'crowding out' occurs, at least for some. Participants in the 2014 Employee Benefit Research Institute Health Confidence Survey reported that, despite having health care coverage, rising health care costs forced cut backs in other household budget items. Over one-fourth (27 %) had reduced retirement saving. About half (47 %) had reduced other savings. One in five (21 %) reported that health care bills made it difficult to pay for basic necessities (21 %) and other bills (32 %) (Employee Benefit Research Institute, 2014). While policy makers, health care providers, and insurers debate the cause and cure of high and rising health care costs, consumers face the daunting task of making critical health care decisions for themselves and family members in a complex and dynamic market. This chapter describes the characteristics of and key players in that market. Reasons given in the academic and popular press for high and rising health care costs are evaluated. Effectiveness of insurance in keeping health care attainable and affordable for consumers is explored. Recent changes in the health insurance market under the 2010 Patient Protection and Affordable Care Act as amended by the 2010 Health Care and Education Reconciliation Act (hereinafter referred to as ACA) are discussed. The chapter concludes with suggestions for future research.

Market for Health Care

Characteristics of Health Care

Health care is a multifaceted consumer good. It has qualities of a public good. Society benefits when health care maintains worker productivity and reduces spread of communicable disease (Smith, Beaglehole, Woodward, & Drager, 2003). It also has qualities of a private good. Our health status directly affects the quality of our lives, so we purchase health care to benefit ourselves. In addition, each of us is personally responsible for making lifestyle choices that either enhance or detract from good health (Resnik, 2007). Economists consider health care to be an aspect of human capital, an investment that we make in ourselves to enhance our productivity. In a now classic article, Michael Grossman introduced the idea that "good health" can be likened to a durable capital good that produces "healthy time" (Grossman, 1972). Recognizing the public and private benefits of good health, Grossman noted that healthy time is desirable because it makes the person who possesses it more productive in work in the market and at home. With good health, leisure activities can be enjoyed to a greater extent and a person's overall quality of life is improved as well.

Economists also view health care as a normal good (Leung & Wang, 2010; Newhouse, 1992). As our resources increase, we want more or better health care. It is generally not controversial for an individual to purchase as much health care as desired as long as that individuals pays his or her own medical bill. When government or insurance companies pay some or all of health care

costs, however, considerable debate can arise regarding the type and amount of healthcare costs that should be shared. Given limited resources, constraints are imposed. The government sponsored health care programs—Medicaid for the low-income or Medicare for older Americans—provide a limited amount of basic health care only to those meeting strict eligibility standards. Historically, private insurance cost controls have taken various forms such as limiting enrollment, refusing payment for certain types of care, limiting access to specialists, or imposing annual or lifetime dollar limits on coverage. However, ACA provisions now restrict these cost-containment strategies (Kaiser Family Foundation, 2013).

Health care consumers are often at a disadvantage. In marketing terms, health care is a "high credence" consumer item (Sharma & Patterson, 1999). Unlike the market for consumer durables such as automobiles or microwaves, objective, unbiased assessments of quality are not readily available. Local markets may offer few choices of health care providers and comparison of service quality is difficult. No objective ranking of hospital quality exists nor are doctor's error rates public information. Most consumers interacting with medical personnel or purchasing medical treatment or equipment lack the technical knowledge necessary to judge the quality of what they receive even after purchase (Sharma & Patterson, 1999).

Explosion of health-related information on the Internet has not necessarily helped consumers. Health educators caution the Internet has no "quality filter." Anyone can develop an official-looking website, and claim medical expertise but offer biased, misleading, incorrect, or even fraudulent information. Consumers with limited information-evaluation skills are especially vulnerable to such deception (Cline & Haynes, 2001). Consequently, consumers must place a high level of trust, or credence, in the health care provider. Unfortunately, this trust is sometimes misplaced. A recent Commonwealth Fund survey of approximately 20,000 sick adults in Australia, Canada, France, Germany, the Netherlands, Norway, New Zealand, the United Kingdom, and the USA found 11.2 % of all respondents had experienced a medical or medication mistake or lab error. Error rate in the USA was 14.3 %, second only to Norway (17 %) (Schwappach, 2014). Estimated annual cost of measurable medical errors in the USA is $17.1 billion (Van Den Bos et al., 2011).

Sectors of the Health Care Market

The health care market operates in the public and the private sector. Medicaid and Medicare are government-funded health insurance programs. Medicaid is a social welfare program for low-income individuals and families of all ages. It is jointly funded by state and federal dollars, and managed at the state level. Medicare is an entitlement program for those aged 65 and older. It is funded and administered by the federal government.

Public health care spending was 44 % of national health expenditures in 2012; the remainder was private spending (Centers for Medicaid and Medicare Services, 2014). For fiscal year 2015, the $331 billion and $529 billion allocated to Medicaid and Medicare, respectively, represent a little over one-fifth of projected federal budget outlays (Office of Management and Budget, 2014).

In 2013, about two-thirds of the population had private health insurance (of the remainder, 15.6 % had Medicare, 17.3 % had Medicaid, 4.5 % had military health care, and 13.4 % were uninsured). Of that group, 11 % had purchased coverage directly. About half (53.5 %) had group health insurance as an employee benefit (Smith & Medalia, 2014). Purchase of health insurance through an employer is generally cheaper than individual purchase due to the reduced administrative costs for the insurance provider. Further, employer-paid premiums are tax-free to the employee and provide a tax deduction to the employer. But, not all employees have this option. Health insurance as an employee benefit is available more often to full-time versus part-time private industry workers (86 % vs. 23 %) and to those working in medium to large establishments (≥100 workers) versus small establishments (84 % vs. 57 %) (U.S. Bureau of Labor, 2014).

Although private insurance can take several forms, providers operate on the same basic principles. Purchasers exchange premium dollars for help paying covered medical expenses. Deductibles (amount paid before the insurance company will pay), co-pays (amount paid for a given service), and co-insurance (a percentage of health care cost borne by the insured) are used to share medical costs and create incentive for the insured to minimize medical expenditures. Often, the insurance company will offer incentives for preventive care services and using health care providers within a given network.

A major part of health market reform under ACA is mandated health insurance coverage. Those who are not eligible for coverage under Medicaid or Medicare and do not have access to or choose not to purchase employer-provided group health insurance can enter a marketplace (exchange) created under the Act. This marketplace offers four tiered plans named after metals with increasing value: bronze, silver, gold, and platinum. Bronze plans generally have the lowest premiums, but highest potential out-of-pocket costs, whereas it is the reverse for platinum plans. Subsidies and tax credits are available to help moderate and low-income individuals afford coverage in this new marketplace. Fines are imposed for nonparticipation to motivate compliance (Kaiser Family Foundation, 2013).

Dynamics of the Health Care Market

The health care market has several players: policy makers, purchasers, insurers, providers, and suppliers. Policy makers establish and enforce the laws and regulations that govern exchange in the health care market. Individuals, employers, and governments purchase health care services or health insurance. Insurers collect money from health insurance purchasers to reimburse health care providers when claims are made. Health care providers use the money they receive to pay suppliers for such things as medical equipment, medical supplies, and pharmaceuticals (Bodenheimer, 2005a).

Competing interests exist. Payments made by purchasers and insurers constitute revenue to health care providers and suppliers. Not surprisingly, purchasers and insurers favor finding ways to reduce costs, whereas providers and suppliers resist cost containment. Bodenheimer (2005a) calls this conflict the "fundamental battle in the health care economy" (p. 848). Internal "skirmishes" create additional tensions. Insurance companies would like to reduce payments to providers, but want more money from purchasers. Pharmaceutical makers demand a high price, but hospitals negotiate for a low price. If an insurance provider caps reimbursement to a physician group, primary care physicians may disagree with specialists regarding distribution of the check (Bodenheimer, 2005a). According to economic theory, competition should drive costs down, but in the health care market, it has not.

Why Health Care Costs Are High

Various reasons for high and increasing health care costs have been proposed. Some explanations focus on factors outside the health care market. Economic growth and an aging population are cases in point. The economic growth argument is simple. Richer nations can afford more health care. Thus, it should be no surprise that as the GDP of a country increases the dollar amount allocated to health care grows as well. Indeed, if the overall economy is growing, spending more on health care need not result in less spent on other sectors of the economy (Chernew, Hirth, & Cutler, 2003, 2009). Critics of this view note that the ratio of per capita health expenditures to per capital GDP in the USA far exceeds that of other industrialized countries. Consequently, an expanding economy is not a sufficient explanation for rising health care costs in the USA (Bodenheimer, 2005a; Kaiser Family Foundation, 2011).

Population aging has been offered as another potential reason for rising health care costs. It seems a plausible explanation. Over the past several decades, growth in the population aged 65 and older has outpaced growth of younger age groups (West, Cole, Goodkind, & He, 2014).

Per capita health expenditures for persons over age 75 are 5 times higher than those for persons age 25–34 (Reinhardt, 2003; Yamamoto, 2013). It seems reasonable, then, that countries with an older population would spend more on health care than countries with a younger population. But, research indicates an aging population accounts for less than 7 % of the growth in health care expenditures (Reinhardt, 2003; Yamamoto, 2013). In multivariate analyses of cross-sectional, cross-national data, no significant relationship has been found between the proportion of aged in a nation and national health expenditures (Gruber & Wise, 2002; Richardson & Robertson, 1999).

Factors within the health care market such as excessive administrative costs, market power of health care providers, and absence of effective cost-containment measures have also been blamed for raising health care costs (Bodenheimer, 2005a, 2005b). Some evidence exists to support this claim. A 2002 study found administrative costs in private insurance were about four times larger than administrative costs in public health care programs such as federal and state Medicaid programs (12.8 % vs. 3 %, respectively). In 2011, the cost spread was wider –17 % for private insurance vs. 2 % for Medicaid. Advertising and marketing expenses constituted much of this difference (Archer, 2011; Levit et al., 2004). Bodenheimer (2005b) notes that integration of financing and service delivery, whether in public or private plans, reduces administrative costs.

Health care providers in the USA have relatively more market power (i.e., ability to raise prices without losing business) than health care purchasers. Bodenheimer (2005c) traces this differential to hospital and physician control of the Blue Cross Blue Shield organizations that initially offered health insurance in the USA. Lucrative reimbursement formulas for hospitals and physicians were established in these initial health care plans and later replicated in Medicare. International comparisons indicate that US physicians are paid more than their non-US counterparts for performing similar services. In the USA, average physician income is 5.5 times larger than average employee income; in Sweden and the United Kingdom, the ratio is 1.5 (Laugesen & Glied, 2011; Reinhardt, Hussey, & Anderson, 2002).

Evidence from other countries suggests that capping health care spending can control growth in medical costs. In Germany and Canada, increases in physician fees are connected to the quantity of physician services. If physicians increase visits or procedures, the payment per each item is reduced so that an annual expenditure cap is not exceeded. The United Kingdom uses a globally budgeted system where monies for all services are budgeted in advance. The USA uses a similar approach with Veterans Affairs hospitals. Critics of cost controls express concern that budgets might not allow purchase of high quality care, the decision-making processes among all players are complex and special interests can dominate (Bodenheimer, 2005b).

Economists and policy analysts generally point to technological innovation as the prime driver of the high and increasing cost of health care. As an example, technological innovations in the treatment of heart attacks have lessened the need for invasive surgery and has sped patient recovery. But, use of these innovations requires more capital (specialized labs), labor (specialized physician training and caregiver time to oversee patient recovery), and expenses related to teaching physicians how to use the new technology (Bodenheimer, 2005b).

Spread of technology is quicker and cost per unit of service is higher in the USA than in other developed nations (Reinhardt et al., 2002; Schoen et al., 2012). This difference has been attributed to generous insurance payments made to physicians and hospitals that use new technology and to push from physicians or health care consumers wanting to use the new technology (Adler-Milstein, Kvedar, & Bates, 2014; Pearl, 2014). In this type of environment, incentive for overuse of technology exists.

Several agencies in the USA assess the cost and benefit of technological innovation, including the Medicare Coverage Advisory Committee, the Veterans Affairs hospital system, and the Technology Evaluation Center of the Blue Cross/Blue Shield Association (Garber, 2001). Influence of the scientific reports from these agencies is limited to the interests of health insurance providers, however. Results from a study of large insurers indicated that manufacturers and

early adopters of medical technology had considerable influence over health care coverage decisions whereas health care consumers had very little say (Chernew, Jacobson, Hofer, Aaronson, & Fendrick, 2004).

Role of Health Insurance in Reduction of Health Care Costs

Health insurance plans have evolved over time in response to demand for ways to help consumers lower their out-of-pocket costs for health care and to provide protection against potentially catastrophic financial loss due to treatment of illness, injury, or disability. In 1965, amendments to the Social Security Act established two federal health insurance programs, Medicaid for the low-income and Medicare for those over age 65. Others must turn to the private market to obtain health insurance. Employer-sponsored group insurance plans typically have had lower premiums and fewer barriers to entry as compared with private insurance plans. In addition, employers often subsidize premium cost in part or in full as an employee benefit. Thus, it is not too surprising that for the past decade, 6 in 10 Americans under age 65 have obtained their health coverage through an employer-sponsored insurance plan, whereas less than 8 % have purchased private insurance (Fronstin, 2013).

Types of health insurance have changed over time. Currently, consumers or employee benefit administrators can choose from fee-for-service, managed care, or high deductible 'consumer driven' health care plans. Cost containment is a goal of each type of health insurance. The incentive and payment structures used to achieve that end differ, however.

Fee-For-Service

Prior to the 1980s, employer-sponsored health plans were typically fee-for-service plans (Kaiser Family Foundation, 2006). With these plans, consumers pay a fee for a service rendered, and then apply for reimbursement of covered costs. Fee-for-service type plans include basic health care, major medical and comprehensive medical coverage. Basic health care typically pays for hospital, surgical, and physician costs with little or no deductible, but covered expenses are quite limited. Major medical insurance covers a broader array of medical services to pay for high cost services. The ACA limits maximum out-of-pocket costs (in 2015, $6600 for individual, $13,200 for family) (U.S. Centers for Medicaid and Medicare Services, 2015). Prior to ACA, insurance providers would set maximum limit on high cost services, typically $1 million. Consumers in a major medical insurance plan share costs in the form of annual deductibles (an amount paid out-of-pocket before insurance pays), and co-insurance (a percentage of health care costs paid by the insured up to a so-called stop-loss limit, above which the insurance company will pay 100 % of the cost). Comprehensive health care is similar to major medical, but deductibles are usually smaller and a broader range of inpatient and outpatient services covered (Bajtelsmit, 2006).

Managed Care

In the 1970s, concern for rising health care costs and equitable access to health care services led to development of managed care plans (Gruber, Shadle, & Polich, 1988). Health Maintenance Organizations (HMOs) were the first such plans. Preferred Provider Organizations (PPOs), and Point of Service (POS) plans soon followed.

Managed care plans endeavor to control costs by contracting directly with health care providers and controlling access to health care services. Health care providers receive financial incentives for keeping costs down. Preventive care such as annual exams, immunizations, and diagnostic tests is emphasized. Low co-pays (typically $5–$20) encourage consumers obtain treatment before health conditions worsen and more costly intervention is required.

HMOs, PPOs, and POSs have different coverage limitations. HMOs are more restrictive. To have their health costs covered consumers must use a health care provider that has contracted with the HMO. A referral must be obtained from

a primary care physician before a specialist can be seen. PPO plans allow consumers to use health care professionals who have not contracted with the PPO plan; however, consumers will share a larger portion of the cost of care if they do so. A POS plan resembles a PPO, but the participating physicians are part of an HMO, so coverage is often more comprehensive than in a PPO. Also, co-pays in a POS are typically lower than in a PPO (Bajtelsmit, 2006).

The cost reductions associated with managed care plans spurred a rapid transfer out of fee-for-service plans among employers. In 1988, 73 % of workers had fee-for-service plans. After that, enrollment in fee-for-service plans dropped dramatically, representing less than 1 % of employer-sponsored health plans by 2014. Initially, HMO type plans drew the greatest interest of employee benefit administrators. Between 1988 and 1996, the market share of HMOs virtually doubled, rising from 16 % to 3 %. Enrollment peaked in 1996, and then slowly declined to 13 % of the employer-sponsored health care market by 2014.

Ironically, the HMO design features that contributed to cost reductions also generated consumer dissatisfaction. After analyzing the results of 39 different studies of HMO quality, Miller and Luft (2002) concluded that success in cost containment had come at the price of limited access to health care services and reduction in health care quality. Policy pricing was also an issue, but in different ways in the public and private sector. Riley, Tudor, Chiang, and Ingber (2006) cite instances of government overpayment of Medicare HMOs in the mid-1990s. In the private market, HMO firms waged fierce price wars in an attempt to expand their enrollment base. For many firms, the lowered premiums failed to cover operating costs, resulting in substantial financial loss (Gruber et al., 1988).

Current Distribution and Price of Employer-Sponsored Health Care Plans

The proportion of employers offering the PPO form of managed care has steadily grown, perhaps due to the greater degree of choice given to health care consumers as compared with HMO plans. Among workers with an employer-provided health care plan in 2014, 58 % had a PPO, 13 % had HMO coverage, 8 % had a Point of Service Plan (POS), whereas less than 1 % had a fee-for-service plan. Worker enrollment in high deductible health plans has grown markedly from the 4 % share in 2006 when the plans were just beginning to be offered as an option to 20 % of employer plan enrollment by 2013 (Kaiser Family Foundation, 2014).

A 2014 survey of employer-sponsored health benefits indicates that employers paid the average annual highest premium contribution for PPO plans ($17,538 for single and family plan coverage combined), followed by HMO plans ($17,170), and POS plans ($16,370). Employer contributions were lowest for high deductible plans ($15,410). Worker contributions to a health insurance vary by type of plan. On average, workers needing family coverage would pay the lowest premiums with a PPO plan as compared with HMO or POS plans ($4877 for a PPO plan vs. $5254 for an HMO plan, or $4849 for a POS plan). Conversely, single employees would have the lowest premium with a POS plan ($984 for a POS plan vs. $1134 for a PPO plan or $1182 for a POS plan) (Kaiser Family Foundation, 2014).

Consumer-Driven Health Care

Consumer-driven health care plans (CDHPs) were introduced in 2001 in response to rising health costs and consumer dissatisfaction with the strictures of managed care. Rather than contain costs by limiting consumer choice, CDHPs broaden consumer choice and financial responsibility. Consumers bear a large portion of health care costs, creating a financial incentive to obtain lower cost, higher quality services. The plans provide information, typically via the Internet, to help consumers make thoughtful choices in managing their health (Bundorf, 2012; Fronstin, 2010). Some plans give consumers broad discretion selecting physicians and hospitals and designing their own network and benefit plans. Other plans limit choice to a predetermined list of network options and benefit packages. Generally,

only one carrier's products are offered. Employers pay a fixed amount toward purchase of selected services. Employees pay the remaining cost (Gabel, Whitmore, Rice, & LoSasso, 2004).

Tax-advantaged ways to cover high deductibles came with Health Reimbursement Accounts (HRAs) in 2001 and Health Savings Accounts (HSAs) in 2004. Employers fund HRAs and decide which health costs are covered. When the account is depleted, the employee pays out-of-pocket until the deductible (typically $1000 for an individual, $2000 for a family) is met. At that point, the plan becomes a traditional major medical plan. Employees cannot contribute to an HRA or invest account funds. Unused dollars rollover to a subsequent year but are not portable if an employee leaves. HSAs addressed these limitations. Employers and employees can fund an HSA. Investing is allowed and neither principal nor interest is taxed if used for qualified medical expenses. Unused dollars rollover and are portable when leaving employment (Ebeling, 2011; Gabel et al., 2004).

CDHPs are now second only to PPO plans in proportion of US employers offering them as a benefit option (58 % vs. 79 %) and in health plan enrollment (20 % vs. 58 %). About a third of employers offering CDHPs couple them with HSAs instead of HRAs (18 %) or no company sponsored savings (6 %) (Kaiser Family Foundation, 2014; Miller, 2013).

Evaluation of CDHPs is mixed. Consumer satisfaction with CHDPs has consistently lagged that of comprehensive plans, although it has risen slightly over time. Complaints center on inadequate information regarding cost and quality of health services, the critical feature for plan success. Still, even with good information, the high credence qualities of health care make choice difficult. Consumers must carefully evaluate implications of various plan options after assessing own and family member's health risks. Effective choices require a certain level of technical knowledge that few seem to have. In a recent survey, although 3 out of 4 Americans reported feeling confident they knew how to use health insurance, when given plan information only 1 in 5 could correctly calculate out-of-pocket cost (Paez & Mallery, 2014). Consumers also had difficulty objectively evaluating tradeoffs between policies regarding premium cost, co-pays, and deductibles (Paez et al., 2014).

Direct payment of health costs in CDHPs has influenced consumer behavior, but not always in desired ways. CDHP plan participants are more cost-conscious and more apt to talk with medical providers about treatment options and generic drugs. But, they are also more likely than comprehensive plan participants to forgo health care or medication due to cost even though both groups have similar rates of medical service utilization. CDHPs have had no effect on the number of uninsured. They seem to best serve the young and healthy that incur few health care costs or the affluent that can afford the high deductible. Cost reductions appear to be modest and mostly beneficial for employers (Fronstin, 2010; Fronstin & MacDonald, 2008).

Health Insurance Reform

Health insurance is not attainable or affordable to all. Between 1999 and 2012 the proportion of uninsured of all ages in the USA averaged 14.7 %, ranging between a low of 14.2 % in 2000 to a peak of 16.7 % in 2009. Rates for young adults aged 18–34 were much higher, ranging between 20.5 % and 28.4 % during the same time period (U.S. Census Bureau, 2012).

Having a significant proportion of the population uninsured is a social concern. Although uninsured poor can rely on Medicaid, the health needs of uninsured non-poor can go unmet or worsen to the point that emergency care is necessary (Timmermans, Orrico, & Smith, 2014). Unpaid hospital bills are passed on to those with insurance in the form of higher costs. Uninsured children have less access to health care, exacerbating the health problems of special-needs children in that population (Newacheck, McManus, Fox, Hung, & Halfon, 2000; Olson, Suk-fong, & Newacheck, 2005). Inadequate treatment for illness or chronic conditions (e.g., asthma) can affect a child's ability to learn and days in school, which in turn affects future economic productivity.

Concerns regarding the uninsured coupled with frustrations with the expenses of fee-for-service plans, limitations of managed care plans, and the significant consumer issues associated with CDHPs spurred heated discussion regarding national health care. Advocates asserted basic health care is a right, not a commodity to be purchased only by those who have the means (Geyman, 2003; Woolhandler & Himmerstein, 2002). Opponents argued that government intervention in the health care market would lead to greater inefficiency, decreased consumer choice, and higher taxes (Amadeo, 2015).

Years of debate over health care reform culminated in passage of the 2010 Patient Protection and Affordable Care Act amended by the Health Care and Education Reconciliation Act (commonly referred to as ACA). ACA is not national health care. It is, however, the most complex, extensive, and comprehensive revision of the US health care system since creation of Medicare and Medicaid in 1965. (A full review of ACA is beyond the scope of this chapter. See Kaiser Family Foundation 2013 for an excellent summary of ACA.)

The main goals of ACA are expanding insurance coverage among the uninsured, controlling costs, and encouraging preventive care (Gable, 2011). ACA uses several mandates to accomplish these goals: adults must obtain health insurance or pay a fine; premium and cost-sharing subsidies are offered to low-income individuals, states need to expand Medicaid coverage; a new market for health insurance purchase was to be created; insurance companies could no longer refuse coverage for pre-existing conditions (Rosenbaum, 2011). Persons lacking employer-provided health insurance are to go to their state insurance marketplace to select a plan. Marketplace plans are classified by level of cost sharing. Platinum, gold, silver, and bronze plans cover 90 %, 80 %, 70 %, and 60 % of consumer medical costs, respectively. Consumers pay the rest. Catastrophic plans cover medical expenses only after a high deductible is reached ($6350 for individual, $12,700 for family), but three primary care visits and preventive care are available at no cost. Beginning in 2015, employers with 100 or more employees that do not offer affordable coverage will face financial penalties. In 2016, the mandate extends to employers with 50 or more employees.

The ACA has met strong opposition. Constitutionality of the individual mandate to have health insurance or pay a fine was brought before the Supreme Court. The mandate was allowed to stand, but the "fine" was redefined as a "tax," to be assessed and collected by the IRS (Musumeci, 2012a). Half of the states challenged the mandate to expand Medicaid coverage to cover more low-income individuals and families in the Supreme Court. As a result, Medicaid expansion became optional for states (Musumeci, 2012b). Another Supreme Court case arose when, on doctrinal grounds, several organizations opposed mandated inclusion of contraceptives in the "essential health benefits" that all new insurance plans had to include. Regulations were adjusted to allow such organizations to be exempt from including contraceptive coverage in employee plans. In addition to these challenges, the initial enrollment for the health insurance marketplace was fraught with extensive and prolonged technical difficulties, slowing initial enrollment, and threatening confidence in the new system.

ACA provisions take effect incrementally from 2010 to 2020, so it is too early to judge the effectiveness of the entire Act. What we do know so far is that there are new insureds. About half signed up for Medicaid, the rest enrolled in private plans in the new marketplace. Premiums increased for those whose prior insurance coverage was more limited than the now required essential list, but overall premiums have not risen as high as expected (Sanger-Katz, 2014). Due to increased business, the health insurance industry seems financially strong. A gap is growing in the number of uninsured between states that expanded Medicare and those that did not (Sanger-Katz, 2014).

Summary and Future Research Directions

In summary, health care is vital. There is no debate about that. Much difference of opinion exists, however, regarding the extent to which

rising health care costs should be a concern, what drives these rising costs, how health care resources should be allocated, levels and methods of public and private cost sharing, the need for reform in the health care market and the direction such reform should take. While discussion on these issues continues, consumers must make critical care decisions in a complex and dynamic marketplace. Several aspects of that marketplace present challenges to effective decision-making. Quality of health care services is difficult to impossible to evaluate prior to use. The type and level of cost sharing of various forms of health insurance must be weighted against expected health care needs. Further, broad change in the health care market is being progressively implemented under the 2010 Patient Protection and Affordable Care Act. The full effects of this change will take some time to be determined.

For purposeful dialogue on these health consumer issues to occur, quality research is needed to sort out myth and popular ideas from fact, to evaluate effects of existing policy and to explore possible effects of policy changes. Thoughtful contributions to the health care discussion are needed from a variety of subject matter experts.

Family and consumer economists can contribute expertise on a number of health care issues. A few examples will be noted here. First, better understanding of the dynamics of consumer choice in the health care market is needed. Economic theory underlying consumer-driven health care proposes that consumers use information to make optimal decisions. Observation of consumers in these plans indicates that, to the contrary, consumers are not always willing or able to process health care information and, faced with high deductibles, they forgo needed health care. Both outcomes, it could be argued, are not optimal for the consumer. What disconnects exist between the incentive structure perceived by consumers and the one intended by policy makers? What changes in information delivery might help the consumer better understand and use highly technical and complex health information? What alternate forms of cost sharing might lessen the financial anxiety of consumers while retaining incentive for cost reduction?

Second, families are primary caregivers for the ill and infirm. What are the short- and long-term financial outcomes of caring for a disabled family member in the home? Existing research suggests tradeoffs can be high. For example, in a study of the financial issues associated with having a child with autism, families reported draining retirement savings, taking on debt, and moving precariously close to bankruptcy to fund high out-of-pocket behavior therapy costs that insurance would not cover (Sharpe & Baker, 2007). Leiter, Krauss, Anderson, and Wells (2004) found that women with a severely disabled child under age 18 cut back labor hours or left employment to care for their child. What effect does this nonmarket production have on health care costs, both in the household and for society? When women leave market work for caregiving, what is the effect on the family's access to health care, or ability to save for long-term goals? How does focus of time and money resources on a disabled child affect the human capital development of the child and of siblings? How might outcomes differ if it is a parent or grandparent rather than a child that is disabled or in need of extensive care? As the proportion of aged in the population increases, concern for the provision and cost of their care will increase as well.

Third, Hispanic, Asian, and other ethnic population groups in the USA are increasing in number. This growing population diversity raises questions about similarity and difference in health care usage and expenditures by race and ethnic group. To what extent might minority populations prefer folk or traditional remedies to a clinical model of health care? How would such choices affect public health? How do language differences affect access to and usage of health care? To what extent do population sub-groups have specialized care needs?

Fourth, how might public and private resources be reallocated to create more equitable access to health care for all age groups? Even with Medicare, older individuals have high out-of-pocket costs for health care (Cubanski, Swoope, Damico, & Neuman, 2014). Population aging will strain resources to meet existing entitlements. At the same time, in 2013, 9.8 % of

children in poverty and 19.9 % of workers are without health insurance (Smith & Medalia, 2014). What factors are driving reductions in health care as benefit to current and retired employees? To what extent and under what conditions are HSAs or HRAs in high deductible plans an effective substitute for employer-funded health care?

Fifth, newer models of health care focus on informed choice and wellness. Methods of assessing and improving health insurance literacy are needed (Paez et al., 2014). Best practices in Internet delivery of health-related information need to be developed. Also, effects of the many and massive changes that ACA mandated in the health care payment and delivery system will need to be evaluated. Many of these changes have created new terms and processes that must be clearly understood to successfully navigate the evolving health insurance market.

Finally, in an era of increased cost sharing, a clearer picture of the dynamic relationship between health and wealth is needed. Do the healthy earn more and amass more wealth (McClellan, 1998) or can the wealthy purchase more and better health care (Ettner, 1996; Smith, 1999), or is a third factor, such as preference for future vs. current consumption at work (Barsky, et al., 1997)? Evidence to date regarding direction of causation is inconclusive.

In summary, consumer health care issues center on access, affordability, information quality, choice, equitable distribution across age, gender, racial and ethnic groups, and the role of health in accumulation of wealth. By the very nature of the case, demand for good heath and hence quality health care is virtually unlimited. To lose health is to lose life itself. But, resources to obtain that health have limits. Rising health care costs have begun to force some significant tradeoffs for individuals, households, and society at large. Current and coming demographic changes force more open consideration of cost sharing between the private and public sectors, employers and employees, and older and younger generations. To engage in meaningful, productive dialogue on these and other health-related issues, information obtained from further unbiased, scientific research is essential.

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23 Revisiting Financial Issues and Marriage

Jeffrey P. Dew

In the first edition of this handbook, I started the chapter on finances and marriage by noting how little we knew about the association between money and marriage (Dew, 2008). Since that chapter was published in 2008, many researchers have examined the interface between money and marriage. In spite of this, however, researchers and practitioners still have more to understand. This chapter reviews many recent studies in established areas of research regarding the relationship between finances, families, and marriage. It also briefly examines other areas that need additional research.

Financial Issues and Family Structure

The Influence of Finances on Family Structure

Because family structure has changed dramatically over the past 60 years in the USA, many scholars have examined its predictors—particularly the predictors of single-motherhood and marriage. Financial stability is a key predictor of marriage. Qualitative, quantitative, and mixed-methods studies have found that individuals and couples feel that they need to attain certain levels of financial stability and even prosperity before they will wed (e.g., Gibson-Davis, 2009; Gibson-Davis, Edin, & McLanahan 2005; Smock, Manning, & Porter, 2005). For example, one quantitative study suggested that when cohabiting parents experienced an increase in their income, they were more likely to wed while those who fell below the poverty line were less likely to wed (Gibson-Davis, 2009). In a qualitative study, middle-class cohabiting couples were more likely to be engaged than working-class cohabiting couples (Sassler & Miller, 2011). Indeed, this qualitative study showed that class differences existed in terms of speed of entry into cohabitation and the reasons given for the cohabitation. Working-class individuals entered these relationships more quickly and were more likely to cite economic necessity as a reason for the relationship (Sassler & Miller, 2011). In another qualitative study of lower-income and working-class couples, 72 % of the participants indicated that financial issues were a barrier to marriage (Smock et al., 2005). In another, 75 % of the couples felt that way (Gibson-Davis et al., 2005). Clearly a lack of financial stability is related to the decision to wed.

A lack of job stability and income were not the only financial issues that participants named as barriers to marriage. They often mentioned wealth, such as having a home, savings, or enough money for a big wedding (Gibson-Davis

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et al., 2005; Smock et al., 2005). Consequently, these studies suggest that social norms have shifted such that not only is financial stability prerequisite to marriage, but also is a certain standard of living. Indeed, for contemporary couples, marrying prior to having a certain level of financial respectability may be a shameful thing. For example, Gibson-Davis et al. (2005) interviewed a couple who had been married by a justice of the peace, but then hid that fact from their family and friends because they did not yet have a very high standard of living.

Recent quantitative studies have supported qualitative findings regarding the link between financial assets and marriage. Dew and Price (2011) found that the more non-cohabiting individuals' cars were worth, the more likely they were to marry. This may occur because automobiles may be an easy way for a prospective spouse to judge individual's current economic situation. Schneider (2011) also found that asset ownership was positively associated with the likelihood of marriage. In fact, Schneider found that much of the marriage gap between races could be accounted for by asset differences.

The Influence of Family Structure on Finances

Given the financial selection into different family forms, the fact that family structure is associated with later financial well-being is not surprising. That is, couples with different financial capabilities tend to engage in different types of relationship-forming behavior. As noted above, those with higher levels of financial stability, for example, are more likely to marry than those with lower levels of financial stability. Thus, it's perhaps unsurprising that married couples have higher incomes than any other family form, and they are the least likely to be in poverty (Denavas-Walt, Proctor, & Smith, 2013). Marriage is also associated with higher levels of financial assets (Mauldin, Mimura, & Wilmarth, 2009), rates of wealth accumulation (Dew & Eggebeen, 2010), and a greater likelihood of saving for retirement (Knoll, Tamborini, & Whitman 2012).

Although selection may explain some of the financial differences between married and unmarried family forms, it does not explain all the differences. Most of the studies that have found financial differences between family forms introduced important statistical controls (e.g., household income, education, race/ethnicity, employment status, number of employed adults in the household), which would limit much of the effect of selection. Consequently, aspects of the institution of marriage itself may influence financial behavior.

The institution of marriage, for example, entails social norms of permanence and public expressions of commitment that may increase trust and allow married couples to feel more comfortable investing in their marriage. Cherlin (2009, p. 238) asserted that the public nature of most marriage ceremonies promotes an idea of "enforceable trust" that makes it more likely that individual spouses will comport with their marriage vows. Cohabitation is a private arrangement that may or may not involve promises. Higher trust then leads to an easier ability to invest in one's marriage. Support for this notion of marriage conferring a higher level of trust than cohabitation and then changing financial behavior is the fact that married couples are more likely than cohabiting couples to fully pool their incomes and financial assets (Fletschner & Klawitter, 2005; Heimdal & Houseknecht, 2003, Kenney, 2004). Income pooling allows couples to live less expensively because of economies of scale. By pooling financial assets, married couples also have access to more interest income than they would if they held their assets separately. Further, if marriage allows individuals to trust their partner more than other types of unions, it may allow couples to acquire investment properties with less risk of having to sell the property if they split up. Relatedly, greater trust may allow married couples to hold volatile investments for a long time period thus mitigating some market risk.

Social norms surrounding marriage may also encourage wealth accumulation. Marriage may "conventionalize" individuals so that they may feel obligated to save and invest some of the

income instead of using it to increase their standard of living (Waite & Gallagher, 2000). For example, individuals who are married reported that saving for retirement is an important goal more often than individuals in other family forms (Knoll et al., 2012). Further, social norms link marriage with certain financial behaviors such as home buying and saving for children's college funds (Townsend, 2002; Waite & Gallagher, 2000). That is, social expectations regarding purchasing a home are higher for married individuals than those who are not married. All of these investments require decades of regular financial inputs. Consequently marriage—with its norms of lifelong commitment—is ideally suited to achieving these financial goals.

Financial Issues and Marital Quality

One of the main areas of research this field has focused on is the association between financial issues and marital quality. Like the term "financial issues," marital quality is a multidimensional construct, though researchers have most often focused on satisfaction, stability, and conflict. Financial issues relate to each of these domains in sometimes similar but sometimes unique ways.

Marital Satisfaction

A number of recent studies have linked financial issues to marital satisfaction—the happiness or satisfaction that one's marital relationship brings. For example, people who are happier with their financial situations tend to be happier in their relationship (Archuleta, Grable, & Britt, 2013). This may speak to individual expectations about financial gains from the marriage, social norms that the marriage be financially stable, or just that when people are unhappy with their financial situations that dissatisfaction may spill over into other areas of their lives.

Studies have also shown that sound financial management practices are associated with marital satisfaction. For example, in a national sample, sound financial management behaviors (e.g., budgeting, saving, maintaining insurance) were positively associated with relationship happiness even after controlling for participants' financial well-being (Dew & Xiao, 2013). Further, in a qualitative study of long-term couples who felt they had "great marriages," financial issues played a role. These couples noted that having little to no debt and living within their means were two strategies that contributed to their successful and happy marriages (Skogrand, Johnson, Horrocks, & DeFrain, 2011).

A few studies have examined the association between financial issues that are uncommon in the literature and relationship quality. For example, some scholars have examined whether individuals' (Dean, Carroll, & Yang, 2007) and couples' (Carroll, Dean, Call, & Busby, 2011) materialistic orientations were associated with marital quality. These studies found that, independent of couples' economic situations, higher levels of materialism were associated with lower levels of marital quality, even when spouses were aligned in their value systems (Carroll et al., 2011).

Marital Stability

Although laypersons frequently assert that money is the number one cause of divorce, relatively few studies have examined the association between financial issues and marital stability. Some studies have found little association between financial issues and divorce (Andersen, 2005). Financial assets (Dew, 2009) and consumer debt (Dew, 2011) are associated with divorce, though the association is somewhat weak.

Financial arguments, however, may be a stronger predictor of divorce. The frequency of financial arguments was linked to the likelihood of future divorce in multiple studies that used separate data sets (Britt & Huston, 2012; Dew, Britt, & Huston, 2012). One of these studies (Dew et al., 2012) examined how different types of common arguments (i.e., chores, money, sex, in-laws, and spending time together) in the first wave of the study would predict divorce 5 years later. Even after controlling for couples' income,

assets, and debt, the only type of husband-reported conflict that predicted divorce was finances; among wives financial conflict and sexual conflict predicted divorce. Disagreement over finances on an almost daily basis had a predicted increase of 69 % in the hazard of divorce relative to those who almost never fought about finances. There may be some truth in the lay wisdom about the causes of divorce.

Marital Conflict

Finally, studies have examined financial conflict within marriage. Some studies have simply examined predictors of financial conflict. Not surprisingly, financial issues, such as income and economic pressure, predicted higher levels of financial conflict (Britt, Huston, & Durband, 2010; Dew & Stewart, 2012). Consistent with the idea that financial conflict may be a proxy for deeper relationship problems (Jenkins, Stanley, Bailey, & Markman, 2002; Shapiro, 2007), relationship issues such as commitment and respect were also negatively associated with financial conflict (Dew & Stewart, 2012).

Some studies have suggested that financial conflict may be qualitatively different than other common conflict topics that married couples often face. For example, using diaries to record their conflict experiences, married couples reported that they handled conflict over finances different than other types of conflict (Papp, Cummings, & Goeke-Morey, 2009). To quote directly from the study:

> Spouses rated [financial] conflicts as more intense and significant than other conflict topics: They lasted longer, more often covered problems that had been discussed previously, and held higher current and long-term importance to couples' relationships. Husbands and wives reported that they and their partners expressed more depressive behavior expressions (i.e., physical distress, withdrawal, sadness, and fear) during conflicts about money relative to other topics. Husbands expressed more angry behaviors (i.e., verbal and nonverbal hostility, defensiveness, pursuit, personal insult, physical aggression, threat, and anger) during conflicts about money compared to other issues. (p. 99).

Further, in another study, changes in conflict over finances were more strongly linked to the use of intense and problematic conflict tactics when compared to other common marital conflict topics (changes in arguments about chores was an exception, Dew & Dakin, 2011). Finally, as noted above, husbands' reports of conflict over money was the only conflict type to predict divorce (Dew et al., 2012). Although both wives' reports of financial conflict and sexual conflict predicted divorce, financial conflict was the stronger predictor.

Process

Although these studies cited above have suggested that financial issues are related to different dimensions of marital quality, one of the recent developments in this area has been the attention to process. That is, research has begun to explicitly examine the process through which the association between financial issues and relationship quality arises. Knowing the "how's" and "why's" of the relationship between finances and marriage is helpful for both researchers and practitioners alike.

These process studies help answer the question of why money is associated with marital quality, and why it seems to relate more strongly or relate in a qualitatively different way than other marital issues. Many studies have suggested that one of the processes through which finances and marriage relate is through feelings of economic pressure (e.g., Conger, Reuter, & Elder, 1999). The family stress model of economic strain and marital distress (Conger et al., 1990) posits that negative economic events, chronic financial problems, and everyday financial stressors can bring about feelings of economic pressure. Economic pressure is an affective state that is tied to the notion that one cannot meet one's financial obligations with one's means. Economic pressure leads to other negative affect including anxiety, depression, and hostility, which then leads to marital dissatisfaction, distress, and conflict. It would be difficult to imagine other marital issues that easily stress

couples as money. Even work-family conflict issues—a major source of stress to couples—often have financial components to them.

A second reason that financial issues may be closely linked to marital quality is that money is so symbolic (Stanley & Einhorn, 2007). Thus, financial conflict may actually serve as a symptom of or proxy for other deeper relationship issues. For example, if spouses argue about whether to combine their finances, they may actually be arguing about issues related to trust or autonomy (Jenkins et al., 2002; Shapiro, 2007).

Decision-making power might be a particularly common issue that manifests itself in financial conflict. That is, arguments about finances might reflect an imbalance in decision-making power in the relationship. Individuals' satisfaction with their role in marital financial decision making was associated with relationship satisfaction (Archuleta & Grable, 2012). Further, perceptions of financial unfairness in marriage have been found to be positively associated with the likelihood of divorce, and financial conflict completely mediated this association (Dew et al., 2012). Consequently, one of the reasons that financial issues may be qualitatively different is because they reflect deeper, more serious couple processes and problems.

A third reason is that financial arguments may be provoked by fundamental differences between spouses and these differences may make lower their marital quality. Financial issues have a symbolic quality to them (Shapiro, 2007; Stanley & Einhorn, 2007). That is, nearly everyone associates money—and the most appropriate way to use money—with a deep-seated human need, whether it be security, enjoyment, benevolence, etc. Often developed in one's family of origin, these "meanings of money" guide our financial behaviors, but individuals typically do not think about them. When spouses' meanings of money fail to align, conflict may occur. Such conflict may be difficult to solve because the root of the conflict is often simultaneously hidden from conscious perception yet founded in one's family of origin (Shapiro, 2007).

Finally, teamwork regarding financial issues in marriage is essential, but may be difficult to achieve. Archuleta (2013) found that having shared financial goals and values among spouses was important. In fact, having shared financial goals and values predicted relationship satisfaction better than the couples' reports of good communication. Further, individuals who felt that money was shared in the relationship reported lower levels of problematic communication styles and hence better relationship quality (Boyle, 2012). These studies suggest that spouses need to jointly determine their financial goals and the means through which they will meet these goals.

Unfortunately, couples may find it difficult to work together on their finances. Again, individuals may hold different meanings of money. Indeed, one study suggested that "spendthrifts" and "tightwads" were more likely to marry someone with a complementary orientation to money than with a similar orientation (Rick, Small, & Finkel, 2011). Having complementary orientations, however, was then associated with more marital conflict. Alternatively, the money itself may make teamwork less likely. In one of the few randomized experimental designs in this area, subconscious money prompts (i.e., a computer-screen background picture in a laboratory room with stacks of money) caused participants to behave in more independently and less helpfully than those who received neutral prompts (i.e., a computer-screen background picture in a laboratory room with a kite Vohs, Mead, & Goode, 2006).

Future Research Needs

Longitudinal and Representative Data

The corpus of research that examines the interface between financial issues and marital quality would benefit from longitudinal data that was also nationally representative. Although some studies in this area have utilized such data, the majority have utilized methods that were cross-sectional, based on convenience samples, or both. Longitudinal data would allow for stronger

tests of process. Representative data would allow for greater external validity; it might also allow for greater attention to diversity issues (see below).

Gender Matters

In the first edition of the handbook, I noted that understanding how gender, financial power, and marriage were related was crucial (Dew, 2008). Some studies have examined how money is handled within the family vis-à-vis gender. This is an important topic that complements the study of the gendered division of employment in married households. Just as it is important to understand the role gender plays in how money comes into the household, it is important to understand how gender plays a role in how money is handled within the household. These studies have suggested that socioeconomic status, marital status, and gender are important factors in how fairly money is handled in households (Kenney, 2006). They have also suggested that although many married couples pool their finances, giving equal financial access to both spouses, in many couples married women have less power over their finances than their husbands (Kenney, 2006). A qualitative study identified another example of gender giving financial power in marriage. This study examined who managed the day-to-day finances among couples who were facing financial difficulties. As couples' financial situations worsened, the more likely it was that the wives were managing the money. Because their finances were poor, this chore also came with the wives having to take the collection calls, having to prepare for bankruptcy, and having to face the majority of the emotional distress of the situation (Thorne, 2010). The majority of the husbands were unwilling to take on these responsibilities. These studies suggest that husbands often have more financial power in the relationships, but more research is necessary to explore the contours of this gendered power.

Less is known whether gender moderates the association between financial issues and relationship quality, though there are some hints in the literature that this may be the case. For example, in one study, only wives' characteristics mediated the association between couples' asset levels and their likelihood of divorce (Dew, 2009). More specifically, assets increased wives' perceptions of the cost of divorce as well as their happiness with their marriage. Both marital happiness and perceptions of the cost of divorce were then associated with less divorce. None of the husbands' characteristics mediated the relationship between assets and divorce (Dew, 2009). Moreover, some studies examining the financial stress model—though not all—have found that economic difficulties impact men more strongly than women (e.g., Williams, Cheadle, & Goosby, 2013). Obviously, more work remains to be done in this area.

Cross Practice

As Archuleta, Britt, and Klontz noted in Chap. 6, some of these findings are relevant for practitioners—both family therapists and financial counselors. For example, many of the studies suggest that income is not associated with relationship quality once other financial issues were included in the multivariate models (e.g., Dew et al., 2012). That is, in multiple studies income was not a predictor of different measures of marital quality when some other type of financial measure was in the model. The implication is that income matters less for marital quality; how couples manage their money and how they work together to address it matters more. Thus, regardless of income, financial issues have the potential to negatively (or positively) impact their marriages. Further, if couples can manage the money in a way that respects both spouses, they may find that they have a better marital relationship no matter how much they earn. Another example is a study that found that the more married couples implemented sound financial management, the more their relationships improved (Zimmerman & Roberts, 2012). This has implications for financial practitioners and relationship therapists to work together. Because Archuleta et al. (forthcoming) have covered this area in more depth than this chapter can, I will simply note that as financial therapy

continues to progress as a field, researchers will benefit from peer-reviewed documentation of successful financial therapy efforts.

Diversity

Another needed addition to this area of research is diversity—particularly among union type, sexual orientation, class, and race. For example, one of the reasons that this chapter focuses primarily on marriage is because, beyond likelihood of marriage, very few studies have examined how cohabiting couples' relationship dynamics are influenced by financial issues.

Additionally, few studies have examined financial issues within the context of gay and lesbian couples. Although it is probable that financial issues will be associated with relationship quality in these family types much in the same way they are in heterosexual marriage, it is also probable that there are differences and important nuances.

Class, or socioeconomic status, would also be an important area to examine. Socioeconomic status plays a role in both marriage and divorce. In the USA, lower- and working-class individuals are less likely to marry and more likely to divorce than middle- and upper-class individuals (Wilcox & Marquard, 2010). Given the financial struggles that these couples face, it is likely that the association between financial issues and marital quality may be different than for middle-class individuals. Alternatively, these relationships may be the same, but they may vary in intensity across class lines. These questions await future research.

Finally, different aspects of culture, such as race, ethnicity, and religion, might also be important to investigate. Highly religious married couples perceive and utilize money in unique ways (Marks, Dollahite, & Baumgartner, 2010; Marks, Dollahite, & Dew, 2009). For example, many of these couples contribute between 10 % and 15 % of their incomes to their religious communities. But this expenditure was not just an item in their budget; for many of the participants religious giving was part of their identity (Marks et al., 2009).

Race and ethnicity also matter. For example, married African American couples have reported that a common difficulty they face is responding to "knocks of need"—providing material support to relatives and friends (Marks et al., 2008). Further, in a qualitative study of African American couples in strong marriages, nearly 50 % of the couples talked about the importance of transcending money in their relationship (Anderson, 2010). A comparable study of European–American couples in strong marriages did not yield this finding (Skogrand et al., 2011). Consequently, race—as a proxy for culture—likely influences the nexus of money and marriage. Culture is an important context of the nexus and future research would do well to focus on culture.

Prevention and Resilience During Financial Crisis

A final need concerns identifying those factors that can help couples maintain their marital quality in spite of macro-economic or family difficulties. Only three studies have examined the financial and relationship factors that might buffer couples' relationships as they go through negative financial events. Good communication (Conger et al., 1999), feelings of religious marital sanctification (Ellison, Henderson, Glenn, & Harkrider, 2011), and couples with husbands who had stable personalities (Liker & Elder, 1983) were all associated with couples' maintaining higher levels of marital quality during financial challenges.

It is likely that other factors moderate the association between financial hardship and relationship quality. Identifying these factors could assist individuals, families, and the practitioners who help them. Interestingly, all of the factors investigated to this point are relationship factors. It would be important to know if financial factors, such as having an emergency savings account, might help couples mitigate the relationship strain that often accompanies financial strains.

Conclusion

Taken together, these studies show that financial issues matter in marriage. Further, financial issues matter in many different marital domains. Individuals' finances determine, in part, who marries and who cohabits. Couples' financial management, such as budgeting, and the outcomes of such management, such as credit card debt, influence marital happiness, marital conflict, and even marital stability. Conflict over finances is also a particularly disruptive topic for married couples.

Although the studies conducted on relationships and financial issues since 2008 have helped scholars to gain understanding about the interface of money and marriage more remains to be done. Because finances are an important part of day-to-day married life (i.e., married individuals have to buy, spend, save, and worry about money on an almost daily basis) this research topic remains important and relevant. Further, because finances have relational—and not just financial implications—research needs to broaden this topic to include diverse family forms.

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24 Financial Parenting: Promoting Financial Self-Reliance of Young Consumers

Joyce Serido and Veronica Deenanath

Raising independent and self-reliant children is an important parenting goal in the USA. Self-reliance is typically defined by children's ability to master developmentally appropriate and increasingly complex social tasks. Financial self-reliance encompasses both financial independence (i.e., living apart from family and taking personal responsibility for finances; Whittington & Peters, 1996) and financial capability (i.e., financial knowledge, skills and opportunity; Johnson & Sherraden, 2007) as well as the ability to make prudent financial decisions based on available options and resources. Financial decision-making is a life-long process. In the face of changing personal and external circumstances, consumers must continually adapt their financial knowledge, skills, and behaviors to make age-appropriate financial decisions. An inherent assumption of good parenting is providing age-appropriate structure and support to promote the development of the knowledge and skills children need to live independent lives. From this perspective, financial parenting can be construed as life-long parenting practices that promote children's ability to understand the relevance of and the need for financial knowledge and skills to make sound, age-appropriate financial decisions.

Although financial self-reliance is an important marker of adult status (Arnett, 2004), the process of acquiring the financial knowledge and skills to become financially self-reliant begins in early childhood. Parents provide a context in which children learn what money is and how it is used. Whether explicit or implicit, financial parenting takes place in the day-to-day lives of families, through frequent interactions, conversations, and lessons. Consequently, the financial knowledge and skills acquired while growing up at home form the foundation for the financial attitudes and behaviors carried into adulthood (Ashby, Schoon, & Webley, 2011; Bucciol & Veronesi, 2014; Varcoe, Martin, Devitto, & Go, 2005). This chapter has two objectives: first to describe the ways that financial parenting promotes the acquisition of financial knowledge and skills; second to propose how financial parenting promotes or constrains financial self-reliance. The chapter begins with a description of the changing social and economic landscape that demands a higher level of financial knowledge and skills for today's young consumers, and consequently, the need for financial parenting, that is, the context by which parents continue to influence the financial knowledge and skills beyond childhood. The chapter concludes with

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recommendations for those who work with or on behalf of young consumers, including practitioners, educators, and parents.

The Lengthening Journey to Adulthood

In the USA and other industrialized nations, financial self-reliance is an important marker of adult status (Arnett, 2004); a growing number of young adult consumers are, however, finding it difficult to achieve that milestone. Nearly one-third of 18–34 year olds today rely on parents for continuing financial support (FINRA IEF, 2013), including living at home to make ends meet (U.S. Census Bureau, 2013). In the USA, several social and economic trends have contributed to this lengthening journey to adulthood, including a weak labor market, cuts in government-funded social programs (e.g., welfare, unemployment), reductions in employer-provided benefits (e.g., health insurance, retirement plans), and a rising need for and increased costs of post-secondary education (Pew Research Center, 2012; Settersten, 2012). The Great Recession has drawn attention to these economic and social conditions—and to a growing financial uncertainty among young adults (Settersten, 2012). Given this changing landscape, how do parents help children develop the financial knowledge and skills to manage limited financial resources and make responsible financial decisions?

Compared to previous generations, today's consumers must assume greater personal responsibility for long-term financial well-being. Many adults in America, particularly young adults, do not understand even basic financial concepts, and consequently lack the financial knowledge and skills to make good financial decisions on their own behalf (FINRA IEF, 2009, 2013). With more young adults relying upon parents for extended financial support (FINRA IEF, 2013), parents continue to influence the financial decision-making of their children well into the third decade of life (Settersten, 2012).

For the present chapter, financial parenting refers to three distinct contexts by which parents influence their children's financial knowledge and skills: (1) financial socialization (what parents say and do to convey financial information), (2) parenting style (the way parents convey that information), and (3) parental social class (the range of financial opportunities and experiences parents provide).

Financial Socialization

The role of parents in the formation of their children's financial knowledge and skills is most often studied as a financial socialization process. Parents and family act as primary socialization agents by which children acquire and develop values, attitudes, standards, norms, knowledge, and behaviors that contribute to financial viability and individual well-being (Danes, 1994, p. 128). As primary socialization agents, parents are an important mediator of the external environment and the messages funneled to family members (Moore-Shay & Berchmans, 1996). *Role-modeling* is perhaps the most prevalent method of parental financial socialization. When parents buy groceries, pay bills, put money aside for emergencies, they model the financial norms, attitudes, and behaviors that form the foundation for their children's financial values. When parents save, children know that saving is a good thing (Bucciol & Veronesi, 2014), even at the age of six (Sonuga-Barke & Webley, 1993). When parents practice responsible financial behaviors, their children are more knowledgeable about money use and responsible financial behavior (Marshall & Magruder, 1960; Shim, Barber, Card, Xiao, & Serido, 2010). This implicit transmission of norms, attitudes, and behaviors extends beyond childhood. For instance, young adults who see their parents as positive financial role models report more favorable attitudes toward performing responsible financial behaviors, feel more in control of their financial behaviors and practice more responsible behavior

(Clarke, Heaton, Isrelsen, & Eggett, 2005; Jorgensen & Savla, 2010; Shim et al., 2010).

The effect of parental role-modeling, however, may not always be positive. A qualitative study found that college students whose parents' modeled responsible financial behaviors at home also practiced those same responsible behaviors while at school; whereas students whose parents practiced poor financial behaviors, adopted those same poor behaviors (Solheim, Zuiker, & Levchenko, 2011). Role-modeling is often implicit, and as such, may be misconstrued or misinterpreted. For example, analyses of a survey study of college students from four different states found that when parents argued about financial problems, rather than discuss financial matters, students viewed money as problematic, rather than as a resource to be managed (Allen, Edwards, Hayhoe, & Leach, 2007).

Parental teaching is also an important socializing strategy, one that may more explicitly transfer financial knowledge and skills between parents and children (Violato, Petrou, Gray, & Redshaw, 2011). By observing parents' behaviors, young children may know that saving is a good thing (Sonuga-Barke & Webley, 1993), but older children are capable of applying more sophisticated strategies when taught how to do so (Otto, Schots, Westerman, & Webley, 2006). Koonce, Mimura, Mauldin, Rupured, and Jordan (2008) found a strong relation between parenting information and teens' financial behaviors, specifically, teens who received more financial information from their parents were more likely to set financial goals and save money. Additionally, in a retrospective study of a nationally representative Dutch sample (Webley & Nyhus, 2006), adults who reported greater parental socialization during childhood regarding money and finance were more likely to save, versus spend, their excess income.

The transfer of knowledge about how to do things on their own may bolster children's confidence in their ability to make good choices. For instance, in a study using a convenience sample of college students, those whose parents taught them basic money management skills (e.g., setting goals, budgeting, paying bills) at home felt more prepared to handle their own finances in college (Clark et al., 2005). In a separate study, college students whose parents invested more time discussing financial matters and teaching them how to perform specific financial tasks (e.g., how to use a credit card, how to be a smart shopper, how to finance college) while growing up at home, were more likely to act on the positive financial behaviors modeled by their parents while at school (Shim et al., 2010). Similarly, college students whose parents taught them how to manage money, reported lower levels of credit card debt (Norvilitis & MacLean, 2010). Longitudinally, lower credit card debt and higher credit scores among low- and middle-income adults have been linked to explicit parental instruction of money management skills in childhood and higher educational attainment (Grinstein-Weiss, Spader, Yeo, Taylor, & Books Freeze, 2011). In another survey study among college students, explicit early socialization (e.g., my parents taught me about credit cards, budgeting, debt, and saving), compared to implicit socialization (e.g., we did not talk much about finances; I learned through their example), was associated with higher levels of financial knowledge (Jorgensen & Savla, 2010).

Taken as a whole, these studies suggest that parental role-modeling and explicit teaching are powerful socializing processes that promote an intergenerational transfer of financial knowledge, skills, and values with different effects. When parents model financial practices, even very young children learn what their parents expect of them, regarding financial values and financial behaviors. Because this transmission is implicit and subject to misinterpretation, children may not understand why these values and behaviors are important, and consequently, may fail to practice these behaviors once they are on their own. When parents explicitly teach children about the uses of money, however, they become more knowledgeable about the impact of their financial choices, feel more competent about managing their finances, and internalize those behaviors (Serido, Shim, & Tang, 2013).

Parenting Style

The way parents "parent" is an often studied and sometimes hotly debated topic, but there is some agreement that warmth, engagement, and positive (non-conflictual) communications, promote better academic, health, and well-being outcomes (Nash, McQueen, & Bray, 2005) and diminish risk-taking behaviors (Holahan, Valentiner, & Moos, 1994)—particularly during adolescence. When it comes to financial parenting, the quality of family relationships provides the motivation for youth to perform expected financial behaviors on their own. A British longitudinal study of the 1970 birth cohort found that authoritative parenting (e.g., warm and supportive parenting in the context of age-appropriate rule-setting) was linked to more saving both concurrently (i.e., in adolescence) and prospectively (age 34) (Ashby et al., 2011). In one survey study, adolescents who reported more parental warmth, were more likely to save for their education, especially if parents spoke to them about the uses of money, for example, the importance of donating to charity (financial values) and saving for school (goal-striving and planning) (Kim, LaTaillade, & Kim, 2011).

Additionally, during the transition to college, the quality of the parent–adult child relationship may be associated with more proactive financial behaviors. In one study, college students whose parents talked to them about finances while growing up and expected them to manage their finances responsibly were more likely to maintain a budget and save for the future (Serido, Shim, Mishra, & Tang, 2010). Similarly, in a retrospective survey study, young adults who reported being good money managers often noted that their parents were actively involved in monitoring their spending behaviors as children (Kim & Chatterjee, 2013). The positive influence of these interactions may be long lasting as well: in a larger survey study among low- and moderate-income households, those who reported talking to their parents about money as a child practiced more responsible behaviors as adults (Cho, Gutter, Kim, & Mauldin, 2012).

Although parent–child communications about money can have a positive effect, parents differ in what financial information they feel is appropriate to share with their children—and at what age to share that information (Danes, 1994). There is some consensus that it is important to teach children of all ages about the importance of financial values, for example, saving and comparison-shopping. But when it comes to disclosing specific information about family finances, parents may limit the information that they share, particularly with younger children, because they do not want children to worry about the family's finances (Romo, 2011). Whether or not parents share specific information, children may be adversely affected by family finances (Conger & Conger, 2008). How parents talk about financial matters, even between themselves, is itself a financial parenting style that may influence children's financial values. For example, a survey study of college students found that when parents argued about money, students were more likely to imagine their own financial discussions with their parents as unpleasant (Allen et al., 2007). In this sense, financial communications between parents contribute to a child's perception of their parents' financial parenting styles: a dyadic survey of 63 college students and a parent found that students who viewed their parents as competent financial managers experienced a stronger sense of security and stability whereas students who perceived their parents as less competent financial managers were more concerned about money (Moore-Shay & Berchmans, 1996).

As children mature, they seek more behavioral independence yet continue to rely on parents for tangible and emotional support (Settersten, 2012). When children initiate discussions about personally meaningful financial topics, for example, wanting a new iPhone, parents have an opportunity to shift their parenting style, to a more peer-like relationship. In this sense, parent–child discussions can be viewed as "teachable moments," opportunities for parents to further instruct their children about responsible financial management and to encourage deeper thinking about the role of finances. This would seem to be a particularly effective approach in preparing adolescents to handle unexpected or increased expenses, such as the cost of a monthly phone plan

for the new iPhone, to introduce new financial topics (e.g., insurance), or initiate hypothetical conversations about the financial ups and downs that happen throughout life. Bi-directional parent–child discussions about finances and financial management may offer a training ground to encourage problem solving and critical thinking about decision-making in a changing and unpredictable economy.

Parental Social Class and the Process of Self-Reliance

Parents instill financial values and help children develop financial knowledge and skills. Yet, to become financially self-reliant, children also need opportunities to put their financial knowledge and skills into practice, to make financial choices, choosing one option from among the options available to them, and reflecting on their choices (Serido et al., 2013). Inherent in our definition of financial self-reliance is the assumption that good financial decisions emerge from the intersection of financial knowledge and skills and the thoughtful use of available resources. Because social class accords some groups more social value than others (Cortina, Curtin, & Stewart, 2012), one could surmise that parental social class may promote or constrain acquisition of financial knowledge or limit access to financial services (Sherraden, 2013). In other words, parental social class provides an important context for the types of opportunities and experiences children have when thinking about and making choices about the use of their financial resources. These opportunities and experiences strengthen children's self-beliefs about their ability to independently perform those behaviors, and position them to take the step from financial self-beliefs to financial self-reliance.

Parental social class emerges from sociodemographic factors or combinations of factors, such as gender, race/ethnicity, family income, and parental education. There is substantial empirical support that financial knowledge and skills vary by sociodemographic factors. Among adult respondents in the 2001 Surveys of Consumers, financial literacy was higher for White, compared to Black or Latino participants; higher for men, compared to women, and higher for those with more years of education (Hogarth, Beverly, & Hilgert, 2003). A study using the 1983–2001 Survey of Consumer Finances found that while 9 % of the households who participated in that survey were "unbanked," the percentage was much higher for low-income, younger, non-White, and Latino households (Aizcorbe, Kennickell, & Moore, 2003). Among low-income participants in smaller samples, sociodemographic factors (i.e., years of education, English proficiency, and asset ownership) continued to differentiate between higher and lower levels of financial knowledge (Zhan, Anderson, & Scott, 2006). Given the connection between English proficiency and financial knowledge, it is not surprising that financial literacy among Latinos is typically lower than other racial/ethnic minority groups. Examining a nationally representative sample of young adults, Lusardi, Mitchell, and Curto (2010) found that while the overall level of financial literacy was low, it was significantly lower for some participant groups compared to others: specifically, lower for women compared to men; lower for Black and Hispanic compared to White; and lower for young adults whose mothers had less education. The researchers also found a strong association between youths' sociodemographic characteristics and level of financial sophistication in the family (e.g., owned stock and other investments). In summary, these studies suggest that the observed sociodemographic differences in financial knowledge and skills may be attributed to exposure to different opportunities and experiences.

How might financial parenting promote financial self-reliance? We envision financial self-reliance as a dynamic process of interaction between individuals across settings and in different contexts. As children learn about financial topics, they develop a sense of empowerment over their finances. As children practice new skills, they develop self-beliefs about independently performing those skills, which serve as the catalyst for becoming self-reliant adults. Young adults gain a deeper understanding of increasing financial

responsibilities when they engage in routine financial transactions (e.g., pay for the bus/subway to work/school; buy lunch; pay cell phone bill) (Jorgensen & Savla, 2010). Self-beliefs regarding efficacy, ability to manage money, and problem solving may differentiate between young adults who achieve self-reliance and those who have not yet reached that milestone (Xiao, Chatterjee, & Kim, 2014). Locus of control is another self-belief that has been shown to differentiate between young adults who practice self-reliant financial behaviors and those who do not (Britt, Cumbie, & Bell, 2013). Even studies among young children demonstrate that those with experience handling money (e.g., allowance) show a greater understanding about pricing knowledge, cash, and credit transactions compared to children who lack that experience (Abramovitch, Freedman, & Pliner, 1991).

Does parental social class promote or constrain self-reliance? If we accept that financial self-reliance emerges through opportunities to apply knowledge and skills then it makes sense to speculate on the potential role that parental social class might play. Children growing up in low- and middle-income households (LMI) have different opportunities compared to children raised in higher income households—and these differences may hasten or delay financial self-reliance. For instance, young adults from LMI families may have to make independent financial decisions sooner and have fewer options available to them, for example, taking out a high interest payday loan to pay for car repairs. In contrast, their higher income counterparts may have fewer financial responsibilities or have access to more options, including relying on parents to cover unexpected car repairs or miscellaneous expenses.

There is some empirical evidence for understanding the association between parental social class and financial independence of young adult children. For instance, Whittington and Peters (1996) found that parental income was associated with greater dependence in late adolescence (ages 18–19) but greater independence afterwards. In contrast, Xiao et al. (2014) found that greater parental resources (i.e., parental income, stock holding, and financial assistance) were negatively associated with young adults' financial independence. In this study, a college degree was associated with higher reported levels of financial independence and personal income. This may suggest that parents with greater financial resources are able and willing to provide a financial security net that allows their young adult children time to invest in further education to secure future financial security. Empirical support for the indirect association between parental social class and financial independence is found in a study by Lee and Mortimer (2009). Using a longitudinal study spanning adolescence and young adulthood (ages 18–25), the researchers found that parental income was positively associated with financial self-efficacy in adolescence which, in turn, was positively associated with educational attainment in both adolescence and young adulthood.

A few studies have looked at the association between parental financial support and young adult well-being. One national study in the USA (Johnston, 2013) found that parents' financial support was associated with increased depressive symptoms and diminished self-esteem particularly for young adults who had left school or worked full time. In contrast, a national study in France found that young adults who had received large sums of money from parents over a 1-year period were much more likely to report very good health compared to participants who received little or no financial support from parents (Scodellaro, Khlat, & Jusot, 2012). As the transition to adulthood takes longer and more parents provide material assistance to young adult children (Wightman, Patrick, Schoeni, & Schulenberg, 2013), the role of parental social class on young adults' self-reliance warrants further research.

Summary

This chapter reviewed the ways that parents promote the development of their children's financial knowledge and skills. We focused on parenting contexts that provide opportunities and experience to prepare children to make good financial choices. From this review, it is clear that

financial parenting provides the motivation for the next generation to understand and accept responsibility for long-term financial well-being. Financial self-reliance begins at home, with parents as gatekeepers of initial exposure to and understanding of the role and responsibilities that finances and other resources play in the family—and that process continues throughout the life course. In the household, children learn values, attitudes, roles, standards, and knowledge from their parents, who learned these same attributes from their parents; financial parenting is an intergenerational process. Our review of the literature also suggests that parents promote financial self-reliance by allowing their children to practice making financial decisions, and to let them learn from them. Whether it is a young child spending all their allowance on sweets now and not having enough for a wanted toy later, or an young adult paying a $35 overdraft fee, both experiences teach a valuable financial lesson that shape their future financial decisions. In summary, financial parenting is the ongoing and age-appropriate interaction between parents and their children to foster financial self-reliance.

Implications for Practice

For practitioners and educators who work with families, it is important to recognize that the foundation for financial well-being is established at home. Classroom education that includes instruction and practice relevant to the lived experiences that youth encounter outside the classroom may sow the seeds of change. Content knowledge alone cannot change financial practices, particularly for children who depend on their family to nurture and guide them. For this reason, programs and interventions may be more effective when they involve multiple family members and go beyond financial knowledge to financial how-to. Because financial decision-making is becoming increasingly more complex (Hacker, 2006), many parents may not feel they have adequate information themselves.

Helping parents understand that good decision-making skills are not confined to the financial domain may bolster parents' own financial self-efficacy and self-confidence. Family interventions that focus on strengthening self-beliefs, for instance self-control (Bernheim, Garrett, & Maki, 2001) and problem-solving ability (Xiao et al., 2014) may be more effective than content knowledge in promoting financial self-reliance. Finally, helping parents understand that the nature of the parent–child relationship changes from that of dependence to a more peer-like relationship as children mature (Shanahan, Mortimer, & Krüger, 2002) may improve communications about finances and benefit parent and child alike.

Implications for Research

Although parenting practices provide a foundation for children's financial well-being, further research is needed to understand the processes by which individuals use these practices to become financially self-reliant. To a large extent, the research on financial parenting comes from self-report survey data, obtained retrospectively from either the parent or the child. As a step forward in understanding financial parenting as a process, multi-informant studies are needed. These could include qualitative interviews and survey research with parents and children to gain insight on what parents believe they are teaching their children and what their children are actually learning. The use of online diary studies, particularly in the stress and coping literature, has been instrumental in capturing processes as they unfold in day-to-day life. This approach could be particularly useful for understanding parenting practices that contribute to persistent patterns of behavior (e.g., once a saver always a saver) and changing patterns (e.g., early saver but later spender) as well as external factors that disrupt those patterns.

A growing number of individuals and families across the USA are struggling financially (FINRA IEF, 2013). As Gudmunson and Danes (2011) point out, people make financial choices based on relevant information available to them in real-life situations. As such, much of the literature and the implications of positive financial parenting in

promoting positive outcomes for youth from early childhood to young adulthood may reflect a majority bias. Thus, future research is needed to examine financial socializing norms and values across diverse samples, including racial/ethnic minority and immigrant families that reflect a collective culture perspective.

Concluding Remarks

Current economic realities such as global economic instability and a shift toward greater personal responsibility for financial security may delay or threaten young adults' ability to become self-reliant adults (Littrell, Brooks, Ivery, & Ohmer, 2010). Thus, promoting financial self-reliance among young consumers also rests on providing opportunities to parents, particularly parents with limited financial resources through direct access to financial education, financial programs, and financial services. This may be a fertile area for addressing known sociodemographic gaps in financial knowledge and behavior. One promising direction is the combination of access to financial services with financial education to improve adults' financial knowledge and skills (e.g., Anderson, Zhan, & Scott, 2004). Matched savings account programs (Individual Development Accounts, IDA) also may improve the savings and asset building behaviors for families with limited financial resources (e.g., Schreiner & Sherraden, 2007). Finally, there is a need for both government and private industry to explore alternative safe and affordable financial services products for financially fragile families.

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25 Consumer Credit Regulation

David A. Lander

Judiciously provided and employed, consumer credit has significant benefits to the lender, to the investor whose dollars are being lent, to the consumer borrower, and to the economy and society. Even under the best of circumstances, however, consumer credit carries risks that vary from broken knees to homelessness to economic catastrophe (i.e., 1929 and 2007). The periodic swaying of the pendulum of consumer credit availability from too little to too much has enormous sociological and economic consequences on both a micro and macro basis.

We have recently lived through a turning of that pendulum. Between 1980 and 2005, an explosion occurred in dollars available to lend to consumers, in the dollars actually lent and borrowed, and in the ratio of consumer debt to income (Bricker, Kennickell, Moore, & Sabelhaus, 2012; Bricker et al., 2014). There is dispute regarding the behavioral underpinnings of the demand side of the equation. Have the increased costs of survival forced consumers to use increased credit to plug the holes in their safety net (Warren & Tyagi, 2003), are consumers choosing to purchase luxuries they cannot afford and ought not to buy (Schor, 1998), or are they hyperbolic discounters (Angeletos, Laibson, Repetto, Tobacman, & Weigberg, 2001)?

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Growth in consumer credit in the USA was staggering and changes in the nature of the borrowing vehicles were striking. This explosive growth in the amount of consumer credit between 1980 and 2006 combined with deteriorating debt quality had massive economic and sociological consequences on individual households, the health of financial institutions, returns on investment capital, and the American economy and society. The consequences were both micro and macro, ranging from extraordinarily positive to devastatingly negative (Maki & Michael, 2001) and constituting both the cause and the result of structural change in our economic and social systems (Xiao & Yao, 2014).

Twenty five years earlier the elimination of controls on the price of borrowed money had: (a) created a profit opportunity for lenders and investors; (b) opened the door to allow millions of high credit risk Americans to become purchasers of credit; (c) allowed medium risk Americans to borrow to the point that they became high risk Americans; and (d) allowed Americans to purchase homes that were beyond their reach. As more American consumers became homeowners and as the paper value of their homes increased, that paper equity became a port of entry into the world of home equity extraction lending which allowed consumers to borrow more than would have been available from their credit card lenders. This, of course, put their homes at risk. The fact that the infusion of this overleveraged borrowing fueled the USA boom economy was a primary factor in the unwillingness to regulate.

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This same failure to regulate the onslaught of new and dangerous mortgage products from 2000 to 2007 enabled a feeding frenzy for consumers, investors, mortgage brokers, and rating agencies. One goal of consumer credit regulation is to prevent the crash which follows such a frenzy.

Then between 2007 and 2009 it all crashed into the worst and longest lasting economic debacle in the USA since the Great Depression, which it mirrored or surpassed, said the former Federal Reserve chairman, Ben Bernanke (Da Casta, 2014). During and immediately after the crash, consumer credit dried up partially due to reluctant lenders, reluctant investors, reluctant borrowers, and reinstituted regulatory pressure (The Bond Buyer, 2013). Indeed, credit card debt has hardly budged from its crash-induced nadir (New York Federal Reserve Bank, 2014). Mortgage debt has inched upwards, auto debt is increasing steadily, and student loan debt has exploded. The crash induced the Federal Reserve Board to create new credit card rules and induced Congress to enact those restrictions into law. The temporary panic induced Congress to create a new watchdog, the Consumer Financial Protection Bureau (CFPB), which has taken steps to construct a revitalized and more creative regulatory construct.

In view of the recent crash and the nascent efforts of the CFPB, it is a propitious time to evaluate the regulation of consumer credit in a world that has recently experienced the consumer lending revolution (FDIC, 2003), the mortgage lending revolution and the worldwide crash that followed, but a world that seems to require credit-fueled consumer spending to make the economy healthy. The crucial question for those who set consumer regulatory policy is, if there is no limit on the cost of credit, if it seems profitable to lend in ways that assure high rates of default, if the societal message is to "borrow to meet your needs/wants," and if such unlimited borrowing and lending will lead to both benefits and damage to individuals and to the economy and society then what regulations, if any, should be imposed? Policy makers must understand and consider the micro and macro economic and sociological benefits and detriments of the consumer lending explosion and then determine how to fashion rules and regulations in a manner that encourage the positive and discourage the negative economic and sociological effects of consumer credit.

Growth of Consumer Credit

The primary stories of the growth and fall of consumer credit in the 34 years since the dismantling of usury limits are (1) the growth of third-party credit card debt, (2) the emergence and ensuing explosion of subprime debt, some portion of which is referred to as predatory lending, (3) the huge growth in home mortgage debt, purchase-money and non-purchase-money, prime and subprime, and (4) the explosion in student loan debt.

Credit Card Debt

In the late 1970s, partly in response to a United States Supreme Court case and high inflation, the legislative atmosphere at both state and federal levels changed dramatically and in the span of the next decade usury restrictions were rolled back and practically eliminated. As a result it became profitable to lend to higher risk consumers (Ellis, 1998).

From a market that had been richly diversified prior to 2003, the top five credit card lenders had 50 % of a much larger market and the top ten held 83 % of that market. This consolidation was caused by the need to achieve scale and resulted in vastly improved credit scoring and collection techniques, which led to more profitable lending even to higher risk consumers (FDIC, 2003). Lending to more highly leveraged consumers of course led to an increase in defaults; and higher costs and fees, and interest rates for the late-paying customer have grown in importance. For the lender the most profitable customer is the one who pays but pays slowly (Pacelle, 2004). As consumer lending became more profitable during the 1990s, additional capital was increasingly drawn to the industry and a secondary market began to function efficiently. As a result there was an explosion in the dollars available to lend.

As the volume of credit card debt increased, lenders worked hard to develop new customers. In 2006, approximately eight billion pieces of promotional mail were sent to prospective customers. Lenders developed innovative ways to convince customers to shift to their card or to refrain from shifting away from their card. At the same time they implemented equally innovative methods of making the largest profit possible off of those consumers who paid, but paid late.

Shortly before the crash, several credit card companies began to modify selected practices; about that time the Fed promulgated a series of important reforms, including a ban on charging default interest on the basis of a default on a different credit card obligation. In a sign of the anti-credit card atmosphere in the wake of the crash, Congress passed legislation which largely reflected the Fed rule changes. The CFPB has focused attention on credit card practices.

Credit card indebtedness per household fell from $8472 in 2006 to $6734 in 2011. Factors included: restriction of credit standards by lenders; reluctance or inability of consumers in financial distress to borrow on their credit cards; write offs by lenders; the emergence and growth of traditional and pre-paid debit cards; and the contraction of the supply of dollars to lend as securitization-burned investors closed their wallets. Since that time, balances on neither traditional products nor subprime credit cards have rebounded (New York Federal Bank, 2014).

As of March 2014, credit card debt is currently holding fairly steady. On the one hand, higher consumer spending would put the economy on a more positive track; higher spending could also lead to more jobs and higher incomes, which can in turn lead to even higher spending, a sign of the good times. However, if wages and employment are not keeping pace, higher debt might well be an indication that families are borrowing to make ends meet rather than a reflection of a well-founded increase in consumer confidence. As consumer confidence and balance sheets improve, the pressure to borrow on credit cards will increase although the emergence of debit cards appears to have diverted some of this demand (Levenger, & Zabek, 2011). Financial institutions have created borrowing-like features of debit cards such as overdraft fees and the CFPB will need to continue to scrutinize and regulate such efforts to turn pay now into pay later.

The Subprime Products Other Than Mortgage Products

As of 2014, there were 9800 rent to own stores serving six million customers and generating $8.5 billion dollars in revenue and 20,600 payday advance locations in the USA providing $38.5 billion in short term credit to 19 million households. Borrowing on subprime credit cards and subprime auto loans skyrocketed (Kirsch, Mayer, & Silber, 2014). Certain areas of state regulation may be pre-empted if there is Federal regulation that covers the field entirely. Often, however, one must wade through a crazy quilt mix of state and federal law in order to understand the rules that govern a particular transaction.

Americans who were deemed excessive credit risks by pre-1978 mainstream lending standards had always borrowed limited amounts from salary lenders, pawnbrokers, high finance furniture dealers, rent to own businesses, street lenders, and family members. The elimination of usury legislation, however, and the development of sophisticated risk-scoring techniques turned a significant portion of those who had not been considered creditworthy into desirable customers for mainstream lenders on subprime terms. With the development of capital sources, sophisticated pricing techniques, and sophisticated marketing mechanisms, mainstream lenders and newly capitalized, publicly held, subprime only lenders entered the field with both feet and immediately began to probe the outer limits of the profitability of this type of lending. They began to explore whether there was any upper limit on credit card interest rates, or on post-default interest rates and charges (Montezemolo, 2013).

This lending might involve a credit card with a higher cost or a credit card secured by a car or other property. It might involve financing and the sale of used cars at very high prices to poor credit

risks or the "car title" method of lending which eases the rules for taking possession and the title to the repossessed vehicle. This lending might include "payday loans" or other very short term loans at very high rates that are often rolled over. It might also include renting to own at very high prices or tax refund anticipation loans.

Consumer advocates have begun to have some limited success convincing state and federal regulators to ban or restrict practices that are deemed predatory, particularly for vulnerable and special populations such as members of the military. Some states such as North Carolina have been serious about regulating subprime lending to ensure that it is not predatory. In addition, the CFPB has initiated certain supervisory and enforcement activities in the Payday Loan arena. A wave of money is pouring into subprime auto lending, as the high rates and steady profits of the loans attract investors. Just as Wall Street stoked the boom in mortgages, some of the nation's biggest banks and private equity firms are feeding the growth in subprime auto loans by investing in lenders and making money available for loans.

One set of voices calls for elimination or severe limiting of this supply line (Center for Responsible Lending, 2014) while another believes that subprime devices are essential sources of needed dollars by those frozen out of conventional financing (Mann, 2013). The CFPB is in the early stages of asserting control over payday lending and is seeking to strike an effective balance. Consideration is also being given to "substitution" of lower cost lenders such as the Postal Service.

Mortgage Debt: Purchase-Money and Non-Purchase-Money

Home mortgage debt constitutes 80 %, the overwhelming majority, of all consumer debt and is the primary macroeconomic factor in consumer lending. During the period from 2000 to 2006, several factors combined to produce significant changes in the nature of mortgage debt, particularly among those homeowners with lower incomes and lower net worth:

1. Home ownership increased to 67 % of American households.
2. Home values rose. The price of the average house increased significantly faster than average disposable incomes every year between 2001 and 2006, a historically unusual event. Values rose at significantly different rates in different parts of the country.
3. Interest rates were at out-of-market and historically low levels.
4. Americans refinanced repeatedly at very low rates to reduce their monthly mortgage payments, putting large amounts of money in the hands of American homeowners (Brady, Canner, & Maki, 2002; Canner, Dynan, & Passmore, 2002; Krainer & Marquis, 2003; McConnell, Peach, & Al-Haschim, 2003).
5. The combination of low interest rates, rising home values, the higher costs of other types of debt, and relaxation of other regulatory restrains contributed to make withdrawal of equity immensely more popular than ever before (Canner et al., 2002).
6. As more and more home owning households sought to borrow beyond their historic credit limits, either to purchase a first home at increased prices or to shore up their financial condition, lenders found new ways to relax credit limits so they could sell more and more of their products to a hungry buying public. Innovative products included teaser rates, interest only loans, and special types of adjustable rate mortgages; all of this accompanied by no documentation or low documentation credit standards.
7. The investment community's search for ever higher returns and more creative vehicles continued to pour dollars into the system to provide the supply to meet the demand. Indeed the availability of those dollars in the private securitization market was perhaps the most important contributing factor.
8. Mortgage lenders replicated the actions of the credit card lenders of the 1990s and expanded their outreach to consumers with lower and lower credit scores.
9. The rating agencies lost track of their responsibilities for evaluating and grading the transactions and borrowers contained in the securitization packages.

The equity in a person's home is the primary source of savings or reserve for most Americans. Between 2001 and 2006, the so-called cash-out refinancing—taking out a new mortgage larger than the one being paid off and pocketing the difference—netted consumers about $250 billion per year of immediately available spending power. This was equivalent to about 3 % of the disposable income of all US households in each year and, obviously, much more for those households doing the refinancing (Klywev & Mills, 2006).

Mortgage debt increased from about 40 % of disposable income in 1970 to 60 % in 1990 to about 83 % as of 2003 and continued to explode until 2006. The rise in home prices and the elimination of underwriting standards combined to allow consumers to borrow ever increasing amounts. Teaser rates allowed most but not all consumer borrowers to make the first payments; when market rates became effective it was clear to all that the borrowers would not be able to make the payments. So long as prices continued to rise the borrower could refinance or sell the home. However, once the price escalation slowed down, massive defaults were inevitable.

Then in late 2006, the subprime market imploded; partly because the rise in home values slowed and then stopped in many markets and the pressure cooker could not function without this safety valve, partly because investors began to be concerned about the rising number of defaults even when house prices were still rising. That crash caused a 1929-like set of chain reaction spirals which reinforced one another.

Student Loan Debt

Added to all of this has been the extraordinary increase in student loans. In just a few years student loan debt surpassed auto debt and past credit card debt. Auto debt, particularly subprime auto debt, increased markedly between 2000 and 2006, decreased markedly between 2006 and 2010 and has begun to rise rather significantly in 2014 (Federal Reserve Bank of New York, n.d.).http://www.newyorkfed.org/regional/householdcredit.html).

Sociological and Economic Consequences

Sociological Consequences

The key benefits of various consumer credit vehicles are readily apparent; they may provide a bridge to a better place. A person needs a car to be able to get to a new job, but cannot afford the car until she has been working the new job and perhaps until after she obtains one or more promotions in that job. She buys the car on high-cost credit, takes the job, gets the promotion, and her life is much better. Without credit she could not have bought the car and would remain without a job or in her former inferior job.

A person needs housing in a safer neighborhood with better schools and cannot afford the move without the use of credit (Schor, 1998; Warren & Tyagi, 2003). Warren and Tyagi demonstrate that in most households all the adults who can work are working and their income is just enough to support the family. If they happen to encounter turbulence from loss of employment, health or family difficulties there is little wiggle room. Their data supports the notion that people are spending beyond their income because that is required in order to have a safe and reasonable life style. Caldor (1999) goes a step further to say that the pressure that emanates from greater debt drives people to work harder and to be more productive.

Two prominent sociologists, George Ritzer and Robert Manning say all of this is nonsense (Manning, 2000; Ritzer, 1995). They assert that inducing people to borrow more, loading them down with deceptive and excess credit, and then adding impossible default charges creates problems on both micro and macro levels. On the micro level, credit defaults, repossessions, and foreclosures increase stress and create more mental health problems and family abuse. Debt is a primary contributing factor to family disharmony and divorce (Shen, Abdoul, Sam, & Jones, 2014). Health suffers, employment suffers, and the reduction in happiness and life satisfaction cause a myriad of types of damage. On a macro level society must bear the consequences of more broken homes and dysfunctional families under the

stress of debt, more jails, more people needing mental health services and more children and mothers needing shelter from abuse and rehabilitative services, and higher taxes to pay for all of this. Millions of Americans labor under crushing debt loans that entrap them, shatter their dreams, and cripple their ability to save and increase assets. Fallout from the subprime mortgage crises has demonstrated that multiple home foreclosures in a neighborhood have a negative and deteriorating effect on other homes and community institutions in the neighborhood.

Economic Consequences

High levels of troublesome types of consumer borrowing are one significant cause of economic catastrophe on both a micro and macro level, i.e., 1929 and 2007. In order to set the gauge on the optimal range of volume of consumer lending, regulators must understand the positive and negative effects of such borrowing and lending on the economy. The short term micro and macroeconomic consequences of the consumer lending revolution are each readily apparent. From 1980 through the crash in 2007, investors and investment banks profited enormously by the explosive increase in consumer lending. Financial institutions and other participants in the consumer lending stream became more profitable and their share price has increased. During the decade before the crash, the US economy and the world economy were based as never before on consumers' spending considerably more than they have and considerably more than many of them will ever be able to repay (Burhouse, 2003). The portion of the national economy that is driven by consumer spending rather than business or government spending increased to 77 % and spending by Americans is a primary support for the world economy. By comparison, 1960–1980 consumption held steady at 63 % of GNP. During the 1980s it rose to 66 % and was 66.5 % in 1997.

Beginning in 2006, there was a significant uptick in default and foreclosure. The scale of the economic debacle in the USA and most of the rest of the world was disastrous and had no precedent since the depression of 1929. Many books have been written about what happened and why. For our purposes it is enough to say that the following events and actions occurred:

1. A surge of foreclosures;
2. A drying up of credit for refinancing or home purchases;
3. A drying up of appetite and wherewithal of consumer demand for any new debt and new purchases by any other than consumers in the first or second financial quintile;
4. A spiral of unemployment;
5. A nose dive in real estate values; and
6. Reluctance on the part of investors to return to the mortgage back securitization pools.

For the past several years each of these factors has eased up and very slowly moved out of the disaster zone. It is ironic that current predictions indicate that there is insufficient wind in the sales to bring the US economy back to health. The wind that existed pre-crash was induced by credit excesses that played a significant role in the crash.

Toward Understanding Why The Demand Is So High

It is important for policy makers to understand the nature of the demand side of this equation. Angeletos and colleagues (2001) suggest most consumers are hyperbolic discounters and honestly intend to save and pay tomorrow and to spend today. If we assume that the consumer has real alternatives and is making choices that subject her to serious and unwarranted risks, then it is important to understand the behavior that leads people to make these unhealthy decisions. Until recently, economists have shrugged their shoulders when asked why a significant number of consumers seem to act against their financial best interests. To fill the gap, a different breed of social scientists have stepped up to understand the ways that consumers use credit and make decisions regarding purchasing. Called behavioral economists in the USA (Angeletos et al.,

2001) and economic psychologists in Europe (Lea, Webley, & Levine, 1993), they explore these issues. They have several theories. One is that human beings act in an irrational manner and therefore this spending and borrowing is not subject to classical economic analysis or explanation. A second theory is that people tend to be excessively optimistic regarding their long term prospects and therefore make short term decisions which are based upon false expectations over the long run. A third theory is that individuals simply have poor self control in the short run, and a final theory is that people lack both the knowledge and information necessary to make a thoughtful rational analysis of the proposed borrowing or spending and this lack of information and knowledge interferes with their rational decision-making. A combination of various human traits and conditions combine to render these motivations complex (Martin & Sweet, 2006). Current brain research may further illuminate the biological basis for such behavior. Opinions vary over whether intervention is wise or harmful. In a capitalistic economy it is incumbent on lenders to exploit weaknesses of potential purchasers of consumer credit. One goal of consumer credit regulation is to limit such exploitation (Bar-Gill & Warren, 2008).

Toward Understanding Why The Supply Is So High

Once the rate caps evaporated, lenders began to probe the outer edge of profitability for lending. The investment community responded quickly and developed or modified existing vehicles to share in these attractive profit opportunities. Initially these investments were in real estate mortgages and took the form of bonds and other forms of debt issued by Fannie Mae and similar private public secondary market players. As credit card debt exploded, card issuers needed additional liquidity and the securitization market for credit card receivables grew correspondingly. Most of it was prime credit card debt, but the subprime credit card market provided both higher anticipated profits and higher risk.

As more and more consumers began to tap into their home equity and as more and more consumers needed to stretch further to purchase their first or next home, the subprime market began to take off and by 2006 its share of all new mortgages went from 5 % in 2001 to 16 % in 2006 (Chomsisengphet & Pennington-Cross, 2006). This occurred just as Fannie Mae was struggling with the after effects of a perceived scandal and Wall Street seized upon the void to profitably substitute purely private securitization vehicles to purchase the subprime debt. This presented opportunities for ignoring and eliminating the underwriting standards required by Fannie Mae. The result was that the ready supply of borrowers for these risky loans found a ready supply of capital. The crash brought to the surface, the level of risk in these investments and for a while significantly reduced the volume. More recently that volume resumed as investors continue to search for above market returns. The power of investors seeking an above-market return on their money cannot be overestimated (Hyman, 2011).

Intervention and Regulation of Consumer Credit

So, how do State legislatures, the CFPB, and Congress decide whether to intervene in the consumer credit market? How do they decide whether and how to regulate or prohibit specific types of practices? One school of thought warns government to get out of the way of the market and stop playing parent to adult consumers. Another asserts that the consumer must be protected from mistakes that will damage her and the society and economy (Campbell, Jackson, Madrian, & Tufano, 2011).

Intervention might be appropriate in order to ameliorate the negative consequences that exploding credit brings to individuals (i.e., undue strain, shattered dreams, domestic difficulty, homelessness, and mental illness) and to society (i.e., increased mental health costs and increased need for intervention in family disputes). If a certain type of profitable credit device results in a default rate of 90 % then there would likely be

consensus that the distress and inefficiency of the credit device justified intervention, and likely prohibition. The negatively affected parties would be the lenders who were denied a profit opportunity, the investment community which is denied an opportunity for a rate of return based on this product; the 10 % of borrowers for whom this device is productive and who will not default; and finally, perhaps the other 90 % who default but who do not think they will default and who want the opportunity to try and succeed or try and fail. The positively affected parties would be the 90 % who will be spared the consequences of default; the friends, family, and neighbors of that 90 % who are also spared the indirect consequences of those defaults and the public and private safety net which would have been required to provide help to the defaulters.

A prophetic article by George Wallace (1976) divides the people who will be regulated out of any particular market into three categories: (1) those who would have chosen not to borrow even if they could and are therefore unaffected by the regulation; (2) those who would have chosen to borrow and would have defaulted; and (3) those who would have chosen to borrow and would not have defaulted. The philosophical question is whether to prohibit the third group from borrowing in order to protect the second group. If we decide it makes sense to intervene, what might that intervention look like? We start with what the commentators call "soft nudges."

Disclosure and Financial Literacy

The first of these soft nudges are financial literacy education and disclosure of information regarding the credit extension. The decision to provide education and disclosure is based on the common sense notion that the consumer would be more likely to act in her own self-interest if we bridge the knowledge and information gap between her and the lender and if she understands both the degree to which and the reasons why she may choose to purchase more credit than she can likely repay.

The unanswered question is whether such educational efforts are effective. There is a fascinating debate between a key proponent of financial literacy education (see Anna Lusardi's Blog and a critic, Lauren Willis, 2008). To date, empirical work does not show that financial literacy education "works" (Collins, 2013). In fact, there is no consensus on what "works" means in this context; are we seeking less borrowing or borrowing from a base of greater understand, are we seeking more frugal choices?

An underlying question is "what does she need to know and when does she need to know it?" Over the past few years the field of financial literacy has grown exponentially; there are programs in schools and programs aimed at adults. Is the lesson, don't ever borrow? Is the purpose of the lesson to understand the costs of borrowing so that people will stay within certain limits? What about the person who is borrowing to pay her rent or put groceries on the table or to obtain an education, what is the lesson for her? And what about the hyperbolic discounter?

Would behavior change counseling/education be effective? As behavioral economists have begun to understand why consumers do not act more like the purely rational automatons that economists have assumed them to be, this information may be translated into well-defined counseling sessions based on helping the consumer understand and modify her likely dangerously "irrational" behavior. There has been very limited investigation of this type of change in financial conduct.

What about disclosure? In addition to literacy efforts, Congress and some states have passed various disclosure laws intended to help consumers make more informed decisions about credit. For example, truth-in-lending laws were enacted in the late 1960s to ensure that the consumer receives clear and conspicuous information regarding financing transactions. Very recently the CFPB has been concentrating its efforts on developing plain language concise disclosures that help consumers make informed decisions on whether to borrow and what the right type of borrowing instrument will be. Disclosure legislation has been a mixed bag. For example, we do know that many prospective borrowers use the standard information regarding the annual percentage rate

to compare various lending products and various lenders and that is a good thing. On the other hand, disclosures are often insufficiently clear and in 1980, Congress rolled back many of the most important and effective provisions of the Truth in Lending Act. It would appear that consumers benefit from fewer and clearer disclosure so that there would be a single easily comparable figure that describes the price a borrower will pay for the financing (Renuart & Thompson, 2008; Sovern, 2010). However, whether this is possible is still an unanswered question. The cohort of borrowers who are most vulnerable to misleading or deceptive products may also be least likely to benefit from financial literacy education or disclosure regimes.

Capping Interest and Fee

There was a time, not so long ago in the USA that the level of consumer debt was significantly less than it is today. One of the reasons was that it was not so profitable for lenders to lend to moderate or higher risk borrowers. It was not so profitable because nearly every state had a limit on the rate of interest that lenders could charge to consumers.

Although most economists continue to resist such restrictions, insisting that the market should be left undisturbed so willing lenders and willing borrowers can make the music they wish to make, findings of behavioral economists that help explain "irrational" self-damaging consumer behavior is creating "chinks" in their armor. We know that some consumers are not acting rationally and in their own best interests and these transactions will cause harm based on that irrational behavior. We also know that harm will have both micro and macroeconomic and sociological negative impacts. On the basis of this knowledge some economists agree that there is sufficient reason to re-impose these materialistic limits on the price lenders may charge for selling their credit. One commentator (White, 2007) suggests that in view of the prevalence of hyperbolic discounters the only way to affect change is to modify the lenders' conduct. Since the hyperbolic discounter honestly believes she will pay late and not need bankruptcy, making bankruptcy harder for her will have little effect on her conduct. One suggestion is the French method of prioritizing the sharing of dollars by date of lending so that those who lent in the face of the most debt stand at the back of the line if there is money for the trustee to distribute. Oren Bar-Gill (2004) suggests that credit card teaser rates and premiums be eliminated and Ronald Mann (2006) suggests that creditors raise their minimum monthly payment. Professor Mann has also suggested a "distress" tax on profits of lenders that are earned (Mann, 2006). Mian and Sufi (2015) suggest a new lending instrument that would embrace a risk-sharing provision to protect the borrower in the event of lower house values and give the lender a benefit in the event of higher house values. Perhaps the most popular idea is to require some form of financial underwriting and calibrating amounts lent to ability to repay.

Outlawing or Restricting Offensive Practices or Products

Another way of regulating consumer credit is to identify offending types of transactions and prohibit or heavily regulate those practices. For example, the combination of high interest rates and the practice of "flipping" may cause legislators to outlaw payday lending or restrict flipping. Likewise, legislators might choose to prohibit lending products such as the tax refund anticipation loans or car title lending. The CFPB has begun to investigate whether payday lenders employ practices which should be prohibited (Kirsch et al., 2014). Interestingly, in 2006 as part of the military appropriations legislation, Congress imposed a usury rate of 18 % on payday loans to members of the military which virtually prohibits payday lending. Various states had sought to re-impose interest rate ceilings on payday lending and various other types of loans.

A variation is to identify and prohibit questionable practices such as cross defaulting a credit card to any other consumer obligation, or the right of the lender to change the interest rate at any time.

Teaser rates for credit cards or home mortgages or unlimited number of extensions of payday loans could also be regulated or prohibited. The Credit Card Accountability Responsibility and Disclosure Act of 2009 has partially addressed these issues for credit cards.

Another variation would be to require the lender to make an independent and rational determination that the credit transaction is "suitable" for the borrower. The Fed has listed three factors including suitability and cost and clarity of disclosure for determining if a transaction is predatory and therefore regulated or prohibited. Currently many states are attempting to define "predatory lending" practices and to regulate or prohibit such practices. To some degree the growth of predatory lending has called upon regulators and lawmakers to substitute unconscionability and exemption and limits on enforcement. The first step is to identify the credit transactions we want to outlaw and the basis for that intrusion into the consumer credit market.

The Establishment of the CFPB

When the CFPB celebrated its fourth birthday in July, 2014, it had moved to identify and curb abuses in the areas of credit cards, mortgages, student loans, credit reports, debt collection, abusive payday lending, and foreign money exchanges. Among the most interesting are the efforts to require that lenders make a good faith determination that the borrower has a likelihood of repaying the credit extension.

Bankruptcy Fresh Start as a Consumer Protection Device

The consumer bankruptcy law and system are integral parts of the consumer financial protection landscape. Key policy issues involved in setting the parameters for bankruptcy relief are (1) the cost of the discharge, who is eligible, and to what extent must they pay a share of their future wages to obtain the discharge; and (2) to what extent should the bankruptcy discharge affect those creditors that have liens that are valid outside bankruptcy. This topic is treated in Chap. 26 of this book.

Conclusion

Will the system of consumer borrowing and lending in the USA work satisfactorily as the ghost of the crash becomes more distant, and if not, what might be done to improve the way the consumer lending and borrowing system works? Once the trauma of the crash has receded it is likely that the mixed State and Federal "system" will once again encourage consumers to borrow and spend and encourage lenders to lend so that consumers, lenders, and the economy may prosper. Some consumers use the borrowed money to improve their lives; others are burdened with the various kinds of distress and shattered dreams that accompany hopelessly high debt. Lenders seem to be able to lend profitably in the current environment and are unlikely to reduce such lending unless it is outlawed or becomes less profitable. Because even the most sophisticated credit-scoring devices have limitations, likely practice and policy guarantee large numbers of defaults, large numbers of people going to credit counseling, large numbers of foreclosures, and large numbers of bankruptcies. This tendency will be accelerated by the growing and uncontrolled inequality of income and net worth. This is the clear and currently inevitable effect of the consumer lending revolution. The profitability of all lending, but particularly subprime lending, provides an attractive investment opportunity and therefore there will be no shortage of dollars to lend on the subprime market. Is there any way to stop the kinds of frenzy that existed in 1929 and in 2007 without reducing "productive" lending?

Crafting effective policy and legislation is further complicated by the fact that those who pay late are among the most profitable individual customers; if lenders tighten their lending standards or if consumers reduce their borrowing, then financial institution profitability will fall and attract less capital, consumer spending will be reduced, and the economy will be less vigorous.

In the current political climate, it is extremely unlikely that income support programs (other than the Earned Income Credit) will be enacted or that the extraordinary inequality of income or wealth will otherwise be reduced. There are, however, a number of steps that seem possible and may accomplish these more limited goals. The early actions of the CFPB and the impact of the 2009 credit card law have combined with the trauma of the crash to cause a reduction in several kinds of borrowing and lending and securitization investing. However, once the trauma recedes it will be essential for the CFPB to continue and intensify its efforts. For example, they should take such action as is necessary and the Congress and State Legislatures and the Federal Reserve Board should take such action as is necessary to accomplish the following:

1. Establish a suitability standard that places a burden on the lender to make any consumer credit lending only when it is the suitable product and has a reasonable chance of being repaid.
2. Regulate subprime lending in order to establish an upper limit on the cost of credit and restrictions or prohibitions on the most nefarious lending products and practices. Perhaps we could use the criteria established by the Federal Reserve Bank, that the presence of very high pricing, lack of clarity, and failure to maintain reasonable underwriting standards as standards for defining predatory or regulable or prohibited conduct. We should carefully watch states, such as North Carolina, that are leading the way in this field.
3. Reestablish usury rates for interest and fees.
4. Provide a reasonable floor on exemptions.
5. Implement and evaluate kindergarten through college and adult financial literacy programs, as well as savings incentive programs such as the individual development account.
6. Experiment with behavior change courses and counseling for those whose path to over indebtedness involved conduct susceptible to such counseling.
7. In light of the mass of home foreclosures caused by the subprime mortgage crisis, with regard to which the current bankruptcy law is of no help, amend the Bankruptcy Code to help forestall the tragedy caused by such massive foreclosures.
8. Use a standard of abusiveness to regulate payday lending and encourage the use of installment payments and a requirement of ability-to-pay.
9. Other methods of altering the conduct of the lenders would include (a) the French method of prioritizing the sharing of dollars by date of lending so that those who lent in the face of the most debt stand at the back of the line if there is money for the trustee to distribute; (b) Oren Bar-Gill's (2004) suggestion that credit card teaser rates and premiums be eliminated; (c) Ronald Mann's (2006) suggestion that creditors raise their minimum monthly payment and impose a "distress" tax on profits of lenders that are earned; and (d) Create a new consumer lending instrument that calls for the sharing of benefit and harm when unanticipated events occur (Mian & Sufi, 2015).

The CFPB has begun to fashion new and creative protective vehicles and to breathe new life into others that had atrophied. This trial and error method is a step on the right track.

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Consumer Bankruptcy

26

Levi N. Pace and Jean M. Lown

Consumer bankruptcy is intended as a debt collection mechanism for creditors and consumption insurance for individuals who approach the courts seeking debt relief and a fresh start (Cohen & Lawless, 2012; White, 2007). To the extent bankruptcy liberally sanctions default and credit risk, "bankruptcy is the ultimate free-market solution to bad debt" (Sullivan, Warren, & Westbrook, 2000, p. 260). Over three decades, the number of consumer bankruptcies in the USA grew seven times faster than the population, from 285,000 filings in 1984 to a peak of over two million in 2005, arriving at 910,000 cases in 2014 (AOUSC, 2014b; U.S. Census Bureau, 2015). The upward trend proceeded with two closely related developments: mounting economic insecurity for households (Hacker, 2012) and rising consumer debt payments as a percent of income (Federal Reserve Board, 2014). The consumer bankruptcy filing rate in 2014 was 59 % below its peak in 2005 when the Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA) went into effect (AOUSC, 2014b; U.S. Census Bureau, 2015). As of 2013, an estimated 4.1 % of U.S. families had declared bankruptcy in the previous 5 years (Bricker et al., 2014). That year, the courts addressed the fate of $172 billion in outstanding debts, mostly mortgages, carried by households with only $110 billion in assets (AOUSC, 2014a).

A simple answer to the question of what causes consumer bankruptcy is debt. In 2013, 43 % of U.S. households held home mortgages, 38 % owed credit card debt, 31 % had vehicle loan payments, and 20 % carried education loans (Bricker et al., 2014). The average household spent 10 % of its earnings to service debt (Federal Reserve Board, 2014), well below the ratio for households approaching bankruptcy. A strong correlation exists between consumer debt and bankruptcy filings (Dawsey, Hynes, & Ausubel, 2013). Tabb (2007) explored the relationship between U.S. filing rates and ten measures of consumer credit for a nationwide sample; statistically significant relationships existed for all measures except credit card delinquencies. Although bankruptcy and debt are highly correlated, correlation alone does not establish causation. Yet the strong link between debt burdens and bankruptcy rates suggests more punitive bankruptcy measures that do not address underlying debt and default issues are unlikely to reduce the filing rate (Athreya, 2004).

What is the face of the typical filer seeking debt relief in bankruptcy: someone down on his/her luck after getting sick and losing a job, using credit cards to pay medical bills and make ends

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meet? Or is it the savvy consumer who abuses credit cards intending to waltz into bankruptcy to wipe out debts and then repeat the profligate cycle? Congress hotly debated these two faces of bankruptcy for 8 years before passing the 2005 bankruptcy reform law. The general public assumes financial mismanagement is the main cause of bankruptcy, while debtors point to economic pressures and unanticipated trigger events, such as job loss and medical problems (Hacker, 2012; Sullivan et al., 2000). Most of the debate and rhetoric accompanying BAPCPA, as well as the academic literature, views bankruptcy from these opposing perspectives.

Filers are a cross-section of society short on options for confronting financial adversity. Most filers come from the middle class, having attended college and owned homes (Warren & Thorne, 2012), but have negative net worth and owe medical debt (Pace, 2013). Although filers represent the full spectrum of human capital, their earnings are lower than non-filers' (Warren & Thorne, 2012). For both Chaps. 7 and 13 debtors, excluding their debts, monthly expenses still exceed income (AOUSC, 2014a).

The purpose of this chapter is to synthesize and evaluate bankruptcy research in the context of current trends in consumer bankruptcy, debtor default, and household finances. The chapter explains the basics of consumer bankruptcy and how Chaps. 7 and 13 differ. Two competing conceptual frameworks address debtor behavior and bankruptcy policy. The aftermath of major bankruptcy reform in 2005 is discussed. The chapter ends with ways to address the bankruptcy problem and recommendations for future research.

Consumer Bankruptcy Basics

Bankruptcy allows filers to discharge most unsecured debts. Some unsecured debts, such as child support and alimony, student loans, and most tax debts, cannot be discharged (MacArthur, 2008–2009). Secured creditors can repossess or foreclose on collateral to enforce repayment before or after bankruptcy.

While bankruptcy is governed by federal law, title 11 of the United States Bankruptcy Code (The Code), implementation varies by judicial district. Consumer debtors choose between chapter 7 or 13; the "chapter" refers to sections of the Code. Chapter 7 is the most common debt liquidation option, accounting for 68 % of consumer cases in 2013 (AOUSC, 2014a). While The Code provides for a court trustee to liquidate assets to repay creditors, fully 93 % of Chap. 7 cases are no-asset cases once state-defined exemptions are applied (U.S. Department of Justice, 2014). Within a few months of filing, most unsecured debts are discharged.

In contrast, a Chap. 13 plan commits all of a debtor's disposable income to debt repayment for up to 5 years. Chapter 13 is often used to prevent home foreclosure and vehicle repossession (MacArthur, 2008–2009). Despite the law's promise of a "fresh start," more than two-thirds of Chap. 13 plans are not completed, in which case debtors do not receive discharge (Evans & Lown, 2008). Failure to make payments is the reason for half of Chap. 13 dismissals (AOUSC, 2014a).

Credit Expansion

The finance industry has broadly increased access to credit for many customers via credit cards, payday lending, and subprime mortgages. Debt burdens often become hardships and are associated with higher bankruptcy filing rates, particularly where insufficient assets offset obligations (Tabb, 2007).

Prior to the deregulation of credit card interest rates in 1978, lenders were very selective in issuing cards. Once interest ceilings were lifted, card issuers extended offers to marginal customers (Black & Morgan, 1999). The 1980s saw the "democratization of credit" when almost anyone could get a credit card (Black & Morgan, 1999, p. 1), a market development that has persisted (Han & Li, 2011). Extending credit to risky consumers is highly profitable because they pay elevated interest rates (Black & Morgan, 1999). Looser credit standards result in higher bankruptcy rates, but with sophisticated computer algorithms lenders still make healthy profits.

Two problematic lending practices emerged in full force during subsequent decades. First, the 1990s witnessed explosive growth in the payday lending industry (Montezemolo, 2013). Payday loan and vehicle title lenders provide exorbitantly priced credit that both serves and afflicts bankruptcy filers (Han & Li, 2011). In the 21st Century, regulation by the federal government and many states has served to tame the industry somewhat (Montezemolo, 2013). Second, leading up to the global financial crisis of 2007–2009, U.S. credit markets supported tremendous increases in mortgage debt, as subprime and predatory mortgage lending also flourished (Sermons, 2012). Overall, filers' debt-to-income ratios (total debt balance/annual income) rose from 1.4 in 1981 to 1.7 in 1991 and leapt to 3.4 in 2007, of which more than one-third was unsecured debt (Lawless et al., 2008; Leicht, 2012).

As the world economy struggled to recover from the global financial crisis, consumer borrowing plummeted (Bricker et al., 2014). Access to credit tightened, and many consumers defaulted on credit obligations. Some of the poorest debtors, especially those who were not subject to wage garnishment and had no assets at risk of loss, logically chose "informal default," bypassing the costly formal bankruptcy system and enduring collection actions without court protection (Dawsey et al., 2013). Concurrently, the share of U.S. families reporting any savings fell sharply from 56 % in 2007 to 52 % in 2010, partially recovering by 2013 to 53 % (Bricker, Kennickell, Moore, & Sabelhaus, 2012; Bricker et al., 2014). Two-thirds of American households held at least one credit card in 2013, with just over half carrying a balance (Board of Governors, 2014). Credit, often from predatory lenders, is commonly used by Americans to cope with stagnant incomes and growing expenses (Sermons, 2012).

Conceptual Frameworks to Explain Bankruptcy

Growth in bankruptcy filings has been explained by two opposing conceptual frameworks. One theory blames the reduction in stigma for debtor lapses (economic incentives model), while advocates of a structural (financial distress) explanation blame economic insecurity and a fraying social safety net (Garrett & Wall, 2014).

Economic Incentives Model

According to the incentives model, the stigma associated with filing has diminished, leaving savvy consumers to take advantage of the bankruptcy system (Dawsey et al., 2013). Shrewd consumers calibrate their behavior to maximize financial gain from bankruptcy relief while retaining their assets (White, 2007). Meanwhile, bankruptcy courts permissively sanction consumers' strategic evasion of responsibility at the expense of creditors with contractual rights to repayment. Much of the literature supporting the economic incentives perspective is based primarily on economic modeling rather than data about debtors themselves. A leading advocate of the economic incentives perspective is law professor Zywicki (2007) who argues that the growth in filings reflects moral decay among borrowers unwilling to fulfill their obligations. Zywicki (2007) identifies three factors that have contributed to this growth: shifts in the costs and benefits of filing that make bankruptcy more attractive, a reduction in personal shame and social stigma, and the impersonalization of the debtor–creditor relationship.

Fay, Hurst, and White (2002) emphasize that households are most likely to enter bankruptcy when it is financially advantageous and in communities where doing so is socially acceptable. In a 10-year time series following over 6900 households, including an oversampling of low-income families, prospective financial benefit from bankruptcy was a leading predictor of whether a household member filed. In sum, "the incentives model argues that a variety of changes in legal, social, and economic institutions during the past 25 years have increased the attractiveness of bankruptcy and reduced the overall costs of filing" (Zywicki, 2007, p. 277).

Financial Distress Explanation

The structural or financial distress explanation contends that increased economic insecurity, accompanied by aggressive extension of credit, has fueled the growth in bankruptcy. In a challenging environment with fewer societal support systems, hardships such as sickness and changes in family composition tip the balance towards household insolvency, according to findings from the 1979–2008 National Longitudinal Survey of Youth (NLSY) and the 2004 Survey of Consumer Finances (SCF) (Maroto, 2012; McCloud & Dwyer, 2011). Based on two decades of triennial SCF responses, Xiao and Yao (2014) showed that income disruption events push consumers into delinquency, particularly those who are vulnerable based on their lifecycle stage, family configuration, education, assets, and debts. Deregulation of the credit industry has made consumer and mortgage credit too readily available to marginal borrowers (Black & Morgan, 1999). Athreya (2004) argues that stigma is not dead and offers an alternative explanation for rising rates, focusing on how computer technology has lowered transaction costs for lenders who market credit to marginal credit risks. Meanwhile unfair lending practices ensnare more consumers, and aggressive collection practices overwhelm debtors (Han & Li, 2011; Montezemolo, 2013). Studies using nationwide filings and Census data at the county or zip-code level show that collection efforts precipitate bankruptcy filings, particularly in states without anti-harassment statutes and robust garnishment restrictions (Dawsey et al., 2013; Lefgren & McIntyre, 2009).

Health care costs continue to increase faster than inflation; before the Patient Protection and Affordable Care Act of 2010 (Affordable Care Act) went into effect in 2014 many workers were not covered by health insurance (McCloud & Dwyer, 2011). The lack of insurance and rising deductible and coinsurance payments pushed more families with medical events or debts into bankruptcy, according to survey findings from the SCF and an original representative nationwide sample of 2300 respondents (Himmelstein, Warren, Thorne, & Woolhandler, 2009). After mortgages, medical debt is the most common filer liability and the largest unsecured amount, followed closely by credit cards; fully 90 % of filers in Utah carried medical debt (Pace, 2013). The substantial amount of medical debt was a reliable predictor of repeat filings. Compared to the two years preceding BAPCPA, medical debt increased and credit card debt declined post-reform. The impact of the Affordable Care Act is yet to be determined since it went into effect in 2014.

The primary proponents of the structural explanation are Sullivan et al. (2000) and Sullivan, Warren, and Westbrook (2006), who started collecting data for the Consumer Bankruptcy Project (CBP) in the late 1970s, continuing through 2007 (Warren & Thorne, 2012). The CBP relies on extensive data from bankruptcy files and interviews with debtors in a representative sample of judicial districts to explore the circumstances that drive them to file. The CBP revealed that debtors are middle class Americans who are drowning in debt due to misfortune and poor judgment. The two main factors fueling consumer bankruptcy are the growth in consumer credit and increasing economic insecurity (Warren & Thorne, 2012).

The CBP concluded that bankruptcy laws serve those for whom they were intended but in a less than satisfactory manner. Proposals to make bankruptcy more bureaucratic and punitive to smoke out abusers are not worth the time, money, and collateral damage (Lawless et al., 2008). Bankruptcy is the social safety net of last resort in a country with a beleaguered support system (Sullivan et al., 2000; Hacker, 2012).

Because the bankruptcy files do not specify reasons for filing, CBP researchers interviewed debtors about their circumstances (Sullivan et al., 2000). Many middle class Americans are "economically fragile," a circumstance much more widespread than indicated by bankruptcy statistics (Sullivan et al., 2000, p. xiv). The CBP identified five sources of financial stress: elevated consumer debt levels, economic volatility, rising medical costs combined with limited insurance coverage, divorce and single-parent child-rearing,

and housing expenses for debtors clinging to unaffordable homes. These causes of distress match many of those identified by participants in credit counseling designed for bankruptcy filers: excessive debt levels, income disruption, unexpected expenses, job loss, personal illness or injury, divorce, child birth or adoption, death of a family member, retirement, and identify theft (Linfield, 2011). Finally, Sermons (2012) attributes high bankruptcy rates to a combination of living costs rising faster than incomes, job losses, health care costs, low savings, and unexpected expenses.

Braucher (2006) examined the interaction between consumer culture and structural economic arguments as explanations of overindebtedness, concluding that neither explanation is adequate by itself to explain the growth in bankruptcy. There is truth in each perspective.

Bankruptcy Abuse Prevention and Consumer Protection Act

After extensive lobbying by creditors, Congress passed the BAPCPA in 2005. Its key provisions are income limits for Chap. 7 eligibility, discharge prohibitions for several types of debt, homestead exemption restrictions, and new documentation requirements (Cornwell & Xu, 2014; White, 2007). Debtors flooded the bankruptcy courts prior to BAPCPA implementation to avoid the higher costs and restrictions of the law (Truitt, 2007).

BACPCA shifts more of the cost of credit failure onto borrowers (Mann, 2006). The reforms encourage delayed filings that exacerbate the burdens on debtors and society. Besides devising new deterrents to insolvency, BAPCPA does not remedy underlying problems that lead to overwhelming debts and relentless creditors. Tabb (2007) observed that “debtors file bankruptcy in very predictable numbers, depending not on what the bankruptcy law provides, but on how burdened they are with debt” (p. 104). BAPCPA may have arrested the upward trend in bankruptcy filing rates, but financial crises, debt delinquency, creditor excesses, economic insecurity, and flat wages persist.

Abusive Filings

With regard to preventing abuse, the framers of BAPCPA assumed that the main reason for filing is overspending by irresponsible debtors. However, most debtors report a combination of factors including medical expenses, job loss, wage stagnation, housing costs, business failure, social program cuts, and abusive collection practices (MacArthur, 2008–2009; Sermons, 2012). In 2010 only 16 % of filers earned more than $50,000 (Linfield, 2011). One-third of 2013 Chap. 13 filers reported having filed during the previous 8 years, some of whom initially failed to secure a discharge (AOUSC, 2014a). A study of repeat filers in Utah found fewer than 10 % of debtors potentially abusing the system (Lown, 2006). Regardless of BAPCPA, judges have always had the legal authority to deny a discharge to abusers. BAPCPA appears not to have curbed opportunistic behavior (White, 2007). Rather it resulted in new incentives and shifting strategies, while imposing significant new costs.

Filing Rates

Filings jumped 30 % in 2005 to over two million cases with a spike in Chap. 7 filings prior to implementation as debtors rushed to file under the old law (AOUSC, 2014b). With so many cases in 2005, it was no surprise that filings fell dramatically in 2006, to just over 600,000. Subsequently, as the Great Recession took its toll, household finances deteriorated significantly (Bricker et al., 2014), and filings rebounded, though falling short of former levels, reaching 1.5 million cases in 2010 (Garrett & Wall, 2014).

As the tepid economic recovery progressed and household debt burdens eased (Federal Reserve Board, 2014), the number of cases declined steadily to 0.9 million in 2014 (AOUSC, 2014b). Annual filing rates were 0.7 % of U.S. households in 2014, down from 1.4 % in 2004, similar to 0.8 % in 1994, and up from 0.3 % in 1984 (AOUSC, 2014b; U.S. Census Bureau 2015). With nearly 10 years’ hindsight, it appears

BAPCPA's chilling effect on consumer bankruptcy filing rates has endured.

While the Great Recession increased financial distress and the demand for bankruptcy, the decrease in filings post-BAPCPA is attributed to several factors. One undisputed fact is that filing for bankruptcy has become more costly due to increased filing and attorney fees, placing bankruptcy relief out of reach of a larger number of desperate debtors (Truitt, 2007). Mandatory pre-filing counseling and pre-discharge financial education add costs but accomplish little (Lawless et al., 2008). Debtors who filed post-BAPCPA had higher debt-to-income ratios compared to pre-reform filers (Lawless et al., 2008). The economic recovery beginning in 2009 brought a substantial decline in household debt burdens, but net worth and savings were likewise markedly depressed (Bricker et al., 2014).

Chapter Choice

Under BAPCPA's means test, debtors with incomes exceeding their state's median can be required to file a Chap. 13 case with a repayment plan rather than a Chap. 7 with its more complete debt relief (White, 2007). This means test may have resulted in a small reduction in the average incomes of Chap. 7 filers, as intended, although the change was not statistically significant (Lawless et al., 2008). However, this policy may create a disincentive to work as opportunistic debtors try to keep their income below the median level during 6 months before filing in order to qualify for Chap. 7 (White, 2007). Another key BAPCPA provision redirecting filers away from Chap. 7 is a cap on state homestead exemptions that determine how much home equity can be protected from liquidation (Cornwell & Xu, 2014).

The means test and homestead exemption cap had a noticeable impact on chapter choice, based on analysis of a range of state-level variables over 8 years (Cornwell & Xu, 2014). The share of Chap. 13 cases rose from 28 % in 2004 pre-BAPCPA to 34 % in 2014, with considerable volatility in between (AOUSC, 2014b). A dramatic swing from 20 % in 2005 to 42 % in 2006 stands in contrast with the more measured rise in the share of Chap. 13 cases comparing 5-year averages, 29.2 % during 2000–2004 before BAPCPA and 30.5 % during 2010–2014 (AOUSC, 2014b).

As noted, Chap. 13 generally offers less debt forgiveness than Chap. 7, particularly since completion rates are much lower in Chap. 13 (AOUSC, 2014a). While proponents of the incentives model of bankruptcy wanted to use BAPCPA to direct more debtors into repayments plans, high Chap. 13 filing rates result in repeat filings and thus more bankruptcies (Lown, 2006). Further, few debtors earn above their states' median income, especially since many filings are prompted by job loss or reduced income (Warren & Thorne, 2012).

Other Considerations

While the credit card industry spent millions lobbying for BAPCPA, it is unlikely to result in higher payments to credit card issuers (Leicht, 2012). For one thing, BAPCPA gives any portion of auto and other secured loans that exceed collateral value higher priority in repayment than unsecured debts. More importantly, policies to increase collections face the reality that debtors possess limited repayment capacity: the vast majority of Chap. 7 filings are no-asset cases with no repayment to creditors (U.S. Department of Justice, 2014), and only one-third of Chap. 13 debtors complete their repayment plans (AOUSC, 2014b). Even as the share of Chap. 13 cases rose under BAPCPA, the actual number of Chap. 13 cases declined, consistent with the suppressed filing rate under either chapter and reflecting a decreased role of bankruptcy courts in assisting with debt collection. Most collections for delinquent debts occur outside of bankruptcy courts, documented by a growing volume of consumer complaints to the FTC about debt collection practices (Dawsey et al., 2013).

Several BAPCPA provisions tend to affect low-income filers and their dependents more acutely than others: additional documentation requirements, increased filing fees, automatic stay workarounds for banks that jeopardize debtors' residences, Chap. 13 nondischargeability for

private student loans, and decreased "cramdown" protections for secured debt in excess of collateral value (MacArthur, 2008–2009).

Vulnerable Households

A growing body of research promotes accurate information regarding bankruptcy filers. Most filers come from the middle class, whose members are more likely to declare bankruptcy than those in the top and bottom quartiles (Himmelstein et al., 2009; McCloud & Dwyer, 2011). Starting college but not finishing places a person at greater risk for debt delinquency and bankruptcy (Porter, 2012; Xiao & Yao, 2014). In 2010, 58 % of filers had at least some college, up from 54 % in 2006 (Linfield, 2011). Self-employed workers approach the courts when insolvency attends entrepreneurship. While U.S. job growth is tied to small business attempts, they account for approximately 14 % of Chaps. 7 and 13 cases characterized by above-average unsecured debt balances, according to a national random sample for a 2007 survey (Lawless, 2012). Women file alone at a higher rate than men, which reflects the precarious economic status of single women (Lawless, 2012).

Age and race differentials enter the picture as well. Debt delinquency and filing rates are higher in areas with above-average percentages of African Americans, even when analyses account for differences in income, education, credit access, judicial practices, and other plausible explanatory variables (Lefgren & McIntyre, 2009; Xiao & Yao, 2014). With similar research controls, blacks are more likely than whites to file a Chap. 13 repayment plan instead of a Chap. 7 liquidation and thus are less likely to receive a debt discharge (Cohen & Lawless, 2012). From 2006 to 2010 consumer bankruptcy filings increased for debtors ages 18–44 but decreased for debtors age 55 and above, whose ranks swelled from 22 % of the sample in 2006 to 27 % in 2010 (Linfield, 2011). The trend is associated with rising costs for health care and other needs, while incomes remain relatively stationary (Sermons, 2012).

From 2004 to 2012 outstanding student debt tripled from $364 billion to $966 billion, averaging 14 % annual growth, with two-thirds owed by borrowers under age 30, results based on a 5 % sample of U.S. households that had credit reports (Brown, Haughwout, Lee, Scally, & van der Klaaw, 2014). In 2010, student debt surpassed credit card debt to become the largest category of non-mortgage household debt (Brown et al., 2014). The student loan delinquency rate has increased steadily since 2004; "nearly one third of the borrowers in repayment are delinquent on student debt, a fact that is masked by the large numbers of borrowers who are in either deferment or grace periods" (Brown et al., 2014, p. 18). Although student loans are not dischargeable in bankruptcy, their nonnegotiable presence contributes to default on types of loans that bankruptcy courts do address.

While we would like to think that the risk of personal bankruptcy is limited to certain "vulnerable" groups, Leicht (2012) provides evidence that virtually all middle and lower income Americans are but one job loss or medical event away from bankruptcy. Decades of wage stagnation and rising income instability, accompanied by abundant credit and predatory lending, mean that consumers face the rising costs of housing, health care, child care, and higher education with the temptation to borrow beyond their ability to repay (Hacker, 2012; Leicht, 2012).

Hacker (2012) describes the "Great Risk Shift" that imperils middle class families as they face higher housing, health care, and education costs, along with more responsibility for retirement security, while struggling with stagnant incomes and a volatile economy. Due in part to a frayed social safety net, the American middle class has a far higher risk of personal bankruptcy than counterparts in other industrialized nations (McGregor, Klingander, & Lown, 2001).

Life After Bankruptcy

The Bankruptcy Code states that the purpose of bankruptcy is to provide debtors with a "fresh start." Yet, after discharging their unsecured debts,

most filers are barely making ends meet, burdened with nondischargeable debts and residual effects of the personal financial issues that led to bankruptcy (Porter, 2012). A significant reduction in earnings is observed up to a decade after filing bankruptcy (Maroto, 2012).

A bankruptcy filing stays on a credit report for up to 10 years. Creditors treat previous filers differently for secured and unsecured loans, offering nondischargeable vehicle loans more readily than dischargeable credit card debt. Based on empirical modeling using both the SCF and the Panel Study of Income Dynamics (PSID), Fisher and Lyons (2010) conclude that having filed for bankruptcy substantially "increases the probability of being denied access to a loan. The flag also increases interest rates for unsecured loans and lowers the credit limits available to households" (p. 3175).

Addressing the Bankruptcy Problem

Bankruptcy law fails to address the underlying issues of abundant credit, weak usury laws, financial insecurity, high medical costs, and creditor incentives to lend to high-risk, high-profit borrowers. Over the past three decades U.S. policies have contributed to growing income and wealth disparities and a fraying social safety net (Bivens, Shierholz, Mishel, & Gould, 2012). Making bankruptcy more costly has only increased the total burden borne by debtors and society. Mann (2006) advocates integrating bankruptcy policy with the broader system of resources and alternatives society offers individuals with financial challenges. For example, the removal of debtor-friendly bankruptcy provisions should be accompanied by demands on creditors and offset by concessions to consumers in areas such as lending transparency, insurance affordability, usury laws, and tax policy.

Consumer bankruptcy can be addressed in terms of credit demand and credit supply. First, the literature emphasizes individual choices and public policies that would reduce the need for borrowing (credit demand) that is unsustainable for consumers: increase household savings and minimize debt dependence for regular living expenses (Bricker et al., 2014; Lawless et al., 2008); obtain adequate health insurance, perhaps through public health care improvements like the Affordable Care Act (Himmelstein et al., 2009); strengthen unemployment insurance (Garrett & Wall, 2014); improve public transit to alleviate the financial pressures of personal vehicle ownership; and adequately fund education and occupational training programs to improve household earning potential (Brown et al., 2014; Porter, 2012).

Consumer bankruptcy losses to creditors and consumers can be addressed by improving the supply of credit. Recommended actions promote alternatives to payday loans and other high-cost emergency credit (Braucher, 2006; Han & Li, 2011); revisit usury laws (Montezemolo, 2013); impose a lender tax on defaulted debt as does Belgium (Mann, 2006); strengthen creditor harassment statutes (Dawsey et al., 2013); bolster underwriting standards to ensure borrowers have the capacity to repay, along the lines of the consumer protection provisions of Dodd-Frank in 2010 (Leicht, 2012); and, following up on the Credit Card Act of 2009, limit credit card fees and restrict onerous and deceptive terms of credit (Montezemolo, 2013). Protections from financial reforms should be tailored to avoid unnecessary reductions in credit offerings that facilitate entrepreneurship, human capital development, income maintenance during emergencies, etc.

Regulation of creditors may be advisable to protect consumers. With credit scoring models and credit reports, lenders control their rates of default (Mann, 2006). Lenders can turn off credit to borrowers at any time, as they did in 2009–2010. Mann (2006) provides evidence that credit card charge-offs rose steadily prior to the global financial crisis, but rather than cut back on lending, creditors opened the credit floodgates. Obviously borrowers are not the only parties with control over "social losses [from] financial distress" (p. 425).

Legal reform could provide a more consistent bankruptcy experience across regions by reducing judges' procedural discretion and standardizing

state statutes for asset exemptions and garnishment laws (Levitin, 2006). Professional associations, such as the Uniform Law Commission, research and recommend legislation to encourage states to adopt similar statutes. Alternatively, federal lawmakers can issue mandates that apply in all states, such as BAPCPA's homestead exemption cap (Cornwell & Xu, 2014). State and judicial inconsistency produces extremes, ranging from weak incentives for debtor responsibility to punitive legal cultures protecting creditors. For the interested reader, multiple sources offer detailed comparative bankruptcy information by state (e.g., Lefgren & McIntyre, 2009, pp. 376–377; Nolo Press, n.d.).

Citing low financial literacy levels, Braucher (2006) argued for a comprehensive K-12 financial education program to reduce bankruptcy. The program could be modeled after homebuyer education programs and campaigns to change attitudes and behaviors related to antismoking, racial tolerance, and safe sex. Just over half of CBP respondents (55 %) indicated that consumer education might have helped them avoid bankruptcy, while the remainder believed education would not have helped (Thorne & Porter, 2007). Effective interventions must be adapted to distinct populations by age, race, sex, and education level. Post-secondary programs would reach young adults as they become increasingly independent. Possible settings for instruction include colleges, associated with student loans or the regular course curriculum; banks, required for certain borrowing transactions; and places of employment, both civilian and military.

Research Needs

There is much we do not know about the pathways to bankruptcy and how the need to file can be averted. The most valuable studies to date employ data from public court records and detailed surveys of consumers in and out of bankruptcy. The Public Access to Court Electronic Records system has vastly improved access to court data. Still, large time investments are required to comb through non-tabular documents for items of interest. Court records lack basic demographic information—such as age, race, and gender—but contain a wealth of information covering recent addresses, household characteristics, employment, earnings, assets, debts, previous bankruptcies, collection proceedings, and other topics. CBP funding, provided by the National Science Foundation and other sources, made possible phone interviews and a written survey filled out by debtors, besides extensive review of corresponding court data in several districts. Researchers creating their own datasets can collect current data for the variables and geography they select. Such studies need generous time allowances, arrangements for data entry assistance, and an adequate sample size.

Data sources that include individuals both in and out of bankruptcy may be sparse on bankruptcy details but often are nationally representative with large sample sizes and many demographic and other variables to which bankruptcy outcomes can be tied. Longitudinal surveys, such as PSID and NLSY, further our understanding of the root causes and aftermath of bankruptcy (Fay et al., 2002; Maroto, 2012). Key cross-sectional data sources include the SCF, credit reporting bureaus, and major lenders. Researchers can compare debtors who filed for bankruptcy and those in similar trouble who managed to avoid filing. What choices or opportunities were theirs? Which group of debtors is better off a few years later?

An obvious need for research is on the role of medical expenses as a precursor to bankruptcy now that the Affordable Care Act has been implemented. Multiple studies (Himmelstein et al., 2009; Pace, 2013) clearly implicate medical expenses as a bankruptcy trigger. The roles of low cognitive function, mental illness, and addictions in bankruptcy have yet to be documented. Is there a link between health problems and repeat filings? More broadly, what gaps in the social safety net are most critical to encumbered consumers or most easily addressed? What role can employers play in helping workers avoid bankruptcy?

As bankruptcy law continues to evolve, policy makers and legal practitioners would benefit from updated evidence regarding the incentives to begin and complete bankruptcy under

BAPCPA, unravelling outcomes associated with various components of the law. For example, one could evaluate the assertion that mandatory credit counseling has had little deterrence effect on filers (Lawless et al., 2008). If financial pressures and unexpected trigger events are the main causes of bankruptcy, can debtor education improve completion rates or help prevent repeat filings? Most debtor counseling and education is offered online; what is the optimal timing and format to engender financial literacy that might avert future distress from debt?

Connections between state laws, judicial practices, and Chap. 13 outcomes are not well understood. For instance, how hastily debtors are dismissed from Chap. 13 for failure to make monthly trustee payments varies among districts. Also, more research is needed on the bearing of local and national macroeconomic conditions on bankruptcy behavior (Garrett & Wall, 2014). Various categories of debtors identified in the section titled "Vulnerable Households" merit focused study. Among others, these include self-employed workers, women, student loan holders, those with medical expenses, and people of different races and backgrounds. While racial differences in filing rates and chapter choice have been documented, the reasons behind the statistics remain unknown. Bankruptcy is supposed to provide a "fresh start," but most debtors are still in financial trouble after discharge (Maroto, 2012). Fisher and Lyons (2010) suggest the need for research on the length of time bankruptcy should remain on a credit report, as the flag that assists with creditor decisions results in significant costs and barriers for individuals.

Summary

Consumer bankruptcy is very much a middle class phenomenon. The volatile economy, reduced job security, and stagnant wages accompanied by rising housing, education, childcare, and medical expenses weigh on the middle class and all Americans. Financial setbacks for a growing number of debtors result from pursuing higher education, homeownership, and entrepreneurship. Borrowing to attend college (but failing to graduate), buying a house, and starting a business are risky ventures. Declining real wages and shrinking employee benefits, aggravated by irresponsible lending, contribute to middle class debt burdens that too often end in bankruptcy.

Household finances deteriorated significantly as a result of the 2008 global financial crisis. Financial distress sent many individuals looking for relief to bankruptcy courts, which had become less debtor-friendly under restrictive reforms implemented in 2005. Furthermore, federal bankruptcy law is applied inconsistently across districts, channeling debtors in some areas (and selected races) into Chap. 13 plans that are costly and often inconclusive. Households often circumvent the legal system and slip into informal bankruptcy. The underlying causes of bankruptcy, including economic realities and alternatives to default, are keys to understanding the behavior of individuals in bankruptcy. Informed public policies and individual choices can reduce losses from insolvency and consumer bankruptcy.

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Neuroscience and Consumer Finance

27

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Neuroscience: Overview and Research Methods

Overview of Neuroscience

"Scientists have learned more about the brain in the last [few decades] than in all previous centuries because of the accelerating pace of research in neurological and behavioral science and the development of new research techniques." (NINDS, 2014, Introduction section, para. 2). The advances in our collective understanding of neuroscience have direct relevance to consumer finance as it relates to making financial decisions. Other researchers have previously written summary articles to aid interested readers in better understanding the application of neuroscience to economics, commonly called neuroeconomics (see Camerer, Loewenstein, & Prelec, 2004; Goetz & James, 2008; James, 2011). To better understand this line of research and its methods, a brief overview of the brain is provided. Although the brain is very complex, a simplified categorization of some of the main components and their primary functions can provide some helpful context.

A few of the main components of the brain are the brain stem, the cerebellum, and the cerebrum (Lundbeck Institute, 2011; NINDS, 2014). The brain stem connects the spinal cord to the brain, and the cerebellum is on the back of the brain stem. The brain stem and cerebellum are primarily responsible for vital functions of the body, including breathing and circulation (Lundbeck Institute, 2011; NINDS, 2014). However, these functions are less involved in making financial decisions. As such, most neuroscience research related to financial decision making focuses on components related to the cerebrum.

The cerebrum includes two hemispheres, known as the right and left hemispheres. Each hemispehere comprises four lobes, with each lobe having a relatively greater involvement in specific functions (Lundbeck Institute, 2011; NINDS, 2014). The foremost lobe, just behind the forehead, is the frontal lobe. Among other functions, the frontal lobe is involved in planning, logic, and the integration of inputs from other parts of the brain (NINDS, 2014). Just behind the frontal lobe on the top of the head is the parietal lobe, which is primarily involved in sensory input, especially touch, movement, taste, and smell (NINDS, 2014). On each side of the brain, below the parietal lobes and behind the ears are the temporal lobes. Among other functions, the temporal lobes aid in auditory processing and

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memory formation (NINDS, 2014). The temporal lobe is also involved in emotion (Lundbeck Institute, 2011). The fourth lobe, the occipital lobe, is located in the back of the cerebrum. The occipital lobe is involved in visual processing (NINDS, 2014).

The outermost layer of the cerebrum is a thin layer of tissue known as the cerebral cortex or gray matter (Lundbeck Institute, 2011; NINDS, 2014). The cerebral cortex is where most information processing takes place (NINDS, 2014). Information processing, therefore, largely takes place on the surface of the brain. In order to accommodate more surface area within the confined space inside the skull, the cerebral cortex is quite wrinkled (Lundbeck Institute, 2011; NINDS, 2014). Not surprisingly, neuroscience research related to financial decision making often focuses on functions and processing performed in the cerebral cortex of the frontal lobe. A common area of focus in these studies is the prefrontal cortex and its subcomponents within the frontal lobe. For example, activation of the medial prefrontal cortex (mPFC) is associated with high-level reasoning and a measure of strategic reasoning (Coricelli & Nagel, 2009). Activation of the ventromedial prefrontal cortex (vmPFC) is correlated with making judgments about the values of goods and services (De Martino, O'Doherty, Ray, Bossaerts, & Camerer, 2013).

Near the center of the brain beneath the cerebral cortex, and still considered part of the temporal lobe, is the limbic system (Lundbeck Institute, 2011). The limbic system is involved in connecting the cerebrum with the brain stem and other parts of the brain. Although the limbic system serves as a pathway among major components of the brain, the limbic system is also involved in memory formation and emotional responses and processing (Lundbeck Institute, 2011; Phan, Wager, Taylor, & Liberzon, 2002). Some of the specific parts of the brain often included as part of the limbic system include the orbitofrontal cortex (O'Doherty, Kringelbach, Rolls, Hornak, & Andrews, 2001), the amygdala, and the insula (Dreher, 2007). These structures within the limbic system are involved with emotion and are often the subject of neuroscience research related to financial decision making.

Neuroscience Research Methods

Neuroscience research methods can vary depending on whether the researchers are focusing on the structure or the function of neurological components. They can also vary depending on their degree of invasiveness. Modern neuroscience research methods include a large variety of techniques, most of which can be grouped into four main types: case studies, descriptive studies, manipulative studies, and screens (Carter & Shieh, 2010). Case studies in neuroscience often involved the intense study of an individual who experienced an event that cannot, or should not, be repeated (Carter & Shieh, 2010). A famous neuroscience example of a case study is that of Phineas Gage, who miraculously survived a traumatic lesion of his frontal lobe. Descriptive studies focus on observing neurological properties, whereas manipulative studies examine the effect of experimentation with neurological processes (Carter & Shieh, 2010). Screens attempt to identify the role of various neurological components on a particular process (Carter & Shieh, 2010). In other words, screens are commonly employed when focusing on the function of one or more neurological components.

The neurological study of financial decision making builds upon previous research employing methods in each of these four types. An understanding of the structure of the brain and the primary functions of its components is requisite to have any hope of gaining additional insight about the neurological processes involved in making financial decisions. However, research investigating financial decisions often employs a screen method, where researchers attempt to identify which areas of the brain are employed when performing a particular financial task or decision.

Arguably the most common category of screen methods used in neuroscience research related to financial decision making is whole brain imaging, where researchers attempt to capture images of the entire brain in order to analyze what structures of the brain are used when making specific decisions. James (2011) provides a helpful overview of some of the neuroscience methods commonly used in consumer finance, including the electroencephalogram (EEG) and functional

magnetic resonance imaging (fMRI). James (2011) also highlights the advantages and disadvantages of these methods.

Presently, much neuroscience research related to consumer finance employs fMRI methods. When an area of the brain is used, neurons in that area fire, and oxygen is burned. Subsequently, the body increases the flow of blood to that region, resulting in a rush of oxygenated blood. Deoxygenated blood has a stronger attraction to magnets than oxygenated blood. As such, researchers can identify which areas of the brain are being used at a particular time by noting the fluctuations of the paramagnetic properties of brain regions in the images. Different parts of the brain are activated to process information depending on the particular task being performed, and researchers hope to gain insight about the decision-making process by identifying which regions are employed for a particular task (for a lengthier discussion of fMRI research methods, see Friston, 2003; James, 2011).

The Dual-Self Model

The dual-self model (Fudenberg & Levine, 2006) can be a helpful framework to understanding neuroscience research related to financial decision making. Similarities to the dual-self model can be seen in the areas of the brain described previously. Some parts of the brain focus more on the rational, cognitive, higher-level processing, and some parts of the brain are more involved in emotional processing.

The dual-self model has been described in a variety of ways, each emphasizing similar yet different aspects of two selves within the mind. Others have described the idea of two distinct systems as the planner-doer model (Thaler & Shefrin, 1981), the affective and deliberative systems (Loewenstein & O'Donoghue, 2004), the System 1 and System 2 model (Kahneman, 2011), the cognitive-experiential self-theory (CEST) (Epstein, 1994), and the elephant-rider analogy (Haidt, 2006; James, 2011). The CEST theory and the elephant-rider analogy provide a good introduction to these models and are described in more detail here.

CEST characterizes a dual system that competes for control of consumer's actions and inferences. CEST emphasizes two interdependent systems of information processing which are defined as rational and experiential processing (Epstein, 1994). The rational system is logical, analytic, and involves a conscious appraisal of events. The experiential system involves preconscious, impulsive processing. Processing in the rational system is slower, and action is more delayed, compared to the experiential system. Although the rational system is described as rational, decisions from the rational system are not always rational. Optimal decisions may actually originate from the experiential system (e.g., consider "fight" or "flight" responses). The term *rational* is used to capture the idea of higher-level cognitive processing.

James (2011) provides a helpful overview of the dual-self model by describing it as an elephant and a rider. The elephant-rider model is an analogy first introduced by Buddha that Haidt (2006) also uses to describe the mind. They argue that human cognition is less like a computer system and more like a rider on an elephant's back. The rider represents the rational system. The rider is slow, thoughtful, and has the perception of control. However, the elephant, which represents the experiential system, is stronger, quick, and reactive. If desired, the elephant has the power to supersede the rider's decisions.

The rational and emotional systems within our brain are both beneficial and work in tandem with one another. For example, the quick responses of the emotional system can be helpful in finding quick resolutions to unimportant decisions, like when to schedule a meeting (Damasio, 1994). Damasio (1996) expands on this idea as part of his somatic marker hypothesis. The somatic marker hypothesis states that emotional processes can guide reasoned decisions (Bechara & Damasio, 2005), which may or may not result in more advantageous decisions (see Bechara, Damasio, Tranel, & Damasio, 1997; Damasio, 1994; Shiv, Loewenstein, Bechara, Damasio, & Damasio, 2005).

Neuroscience Research Related to Consumer Finance

What follows is a description of some of the findings of neuroscience research that are related to various aspects of consumer finance and financial decision making. Some of this research identifies specific areas in the brain that are used when making various financial decisions. Other times, the research identifies aspects related to the cognition involved in making financial decisions. In other words, the cited research may focus on the structural use of the brain or the functional use of the brain.

Purchase Decisions

Knutson, Rick, Wimmer, Prelec, and Loewenstein (2007) investigate the areas of the brain that are involved with purchase decisions. While participants were lying in an fMRI machine, they were shown a product, followed by a price for that product. After the price was displayed, they were presented with an option to purchase the product for the specified price. Product preference activated the nucleus accumbens (NAcc), which plays a role in learning, reinforcement, rewards, and gain prediction. Prices that were perceived to be excessive activated the insula and deactivated the mPFC prior to the purchase decision. The insula is associated with the anticipation of physical pain, negative arousal, and loss prediction. The mPFC is associated with perceptions of value, gain outcomes, and gain prediction errors.

Noteworthy in this research is that excessive prices activate the region of the brain that is also involved in experiencing physical pain. Individuals also activate the reward center of their brain when they have a preference for a product, suggesting that the anticipation of receiving a particular good is rewarding and that utility from consumption can begin before a good is consumed. Taken together, these findings suggest that paying for goods activates the pain area of the brain, while the anticipation of consumption activates the reward center of the brain. In other words, these findings suggest that individuals consider not just the satisfaction they might derive from consuming a particular good, but they also consider the pain they experience when the price is excessive. Utility, therefore, may be viewed as the net result of anticipated satisfaction from consumption after accounting for the pain of paying. For additional insight about the pleasure-seeking reward system and the pain avoidance system in the brain, see Peterson (2005).

The Framing Effect

The framing effect is a cognitive bias in which consumers construct different representations based on how situations are presented. A common example of the framing effect is the tendency for consumers to avoid uncertainty when it is framed as a gain but seek uncertainty when it is framed as a loss (Tversky & Kahneman, 1981). Greater cognitive effort is expended when individuals select an uncertain gain compared to a certain gain (Gonzalez, Dana, Koshino, & Just, 2005). However, there is no difference in the cognitive effort expended when someone selects an uncertain loss or a certain loss (Gonzalez et al., 2005). Brain activation in the prefrontal and parietal cortices during these decisions about uncertainty suggests that working memory and imagery are involved in the process (Gonzalez et al., 2005). Activity in the orbital and medial prefrontal cortices predicts a reduced susceptibility to the framing effect (De Martino, Kumaran, Seymour, & Dolan, 2006; Kahneman & Frederick, 2007). In other words, individuals with more activation in the areas of the brains associated with higher-level processing are less susceptible to the framing effect.

These findings provide support for a cognitive explanation for the framing effect. In other words, the framing effect appears to be more than merely a mental game but rather the framing effect can impact the cognitive processes involved in making decisions. Further, individuals may be attempting to visualize the outcomes of their choices, which may be difficult to do when the outcomes are uncertain.

Loss Aversion

Loss aversion is the tendency for individuals to overweigh losses compared to similar gains, relative to an arbitrary reference point (Kahneman & Tversky, 1979). The amygdala plays a key role in processing losses (Bechara, Damasio, Damasio, & Lee, 1999; Breiter, Aharon, Kahneman, Dale, & Shizgal, 2001). Two individuals with focal bilateral amygdala lesions displayed a dramatic reduction in loss aversion during a series of monetary gain and loss gambles (De Martino, Camerer, & Adolphs, 2010). Loss aversion also correlates with amygdala activity in response to losses relative to gains under mixed gambles (i.e., the outcome could be a gain or a loss) (Sokol-Hessner, Camerer, & Phelps, 2013).

Trepel, Fox, and Poldrack (2005) propose that the anticipation of a loss (e.g., selling a product) evokes negative emotion whereas losing money (e.g., buying a product) does not. The amygdala is not active when consumers estimate purchase prices; however, the amygdala activates when consumers estimate sale prices, which may indicate a stronger sense of loss aversion when selling goods one already possesses (Reimann, Schilke, Weber, Neuhaus, & Zaichkowsky, 2011). Since consumers also experience a loss (i.e., money) when they buy a product, these findings may seem counterintuitive. However, consumers tend to value items they possess more than similar items they do not possess, which is known as the endowment effect (Kahneman, Knetsch, & Thaler, 1991). As a result, consumers who understand the tendency to systematically overvalue items they possess can adjust their expectations accordingly.

Distinct neural mechanisms help consumers anticipate gains as compared to losses (Khoshnevisan, Nahavandi, Bhattacharya, & Bakhtiary, 2008). More specifically, risk-seeking decisions (e.g., gambling in a casino) and risk-averse decisions (e.g., buying insurance) may be driven by different neural systems. An anticipation of reward can lead to an increase in the likelihood of consumers switching from risk-averse to risk-seeking behavior, which might explain why casinos surround their guests with cues such as inexpensive food, free alcohol, and advertisements for large jackpots (Khoshnevisan et al., 2008).

Neuroscience also provides guidance on overcoming loss aversion. When consumers perceived their monetary choices as part of a holistic process, instead of viewing it in isolation, they reduce their loss aversion (Sokol-Hessner et al., 2009). Sokol-Hessner et al. (2009) defined the holistic approach as emphasizing choices in their greater context, such as by creating a financial portfolio. For a lengthier review of the neuroscience literature related to loss aversion, see Rick (2011).

Risk Tolerance

Many studies find that men tend to have higher levels of risk propensity than women (Croson & Gneezy, 2009; Dohmen et al., 2011; Powell & Ansic, 1997), but the underlying reason is largely unknown. Zhou et al. (2014) find evidence that the resting-state neural correlates of risk propensity may differ between men and women. These findings provide a neural explanation for a well-known gender difference. Understanding that men and women neurologically process risky decisions differently can impact the approach taken to discuss risk and properly account for it in financial decisions.

Hyperbolic Discounting

McClure, Laibson, Loewenstein, and Cohen (2004) provide a possible neural explanation for hyperbolic discounting. They hypothesize that "short-run impatience is driven by the limbic system…whereas long-run patience is mediated by the lateral prefrontal cortex…" (McClure et al., 2004, p. 504). The ventral striatum (vStr), medial orbitofrontal cortex (mOFC), medial prefrontal cortex (mPFC), posterior cingulated cortex (PCC), and the left posterior hippocampus all activate more in the presence of immediate rewards. An interaction also exists between choice and brain areas, where greater activation in the limbic system is associated with choosing early, while the limbic system has less activation

(relative to areas involved with all decisions) when the delayed reward is chosen.

These results suggest that hyperbolic discounting may merely be the manifestation of the dual-self model within every consumer. Emotions tend to dominate decisions in the near future, whereas emotion plays less of a role in delayed rewards. As a result, consumers may benefit from making long-term decisions while those decisions are still in the future. For example, the Save More Tomorrow™ savings program developed by Thaler and Benartzi (2004) finds that individuals are more willing to increase future savings rates than they are to adjust current savings rates. They use this finding to develop a program that allows employees to commit to increase retirement contributions in the future, often when they receive a salary increase.

Home-Country Bias

Retail investors and fund managers tend to exhibit a home-country bias (Strong & Xu, 2003; Uppal, 1992). Home-country bias occurs when an individual invests more heavily in companies that operate in the country in which he or she resides. When analyzing brain activity while making portfolio choices between funds of different national origins, home-country investment selections were correlated with amygdala activity (Kenning, Mohr, Erk, Walter, & Plassmann, 2006).

These findings suggest that loss aversion may have a role in the home-country bias. Investors may be averse to the uncertainty of investing in companies in foreign lands. This uncertainty aversion supports other findings that suggest that individuals tend to invest more in companies familiar to them (Huberman, 2001).

Financial Market Bubbles

Neuroscience also plays a role in investment decisions. For example, researchers in one study had participants engage in a market-trading simulation game (De Martino et al., 2013). In some of the trials, the experiment resulted in a boom-or-bust type of investment bubble, where the share price of the hypothetical asset increased far above its intrinsic value. In other sessions, the share price stayed near its intrinsic value. In all of the trials, participants were asked to imagine they were participating in the market, in which they were to invest part of their $60 endowment. Some of the subjects participated in the boom and bust trials, whereas others did not. Increased activity in the vmPFC was correlated with a greater likelihood of riding a bubble but not correlated with purchasing additional shares at inflated prices. During financial bubbles, participants experienced an increase in dorsomedial prefrontal cortex (dmPFC) activity, which is where inferences about others' mental states are processed.

These findings suggest that during a market bubble, investors may think about why others are investing. Alternatively, investors may view the entire market as one collective mental state (De Martino et al., 2013). Although projecting others' intentions may be helpful in other situations, doing so in investment decisions may be a contributing factor to financial market bubbles and their ultimate decline.

Mortgage Default Decisions

After the housing bubble burst in the late 2000s, many homeowners owed more on their mortgages than the home was worth, resulting in a negative equity position. Many homeowners in this situation made the calculated financial decision to stop making payments on their mortgage. However, some homeowners did not exercise this option and continued to pay their mortgages, even when it would have benefitted them financially. Seiler, Walden, and Lane (2012) investigate a neurological explanation for how individuals make this mortgage default decision.

A negative equity position is the primary economic determinant in the decision to strategically default on a mortgage. Most homeowners focus on a negative equity position rather than the potential loss of a down payment (and the repayment of any principal) when deciding whether or

not to default on the mortgage (Seiler et al., 2012). Homeowners who have a significant negative equity position have higher activation in the anterior cingulate cortex, which is associated with cognitive dissonance (Seiler et al., 2012). Activation in the left lingual gyrus, which is associated with autobiographical thinking, was greater for homeowners who were more willing to default (Seiler et al., 2012).

These findings suggest that when homeowners are severely underwater, they may experience a conflict between a moral obligation to honor a mortgage contract and a desire to strategically default on a poor financial investment (Seiler et al., 2012). Homeowners who decide to default likely engage in a lot of thinking about what that will entail, how their lives will be different as a result of defaulting, and how they can reconcile the decision with their moral compass. Conversely, homeowners who decide not to default are able to maintain the status quo, which requires significantly less self-reflection and does not create a dissonance with their moral compass (Seiler et al., 2012).

Age and Financial Decisions

Weierich et al. (2011) provides a review of fMRI studies regarding age and its impact on financial decision making. Their main hypothesis is that the use of affect (i.e., relying on feelings to guide decision-making; following your gut reactions) increases with age and likely contributes to sub-optimal financial outcomes. They also highlight that the hippocampus has a role in imagining what the future will be like by combining elements from the past (i.e., memory). The hippocampus reduces in size and function with age, leading older adults to be more general (i.e., less detailed) in their future forecasts. The insula in older adults is also activated less when anticipating losses. Further, older adults have less activation in the amygdala in response to negative pictures.

These findings suggest that the susceptibility of making sub-optimal financial decisions increases with age. As a result, consumers may benefit from involving trusted children and/or other trusted family members in financial decisions later in life. Also, consumers may benefit by forming relationships with trusted financial professionals earlier in life. By doing so, a consumer can protect their future self from their future self who may be more likely to make sub-optimal financial decisions than their current self, family members, or trusted professionals (with the caveat that the trusted professional provides quality financial advice).

Choosing a Financial Advisor

James (2013) investigated the role that professional financial designations have on an investor's advisor selection decisions. Prior to participating in a stock market simulation, participants selected a financial advisor, some of whom had the CFP® certification and others did not. The simulation involved presenting a return for the market (which could be a positive or negative return) and a corresponding return for the participant's investment portfolio. Depending on the relation between the two returns, the impression was that the advisor may have underperformed or outperformed the market, or had a return fairly similar to the market. At any point during the simulation, participants were allowed to change their advisor.

Changing financial advisors was more likely to occur during periods of relative underperformance (James, 2013). When the selected advisor did not have the CFP® certification, brain activation immediately prior to changing advisors was greater in the dorsal anterior cingulate cortex, which is associated with error detection, as well as the inferior parietal and middle frontal gyri, which are associated with number comparisons. The findings suggest that individuals are more likely to search for errors when their advisor does not have a certification. They are also more likely to make numerical comparisons of their advisor's returns to the market. Conversely, individuals who select an advisor with a certification are arguably more likely to trust their advisor and the advisor's abilities.

Newest Research

Neuroscience research on consumer financial decisions continues to move forward, and the newest research is yet to be published. For example, Frydman (2014) uses neural predictors regarding the role of the vStr in prediction errors. Using these predictors, Frydman (2014) finds evidence that social learning and relative wealth perceptions play a role as peer effects in investing simulations, providing neural evidence of the role of social interactions in investment behavior.

Conclusion and Future Research

Developments in research methods have allowed researchers to explore the neural aspects of making various financial decisions. Much neuroscience research on financial decisions uses fMRI methods, largely to identify which parts of the brain are being used when making a particular financial decision, and to consider what functions those regions of the brain tend to play. For example, Knutson et al. (2007) finds that prices that are perceived to be excessive activates the pain region of the brain, whereas preferred goods activate the reward region of the brain. The results of McClure et al. (2004) suggest that hyperbolic discounting can be explained by the competing priorities of the limbic system and the lateral prefrontal cortex. Other neuroscience research has focused on investment decisions and the use of professional financial advisors.

Neuroscience research has also analyzed financial decisions involving risk and uncertainty. For example, the results of Gonzalez et al. (2005) suggest that individuals often try to visualize the outcome of financial decisions, which is hard to do when the outcomes are uncertain. Sokol-Hessner et al. (2009) suggest that individuals are less susceptible to loss aversion when they view financial decisions in light of a greater context, rather than focusing on the outcome of a single financial decision. Zhou et al. (2014) find evidence that gender differences in risk tolerance may have a neural explanation.

Despite all that has been discovered, the field of neuroeconomics is still relatively new and largely unexplored. Numerous new discoveries are yet to be made. Ideas for neuroscience research often spring from observing behavioral anomalies and seeking a neurological explanation for why individuals tend to exhibit behavior that runs contrary to what would seem theoretically optimal. For example, insurance is a useful financial tool, used to transfer the risk of catastrophic financial events, such as a premature death, long-term disability, or substantial liability claim. However, many individuals have limited interest in insurance policies that provide protection from such catastrophic events (Kunreuther & Pauly, 2004). Seeking a neural explanation for this wide-spread underinsurance may be helpful in identifying ways to improve the financial protection of consumers.

A similar situation exists regarding longevity annuities. Many individuals would benefit from having protection against outliving one's assets, yet relatively few people purchase longevity annuities, or even have an interest in doing so in the future (Guillemette, Martin, Cummings, & James, 2016). A neural explanation analyzing annuity purchase decisions may help financial engineers design annuity products that are advantageous yet more palatable to both the rational and emotional systems in the brain.

Countless other research possibilities exist, but one more is mentioned. Although researchers may find neuroscience research fascinating and intriguing, little is known about the efficacy of an awareness of the workings of the mind. In other words, does having an awareness of the existence and functions of both the rational and emotional systems within the brain help individuals make more informed decisions? Exploring this question would help neuroeconomic researchers better understand the benefits of performing such research.

A better understanding of the neuroscience of financial decision making may help researchers and practitioners alike. Researchers can arguably formulate more accurate frameworks and models for their own analyses if they have a

better understanding of how individuals make financial decisions. Practitioners can apply these principles in their work with clients by educating their clients on their existence. When making financial decisions, hired professionals are often less emotionally involved in the decisions and can help encourage more rational arguments. Practitioners can also confront unfounded emotional responses to financial decisions. More directly, the reader may benefit personally from having a better understanding of how his or her own brain works as he or she makes financial decisions.

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28 Online Shopping

Yi Cai and Brenda J. Cude

During the last two decades, the rapid diffusion of computer and information technologies throughout the business and consumer communities has resulted in dramatic changes. The application of the Internet to purchasing behavior is a notable change in the way buyers and sellers interact. According to the Pew Internet and American Life Project (2014), 87 % of Americans adults (aged 18 and older) used the Internet as of March 2014, up from 73 % in 2006, with near-saturation usage among those living in households earning $75,000 a year or more (99 %), young adults aged 18–29 (97 %), and those with college degrees (97 %).

An efficient and flexible information search, communication, entertainment, education, and transaction tool, the Internet is key to a large and ever-growing array of online activities. The most popular Internet use is email (94 % of Internet users) followed by search engine activity (87 %) but 22 % donate online and 26 % participate in online auctions (Pew Internet and American Life Project, 2010b). Online shopping is a broadly defined activity that includes finding online retailers and products, searching for product information, selecting payment options, and communicating with other consumers and retailers as well as purchasing products or services.

The increase in shopping online coincides with a general trend in the rapid growth in the Internet usage. The Pew Internet and American Life Project (2010a) reported that the proportion of the general population that has bought products or services online rose from around 20 % in 2000 to 52 % in 2010. Online sales also have made significant contributions to the economy, with the percent of U.S. total retail sales increasing from less than 1 % in 1999 to 5.9 % in the second quarter of 2014 (U.S. Census Bureau, 2014). E-commerce also has witnessed a rapid growth globally: total sales online topped $1.5 trillion worldwide in 2014, a 50 % increase from 2012 (eMarketer, 2014).

This chapter reviews important research related to several aspects of online shopping (for more earlier research, see Cai & Cude, 2008). It begins with an overview of research related to consumer use of the Internet, including issues related to those with and without access. The next section introduces online shopping theories and frameworks and factors influencing consumers' acceptance of online shopping. The third section reviews research that examines issues in the online shopping process and environment, including online information search, e-market environment, and online privacy and security.

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A final section provides an overview of emerging issues in online shopping research and concludes with comments regarding future research.

Consumers' Use of the Internet and Accessibility Issues

Consumers' Use of the Internet

Understanding the Internet's potential to bring benefits to individuals at all levels is important. Researchers have shown that the Internet enables greater political participation (Polat, 2005), creates opportunities for social participation and maintains community connectedness (Grace, Raghavendra, Newman, Wood, & Connell, 2014), supports and improves health care services (Antheunis, Tates, & Nieboer, 2013), and enhances learning (Kazmer, 2005). The Internet also connects producers and marketers into a vast and logistical communication network that is more efficient than traditional channels. Davies, Pitt, Shapiro, and Watson (2005) summarized five technological forces that are relevant to e-commerce in general and highlighted its major benefits—*Moore's Law* (the exponential growth of computing power over time), *Metcalfe's Law* (efficiency of a service increases as more people use it), *Coasian Economics* (reducing transaction costs), *the Flock-of-Birds Phenomenon* (connecting people on a global scale), and the *Fish-Tank Phenomenon* (enabling greater creativity on every level).

One implication of Davies et al.'s (2005) work is that as electronic technologies continue to grow in influence, consumers have the potential to benefit from e-commerce by taking more and more control of business transactions. With the rapid development and use of social networking tools, another force, *Social Media Phenomena*, can be relevant and bring benefits to e-commerce by enhancing customer participation (Kim & Srivastava, 2007), promoting customer relationships (Liang, Ho, Li, & Turban, 2011), and achieving greater economic value (Parise & Guinan, 2008).

An underlying assumption of technological forces benefiting consumers is that consumer participation in online activities in general and in e-commerce specifically will continue to grow exponentially. Therefore, it is important to learn who uses the Internet and shops online and who does not, and to investigate what attracts consumers to go online and shop there, how and what they do when they shop online, and what factors might accelerate or slow the growth in consumer online activities.

From "Digital-Divide" to "Digital-Inequality"

Despite the growth in the Internet's popularity, not everyone goes online. Some people are technological "have-nots," who do not have or want computers and/or Internet access. However, survey respondents, at least in the USA, are more likely to cite "no interest" or "Internet not relevant" than "no computer" as the reason for not being online (Pew Internet and American Life Project, 2013).

Inequity in access to information and communication technology was a topic that popularized political and academic debates in the 1990s about the "digital divide." A series of influential surveys in both developing and developed countries (for example, Georgia Institute of Technology, 1998; UCLA Center for Communication Policy, 2003; World Bank, 2000) provided empirical support for the existence of a digital divide and helped to put the topic on scholarly and political agendas. Initially, many of the studies concluded that individuals' income, education, race, and/or ethnicity explained the gaps in access. In the USA, as the percentage of Internet users has continued to grow over the past 2 decades, usage remains strongly correlated with demographic and socioeconomic factors such as age, education, and household income (Pew Internet and American Life Project, 2013). Although Internet access spans every age range, seniors continue to lag behind younger generations—a recent survey showed that 41 % of those aged 65 or older do

not use the Internet at all, compared with the near-saturation usage rate among young adults aged 18–29 (Pew Internet and American Life Project, 2014). Those with lower educations and incomes as well as minority individuals also have been the "have-nots."

There is evidence from recent research reports, however, that the gaps between those with and without Internet access are closing. For example, in the USA the percentage of Internet users among seniors aged 65 or old has steadily increased and gender is no longer a predictor of Internet adoption (Pew Internet and American Life Project, 2014). In some European countries, researchers have observed a "reversed" digital divide: people with low levels of education use the Internet more hours a day than those with more education (Van Deursen & Van Dijk, 2014); low-income Internet users spend more time online than high-income users (Pantea & Martens, 2013).

A theoretical framework developed by Van Dijk (2006) may help redefine the digital divide issue by paying more attention to social, psychological, and cultural backgrounds of users and non-users. The model incorporates different types of access such as motivational, material, skill, and usage access into a process rather than a single event of obtaining a particular technology. Examination and re-examination of the factors in this newer model of the digital divide have helped researchers make the argument that the digital divide depends on and reflects the society's disparities (Stiakakis, Kariotellis, & Vlachopoulou, 2010). Others have gone a step further and argued that digital inequality, also known as the "second order" digital divide, is not only a product of social inequality, but also a reproducer and even an accelerator as the Internet may widen the knowledge and skill gap between the information "haves" and "have-nots" (Witte & Mannon, 2010). The notion of human capital and social equality increasingly depending on the Internet also has prompted studies about a global digital divide, aiming to increase technology utilization and narrow its disparity across countries (World Economic, 2014). Researchers also have found that the Internet content available plays a significant role in promoting technology adoption and affecting social change across countries (Viard & Economides, 2014).

The literature about Internet access gaps supports a positive relationship between increased Internet penetration and online activities. As researchers have called for a comprehensive definition of Internet usage (Van Deursen & Van Dijk, 2014), online shopping adoption and usage also can be examined in a comprehensive framework that encompasses content (purposeless and impulsive or need-based and goal-oriented), frequency, time since first shopped online, and the online shopping environment.

Consumer Acceptance and Use of Online Shopping

Although some people cannot or choose not to be online, it is almost unanimously accepted that the technology offers an opportunity for business transactions that cannot be ignored (Kraut et al., 2002). As a growing retail channel, the special characteristics and benefits as well as limitations of the Internet have been discussed extensively (Hoffman & Novak, 1996; Ganesh & Agarwal, 2014).

The online shopping channel can be a valuable, interactive communication medium that facilitates flexible search, comparison shopping, and product and service evaluation. The attributes of the channel and its ability to match users' purposes can facilitate usage. With the development of mobile service and social media, new features and capabilities, such as location awareness, context sensing, and consumer interaction platform, have brought consumers novel services (e.g., location-based service), enhanced consumer relationships, and custom participation opportunities (Gültekin & Bayat, 2014; Liang et al., 2011).

Theories Explaining Online Shopping Adoption

Several theories and models that incorporated a variety of concepts and factors have been employed to explain why and how consumers

shop online. The following theories and models serve as major conceptual and theoretical frameworks in the current research about consumers' adoption and use of online shopping.

Media Choice Theory and Online Flow Experience Model The media choice theory proposes that selection of media for a specific task is a function of the characteristics of the medium and the task (Fulk, Steinfeld, Schmitz, & Power, 1987). According to the theory, media can be differentiated by the degree of interactivity, communication richness, social presence, and vividness. Researchers have evaluated those characteristics and applied them to the choice of the Internet for shopping (Hoffman & Novak, 1996). Hoffman and Novak (1996, 2009) described the *flow experience* in a computer-mediated environment, which is characterized by interactivity, intrinsic enjoyment, and loss of self-consciousness and is self-reinforcing; the flow experience can be a determining factor in consumers' use of the Internet as a shopping channel. As the authors note, skills and focused attention are necessary antecedents for consumers to start the flow process. The framework provides insight into understanding consumers' goal-directed as well as experiential activities on the Internet. Many studies have been built upon the conceptual model of online flow experience. Researchers have examined and extended the model by incorporating a variety of constructs such as interactivity, motivation, vividness, and antecedents that have included novelty, personal innovativeness, attractiveness, and playfulness (Choi, Kim, & Kim, 2007).

Diffusion of Innovation According to Rogers (2003), diffusion is a process indicating how innovations (ideas or practices that individuals perceive as being new) are communicated to individuals within a society over time and how consumers adopt or reject the innovations. Rogers identified five stages that consumers experience when deciding to adopt or reject an innovation: (1) knowledge (awareness of an innovation); (2) persuasion (attitude toward the innovation); (3) decision (adoption or rejection of the innovation); (4) implementation (commitment to the innovation); and (5) confirmation (evaluation of the decision results). Rogers also postulated that the five characteristics of innovations, relative advantages, compatibility, complexity, trialability, and observability, influence the consumer decision to adopt or reject an innovation. Researchers have demonstrated the diffusion process for consumers' online shopping behavior (Wu, Cai, & Liu, 2011); other researchers also showed that the characteristics of innovations positively influenced consumers' adoption of online shopping (Verhoef & Langerak, 2001).

Theory of Reasoned Action and Theory of Planned Behavior The components of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980) are three general constructs: behavioral intention, attitude, and subjective norm. The TRA suggests that a person's behavioral intention depends on the person's attitude about the behavior and subjective norms. Also, a person's behavioral intention leads to his/her actual behavior. Ajzen (1985) extended the TRA to a new theory called Theory of Planned Behavior (TPB) by adding a new component, perceived behavior control, to address situations in which individuals do not follow through on intentions to undertake volitional (under a person's control) behaviors. Also, perceived behavioral control is presumed to not only affect actual behavior directly, but also affect it indirectly through behavioral intention.

TRA and TPB have been applied extensively in the context of consumers' information technology adoption. Researchers confirmed that consumer online shopping behavior is influenced by individuals' attitudes toward the shopping channel, the subjective norm and the amount of control perceived during the purchasing process (Keen, Wetzels, De Ruyter, & Feinberg, 2004; Shim, Eastlick, Lotz, & Warrington, 2001). Other factors pertaining to consumer online shopping behavior also have been incorporated in the TRA and TPB framework, including consumers' experiences, their concerns about privacy, and their perceptions of the trustworthiness of the Internet (George, 2002); consumers' disconfirmation and satisfaction (Hsu, Yen, Chiu, & Chang, 2006); consumers' perceived enjoyment and flexibility in navigation (Childers, Carr, Peck, & Carson,

2001); consumers' perceived advantages and risks (Amaro & Duarte, 2015); and consumer communication (Chen & Huang, 2013).

Technology Acceptance Model The Technology Acceptance Model (TAM) is one of the most influential extensions of the TRA. The TAM proposed by Davis (1993) is intended to explain technological usage by examining the effect of perceived ease of use and perceived usefulness on individuals' intention to use the technology and actual usage behavior. The model was expanded by incorporating additional technology acceptance determinants, including social influence processes (subjective norm, voluntariness, and image), cognitive instrumental processes (job relevance, output quality, and result demonstrability) (Venkatesh & Davis, 2000), computer self-efficacy, perception of external control, computer anxiety, computer playfulness, perceived enjoyment, and objective usability (Venkatesh & Bala, 2008). A Unified Theory of Acceptance and Use of Technology (UTAUT) was later developed based on the different expansions of the TAM (Venkatesh, Morris, Davis, & Davis, 2003). The UTAUT formulated four constructs, namely performance expectancy, effort expectancy, social influence, and facilitating conditions, as determinants of individuals' intention to use the technology; also, four major factors, gender, age, experience, and voluntariness, were introduced as key moderators of the relationship between the determinants and individuals' intention to use the technology.

The TAM and its expansions have been tested within a wide variety of computer settings and have been shown to be a robust predictor of consumers' adoption and use of online shopping (Ha & Stoel, 2009). To explain consumers' online shopping behavior, researchers also have added factors to the model including consumers' socioeconomic characteristics (Hernandez, Jimenez, & Martin, 2011), consumers' personalities (Svendsen, Johnsen, Almås-Sørensen, & Vitters, 2013), online shopping quality (Ha & Stoel, 2009), self-efficacy (Hernandez et al., 2011; Vijayasarathy, 2004), security and privacy (Vijayasarathy, 2004), and trust (Ha & Stoel, 2009).

Factors That Affect Consumers' Adoption and Use of Online Shopping

Although much has been written about the numerous advantages of e-commerce for both businesses and consumers, there is no guarantee that consumers will substitute the Internet for traditional shopping channels. Many factors may affect consumers' adoption and use of online shopping. Researchers have identified four determinants of consumers' adoption and use of online shopping, namely consumer characteristics, consumer perceptions, e-tailer attributes, and product characteristics (Lian & Lin, 2008).

Researchers have found consistently that demographics and socioeconomic status such as age, gender, education level, and income influence consumers' acceptance of online shopping (Brashear, Kashyap, Musante, & Donthu, 2009; Hashim, Ghani, & Said, 2009). Other factors belonging to this category include consumers' value orientations (Wu et al., 2011), personality traits (Svendsen et al., 2013), and consumer self-efficacy and anxiety (Yao & Li, 2009).

A second category of determinants of online shopping adoption and usage is consumer perception. Variables in this dimension include perceived shopping convenience (including convenience of access, search, evaluation, transaction, and possession/post-purchase; Jiang, Yang, & Jun, 2013); perceived usefulness and ease-of-use (Ha & Stoel, 2009); perceived benefits (Eastin, 2002); perceived enjoyment (Kim, Fiore, & Lee, 2007); and perceived risk (Lee & Huddleston, 2010).

A third category is e-tailer attributes. Researchers have found the following e-tailer attributes are important when examining consumer online shopping acceptance: web design, performance, quality, and web site atmospherics (Hausman & Siekpe, 2009; Hsieh, Hsieh, Chiu, & Yang, 2014); e-tailer reputation (Goode & Harris, 2007); online customer service (Piercy, 2014); security and privacy (Youn & Lee, 2009); and e-tailers' social activity on e-commerce platforms (Qu, Wang, Wang, & Zhang, 2013).

A fourth category of factors affecting consumer online shopping adoption and use is

product characteristics. Researchers have examined the following variables as they relate to consumer online shopping: product type (Moon, Chadee, & Tikoo, 2008; Roman, 2010); cost (including search, comparison, examination, negotiation, payment, delivery, and post-service cost) (Moon et al., 2008); quality (Li, Xu, & Li, 2013); as well as online product suitability characteristics such as tactility, importance of customization, shipping cost, importance of instant satisfaction, time criticality, and information intensity (Bang, Lee, Han, Hwang, & Ahn, 2013).

Employing a variety of theoretical frameworks to explain consumers' acceptance and use of online shopping channels enables researchers to explore and investigate various factors. In light of technological development and the growth of e-commerce, researchers have continued to incorporate new concepts and enrich the theoretical frameworks. For example, Chen and Huang (2013) incorporated "group relational embededness" into a TPB framework and examined consumers' online group-buying intentions and behaviors. Hwang and Lee (2012) introduced a concept of cultural values in a UTAUT framework that examines social influences on consumers' online purchase intentions. Investigation of a wider range of factors that influence consumers' acceptance and use of the Internet as a retail channel may continue to provide insights to not only the development of online business strategies in the global markets but also our understanding of the role consumers play in e-commerce.

The Online Shopping Process and Environment

Online shopping is not a single-stage behavior. A typical consumer decision process includes five stages: problem recognition, search, alternative evaluation, choice, and outcome evaluation (Engel, Kollat, & Blackwell, 1968). A mercantile model decomposes the consumer purchase process into three stages: purchase determination, purchase consumption, and post-purchase interaction (Kalakota & Whinston, 1996). For an online purchase transaction, Liang and Huang (1998) defined a seven-step process: search, comparison, examination, negotiation, order and payment, delivery, and post-service.

Information Search: An Essential Step in the Online Shopping Process

A common feature of the above-mentioned decision models is that consumer information search behavior precedes all purchasing and choice behavior. Information search can be defined as a stage wherein consumers actively collect and integrate information from internal and external sources (Schmidt & Spreng, 1996). Consumer information search is one of the major consumer research topics in the area of online shopping and researchers have approached it from different perspectives, primarily psychology and economics. With the recent development of social media and its application to online shopping, researchers also have explored information search using the perspective of interpersonal and social influence (Steffes & Burgee, 2009). Researchers, including Bigné-Alcañiz, Ruiz-Mafé, Aldás-Manzano, and Sanz-Blas (2008), have addressed how many and what sources of information consumers use, the extent and duration of consumer information search, types of information consumers search for, and the impact of information search on purchase and repurchase intentions (Shim et al., 2001).

Information technology has brought the potential to influence almost all dimensions of consumers' information search behaviors, ranging from the amount of search, number and types of sources searched, and timing of search to the distribution and weighting of information gathered (Bakos & Brynjolfsson, 2000). Li (2013) reported that 94 % of online shoppers conduct research before purchasing and 61 % of them use search engines to discover information when shopping online. Other popular information sources are coupon sites, 35 %, retailer emails, 28 %, online product/retailer reviews, 24 %, shopping comparison sites, 22 %, and social networking sites, 10 %.

The amount, variety, efficiency, and interactivity of information available on the Internet promotes consumers' online search. Using Stigler's (1961) theory as a framework, the attributes of online information search (relative to offline search) are intuitively associated with reduced costs (both time and cognitive costs) and increased benefits. Researchers consistently have found that search costs are lower in a virtual market than in a brick-and-mortar market (Kulviwat, Guo, & Engchanil, 2004). A key difference between online and offline shopping is the ability of online consumers to obtain more information that facilitates better decision making and makes the decision-making process more efficient. Empirical evidence indicates that consumers search more for information online than offline when they shop online (Ratchford, Lee, & Talukdar, 2003) and substitute online information sources for offline ones (Klein & Ford, 2003). In many cases, online shopping channels provide consumers with interactive information search tools to help them access and evaluate product/service information effectively (Parra & Ruiz, 2009).

Despite its ability to provide vast amounts of information, some researchers have argued that the Internet may baffle consumers by offering too much information (Chen, Shang, & Kao, 2009). Indeed, the vast amount of information available online has no value unless, on the one hand, consumers have abilities and motivations to use them, and on the other, there are efficient mechanisms to identify, retrieve, and organize the information. In addition, the benefits of online information search are varied and uncertain. The commonly identified perceived benefits of online search include ease of use, effectiveness of search, user satisfaction (Kulviwat et al., 2004), enjoyment, visual appearance, cognitive outcome, credibility (Santosa, 2010), greater product assortment and differentiation (Lynch & Ariely, 2000), and an enhanced experience (Zhang & Salverdry, 2001). However, it is difficult to conclude that the benefits of online search are necessarily greater than those of offline search as the realized benefits are dependent largely on situational factors, personality factors, product attributes, and how effectively the consumer can use the technology.

In fact, the assumption that the costs of searching online (vs. offline) are lower can be challenged. Income commonly has been used as a proxy for information search costs (Klein & Ford, 2003) but may be too broad a measure to accurately estimate online search costs without taking into consideration of other factors. Yu and Roh (2002) argued that online information processing requires greater cognitive resources in comparison with print media. Technical aspects, such as malfunctions (e.g., broken links) and download delay, also have been identified as costs of information search (Santosa, 2010). Another search cost is perceived risk, which should be assessed as a multidimensional variable including, for example, fear of technology, feelings of uncertainty and confusion, and privacy and security concerns. Thus, developing a valid, reliable, and complete measure of the costs of searching online presents significant challenges.

Nevertheless, the basic idea of Stigler's (1961) theory, comparing the costs and benefits to determine the optimal amount of information search, makes it a parsimonious model to guide studies of online search. Combined with behavioral approaches such as the Theory of Planned Behavior, the model provides a framework that can capture the process of consumer information search and the characteristics of the online environment. Shim et al. (2001) proposed a model of intention to search online using the Theory of Planned Behavior. The model incorporated consumers' shopping attitudes, consumers' perceptions of the extent to which significant referents approve of Internet use for shopping (i.e., subjective norm), consumers' perceived behavioral control (e.g., computer skills, availability of transportation to travel), and consumers' past Internet purchase experiences as predictors for consumers' intentions to search. Shim et al.'s (2001) model expanded the cost/benefit paradigm of information search by capturing noneconomic factors, i.e., consumers' attitudes, perceptions, and behavioral aspects of online search. A more comprehensive model might incorporate not only consumer characteristics but also Internet characteristics (e.g., ease of use, interactivity, information format, availability of

intelligent agents such as shopping bots that visit a number of websites to identify information that matches a product profile provided by shoppers, and recently developed online social mechanisms), and product characteristics (e.g., search goods, experience goods, and credence goods). For example, shopping bots can make comparison shopping more straightforward. However, using a shopping bot involves more than typing in a few keywords about a product and waiting for the results. Consumers must pre-articulate their needs, wants, and shopping goals to decide how to embed the use of this tool into their search, and decide how to use the information it provides in their decision-making process.

It is important to address the possible interactions among consumer, Internet, and product characteristics and how those factors influence consumers' online information search. Research has shown that online consumer communication, such as word-of-mouth (WOM) consumer reviews and recommendations, have become an important source of information to consumers, especially as a complement to or even a substitute for other forms of business-to-consumer and offline WOM communication about product characteristics (Gupta & Harris, 2010). King, Racherla, and Bush (2014) categorized online WOM characteristics as: enhance volume, dispersion of communication platform, persistence and observability of information posted, anonymity and deception, salience of information valence, and consumer community engagement. Generally, online WOM enhances consumers' online shopping experience by allowing them to socially interact with one another, exchange product-related information, and make informed purchase decisions via computer-mediated communications (Blazevic et al., 2013). In light of the complexity of the online shopping environment where heterogeneous consumers of different needs and incentives participate and a variety of flow of information exists, researchers have developed various integrative models to investigate interrelationships among the key pertinent factors: the unit of analysis (or the communicator and receiver, the source and audience), the content (or stimulus), antecedents (or causes), and the effects (or consequences) (Cheung & Lee, 2012; King et al., 2014). With the rapid growth of online consumers and the emergence of new technology such as Web 2.0 (featuring social media and virtual community) and Web 3.0 (featuring big data sharing and utilization), the contextual or environmental factors (e.g., the online communication platforms) also are expected to become an important aspect influencing online WOM (Cheung & Thadani, 2012).

Consumer Online Decision Making

The Internet attracts consumers based on not only its ability to provide information flows and a communication platform, but also its ability to facilitate consumer decision making. Understanding the complexities of online consumers' decision making plays an important role in e-tailers' ability to support consumer decision making and improve consumer satisfaction. Various models and frameworks have been used to examine the process and factors related to consumer online decision making.

Simon's (1977) three-phase decision model—intelligence (recognizing problems and gathering information), design (evaluating alternatives), and choice (making decisions)—has been applied to consumer online decision making (Kohli, Devaraj, & Mahmood, 2004). Kohli et al. (2004) argued that the inherent characteristics of online shopping channels would support consumer decision making in those three phases. For example, online search capabilities combined with multiple sources of information could facilitate the intelligence phase, and subsequently could lead to the development of effective plans to evaluate alternatives and make a final decision.

Other researchers have argued that chain decision models such as Simon's are biased toward problem solving, following the sequence of searching, evaluating, and purchasing in a hierarchy of effects, and often at the expense of neglecting various important factors that influence consumer decision making (Louvieris, Driver, & Powell-Perry, 2003). Smith and Rupp (2003) developed a model to capture the complexities of

consumer online decision making. The framework describes the decision-making process as three distinct but interlocking stages: the operational input stage, the process stage, and the output stage. A prominent feature of the model is that the variety of factors that influence each stage can be incorporated and examined. For example, the input stage of need recognition is influenced by both website marketing efforts (e.g., promotions and website designs) and social-cultural factors (e.g., demographics and socioeconomic status). The process stage focuses on how consumers make decisions and is influenced by consumer psychological factors such as perception, motivation, personality, attitude, and emotion. The output stage consists of consumer purchase behavior and post-purchase evaluation and also is influenced by marketing efforts and consumer psychological factors.

Compared with traditional markets, online shopping channels are able to utilize decision support systems (DSS) to facilitate consumer decision making. Researchers suggested that DSS can help consumers save time and develop strategies to optimize costs (Kohli et al., 2004). Researchers have examined two specific types of DSS: comparison matrix and recommendation agent. The findings supported the favorable effects of the DSS on consumer online decision making—online shoppers can make better decisions (quality) while using less effort (efficiency) (De Bruyn, Liechty, Huizingh, & Lilien, 2008; Senecal, Kalczynski, & Nantel, 2005). With the advancement of technology and the increasing number of consumers utilizing the tools, DSS may have the potential to transform the ways in which consumers search for information and make decisions (Haubl & Trifts, 2000).

Online Shopping Post-Purchase Outcome

Online shopping post-purchase outcomes have been defined as the *output* of the consumer decision and behavioral process and are essential to better target potential buyers and promote products in the long-run (Smith & Rupp, 2003). Researchers have defined and examined various specific concepts related to behavioral, cognitive, and affective aspects of this final stage of the consumer online shopping process. Shih and Venkatesh (2004) described consumer post-purchase behavior as repurchase, repeated usage, or replacement with upgraded products after the initial purchase. Cho, Im, Hiltz, and Fjermestad (2002) examined consumers' post-purchase complaint behaviors as a result of various aspects of evaluations—degree of dissatisfaction, purchase importance, perceived costs/benefits of complaining, and situational influences.

Consumers' post-purchase e-trust, e-satisfaction, and e-loyalty have been studied extensively as they play important roles in the consumer–retailer relationship and online retailers' long-term success (Dharmesti & Nugroho, 2012; Yang, Wu, & Wang, 2009). Some researchers have investigated these concepts in a bivariate relationship framework, such as e → satisfaction → e-loyalty (Anderson & Srinivasan, 2003), and e-trust → e-loyalty (Pratminingsih, Lipuringtyas, & Rimenta, 2013). Others have examined the concepts in a sequential order, such as e-trust → e-satisfaction → e-loyalty (Gummerus, Liljander, Pura, & Van Riel, 2004).

Researchers also have developed multivariate and multi-stage frameworks to gain a deeper understanding of online consumers' commitments to online retailers and products/services. Chang and Chen (2008) proposed and examined a cognitive-affective-conative/action framework, focusing on relationships among customer interface quality (customization, interactivity, convenience, and character), satisfaction, switching costs, and e-loyalty, with Internet experience as a moderator. Kim, Byoungho, and Swinney's (2009) model presented e-loyalty as influenced by direct and indirect relationships among e-satisfaction, e-trust, and e-tail quality (reliability, responsiveness, website design, privacy/security). Dharmesti and Nugroho (2012) proposed a framework to investigate extensively the antecedents of e-satisfaction and e-loyalty, including information quality, website design, product variation, transaction ability, response, privacy/security, payment system, delivery, and customer service.

Online Shopping Environment

Computer-Mediated Environments (CMEs), which are defined as connected computer networks used to access and provide hypermedia content (Hoffman & Novak, 1996), have created a new technological and social media for consumers. As much as the instrumental characteristics of the media such as ease of use, usefulness, resourcefulness, and convenience play important roles in influencing consumers' online shopping attitudes and behavior, environmental or hedonic factors of online shopping channels, such as website design and quality, product and/or service presentation, and atmospheric cues, have received research and managerial attention (Jeong, Fiore, Niehm, & Lorenz, 2009; Koo & Ju, 2010).

Researchers have investigated the impact of environmental factors on consumers' shopping attitudes and behavior using a Stimulus-Organism-Response (S-O-R) framework adopted from environmental psychology (Mehrabian & Russell, 1974). Based on the S-O-R framework, Eroglu, Machleit, and Davis (2001) developed a model proposing that there are online environmental cues that lead to affective and cognitive internal states, which then result in approach/avoidance behaviors.

The online shopping environment lacks some of the properties of traditional atmospherics (such as temperature, odor, and textures) but possesses some others (such as flexibility and organization). Eroglu et al. (2001) classified the online shopping environmental characteristics into two general categories: a high task-relevant environment, defined as shopping site descriptors (e.g., price, description of merchandise, delivery, etc.); and a low task-relevant environment, which represents the "site information that is relatively inconsequential to completion of the shopping task" (p. 180) (e.g., colors, music, icons, etc.). Other researchers also categorized the characteristics of the online shopping environment as ease of understanding (e.g., navigation organization and technical adequacy), informativeness (e.g., attribute description), and quality of the environment (e.g., playfulness, aesthetic design, and entertainment) (Demangeot & Broderick, 2010).

Empirical studies using Eroglu et al.'s (2001) S-O-R framework have revealed a significant impact of a variety of environmental factors on online shoppers' affective and cognitive responses as well as shopping intentions. Lorenzo-Romero, Gómez-Borja, and Mollá-Descals (2011) found that a hedonic cue (music) and a utilitarian cue (navigational structure) both influenced online shoppers' emotions, learning and knowledge, satisfaction, and loyalty. Wu, Cheng, and Yen (2008) also found that music and color as atmospheric cues affected consumers' emotions and purchase intentions. Consumers' affective and cognitive internal states and behavioral responses also are influenced by online shopping website quality and website brand (Chang & Chen, 2008); website aesthetic formality and aesthetic appeal (Wang, Minor, & Wei, 2011); product presentation (Jeong et al., 2009); and graphics, colors, links, and menus (Koo & Ju, 2010).

Researchers also have incorporated environmental factors, such as web design, interface features, and interactivity, into other online shopping frameworks such as TAM and flow theory, and found that those factors influence consumers' attitudes and purchase intentions (Hausman & Siekpe, 2009). Other researchers expanded the existing frameworks by adding consumer characteristics as moderator variables; for example, Richard and Chandra (2005) proposed a mediating impact of personality variables on the relationship between online store attributes and consumer involvement. Koo and Ju (2010) found that consumers' perceptual curiosity interacts with atmospheric cues (graphics and color).

Online Privacy and Security

The Internet has become a vast storage area for consumers' personal information, including both personally identifying information and financial information. Numerous public opinion polls and academic surveys (Pew Internet and American Life Project, 2008; Ponemon, 2014; UCLA Center for Communication Policy, 2003) have assessed the salience of consumers' Internet privacy and security concerns as they remain one of

main concerns about online shopping. A primary reason for consumers' privacy and security concerns on the Internet is the tremendous amount of transaction-generated personal information that various websites collect, often in a completely invisible manner. Many researchers have incorporated consumers' concerns about privacy and security issues into their online search and purchase models and interpreted the concerns as costs, risks, or obstacles for online search and purchase (Ha & Stoel, 2009). Privacy and security concerns also can be related to issues such as consumer protection, online payment options, trustworthiness of online vendors, information technologies, online market efficiency, online social media usage, and mobile device usage (Chen & Lan, 2014).

Kim, Ferrin, and Rao (2008) categorized the antecedents that influence consumer trust and consumers' risk concerns toward electronic commerce entities: cognition (observation)-based, affect-based, experience-based, and personality-based. Researchers also have investigated various specific antecedents of consumers' privacy and security concerns, such as intangibility of products, website properties, navigation functionality, and content quality (cognition-based) (Nepomuceno, Laroche, & Richard, 2014); company reputation and WOW communication (affect-based) (Kuan & Bock, 2007); experience with e-commerce and familiarity with online vendors (experience-based) (Bernard & Makienko, 2011); and consumer disposition and propensity to trust (personality-based) (Teo & Liu, 2007).

Consumers' concerns for privacy and security are heightened when they feel uninformed about who is collecting their personal information, how companies obtain their information, or for what purposes the information is used (Lanier & Saini, 2008). Such concerns might discourage consumers from disclosing personal information to marketers (Phelps, Nowak, & Ferrell, 2000) and making purchases online (Eastlick, Lotz, & Warrington, 2006). Consumers also might reduce the amount spent online (Akther, 2012) or even simply abandon their shopping carts due to their privacy and security concerns (Kukar-Kinney & Close, 2010).

The development of efficient informational technologies such as "cookies," a personalization device used by websites to track visitors and their transactions, as well as social network platforms for information sharing, has made it easier for online vendors to identify consumers' characteristics and browsing/purchasing behaviors. Some consumers are simply unaware of such tracking technology or information-collecting practices. Others know about them but are unwilling to block the devices or disconnect because of the inconveniences and isolation that result. Blocking all tracking devices is the equivalent of telling supermarkets not to organize their aisles based on consumers' shopping behaviors or telling a storekeeper not to greet a repeat visitor. It is also difficult not to share personal information through online social and professional networks. Online businesses face a delicate balance between meeting consumer demands for privacy and security protection and their desire for personalized treatment and thus a more efficient market. The e-commerce industry has developed different mechanisms to protect their customers, including Online Privacy Guidelines (Federal Trade Commission, 1999) and the use of privacy seals. However, researchers have criticized the industry's self-regulatory efforts as inadequate and ineffective (Bar & Krems, 2014).

As privacy and security concerns have been continuously identified as one of the primary barriers to e-commerce, governments also have proposed interventions. The set of fair information principles proposed by the FTC (Federal Trade Commission, 2000) is central to government response. The five core principles aim to empower consumers with more transparency and control of their information by providing them with *notice* of information collection; *choices* to opt out of use of personal information; *access* to their personal information to ensure accuracy and completeness; *security* of data and information; and *enforcement* of privacy and security protection. A recent notable government effort to protect online privacy and security came on December 1, 2010 when the FTC recommended a "Do Not Track" mechanism, which would be established either by legislation or industry self-regulation.

According to the FTC report, "Such a mechanism would ensure that consumers would not have to exercise choices on a company-by-company or industry-by-industry basis, and that such choices would be persistent" (Federal Trade Commission, 2010, p. 16). The protection of data privacy also has become an international concern for policy makers. The Organization for Economic Cooperation and Development (OECD) introduced eight online protection principles: collection limitation, data quality, purpose specification, use limitation, security safeguards, openness, individual participation, and accountability. These principles were widely adopted due to their breadth reflecting real-world flexibility (Wu, Huang, Yen, & Popova, 2012).

Conclusions and Future Research

Just as the invention of the horseless carriage and other technological developments improved people's lives, online shopping has overcome many of the physical limitations of brick-and-mortar stores. However, every technological development also creates problems for consumers. The challenge is to find a balance of costs and benefits that works for both retailers and consumers. There are many opportunities for future researchers to find ways to more accurately balance these costs and benefits as well as to understand how they influence consumers' use of the Internet.

Some of the areas, which are highlighted in this chapter and merit further research, include:

- Investigation of a wide range of evolving factors that influence consumers' acceptance and use of the Internet as a retail channel and interactions among influential factors.
- Development of a valid, reliable, and complete measure of the costs and benefits of online information search and investigation of the influence of economic vs. noneconomic factors on online information search.
- Exploration of consumers' online shopping process and communications in new Web 2.0 and 3.0 platforms.
- A more comprehensive assessment of consumers' online privacy concerns and their influence on online shopping behaviors.

Another area that warrants future research is online shopping in the global market. While the unprecedented growth in e-commerce worldwide is well documented, the academic research investigating online cross-national and cross-cultural consumer behavior is relatively underdeveloped (Smith et al., 2013) and dominated by Western perspectives utilizing U.S.-based samples (Cayla & Arnould, 2008). The global expansion of online markets and consumer online social networks and communities requires a more systematic and comprehensive understanding of online consumer behavior' both aspects that are universal and those that differ by culture or geographical locations.

Following the growing consumer adoption and use of various social networking sites such as Facebook and Twitter, social commerce, a part of e-commerce that uses social media to support interaction between business and consumers, is gaining research attention (Chen, Lai, Goh, & Daud, 2013). While social commerce can benefit companies and empower consumers by encouraging consumer involvement and strengthening customer relationship management, there are issues and challenges that warrant further examination, such as data/information control and intellectual property issues. Also, as consumers are more connected than ever through a variety of channels, it also is worth studying how consumers empower themselves by organizing to make group purchases.

Another area that is worthwhile for researchers to pursue is that of the online relationship between consumers and market agents such as department store sales persons and travel agents. As consumers' interactions with markets and market agents become easier and (potentially) less costly online compared to offline, do consumers see these relationships as less favorable, equal, or superior to relationships established offline? How willing are consumers to substitute online relationships for face-to-face relationships? What may be the costs and benefits from such substitutions?

Finally, Pitt, Berthon, Watson, and Zinkhan (2002) have written about the potential of the Internet to transform the balance of power in the market. As they state it, "Websites allow better informed consumers to interact, band together, become more aware of corporate shortcomings, and gain easier access to the legal system" (p. 7). A fruitful area for research is an investigation into why the Internet has not achieved its potential to increase consumer power in the market. Is it because the tools that consumers need are unavailable or too difficult to use? Is it because the tools are available but consumers have not used them to their advantage? Or are there other explanations?

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Financial Sustainability and Personal Finance Education

29

Tahira K. Hira

Technological advances have transformed nearly every aspect of the marketing, delivery, and processing of financial products and services. The forces of technology and market innovation, driven by increased competition, have resulted in a sophisticated industry in which wide array of providers offer a broad spectrum of complex financial products and services. These developments have given people more options and greater flexibility in creating financial arrangements that best suit their immediate needs. However, this marketplace with complex and specialized financial services requires buyers to be fully informed, highly educated, and actively engaged in managing their finances.

The causes of the recent economic crisis are many and complex (e.g., aggressive banking and mortgage practices, greed, collapse in housing markets, credit crunch, fall in confidence resulting from global economic instability, over-valued exchange rates, and high bond yields) (Weisberg 2010). This economic crisis demonstrated that most individuals were not well equipped with the knowledge and skills necessary for safely negotiating in a complex financial marketplace. As a result, families' financial health suffered, which in turn played a significant role in the decline of the nation's financial health. Then, it is important to recognize that family financial health and the financial health of the nation are linked.

The focus of this chapter is to identify the role that factors such as attitudes, beliefs, knowledge, skills, and behaviors play in minimizing the severe negative impacts of a complex market environment and enable families to sustain their financial security over a long period of time regardless of the ups and downs of the economy.

In his book, *The Power of Habit*, Duhigg (2014) suggests that life is a mass of habits. Most choices about saving, spending, exercising, and eating that we make are mostly habits. Though each habit means little on its own, over time these routines (whether we overspend or save, how often we exercise, what we eat, our work routines) have enormous impact on our health, productivity, financial stability, and happiness. According to Duhigg we can choose our habits, or destructive habit can be overridden by new patterns. However, to modify a habit, we must decide to change it and then do things differently. By doing things differently, developing a routine can result in an automatic behavior. We have the freedom and responsibility to change bad habits.

However, before changing financial habits one needs to have some understanding of habits that create negative outcomes and those habits that lead to positive financial outcomes. Studies have shown that habits and practices such as establishing clear

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financial goals, frequently reviewing and evaluating expenses, regularly saving, reducing the number of credit cards used, eliminating credit card balances can significantly impact a family's ability to sustain positive financial outcomes (both objective and subjective) measured by net worth, debt to income ratio, and level of satisfaction or happiness with their financial situation (Hira, 1987a, 1987b; Titus, Fanslow, & Hira, 1989a).

This chapter starts with the discussion of the description and measures of behaviors that lead to financial sustainability, followed by factors associated with these financial behaviors and outcomes. Next, the need for conceptual frameworks suitable for research in the complex areas of financial behavior and outcomes is addressed. The next section addresses challenges, opportunities, and implications for educators and researchers of personal finance. The brief overview of the salient issues is presented in the conclusions section.

Behaviors Leading to Financial Sustainability

Financial sustainability refers to managing limited financial resources to not only meet current needs but also develop plans for major goals and long-term needs. To ensure financial sustainability throughout various life stages and economic conditions, one has to be able to articulate and employ specific strategies to efficiently manage limited financial resources, reduce dependence on consumer debt, prepare for emergencies, and plan for big and long-term financial goals (such as home ownership, college education, and retirement). Building positive net worth is an essential step on the path to household's long-term financial security (Fitzsimmons, Hira, Bauer, & Hafstrom, 1993).

Households' ability to sustain long-term financial security has been assessed by both objective and subjective measures. Objective measures include net worth and debt to income ratio. Wealth, an outcome of saving and investment, is measured by net worth, a stock variable that refers to the total amount a person accumulates in assets at a given time. It is an important indicator of households' long-term financial security (Hira, 1997, 2012; Hira, Fanslow, & Vogelsang, 1992; Mugenda, Hira, & Fanslow, 1990).

The subjective measures, on the other hand, include happiness, quality of life, and satisfaction with one's financial status. Income is important for happiness, especially when the income grows from the low to middle level. However, it is not easy to summarize the relationship between income and happiness. There is a relationship between the two, but it is modest, leaving some to question how it should be cast. This problem applies to all modest relationships, but the problem is compounded in the case of income and happiness because of strong feelings about what one might like the relationship to be. Some would be happy if money were unrelated to happiness; others would prefer the two to be very strongly related, so that rising income might powerfully increase the wellbeing. It is claimed that the correlation between income and happiness is considerably weaker than people expect and recent research supports that contention. However, an important lesson from judgment and decision-making research is that judgments are constructed in response to the prevailing context, leaving open the possibility that some elicitation procedures may reveal accurate intuitions about income and happiness (Cones & Gilovich, 2010). For an individual, emphasizing social relationships is more important than focusing on materialist goals. Xiao (2013) concluded that to live a happy life in a long run, one strategy is to seek a meaningful life. Spending for others or meaningful social causes may bring more happiness than spending on oneself. Research also suggests that happier people may do better financially.

Quality of life is a broad concept determined by many factors, as a result there has not been a consensus on the proper definitions or measurements (Fitzsimmons et al. 1993). In various research studies quality of life was influenced by economic factors that included income and net worth, social factors that included gender, marital status, and household size, and process factors that included financial communication and

money management practices. Measures of satisfaction with financial status may also be linked to one's quality of life (Hira, 1987a, 1987b; Titus, Fanslow, & Hira, 1989b).

Mugenda et al. (1990) explored impact of money management practices on the household's financial status and satisfaction with quality of life. They found that practices such as evaluation of financial status, communication about financial matters, estimation of household's income and expenses, review and evaluation of family's spending habits, and calculation of the household's net worth were significantly related to household's financial status and satisfaction with quality of life. They also found that main determinants of money management practices are financial knowledge and financial communication. Financial knowledge was measured by an index using the responses to 22 knowledge items in consumer credit and investment areas. The study showed that the level of resources, demand on those resources (measured by age, income, household size), as well as the process of transforming those resources (measured by financial management practices and communication), are significant predictors of household's satisfaction with quality of life.

Sumarwan and Hira (1993) reported that satisfaction with quality of life is directly influenced by household income and level of satisfaction with financial status. Age, household income, household net worth, perceived locus of control, and perceived income adequacy are significantly related to satisfaction with financial status. Household income and household net worth had indirect effects on satisfaction through perceived locus of control and perceived income adequacy. Perceived locus of control also had an indirect effect on satisfaction through perceived income adequacy.

Satisfaction with financial status has been measured through survey instruments, operationalized by a single item such as "how satisfied are you with your overall financial situation," or by an index based on satisfaction with different aspects of a household's finances which include: standard of living, level of savings, ability to stay out of debt, level of assets, ability to payback debt owed, and ability to meet large emergency expenses. Use of the index, which includes multiple satisfaction variables, results in more variation in participant responses as compared to using a single overall measure of satisfaction (Titus et al., 1989b).

However, satisfaction as a measure of financial status is elusive. Some studies have shown that people who had a lower level of net worth expressed higher level of satisfaction with their financial status and vice versa. These results may indicate that some people's feelings about their financial situation are not based on financial facts but rather on their perception of what they thought their finances to be (Hira & Mugenda, 1999, 2000; Titus et al., 1989a).

In their recent study, Sass, Anek, Thomas, & Ramos-Mercado (2015) also concluded that financial satisfaction is subjective, based on what one sees and values at a particular point in time. Then it would not be surprising if subjective assessments overlook deficits in dealing with risks and meeting future needs, hence the concerns about the use of satisfaction as an indicator of financial wellbeing. Furthermore, some studies have shown that financially literate individuals do not have weaker finances, but are better equipped to see deficits (Mugenda et al., 1990; Xiao, Chen, & Chen, 2014). This hypothesis is consistent with the notion that financial rationality is limited; that subjective assessments can mask serious deficits; and that less literate households are overly sanguine, and thus less likely to take action to improve their financial status. To the extent that this is the case, initiatives to improve wellbeing must correct, or otherwise accommodate, a subject's inaccurate assessment of their financial condition (Sass et al., 2015). However, we must be reminded that according to Xiao et al. (2014) only objective financial literacy may reduce financial satisfaction. Other financial capability variables may enhance financial satisfaction. Deficits that fail to generate dissatisfaction are rarely addressed and often grow larger with time. To the extent that subjective assessments overlook deficits that are distant from day-to-day concerns, satisfaction actually diminishes financial wellbeing.

Sass et al. (2015) concluded that for households to improve their financial wellbeing, the salience of issues distant from day-to-day concerns must be raised. Households are increasingly responsible for such issues, specifically saving for retirement, accumulating home equity, paying for their children's college education, and paying off their own student loans. The results show deficits in these areas associated at most with minor reductions in financial satisfaction. The importance of salience is highlighted by the finding that having an inactive retirement plan is associated with a reduction in satisfaction while not having plan—a more adverse but less visible condition—is not.

Factors Associated with Financial Behaviors and Outcomes

Household net worth, a measure of financial sustainability has been shown to be strongly associated with investment regularity, age, family size, employment status and, as expected, higher household income (Sabri et al., 2012). The results suggest that there is a possible linkage between early in life involvement with investing and subsequent household wealth. Socialization influences independently accounted for variation in household wealth, with parental influence emerging as the strongest socialization agent, even though the effects were modest in size (Hira, Sabri, & Loibl, 2013).

Debt to income ratio, used as an outcome measure of a household's financial status, has been shown to be significantly affected by credit card practices, including number of credit cards used, the amount one felt comfortable owing on credit cards, and frequency of paying finance charges on credit cards. The size of monthly debt payments played a significant role in explaining the variation in total asset ownership (Hira et al., 1993)

However, Mugenda et al. (1990) reported that satisfaction with financial status is influenced by financial communication and money management practices. Whereas, household wealth measured by net worth is affected by age, ethnicity, family size, employment status, and household income. In addition, investment regularity, parental influences, and workplace influences were found to be associated with net worth. These results support the notion that financial socialization, particularly parental influences, accounts for variance in household net worth over and above other socio-demographic and belief-related variables. Communication between children and parents plays a key role in financial socialization as parents influence children's norms and values. Children also learn financial behaviors from observing their parents' financial behavior (Hira et al., 2013).

Hira and Mugenda (1999) reported a significant and positive relationship between financial beliefs (being optimistic about their future financial situation and satisfied with their current financial situation) and self-worth. This study also showed that those with high and low senses of self-worth did not differ in terms of age, income, marital status, and gender. However, the groups did differ in educational level and employment status. However, the relationship between spending behavior and self-worth is complex; some people spend beyond their means to deal with the feelings of low self-worth, and then feel guilty due to excessive spending leading to financial problems.

Conceptual Frameworks

Human behavior is extremely complex, and consequently, the financial aspects of human behavior are equally multifaceted. Social learning theory posits that learning is a cognitive process that takes place in a social context and can occur purely through observation or direct instruction (Bandura & Walters, 1964). While this theory is useful as a model of imitative learning it cannot explain why such learning is so often insufficient to alter patterns of choice and behavior. This is the case with financial behaviors as well. Financial behaviors are affected by a large number of internal factors such as personality, individual psychology and cognition, family history, and environment. Other internal factors that influence financial behaviors include socio-economic characteristics

(income, age, education, employment status, ethnicity), personal characteristics (attitudes, values, emotions, beliefs), and family dynamics (culture, behaviors, and communication patterns) (Titus et al., 1989a). External factors influencing financial behavior include financial markets, peers, schools, and media. Financial behaviors also differ by culture and are affected by moral hazard, social mood, and unconscious herding (Hira, 1997; Sabri et al., 2012; Hira et al., 2013). This presents huge challenges to both researchers and educators. Educators have to recognize the role of socio-psychological factors influencing financial behavior and expand the teaching topics accordingly.

Eccles, Ward, Goldsmith, & Guler (2013) discuss the challenges of introduction and treatment of "consumer values" as a factor in consumer financial sustainability, what it is, what it means, and why it is important. It is difficult to argue against the importance of including personal values in any framework that examine financial teaching, financial sustainability, and financial behaviors. However, this debate is not quite settled yet. On the one hand, personal values are offered as a valid (and valued) contributor to one's financial choices but, on the other hand, it is devalued as a contributor of poor financial behavior because they are emotional and are greatly influenced by their inner needs and their social environment.

Adult learning theory takes into account emotions and imaginations that are integral to the process of adult learning; it provides a better window into the cognitive process, particularly in terms of internal reaction to experience for financial behavior that is influenced by emotions and experiences (Loibl & Hira, 2005).

Prochaska and his colleagues (Prochaska, 1979; Prochaska, DiClemente, & Norcross, 1992) developed the transtheoretical model (TTM) of behavior change in the 1970s. Bristow (1997) suggested that this model could be used to change people's financial behavior in Money 2000. Recently researchers have applied transtheoretical model of behavior change in the credit counseling setting to develop a measure to help consumers change behaviors to eliminate undesirable credit card debts (Xiao, Newman, Prochaska, Leon, & Bassett, 2004a; Xiao et al., 2004b). TTM is also applied in financial education programs for low-income consumers, in which specific educational strategies under the framework of TTM were developed (Shockey & Seiling, 2004). In addition, TTM is used to provide advice for women on being better investors (Loibl & Hira, 2007). For a thorough discussion of the transtheoretical model of behavior change, see Chap. 1 "Financial Capability and Well-being" in this book.

We know that financial behaviors are affected by a large number of internal and external factors. Internal factors influencing financial behavior include personality, individual psychology and cognition, family history, socio-economic characteristics (income, age, education, employment status, ethnicity), personal characteristics (attitudes, values, emotions, beliefs), and family dynamics (culture, behaviors, and communication patterns) (Titus et al., 1989a). And external factors influencing financial behavior include financial markets, peers, schools, and media. Financial behaviors also differ by culture and are affected by moral hazard, social mood, and unconscious herding (Hira, 1997; Hira et al., 2013; Sabri et al., 2012).

To be effective in establishing cause and effect relationships researchers have to consider conceptual models that take into account the above-mentioned broad and complex spectrum of factors found in both the external and internal environments in which families live and function. The family resource management model (Deacon & Firebaugh, 1988) has a great potential to handle such complex situations. It focuses on management processes in the context of families and their environments (both internal and external). It refers to a process with a systems orientation where management is defined as a tool for achieving desired goals and where personal factors are recognized as resources that influence decision-making and management behavior. The four components of the model—inputs, throughputs, outputs, and the feedback loop—can be easily applied to understand how people make financial decisions, develop and perhaps change their financial behaviors. And it is a dynamic model, which recognizes that an outcome provides feedback that can instigate a change in factors that are

included both in input and throughput to produce a different outcome (Fitzsimmons et al., 1993).

The adult learning theory, transformative learning theory, transtheoretical model of behavior change, and family resource management model are some examples of potential frameworks that may assist with the development of an overarching theory of financial literacy. Opportunities for trans-disciplinary work offer a great promise for the future.

Implications for Education and Research

Challenges and Opportunities

The failure of markets, institutions, businesses, and households during the current financial crisis has proven both the current economic framework and the current household financial management framework to be ineffective. These frameworks must be adjusted to better position households and broader society to maintain financial wellbeing, even in times of crisis. We must also recognize that the mission of the personal finance profession is different from the study of related fields, such as finance, economics, or even consumer economics. The underlying assumptions in economics are that humans are rational, and the market's invisible hand serves as a trustworthy corrective to imbalance. In reality, people do not always make rational and optimal decisions; they are emotional and are greatly influenced by their inner needs and their social environment. They are creatures of habit and sometimes act in a way that can be harmful to their financial health, even though they know otherwise. More importantly, personal finance is about understanding the relationships between values, beliefs, attitudes, emotions, self-esteem, and financial behaviors (earning, spending, borrowing, saving, and investing). All personal finance professionals must recognize this complex nature of the person and the situation in which financial resources are handled, and not identify people as just "consumers."

Despite progress in the field, financial literacy still remains poorly defined and imperfectly measured and issues with response bias and data interpretation remain challenging in the context of overall financial wellbeing. Schmeiser and Seligman (2013) concluded that despite the proliferation of academic studies examining financial literacy and financial outcomes, no consistent definition or empirically validated measures of financial literacy exist. While a handful of questions have become the standard measures of financial literacy, little work has been done examining whether responses to these questions accurately capture underlying financial capability, or whether they causally relate to subsequent financial wellbeing.

Generally speaking the existing research is dependent on theory and modeling—and not the "lived reality" of average persons, families, and their communities. As an interdisciplinary field, financial education has grappled with an appropriate theoretical framework to apply to work in financial education. Most of the theories currently utilized by researchers address financial practices, and little work is done on the process of financial decision-making and financial literacy. A disconnect still exists between what researchers study and what practitioners do.

Implications for Education

Financial education efforts should focus on improving financial behavior in order to improve financial wellbeing in society. This, however, cannot be separated from moral, ethical, and spiritual considerations. Nothing in life is morally neutral. To be effective in bringing about a behavior change, financial teaching should be far more values-based, reflecting the real world—not limited only to mechanical models and theories (Hira, 2012).

In order to account for this, personal financial teaching should be far more values-based and reflective of personal situations, not just financial situations. We must also recognize that teaching the management of financial resources involves the specific processes of goal setting, problem solving, planning, and implementing. These specific processes are imbedded in the general processes of communication, decision-making, and feedback (Hira et al., 2013; Schuchardt et al., 2007).

The focus in personal finance education should not be on the consumer or consumption but on the overall financial wellbeing of households. The end goal must be to equip individuals with knowledge and skills to make informed and productive financial choices throughout various stages of life. At the heart of teaching strategies should be the promotion of financial behaviors that lead to the long-term financial sustainability of individuals, families, and their communities (Hira, 2012).

In addition, personal finance teaching should be simple and realistic; it should be outcome-based, should address those areas in which most people are currently facing problems, and be far more value-based and reflective of personal experiences and financial situations. Long-term financial sustainability of individuals and families should be at the heart of all approaches to providing financial education (Schuchardt et al., 2007).

More importantly, for educational efforts to be successful, we must assure that the teachers of these courses are financially healthy themselves, and they have a good grasp of the topics they plan to teach. They must live the part, modeling financially sustainable behaviors. Technology provides financial educators with unique opportunities to expose people to the messages and provide just-in-time intervention, before it is too late or before their behaviors lead to financial insecurity. However, when using technology as a tool of financial education, careful attention to market segmentation is critical to ensure messages are relevant to and acceptable to people from different backgrounds and with different needs (Hira, 2012; Power & Hira, 2010).

To show that educational efforts are producing the desired results, outcome measurements must be explicitly connected with current challenges faced by many households, and assessments must be limited to the specific course objectives. Evaluations must be incorporated into the program design, and their focus needs to go beyond measuring knowledge and changes in behavior to examining the curricula, pedagogy, and delivery mechanisms. Rigorous program evaluation approaches include randomized evaluation, experimental methods, and qualitative research. However, it is important to recognize that financial education is not a panacea. Financial behaviors are formulated and developed over a long time period and are affected by many factors, with education being only one of them. Financial behaviors are also affected by the nature of financial products and services, including information and marketing approaches. Both financial education and effective regulation responsive to market evolutions are necessary to ensure that most people can successfully function in this environment and are protected against abusive and fraudulent practices (Hira, 2012; Hira & Loibl, 2008).

Willis (2009) suggests that until and unless stronger evidence emerges that the current model of financial literacy education is effective, policymakers and regulators should be circumspect in their use of it as a response to consumer financial problems. Researchers should be particularly cautious in the presentation of their findings, so that academic work will contribute to the public policy discussion empirical, rather than ideological, assessments of financial literacy education.

This may be a fair warning, but most financial educators believe that financial education does not and will not replace the need for appropriate policies and strong regulatory approaches to protect consumers from aggressive and dangerous business practices. Without doubt, education can improve individuals' socio-economic outcomes. OECD work has shown the potentially important role of education in promoting positive life outcomes. Education contributes to improving outcomes by helping individuals develop skills. Return on education is explained by the development of cognitive, social, and emotional skills (OECD, 2015, p. 23). We must ask if Willis and her supporters are applying these standards to other subjects (economics, mathematics, English). It appears that personal finance education being singled out to meet these expectations, if so why?

Implications for Research

If the goal of financial literacy measures is to simply document financial capacity in the broadest sense, then repeating cross sectional measures with validated questions and measures may be sufficient. However, if what really matters is long-term individual financial wellbeing, then

our findings suggest that longitudinal data, where the consistency of individual responses to financial literacy questions can be assessed, may yield more accurate results.

Improving our evaluation approaches is much needed to identify financial programs that are most effective at changing financial behavior, which is the ultimate goal of all efforts. The field of financial education continues to struggle with several issues, including lack of consensus on the core content of basic financial literacy courses, a simple and easy-to-administer measure that is widely accepted in the field as an indicator of financial wellbeing, and how best to measure and conduct proper course evaluations. As the field tackles important societal issues related to financial education, validation of successful education, and the recognition and application of the rich compendium of research conducted over the last several decades will be beneficial in moving forward.

Educators, meanwhile, will benefit from research findings when developing educational programs for specific population groups. More applied research that has the capacity to inform policy, education, and practice is needed as well. Researchers must engage people on the ground when designing research projects or developing plans to deliver educational programs. Similarly, research findings must be connected to the real lives of individuals, families, practitioners, and policy makers.

Ideally, educators and practitioners should be able to use research findings to increase their understanding of their target groups before developing and delivering educational and marketing programs. For educators and practitioners, knowing what researchers have already learned about how adults acquire knowledge, being aware of knowledge their target groups may already have, and understanding differences in learning by gender, age, and ethnicity can be helpful in developing and delivering effective educational and marketing programs (Hira, 2012).

Conclusion

The overall objective of personal finance profession is to educate average person about attitudes, beliefs, and behaviors that are significantly related to sustainability of financial security. It may involve teaching people strategies to live within means, reduce dependence on debt, be prepared for emergencies, save regularly, and invest wisely to meet long-term goals. Because of differences in people's backgrounds and experiences, personal finance education must specialize both the content and the delivery techniques utilized to meet the needs of all individuals. This may involve teaching people to behave differently in regard to matters of money.

The enduring lesson of the classic personal finance books such as *Richest Man in the Babylon* (Classon, 1926) and *The Millionaire Next Door* (Stanley & Danko, 1996) is that most of the ordinary people can grow rich because of modesty, thrift, and prudence. However, as we know, behaviors are formulated and developed over a long time period and are affected by many factors besides education. In reality, many behaviors do not involve conscious decisions—they are habits, that means they can be difficult to change. However, with proper education and skill development they can be changed, and we can nurture positive financial practices into unconscious actions—habits. Here, we may benefit by partnering with professionals in psychological research, knowledgeable of how habits are formed and how they can be changed.

Although there is a role for purely theoretical research in personal finance, researchers need to consider the practical implications of their research when selecting research topics and methodologies. Educators and researchers must join in their efforts to develop effective approaches and tools to bring about desired changes in financial behavior necessary to achieve financial sustainability. To meet future research needs, it is important that we develop a financial literacy theory. It is also important that researchers develop a strong connection with practitioners to be able to learn about the reality of peoples' finances and find out what is missing or needed in the field. It is critical that recommendation for businesses and policy makers be developed and shared in an appropriate and timely fashion.

Even though there is a significant improvement in the availability of research funding it is still an issue for the continuation of quality and longitudinal research in this field. Within the

health field, for example, researchers often perform continuing research over many years to understand how habits are formed and how they can be changed. Yet, in personal finance most of the research performed has focused on issues at the present time of research. We need significant funding to conduct valuable long-term studies to understand how to bring about desired changes in financial behavior to ensure long-term household financial wellbeing.

The goal of all efforts—financial education, research, policies, and regulations—must be to help people increase their financial capabilities, by increasing financial knowledge, improving skills, and developing constructive habits. Through research we can improve approaches to educating people in a way that influences their financial behaviors resulting in improved financial status of their households over the long term. Furthermore, research can assist in identifying appropriate policies and business practices to create a safe external financial environment where individuals may successfully demonstrate these desirable financial behaviors (Power & Hira, 2010).

There is no doubt that if challenges are met and opportunities are acted upon, individuals and families can be better prepared to meet the complex and forever changing economic environment in the future. Furthermore there is every reason to believe that with proper education and skill development on the one hand, and appropriate policies and strong regulations we can increase chances of financial stability for households and at the same time ensure a somewhat stable economic situation of the economy as a whole during future financial crises.

About the Author

Tahira K. Hira, Ph.D., has served as a member of the US President's Advisory Council on Financial Literacy, Chair of the NYSE committee, and has served as an expert witness for the United States Senate Committee on Judiciary and the United States Senate Banking Committee. She is the founding president of the Association for Financial Counseling and Planning Education (AFCPE) and president of the American Association of Family and Consumer Sciences (AAFCS). Her research interests include financial attitudes and beliefs, borrowing and investing behavior, gambling, and consumer bankruptcy. Her work has been cited in the *New York Times*, the *Washington Post*, the *Wall Street Journal*, the *Chicago Tribune*, and the *Money*, and she has appeared on the NBC Today Show, CNN News, and the CBS Up to the Minute Show. Currently a professor emerita, she joined Iowa State University in 1980. As a Fulbright-Hays Scholar, she received an M.S. in Agricultural Economics and a Ph.D. in Family and Consumer Economics from the University of Missouri-Columbia.

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ERRATUM TO

Chapter 12 Financial Knowledge and Financial Education of College Students

Brenda J. Cude, Donna Danns, and M.J. Kabaci

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Index

A
Acceptance and commitment therapy (ACT), 118
Adjustable rate mortgage (ARM), 209
Adult learning theory, 362
African Americans
  AFS, 218
  blacks, 215
  consumer finance indicators, 215
  consumption, 217, 218
  financial knowledge, 216
  financial satisfaction, 215
  homeownership, 218, 219
  incomes, 217
  NFCS, 220
  saving habits, 218
  time orientation, 220
  wealth gap, 217
Aftertax income, 36
Alternative financial sector. *See* Credit and alternative financial services
Alternative financial services (AFS), 218
American Community Survey (ACS), 228
American Council on Consumer Interests (ACCI), 5
Annuities
  inflation-adjusted rate, 34
  inflation protection, 34
  investment assets, 34
Asian Americans
  ACS, 228
  attributed the racial differences, 233
  CE, 227
  Chinese American households, 234
  college students, 230
  consumer finances, 225
  CPS, 227
  cultural differences, 226
  data collecting process, 226, 227
  debt status and management, 232
  education, 229
  emergency fund adequacy, 230
  employment, 233
  expenditure patterns, 231
  financial attitudes and behaviors, 229, 230
  financial wellbeing, 229
  first-generation immigrants, 226
  homeownership rate, 233
  households, 232
  HRS, 228
  immigrant homeowners, 233
  income and expenditure, 230, 231
  national datasets, 226–228
  NIS, 228
  NLS, 227
  PSID, 228
  SCF, 227
  self-employment, 234
  SIPP, 227
  US population, 225
Asian Real Estate Association of America (AREAA), 232
Asset accumulation, 172
Asset building, 116, 117, 209
The Association for Financial Counseling and Planning Education (AFCPE), 5

B
Banking industry, 208
Bankruptcy Abuse Prevention and Consumer Protection Act (BAPCPA), 315
  abusive filings, 319
  debt collection, 320
  debtors, 319
  filing rates, 319–320
  incentives model, 320
  means test, 320
  repayment capacity, 320
  state-level variables, 320
BAS. *See* Basic subsistence allowances (BAS)
Baseline Survey of Financial Capability (BSFC), 4
Basic subsistence allowances (BAS), 253
Behavioral finance
  normative theory, 21
  paradox, 21
  prospect theory, 21
  tolerance and risk-taking behaviors, 21
Benefit pensions, 37
Bernheim, Garrett and Maki (BGM), 136

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C
Cash-out refinancing, 305
CEE's *Financial Literacy*, 136
Centers for Medicare and Medicaid Services (CMS), 173
Children's Health Insurance Program (CHIP), 172
Client–coach relationship, 55
CMS. *See* Centers for Medicare and Medicaid Services (CMS)
Coaching mechanisms
  attaining life goals, 94
  coaching-like activities, 94
  communication skills, 94
  financial planners and therapy, 94
  mental health crisis, 94
  psychology and human behavior, 94
Cognitive behavioral financial therapy
  emotion, 78
  financial health and situations, 78
  interrupt problem, 78
  money disorders and script log, 78
  treatment of, 78
College students
  educational and living expenses, 141
  educational institution of interest, 143
  efficacy and effectiveness, 148
  factors, 145–146
  financial decisions, 141, 142
  financial education programs, 146–150
  financial knowledge, 142–146, 148, 149
  low/unreported response rates, 143
  measurement
    complicate comparison across studies, 144
    content areas, 144
    financial knowledge, 144, 145
  program content, 147, 148
  program delivery mechanisms, 147
  student populations of interest, 143
Community organizing, 118
Computer-mediated environments (CMEs), 348
Consumer bankruptcy
  the Code, 316
  consumer credit, 315
  consumer debt and bankruptcy filings, 315
  Court Electronic Records system, 323
  credit demand and supply, 322
  credit expansion, 316–317
  creditors and insurance, 315
  credit scoring models and reports, 322
  cross-sectional data sources, 323
  debtor behavior and bankruptcy policy, 316
  debtors and society, 322
  demographic information, 323
  economic incentives model, 317
  filers, 316
  financial distress, 318–319, 324
  financial mismanagement, 316
  financial reforms, 322
  financial setbacks, 324
  home foreclosure and vehicle repossession, 316
  households, 315, 324
  K-12 financial education program, 323
  life after bankruptcy, 321–322
  longitudinal surveys, 323
  medical expenses, 323
  National Science Foundation, 323
  policy makers and legal practitioners, 323
  secured creditors, 316
  Uniform Law Commission, 323
  unsecured debts, 316
  vulnerable households, 324
Consumer Bankruptcy Project (CBP), 318
Consumer credit regulation
  bankruptcy, 310
  behavioral underpinnings, 301
  borrowed money, 301
  capping interest and fee, 309
  categorization, 308
  CFPB, 302, 310, 311
  Congress and State Legislatures and Federal Reserve Board, 311
  crafting effective policy and legislation, 310
  crash-induced nadir, 302
  credit card debt, 302–303
  demand, 306–307
  disclosure and financial literacy, 308–309
  economic and social systems, 301
  economic catastrophe, 301
  economic consequences, 306
  frenzy, 302
  intervention, 307
  investment community, 308
  lenders, 310
  mixed State and Federal system, 310
  mortgage debt, 304–305
  outlawing/restricting offensive practices/products, 309–310
  policy makers, 302
  society and economy, 307
  sociological consequences, 305–306
  student loan debt, 305
  subprime products and mortgage products, 303–304
  supply, 307
  USA boom economy, 301
Consumer-driven health care plans (CDHPs), 273
Consumer Expenditure (CE), 36, 40, 159, 227
Consumer financial illiteracy, 49
Consumer Financial Protection Bureau (CFPB), 47, 302
Consumption, 155, 156, 159–161
Consumption and activities mail survey (CAMS), 39
Consumption replacement ratio (CRR), 40
Corporation for Enterprise Development (CFED), 119
Council for Economic Education (CEE), 133
Credit and alternative financial services
  credit card debt, 170
  payday and pawnshop loans, 170
  scholars and policymakers, 170
Credit card debt, 302–303
Credit counseling
  ability to pay (ATP) rule, 87
  ability-to-repay requirement, 87

consumers, 87
counseling agencies, 86, 87
first-time home buyers, 89
home buyers, 88
home ownership and tenancy, 86
housing counseling agencies, 88
loan features, 87
low-interest rate, 87
pre-purchase counseling, 88
transactions and manage accounts, 88
Current Population Survey (CPS), 227
Curriculum
DVD-based, 138
FFL, 137
financial content, 132
high school students, 137
K–12 schools, 133
materials and programs, 131
"micro" studies, 137

D
Debt management, 225, 232, 236
Decision making, 19, 358
Decision support systems (DSS), 347
Defined benefit (DB) pensions, 36, 38
Defined contribution (DC) pensions, 36, 38
Demographics
financial risk tolerance, 25
Irwin's research, 25
Department of Defense (DoD), 251
Dependent variable (DV), 110
Diffusion of Innovation, 342
Digital-divide, 340–341
Digital-inequality, 340–341
DoD. *See* Department of Defense (DoD)
Dual-self model, 329

E
Earned Income Tax Credit (EITC), 116
Earning replacement ratio (ERR), 40
Economic hardship, 241
Economic incentives model, 317
Effective financial wellness programs, 243
Electroencephalogram (EEG), 328
Employee assistance program (EAP), 243
2014 Employee Benefit Research Institute Health Confidence Survey, 268
Employee Retirement Income Security Act (ERISA), 242
Employer sponsored defined contribution plans, 38
Entrepreneurship, 210
E-tailer attributes, 343
Expected Utility Theory (EUT)
household portfolio allocations, 21
and MPT framework, 20
normative model, 20
risk-taking behaviors, 20
Expenditure patterns, 231
Experiential financial therapy (EFT)
attitudes, 77
emotionally charged/traumatic, 76
financial planning, 76, 77
money behaviors, 76
money disorders, 76, 77
treatment effects, 77

F
Fair and Accurate Credit Transactions Act (FACT), 47
Family business, 181
bankers, accountants and professionals, 179
cash flow and wealth, 180
economic/sociological/psychological factors, 181
Family Business Group, 180
family capital dynamics, 186–189
family effect, 180
financial interface and interpersonal relationships, 179
financial intermingling, 186
healthy communities, 179
issues, 181
management and employment opportunities, 180
nonagricultural labor force, 179
operation decisions and plans for succession, 180
SFBT (*see* Sustainable family business theory (SFBT))
Federal Deposit Insurance Corporation's (FDIC), 48
Federal poverty line (FPL), 172
Financial advisors, 333
Financial attitudes, 225, 229–230
Financial behaviors, 6, 230, 255, 259, 260, 262, 361, 363
low-income consumers, 13
US Social Security Administration, 13
consumer economists, 13
Financial capability, 116, 117, 206–207, 211
age patterns, 5
Americans' financial capability, 4
behavior science theories, 12
bivariate analyses, 5
consumers, 3
education, 5
financial behaviors, 3, 13, 49
and financial satisfaction, 11
institutions and regulations, 3
knowledge, 49
research, 3
self-help websites, 13
State-by-State Survey, 4
stock market, 50
U-shape, 12
Z scores, 5
Financial Capability and Asset Building (FCAB), 120
Financial coaching
action, 97
agenda, 96
alliance, 96
attitude and skills, 98
awareness, 96–97
behavior change, 100
capability, 93

Financial coaching (*cont.*)
evaluating coaching, 97, 98
financial capability and planning, 99
financial well-being, 93, 94
goal-attainment, 95, 97
goal-focus, 93
health coaches, 99
life coaching, 98
life experience, 93
personal responsibility, 99
positive impacts, 98
self-awareness, 93
self-manage, 99
skills and behaviors, 93
techniques, 93
Financial communications, 294, 360
Financial counseling, 118
challenges and opportunities, 84
consumers, 83
economic distress, 84
financial difficulties and situation, 84
financial goals, 83
financial planning, 83, 84
individuals and families, 83
responsibilities, 85
reverse mortgages (RMs), 85
workable plans, 84
Financial decisions, 327, 330, 331, 333
Financial distress explanation
Affordable Care Act, 318
beleaguered support system, 318
CBP, 318
consumer credit and economic insecurity, 318
consumer culture and structural economic arguments, 319
filers, 319
medical debt, 318
SCF, 318
societal support systems, 318
Financial education, 115, 117, 118, 361–365
capability, 46
consumers' financial literacy, 51
downstream' financial behavior, 50
economic model, 132
effectiveness of, 136
fifth stage, 55
financial goals, 48
financial literacy, 46, 50, 132
FLEC, 47
in high school, 131, 132, 139
housing counseling programs, 47
measurement, 46
meta-analyses, 51
national strategy, 47
and organizations, 46
planning and savings, 48
practices and strategies, 135
programs, 216, 242, 244
proliferation, 47
understanding and knowledge, 46
Financial Fitness for Life (FFL), 137
Financial health
behavior change, 89
capabilities, 89
financial practices and realities, 89
financial system, 89
low-income populations, 89
personal finances, 89
planning and therapy, 89
Financial Industry Regulatory Authority (FINRA), 155, 255
Financial issues and marriage, 284, 285
cross practice, 286–287
diversity, 287
family structure, 281–282
financial crisis, 287
gender matters, 286
influence, 282–283
longitudinal and representative data, 285–286
marital conflict, 284
marital satisfaction, 283
marital stability, 283–284
process
decision-making power, 285
economic pressure, 284
family stress model, 284
financial arguments and conflict, 285
financial issues, 285
marital quality, 284
meanings of money, 285
teamwork, 285
work-family conflict issues, 285
Financial knowledge, 216–217, 359
Financial literacy, 144, 242, 362
advantage, 52
CEE's, 135
consumer, 3
definition, 131
economics professor, 5
education, 45, 46
energy and resources, 45
evaluation design, 51
financial behavior, 3
financial crisis, 45
first-year college students, 6
life cycle, 6
mortgages and interest rates, 6
PISA, 135
satisfaction, 5
youth, 131, 132
Financial Literacy and Education Commission (FLEC), 46, 47
Financial parenting
adulthood, 292
decision-making, 291
implications, practice, 297
implications, research, 297–298
knowledge and skills, 292
objectives, 291
parenting contexts, 296

self-reliance, 291, 297
sociodemographic gaps, 298
Financial planning
aversion and exposure, 111
behavioral determinants, 108
descriptive statistics, 111
economic theory, 104
financial variables, 110
household's utility function, 104
hypotheses, 108, 109
investors' sensitivity, 108
non-financial assets, 107
operationalization, 109
positive empirical research, 105, 106
regression analysis, 111
research, 103
retirement account, 104
types, 103
Financial risk tolerance, 210
biopsychosocial factors, 26–27
consumer, 19
individual characteristics, 25
individuals' perceptions, 19
personal and environmental factors, 25
person's hesitancy, 19
precipitating factors, 26, 27
predisposing factors, 25, 26
short- and long-term goals, 19
Financial satisfaction, 219–221
characteristics, 11
heterosexual men, 11
homemaking career, 11
income predictors, 10
income's life cycle pattern, 10
life satisfaction, 10
national surveys, 10
planning, 11
solvency ratio, 11
US National Survey of Families and Households, 10
Financial self-efficacy, 221
Financial self-reliance, 291
adulthood, 296
children practice, 295
depressive symptoms and diminished self-esteem, 296
dynamic process, 295
empirical evidence, 296
English proficiency and financial knowledge, 295
knowledge and skills, 295
LMI, 296
parental social class, 296
self-beliefs, 296
sociodemographic factors, 295
1983–2001 Survey of Consumer Finances, 295
Financial social work (FSW)
child welfare agencies, 117
counseling, 118
financial coaching and education, 118
financial vulnerability, 121
mental health setting, 117
opportunities and hazards, 116
outmoded moralism, 116
populations and communities, 115
practitioners, 118
professional education and training, 120
social work practitioners, 120
social workers, 115, 119
theoretical perspectives, 118
UK Child Trust Fund, 119
Financial socialization
agents
consumption attitudes, 65
financial characteristics, 64
over time, 64
personal and family, 64
static view, 64
theoretical work, 64
capability
family, 63
financial knowledge and values, 64
social environment, 63
societies, 63
college students, 293
consumer, 61, 69
economic and consumer socialization
individual and family, 63
life-cycle changes, 62
marketplace, 62
purchasing activity, 63
saving money, 62
social environments, 62
economic and social policy, 61
economic conditions, 67
family, 61
financial attitude, 67
financial behaviors, 292
individuals and families, 61
life-long process, 68
modern economies and financial systems, 68
online survey, 66
parental teaching, 293
parents and family, 292
role-modeling, 292, 293
self-discipline, 66
social roles, 65
socializing processes, 293
sociodemographic factors
financial information, 68
financial knowledge and tasks, 67
higher income, 67
opportunities, 67
social learning opportunities, 67
socioeconomic status, 68
stock ownership, 68
Financial stress, 240
Financial sustainability and personal finance education
behaviors, 358
conceptual frameworks, 360
economic crisis, 357
education efforts, 362, 363
evaluation approaches, 364

Financial sustainability and personal finance education (*cont.*)
financial habits, 358
financial status, 359
households, 360
market environment, 357
objective and subjective measures, 358
OECD, 363
satisfaction, 359
socialization, 360
technology, 357
TTM, 361
Financial therapy, 74–76
behaviors influence, 74
financial behaviors and counseling, 73
financial health and problems, 73
money disorders
buying disorder and workaholism, 75
compulsive buying disorder (CBD), 75
financial situation, 76
gambling disorder and hoarding, 75
managing personal finances, 76
mental disorders, 76
mental health diagnoses, 75
potential money disorders, 75
money scripts
financial behaviors, 74, 75
money worship, 75
planning, 74
quality of life, 73
Financial vulnerability, 117, 121
Financial wellbeing, 225, 226, 229, 230, 235, 236, 242
American consumers, 9
debt-related measures, 10
median household income, 9
money and happiness, 10
subjective measures, 9
Financial wellness programs, 243
Financing Your Future (FYF), 138
FINRA. *See* Financial Industry Regulatory Authority (FINRA)
FPL. *See* Federal poverty line (FPL)
Framing effect, 330
Functional magnetic resonance imaging, 328–329

G

General coaching
cognitive coaching, 95
goal-focused coaching, 95
GROW, 95

H

Health and Retirement Study (HRS), 39, 110, 163, 227
Health care, 155, 157, 159, 160, 164, 165
Blue Cross Blue Shield organizations, 271
characteristics, 268–269
choice and wellness, 277
cost and benefits, 271
decision-making, 276
dynamics, 270
economic growth, 270
economic recovery, 267
economic theory, 276
economists and policy analysts, 271
2014 Employee Benefit Research Institute Health Confidence Survey, 268
ethnic population groups, 276
factors, 271
family and consumer economists, 276
federal and state dollars, 268
federal and state Medicaid programs, 271
financial outcomes, 276
future *vs*. current consumption at work, 277
government and private insurance, 268
growth, 267
health consumer issues, 276
influence, scientific reports, 271
market, 267
medical costs, 271
Medicare and Medicaid, 268
multivariate analyses, 271
National Coalition on Health Care, 267
Organization for Economic Cooperation and Development, 267
policy makers, 268
population aging, 270
public and private resources, 276
sectors, 269–270
technology, 271
time and money resources, 276
UK, 271
U.S. Department of Health and Human Services, 267
Health insurance
CDHPS, 273–274
coverage gap, 173
coverage rates, 172, 173
employer-sponsored group insurance plans, 272
employer-sponsored health care plans, 273
federal poverty line (FPL), 172
fee-for-service, 272
managed care plans, 272–273
Medicaid eligibility expansion, 172
Medicare, Medicaid/CHIP, 172
Reform, 274–275
Social Security Act, 272
types, 272
Health Maintenance Organization (HMO) plans, 162
High school
content standards and curricula, 133–134
coursework, 132–133
curriculum studies, 137–139
financial literacy, 131
national economy, 131
personal finances, 131
rationale, 131–132
research literature, 131

research on state mandates, 136–137
testing and assessment, 134–136
High School Financial Planning Program (HSFPP), 137
Hispanic Americans
agglomeration, 207
asset building, 209
banking institutions, 208
entrepreneurship, 210
ethnic and cultural differences, 206
financial capability, 206, 207
financial institutions, 205
financial risk tolerance, 210
financial services, 207
health outcomes, 205
higher education, 209
homeownership, 209
households, 206
human behaviors, 206
individual and group characteristics, 205
SASH, 211
HMO Point-of-Service (HMOPOS) plans, 162
Home ownership, 161, 171, 172, 209, 218, 234
Household finance, 261, 262
behaviors, 105
financial planning scholars, 103
Household income, 359
Household portfolios, 107
Housing, 159–161, 164
Housing and Urban Development (HUD), 161
Housing counseling
credit history, 85
financial position, 86
homebuyers, 86
homeownership opportunities, 85
low and moderate-income, 85
money management, 86
public and private, 85
responsibilities, 86
single-family homeowners, 85
types, 85
Hyperbolic discounting, 331–332, 334

I
Income sufficiency, 116
Independent variables (IV), 110
Individual Development Account (IDA) program, 199
Individual retirement account (IRA), 38
Investment decisions, 332, 334
Investor Education Foundation (IEF), 255

J
Journal of Economic Literature, 105
Journal of Economic Perspectives, 105
Journal of Financial Planning, 105
Journal of Financial Therapy (JFT), 74
The JumpStart Coalition for Personal Financial Literacy, 133

K
Kindergarten through twelfth (K–12) grades, 133
Korean immigrants, 231

L
Labor force participation rate (LFPR), 159
Life cycle savings model, 35
Loss aversion, 331
Low- and middle-income households (LMI), 296
Low-income families, consumer finances, 169–173
beyond income
credit and alternative financial services, 169–170
health insurance, 172–173
home and vehicle ownership, 171–172
savings and asset accumulation, 170–171
unbanked and underbanked, 169
economic mobility, 174
emerging evidence, 174
family financial resource ownership rates, 167, 168
future research, 174
lowest-income quintile, 167
multidisciplinary frameworks, 173
US Census Bureau's Survey, 167

M
Mandates
financial education, 136
personal finance courses, 136
Medical Savings Account (MSA) plans, 162
Military Lending Act (MLA), 260
Military personal finance research
citizen soldiers, 261
composition, 251–252
financial decision-making comparisons, 255–256
financial outcomes, 257–258
financial stress and military job performance, 261
household earning comparisons, 253–255
household finance, 262
individual servicemember characteristics, 252
institutional knowledge, 261
military households, 262
military services and life, 256–257
rank structure, 252–253
Military service
financial education, 259
MLA, 260
MSRRA, 261
PFMP, 258, 259
resources, 259–260
SCRA, 260, 261
special legal protections, 260
Military Spouses Residency Relief Act (MSRRA), 261
MLA. *See* Military Lending Act (MLA)
Model minority, 236
Modern portfolio theory (MPT), 20, 103
The Money Smart Alliance Program, 48

Mortgage debt, purchase-money and non-purchase-money, 304–305
MSRRA. *See* Military Spouses Residency Relief Act (MSRRA)

N
National Assessment of Educational Progress (NAEP), 134
National Center for Education Statistics (NCES), 132
National Endowment for Financial Education (NEFE), 120, 134
National Financial Capability Survey (NFCS), 49, 216
National Longitudinal Survey of Youth (NLSY), 216, 318
National Longitudinal Surveys (NLS), 227
National Retirement Risk Index, 41
National Standards for Financial Literacy, 133
NCO. *See* Non-Commissioned Officer (NCO)
Needs assessment, 52
Negative equity position, 332
Neuroscience and consumer finance
  age and financial decisions, 333, 334
  brain, 327
  CEST, 329
  dual-self model, 329
  financial advisors, 333
  financial decision, 328, 330
  framing effect, 330
  home-country bias, 332
  investment decisions, 332
  loss aversion, 331
  mortgage default decisions, 332, 333
  purchase decisions, 330
  research methods, 328
  risk tolerance, 331, 332
  temporal lobe, 328
New Beneficiary Survey (NBS), 39
New Immigrant Survey (NIS), 228
Non-Commissioned Officer (NCO), 254
Normative analysis, 40

O
Office of Housing Counseling (OHC), 86
Older adults, 161–163
  American Psychological Association, 155
  CE survey, 165
  consumption, 159–161
  debt, 158
  emergency funds, 158
  financial capability, 155
  financial scams, 164
  FINRA, 155
  future research, 165
  housing and reverse mortgages, 161
  income, 157
  internet usage, 164, 165
  labor force participation, 159
  life expectancy, 155
  long-term care, 163–164
  Medicaid, 163
  Medicare
    Part C, 162
    Part D, 162
    Parts A and B, 161–162
    spending, 162–163
  net worth, 157–158
  older population, 156
  poverty, 158
  pre-retirees and retirees, 157
  social programs, 156
  Social Security, 164, 165
  socio-demographic characteristics, 160–161
  spending patterns, 159–160
  theoretical framework, 156–157
  the US Census Bureau, 156
Online businesses, 349
Online flow experience model, 342
Online shopping
  adoption, 341, 342
  consumer acceptance, 341
  consumer perception, 343
  consumers and retailers, 339
  decision making, 346
  digital-divide, digital-inequality, 340
  DSS, 347
  e-commerce, 340
  environment, 348
  e-tailer attributes, 343
  examination and re-examination, 341
  information technology, 344
  Internet, 339, 340
  post-purchase outcome, 347
  privacy and security, 348, 349
  process and environment, 344
  second order digital divide, 341
  TAM, 343
  technological forces, 340
  theoretical frameworks, 344
  TRA, 342
  UTAUT, 343
  WOM, 346
Ordered logistic regression (OLR), 112
Ordinary least squares (OLS), 112
Organization for Economic Co-operation and Development (OECD), 46, 135, 350

P
Panel Study of Income Dynamics (PSID), 228, 322
Parenting style, 294–295
Patient Protection and Affordable Care Act of 2010 (Affordable Care Act), 268, 318
The Pension Benefit Guarantee Corporation (PBGC), 37
Pensions
  federal system, 37
  Social Security, 34

Personal discount rate, 40–41
Personal finance, 146, 148, 149, 206, 211
  finance/economics course, 132
  K–12, 133
  management, 131
  NAEP economics, 134
  NCES classification scheme, 132
Personal Financial Management Programs (PFMP), 258, 259
Person-in-environment perspective, 118
Phase decision model, 346
Posterior cingulated cortex (PCC), 331
Preferred Provider Organization (PPO) plans, 162
Private Fee-for-Service (PFS) plans, 162
Productivity, 241
Program evaluation
  evaluation process, 52
  five-tiered approach, 53–54
  graduated process, 52
Program impact, 51, 55
Program outcomes, 54
Programme for International Student Assessment (PISA), 49, 135
Prospect theory, 22
Purchase decisions, 330

R
Randomized controlled trial (RCT), 47, 51
Regular Military Compensation (RMC), 254
Research methods
  borrowing, 107
  literature review, 109
  saving, 106
Resilience
  family and business achievements, 188
  SFBT, 181
Resource management model, 361
Retirement adequacy
  American households, 38
  national retirement risk index, 39
Retirement income, 34
Retirement investments, 40
Retirement planning, 36, 240
Retirement savings
  annuities, 34
  calculation, 33
  financial planning, 33
  goal-directed approach, 34
  households, 35
  inflation-adjusted dollars, 33
  inflation-adjusted rate, 34
  monthly periods, 33
  portfolio value, 34
  Social Security, 35
  tax inflation-adjusted interest rate, 34
Risk aversion
  person's hesitancy, 19
  utility function, 20
Risk taking
  expectations-based calculus, 22
  life cycle, 25
  risk tolerance, 22, 27
  tolerance, 25
Risk tolerance, 331
  assessment, 22
  attitudes, 23
  factors, 25
  personal/professional judgment, 22, 23
  psychometrically designed scale, 24
  risk attitude assessment, 23
  scaling methods, 24
  stock market, 23
  triangulation, 25
  validity and reliability, 24
Risk-as-feelings hypothesis, 22
RMC. *See* Regular Military Compensation (RMC)
Role-modeling, 292

S
Savings and asset accumulation
  description, 170
  households, 170
  income poverty concept, 170
  research, 171
SCRA. *See* Servicemembers Civil Relief Act (SCRA)
Self-employment, 234–235
Servicemembers Civil Relief Act (SCRA), 260–261
SFBT. *See* Sustainable family business theory (SFBT)
Short Acculturation Scale for Hispanics (SASH), 211
Social Security pensions, 34–37
Social work, 117
Solution-focused financial therapy
  financial behaviors and distress, 79
  financial goals, 78
  financial knowledge and support, 79
  techniques, 78
  work schedule, 79
Special Needs Plans (SNPs), 162
State Health Insurance Assistance Program (SHIP), 162
Stimulus-Organism-Response (S-O-R), 348
Stopping overshopping model
  behavior therapy, 77
  money disorders, 77
  treatment models, 77
Subjective measures, 358
Supplemental Security Income (SSI), 163
Survey of Consumer Finances (SCF), 23, 227, 318
Survey of Financial Risk Tolerance©, 24
Survey of Household Economics and Decision-making (SHED), 158
Survey of Income and Program Participation (SIPP), 227
Sustainable family business theory (SFBT)
  achievements, 185
  adaptive capacity, 181
  community context, 185–186
  constraints, 183–184

Sustainable family business theory (SFBT) (*cont.*)
  description, 181, 182
  disruptions and processes, 184–185
  financial and nonfinancial objectives, 185
  firm success and family functioning, 181
  resources, 182–183
  stability, process of, 184
  structure, 183
  theoretical identification, 182
  viability and long-term sustainability, 185

T
Tax Counseling for the Elderly (TCE), 119
Tax-sheltered savings, 104
Technology Acceptance Model (TAM), 343
Theory of planned behavior (TPB), 342, 345
  attitude, 8
  investment decision, 7
  meta-analyses, 7
  self-efficacy, 7
Theory of reasoned action (TRA), 342
The Power of Habit, 357
Transportation, 160
Transtheoretical model (TTM), 361
  balance and self-efficacy, 8
  cessation, 8
  intervention programs, 8
  low-income consumers, 9
  multi-stage theories, 8
  organizational change, 8
  positive financial behaviors, 13
  stages, 8
  USDA Cooperative Extension program, Money 2000, 9

U
Unbanked and underbanked
  banking products and services, 169
  financial sector businesses, 169
  payday loan/check-cashing service, 169
Unified Theory of Acceptance and Use of Technology (UTAUT), 343
United States Bankruptcy Code (The Code), 316
US Government Accountability Office (GAO), 257

V
Ventral striatum (vStr), 331
Ventromedial prefrontal cortex (vmPFC), 328
Voluntary Income Tax Assistance (VITA), 119
Vulnerable households
  debt delinquency and filing rates, 321
  "Great Risk Shift", 321
  personal bankruptcy, 321
  self-employed workers, 321
  student loan delinquency rate, 321

W
Wages, 38
Wealth gap, 215, 217, 218
Women's financial issues
  bargaining framework, 198
  behavioral biases, 197
  Dutch National Bank's Household Survey, 196, 197
  financial decisions, 198–199
  financial literacy, 196
  gender biases, 196
  inflation, 195
  interest rate (numeracy), 195
  intra-household financial decision-making, 197
  marriage individualization, 198
  microfinance, 199, 200
  poverty among women in older age, 199
  retirement preparedness, 195
  risk diversification, 196
  stock market decision-making, 197
  surveys and experimental set-ups, 197
  trade publications, 197
  women investors, 196
Word-of-mouth (WOM), 346
Workers
  EAP, 243
  employment, 240
  environments, 239
  finances, 239
    education and literacy, 242
    stress, 240–241
  government agencies, 245
  job security, 239
  labor force, 240
  meta-analysis, 241
  money worries, 241
  retirement and health benefits, 240
  retirement plans, 245
  in USA, 239–240
  voluntary participation, 244
  wages, 239
  workplace financial education, 241
  workshops and seminars, 244
Workplace financial education/wellness program, 243–245